



STATE OF MAINE
Department of Environmental Protection

John Elias Baldacci
GOVERNOR

David P. Littell
COMMISSIONER

September 2, 2010

Mr. Robert Kane
Town of Bar Harbor
Bar Harbor Waste Water Treatment Facility
136 Ledgelawn Avenue
Bar Harbor, ME. 04609

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0102466
Maine Waste Discharge License (WDL) Application #W002590-6C-G-R
Final Permit – Hulls Cove Facility

Enclosed please find a copy of your **final** Maine MEPDES/WDL which was approved by the Department of Environmental Protection. Please read the permit and its attached conditions carefully. You must follow the conditions in the order to satisfy the requirements of law. Any discharge not receiving adequate treatment is in violation of State Law and is subject to enforcement action.

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

If you have any questions regarding this matter, please feel free to call me at 287-7693.

Sincerely,

A handwritten signature in black ink, appearing to read 'G. Wood'.

Gregg Wood
Division of Water Quality Management
Bureau of Land and Water Quality

Enc. Stacie Beyer, DEP/EMRO
Sandy Mojica, USEPA



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

DEPARTMENT ORDER

IN THE MATTER OF

TOWN OF BAR HARBOR)	MAINE POLLUTANT DISCHARGE
BAR HARBOR, HANCOCK COUNTY, MAINE)	ELIMINATION SYSTEM PERMIT
PUBLICLY OWNED TREATMENT WORKS)	AND
ME0102466)	WASTE DISCHARGE LICENSE
W002590-6C-G-R)	RENEWAL
APPROVAL)	
HULLS COVE FACILITY		

Pursuant to the provisions of the Federal Water Pollution Control Act, Title 33 USC, Section 1251, *et seq.* and Maine law, 38 M.R.S.A., Section 414-A *et seq.*, and applicable regulations, the Department of Environmental Protection (Department hereinafter) has considered the application of the TOWN OF BAR HARBOR (Town/permittee hereinafter), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

The Town has submitted a timely and complete application to the Department for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0102466 / Maine Waste Discharge License (WDL) #W002590-5L-F-R, (permit hereinafter) which was issued by the Department on November 21, 2005 for a five-year term. The 11/21/05 permit authorized the monthly average discharge of up to 0.150 million gallons per day (MGD) of secondary treated sanitary waste water from the Town's Hulls Cove Plant, and an unspecified quantity of excess combined sanitary and storm water during wet weather events from one (1) combined sewer overflow (CSO) outfall to Frenchman Bay (Atlantic Ocean), Class SB, in Bar Harbor, Maine.

PERMIT SUMMARY

This permitting action is carrying forward all the terms and conditions from the 11/21/05 permit except that this permit;

1. Reducing the monitoring frequency for settleable solids from 1/Day to 5/week.
2. Establishing an annual certification requirement pursuant to department rule, Chapter 530, *Surface Water Toxics Control Program*.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated July 29 2010, and subject to the Conditions listed below, the Department makes the following conclusions:

1. The discharge, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification.
2. The discharge, either by itself or in combination with other discharges, will not lower the quality of any unclassified body of water below the classification which the Department expects to adopt in accordance with state law.
3. The provisions of the State's antidegradation policy, 38 M.R.S.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 national 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 discharge (including the CSO point) will be subject to effluent limitations that require application of best practicable treatment as defined in Maine law, 38 M.R.S.A., §414-A(1)(D).

ACTION

THEREFORE, the Department APPROVES the above noted application of the TOWN OF BAR HARBOR to discharge a monthly average flow of up to 0.150 million gallons per day of secondary treated municipal waste water from the Town's Hulls Cove Plant and an unspecified quantity of excess combined sanitary and storm water during wet weather events from one (1) combined sewer overflow (CSO) outfall to the Atlantic Ocean at Frenchman Bay, Class SB, in Bar Harbor 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 becomes effective upon signature and expires at midnight five (5) years from the date of signature below.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

DONE AND DATED AT AUGUSTA, MAINE, THIS 2nd DAY OF September, 2010.
DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
David P. Littell, COMMISSIONER

Date of initial receipt of application: May 26, 2010
Date of application acceptance: May 26, 2010

Date filed with Board of Environmental Protection _____

This Order prepared by GREGG WOOD, BUREAU OF LAND & WATER QUALITY
ME0102466 2010 8/31/10

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- Beginning the effective date of this permit, the permittee is authorized to discharge secondary treated sanitary waste water from **Outfall #001** (Hulls Cove Plant) to the Atlantic Ocean at Frenchman Bay. Such discharges shall be limited and monitored by the permittee as specified below⁽¹⁾:

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow <i>[50050]</i>	0.150 MGD <i>[03]</i>	---	Report, MGD <i>[03]</i>	---	---	---	Continuous <i>[99/99]</i>	Recorder <i>[RC]</i>
BOD₅ <i>[00310]</i>	38 lbs./day <i>[26]</i>	56 lbs./day <i>[26]</i>	62 lbs./day <i>[26]</i>	30 mg/L <i>[19]</i>	45 mg/L <i>[19]</i>	50 mg/L <i>[19]</i>	1/Week <i>[01/07]</i>	24-Hour Composite <i>[24]</i>
BOD₅ Percent Removal ⁽²⁾ <i>[81010]</i>	---	---	---	85% <i>[23]</i>	---	---	1/Month <i>[01/30]</i>	Calculate <i>[CA]</i>
TSS <i>[00530]</i>	38 lbs./day <i>[26]</i>	56 lbs./day <i>[26]</i>	62 lbs./day <i>[26]</i>	30 mg/L <i>[19]</i>	45 mg/L <i>[19]</i>	50 mg/L <i>[19]</i>	1/Week <i>[01/07]</i>	24-Hour Composite <i>[24]</i>
TSS Percent Removal ⁽²⁾ <i>[81011]</i>	---	---	---	85% <i>[23]</i>	---	---	1/Month <i>[01/30]</i>	Calculate <i>[CA]</i>
Settleable Solids <i>[00545]</i>	---	---	---	---	---	0.3 ml/L <i>[25]</i>	5/Week <i>[05/07]</i>	Grab <i>[GR]</i>
Fecal coliform bacteria ⁽³⁾ <i>(May 15 – September 30)</i> <i>[31616]</i>	---	---	---	15/100 ml ⁽⁴⁾ <i>[13]</i>	---	50/100 ml <i>[13]</i>	1/Week <i>[01/07]</i>	Grab <i>[GR]</i>
Total Residual Chlorine ⁽⁵⁾ <i>[50060]</i>	---	---	---	0.1 mg/L <i>[19]</i>	---	0.3 mg/L <i>[19]</i>	1/Day <i>[01/01]</i>	Grab <i>[GR]</i>
pH <i>[00400]</i>	---	---	---	---	---	6.0 – 9.0 SU <i>[12]</i>	1/Day <i>[01/01]</i>	Grab <i>[GR]</i>

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

FOOTNOTES: See Pages 6 through 8 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

2. **SCREENING LEVEL TESTING.** Beginning 12 months prior to permit expiration and every five years thereafter, the permittee shall perform monitoring as follows:

Whole Effluent Toxicity (WET) ⁽⁶⁾	<u>Daily Maximum</u>	<u>Minimum Frequency</u>	<u>Sample Type</u>
<u>Acute No Observed Effect Level (A-NOEL)</u> Invertebrate-Mysid Shrimp <i>(Mysidopsis bahia)</i> [TDA3E]	Report % [23]	1/Year [01/YR]	24-Hour Composite [24]
<u>Chronic No Observed Effect Level (C-NOEL)</u> Invertebrate-Sea Urchin <i>(Arbacia punctulata)</i> [TBH3A]	Report % [23]	1/Year [01/YR]	24-Hour Composite [24]
Analytical Chemistry⁽⁷⁾ [51668]	Report µg/L [28]	1/Quarter [01/90]	24-Hour Composite [24]
Priority Pollutant⁽¹⁰⁾ [50008]	Report µg/L [28]	1/Year [01/YR]	24-Hour Composite/Grab [24/GR]

Footnotes: See Pages 6 through 8 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

Footnotes:

1. **Monitoring** – Influent monitoring shall be conducted at the facility headworks at the effluent end of the influent grinder or bar screen. All effluent monitoring shall be conducted at a location following the last treatment unit in the treatment process as to be representative of end-of-pipe effluent characteristics. Effluent monitoring shall be performed at the effluent end of the chlorine contact chamber following the dechlorination point. Any change in sampling location must be approved by the Department in writing.

Sampling and analysis must be conducted in accordance with; a) methods approved in 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 shall be analyzed by a laboratory certified by the State of Maine's Department of Human Services. Samples that are sent to another POTW licensed pursuant to *Waste discharge licenses*, 38 M.R.S.A. § 413 or laboratory facilities that analyze compliance samples in-house are subject to the provisions and restrictions of *Maine Comprehensive and Limited Environmental Laboratory Certification Rules*, 10-144 CMR 263 (last amended February 13, 2000).

All analytical test results shall 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 RLs. If a non-detect analytical test result is below the respective RL, the concentration result shall be reported as <Y where Y is the detection limit achieved by the laboratory for each respective parameter. Reporting a value of <Y that is greater than an established RL is not acceptable and will be rejected by the Department. For mass, if the analytical result is reported as <Y or if a detectable result is less than a RL, report a <X lbs/day, where X is the parameter specific limitation established in the permit.

2. **Percent Removal** – The treatment facility shall maintain a minimum of 85 percent removal of both biochemical oxygen demand and total suspended solids for all flows receiving secondary treatment. The percent removal shall be calculated based on influent and effluent concentration values. The percent removal shall be waived when the monthly average influent concentration is less than 200 mg/L. For instances when this occurs, the facility shall report “**NODI-9**” for this parameter on the monthly Discharge Monitoring Report (DMR).
3. **Bacteria Limits** – Fecal coliform bacteria limits and monitoring requirements are seasonal and apply between May 15 and September 30 of each year.
4. **Bacteria Reporting** – The monthly average fecal coliform bacteria limitation is a geometric mean limitation and sample results shall be reported as such.

SPECIAL CONDITIONS

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

Footnotes

5. **Total residual chlorine (TRC)** – Limitations and monitoring requirements are applicable whenever elemental chlorine or chlorine based compounds are being used to disinfect the discharge. The permittee shall utilize approved test methods that are capable of bracketing the limitations in this permit.
6. **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 thresholds of 3.7% and 0.21%, respectively), which provides a point 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 mathematic inverse of the applicable acute and chronic dilution factors of 27:1 and 478:1 respectively.
 - a. **Screening level WET testing** - Beginning 12 months prior to permit expiration and lasting through permit expiration and every five years thereafter, the permittee shall conduct screening level WET testing at a minimum frequency of once per year (1/Year). Acute tests shall be conducted on the mysid shrimp (*Mysidopsis bahia*) and chronic tests shall be conducted on the sea urchin (*Arbacia punctulata*). It is noted surveillance level testing has been waived for the first four years of the term of this permit pursuant to Department rule Chapter 530 (D)(3)(b).

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

- a. Short Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Water to Marine and Estuarine Organisms, Third Edition, October 2002, EPA-821-R-02-014.
- b. Methods for Measuring the Acute Toxicity of Effluent and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, October 2002, EPA-821-R-02-012.

See **Attachment B** of this permit for the Department's WET report form.

The permittee is also required to analyze the effluent for the nine (9) parameters specified in the WET chemistry section, and the twelve (12) parameters specified in the analytical chemistry section, of the form in **Attachment A** of this permit each time a WET test is performed.

SPECIAL CONDITIONS

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

Footnotes

7. **Analytical Chemistry** – Pursuant to Department rule 06-096 CMR Chapter 530 Section 2.C.4, analytical chemistry refers to a suite of chemical tests that include ammonia nitrogen (as N), total aluminum, total arsenic, total cadmium, total chromium, total copper, cyanide (amenable to chlorination), total lead, total nickel, total silver, total zinc and total residual chlorine.
 - a. **Screening level testing** - Beginning 12 months prior to the expiration of this permit and lasting through permit expiration (screening level), the permittee shall conduct analytical chemistry monitoring at a minimum frequency of once per calendar quarter (1/Quarter) for four consecutive calendar quarters. It is noted surveillance level testing has been waived for the first four years of the term of this permit pursuant to Department rule Chapter 530 (D)(3)(b).

8. **Priority Pollutant Testing** – Priority pollutant testing refers to analysis for levels of priority pollutants listed in **Attachment A** of this permit.
 - a. **Screening Level testing** - Beginning 12 months prior to permit expiration and lasting through permit expiration, the permittee shall conduct screening level priority pollutant testing at a minimum frequency of once per year (1/Year).

Surveillance level priority pollutant testing is not required pursuant to Department rule 06-096 CMR Chapter 530 Section 2(D).

Priority pollutant testing shall be conducted on samples collected at the same time as those collected for whole effluent toxicity tests, when applicable. Priority pollutant testing shall 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. Results shall be submitted to the Department within thirty (30) days of the permittee receiving the data report from the laboratory conducting the testing. For the purposes of Discharge Monitoring Report (DMR) reporting when priority pollutant monitoring is not required during the reporting period, enter “NODI-9” indicating “ monitoring not required this monitoring period.”

SPECIAL CONDITIONS

B. NARRATIVE EFFLUENT LIMITATIONS

1. The effluent shall not contain a visible oil sheen, foam or floating solids at any time which would impair the usages designated by the classification of the receiving waters.
2. The effluent shall not contain materials in concentrations or combinations which are hazardous or toxic to aquatic life, or which would impair the usages designated by the classification of the receiving waters.
3. The discharges shall not cause visible discoloration or turbidity in the receiving waters which would impair the usages designated by the classification of the receiving waters.
4. Notwithstanding specific conditions of this permit the effluent must not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.

C. TREATMENT PLANT OPERATOR

The person who has the management responsibility over the treatment facility must hold a **Grade II** certificate (or higher) or must be a Maine Registered Professional Engineer pursuant to *Sewerage Treatment Operators*, Title 32 M.R.S.A., Sections 4171-4182 and *Regulations for Wastewater Operator Certification*, 06-096 CMR 531 (effective May 8, 2006). All proposed contracts for facility operation by any person must be approved by the Department before the permittee may engage the services of the contract operator.

D. LIMITATIONS FOR INDUSTRIAL USERS

Pollutants introduced into the waste water collection and treatment system by a non-domestic source (user) shall not pass through or interfere with the operation of the treatment system.

E. UNAUTHORIZED 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 May 26, 2010; 2) the terms and conditions of this permit; and 3) only from Outfall #001 (secondary treated wastewater) one (1) combined sewer overflow outfall (Outfall #008) listed in Special Condition I. Discharges of waste water from any other point source are not authorized under this permit, and shall be reported in accordance with Standard Condition B(5)(*Bypass*) of this permit.

SPECIAL CONDITIONS

F. NOTIFICATION REQUIREMENT

In accordance with Standard Condition D, the permittee shall 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 into the system at the time of permit issuance. For the purposes of this section, notice regarding substantial change shall 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. OPERATION & MAINTENANCE (O&M) PLAN

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

By December 31 of each year, or within 90 days of any process changes or minor equipment upgrades, the permittee shall 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 shall 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 shall submit the updated O&M Plan to their Department inspector for review and comment.

SPECIAL CONDITIONS

H. WET WEATHER FLOW MANAGEMENT PLAN

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

The plan shall conform to Department guidelines for such plans and shall 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 shall review their plan annually **and record any necessary changes to keep the plan up to date.**

I. COMBINED SEWER OVERFLOWS (CSOs)

Pursuant to Chapter 570 of Department rules, *Combined Sewer Overflow Abatement*, the permittee is authorized to discharge from the following locations of combined sewer overflows (CSOs) (storm water and sanitary wastewater) subject to the conditions and requirements herein.

1. CSO locations

<u>Outfall #</u>	<u>Location</u>	<u>Receiving Water & Class</u>
008	Hulls Cove Pump Station, Route 3 and Breakneck Brook	Frenchman Bay, Class SB

2. Prohibited Discharges

- a) The discharge of dry weather flows is prohibited. All such discharges shall be reported to the Department in accordance with Standard Condition D (1) of this permit.
- b) No discharge shall occur as a result of mechanical failure, improper design or inadequate operation or maintenance.
- c) No discharges shall occur at flow rates below the applicable design capacities of the wastewater treatment facility, pumping stations or sewerage system.

3. Narrative Effluent Limitations

- a) The effluent shall not contain a visible oil sheen, settled substances, foam, or floating solids at any time that impair the characteristics and designated uses ascribed to the classification of the receiving waters.
- b) The effluent shall not contain materials in concentrations or combinations that are hazardous or toxic to aquatic life; or which would impair the usage designated by the classification of the receiving waters.
- c) The discharge shall not impart color, turbidity, toxicity, radioactivity or other properties that cause the receiving waters to be unsuitable for the designated uses and other characteristics ascribed to their class.

SPECIAL CONDITIONS

I. COMBINED SEWER OVERFLOWS (CSOs)

- d) Notwithstanding specific conditions of this permit, the effluent by itself or in combination with other discharges shall not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.

4. CSO Master Plan (see Sections 2 & 3 of Chapter 570 Department rules)

The permittee shall implement CSO control projects in accordance with an approved CSO Master Plan and abatement schedule. The CSO Master Plan entitled *Combined Sewer Overflow Master Plan Study for the Town of Bar Harbor, Maine*, dated December 2006 and subsequently revisions through January 2010, was approved by the Department on April 22, 2010.

Key milestones approved in the most recent abatement schedule that the permittee is required to comply with are:

On or before December 31, 2010, [PCS Code 82299] the permittee shall complete the targeted flow monitoring of the Hulls Cove area and submit a Sanitary Sewer Evaluation Study (SSES) to the Department identifying the infiltration/inflow (I/I) sources that can be cost-effectively removed.

On or before April 30, 2014, [PCS Code 04599] the permittee shall complete construction of the I/I reduction projects in the Hulls Cove area identified in the SSES.

On or before April 30, 2015, [PCS Code 06699] the permittee shall reassess wet-weather flows within the Hulls Cove area and submit to the Department for review and approval an Updated CSO Master Plan, if necessary containing future abatement projects and an implementation schedule.

To modify the dates and or projects specified above, the permittee must file an application with the Department to formally modify this permit. The remaining work items identified in the abatement schedule may be amended from time to time based on mutual agreements between the permittee and the Department. The permittee must notify the Department in writing prior to any proposed changes to the implementation schedule.

5. Nine Minimum Controls (NMC) (see Section 5 Chapter 570 of Department rules)

The permittee shall implement and follow the Nine Minimum Control documentation as approved by EPA on January 19, 2000. Work performed on the Nine Minimum Controls during the year shall be included in the annual CSO Progress Report (see below).

SPECIAL CONDITIONS

I. COMBINED SEWER OVERFLOWS (CSOs)

6. CSO Compliance Monitoring Program (see Section 6 Chapter 570 of Department rules)
The permittee shall conduct flow monitoring according to an approved *Compliance Monitoring Program* on all CSO points, as part of the CSO Master Plan. Annual flow volumes for all CSO locations shall be determined by actual flow monitoring, by estimation using a model such as EPA's Storm Water Management Model (SWMM) or by some other estimation technique approved by the Department.

Results shall be submitted annually as part of the annual *CSO Progress Report* (see below), and shall include annual precipitation, CSO volumes (actual or estimated) and any block test data required. Any abnormalities during CSO monitoring shall also be reported. The results shall be reported on the Department form "*CSO Activity and Volumes*" (**Attachment C** of this permit) or similar format and submitted to the Department on diskette.

CSO control projects that have been completed shall be monitored for volume and frequency of overflow to determine the effectiveness of the project toward CSO abatement. This requirement shall not apply to those areas where complete separation has been completed and CSO outfalls have been eliminated.

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

Chapter 570 Section 8 lists requirements relating to any proposed addition of wastewater to the combined sewer system. Documentation of the new wastewater additions to the system and associated mitigating measures shall be included in the annual *CSO Progress Report* (see below). Reports must contain the volumes and characteristics of the wastewater added or authorized for addition and descriptions of the sewer system improvements and estimated effectiveness. Any sewer extensions upstream of a CSO must be reviewed and approved by the Department prior to their connection to the collection system. A Sewer Extension/Addition Reporting Form shall be completed and submitted to the Department along with plans and specifications of the proposed extension/addition.

8. Annual CSO Progress Reports (see Section 7 of Chapter 570 of Department Rules)
By March 1 of each year (PCS Code 11099), the permittee shall submit a *CSO Progress Reports* covering the previous calendar year (January 1 to December 31). The CSO Progress Report shall include, but is not necessarily limited to, the following topics as further described in Chapter 570: CSO abatement projects, schedule comparison, progress on inflow sources, costs, flow monitoring results, CSO activity and volumes, nine minimum controls update, sewer extensions, and new commercial or industrial flows.

SPECIAL CONDITIONS

I. COMBINED SEWER OVERFLOWS (CSOs)

The CSO Progress Reports shall be completed on a standard form entitled “*Annual CSO Progress Report*,” furnished by the Department, and submitted in electronic form, if possible, to the following address:

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

9. Signs

If not already installed, the permittee shall install and maintain an identification sign at each CSO location as notification to the public that intermittent discharges of untreated sanitary wastewater occur. The sign must be located at or near the outfall and be easily readable by the public. The sign shall be a minimum of 12" x 18" in size with white lettering against a green background and shall contain the following information:

TOWN OF BAR HARBOR
WET WEATHER
SEWAGE DISCHARGE
CSO # AND NAME

10. Definitions

For the purposes of this permitting action, the following terms are defined as follows:

- a. Combined Sewer Overflow - a discharge of excess waste water from a municipal or quasi-municipal sewerage system that conveys both sanitary wastes and storm water in a single pipe system and that is in direct response to a storm event or snowmelt.
- b. Dry Weather Flows - flow in a sewerage system that occurs as a result of non-storm events or are caused solely by ground water infiltration.
- b. Wet Weather Flows - flow in a sewerage system that occurs as a direct result of a storm event, or snowmelt in combination with dry weather flows.

SPECIAL CONDITIONS

J. MERCURY

All mercury sampling (2/Year) required by this permit or required to determine compliance with interim limitations established pursuant to Department rule Chapter 519, shall be conducted in accordance with EPA's "clean sampling techniques" found in EPA Method 1669, Sampling Ambient Water For Trace Metals At EPA Water Quality Criteria Levels. All mercury analysis shall be conducted in accordance with EPA Method 1631, Determination of Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Fluorescence Spectrometry. See **Attachment D**, *Effluent Mercury Test Report*, of this permit for the Department's form for reporting mercury test results.

K. CHAPTER 530(2)(D)(4) CERTIFICATION

By December 31 of each calendar year, the permittee shall provide the Department with a certification describing any of the following that have occurred since the effective date of this permit [*PCS Code 95799*]: See **Attachment E** of the Fact Sheet of this permit for an acceptable certification form to satisfy this Special Condition.

1. Increases in the number, types and flows of industrial, commercial or domestic discharges to the facility that in the judgment of the Department may cause the receiving water to become toxic.
2. Changes in the condition or operations of the facility that may increase the toxicity of the discharge.
3. Changes in storm water collection or inflow/infiltration affecting the facility that may increase the toxicity of the discharge.
4. Increases in the type or volume of hauled wastes accepted by the facility.
5. The Department reserves the right to reinstate annual (surveillance level) testing or other toxicity testing if new information becomes available that indicates the discharge may cause or have a reasonable potential to cause exceedences of ambient water quality criteria/thresholds.

L. REOPENING OF PERMIT FOR MODIFICATIONS

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 effluent or ambient water quality monitoring if results on file are inconclusive; or (3) change monitoring requirements or limitations based on new information.

SPECIAL CONDITIONS

M. MONITORING AND REPORTING

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

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

Alternatively, if you are submitting 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.

N. SEVERABILITY

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

1. APPLICATION SUMMARY (cont'd)

- b. Source Description: The Town's three waste water treatment facilities receive wastewater generated by residential and commercial users (approximately 1,450 customer accounts on approximately 1,380 lots) located within the Town of Bar Harbor. The Town does not have specific information as to the exact number of customers connected to each of the three treatment systems. The Hulls Cove facility receives wastewater generated by residential and commercial customers located in the Hulls Cove area of Bar Harbor (Crooked Road, State Route 3 along Hulls Cove, and Dewey Street). There are no significant industrial facilities discharging to the system. The collection system for Hulls Cove is approximately 1.2 miles in length and contains one (1) pump station, which is located on Route 3 adjacent to Hulls Cove and which is equipped with emergency back-up power source. The collection system also contains one (1) combined sewer overflow (CSO) outfall, which is located at the intersection of Route #3 and Beaver Dam Road and is referred to as Outfall #008. The Town completed a facility upgrade in November 2000, which increased the capacity of the facility to 0.150 MGD. The previous permitting action identified that the Town treats leachate from an on-site sludge composting facility, however, the Town has identified that the sludge composting and leachate collection systems are not currently in use. The Town maintains the composting facility and may resume use for the purpose of composting vegetation (leaves, lawn clippings, etc.) and collecting leachate within the effective term of this permit. If the Town resumes use of the composting facility, leachate generated by compost piles will be collected and introduced into the treatment system for full secondary treatment.
- c. Waste Water Treatment: The Town's Hulls Cove Plant provides a secondary level of wastewater treatment via a conventional activated sludge treatment process. The treatment process includes a headworks with influent grinder and bypass channel with bar screen from which wastewater flows to a modified oxidation ditch with two (2) rotor aerators. Flow from the oxidation ditch is then equally distributed to two (2) 16-foot diameter by 12-foot deep circular secondary clarifiers before continuing to a 165-foot long by 3-foot wide foot by 3-foot deep foot chlorine contact chamber for seasonal disinfection using sodium hypochlorite and dechlorination using sodium bisulfite.

Final effluent is conveyed for discharge to Frenchman Bay (Atlantic Ocean) via a 8-inch diameter outfall pipe that extends out into the receiving water approximately 1,240 linear feet to a depth of approximately 8.75 feet below the surface of the water at mean low tide.

Sludge generated at the Hulls Cove facility is transported to the Town's Main Plant and introduced into the facility's sludge digester.

A process flow schematic of the Hulls Cove Plant is included as Fact Sheet **Attachment B**.

2. PERMIT SUMMARY

- a. Terms and Conditions: This permitting action is carrying forward all the terms and conditions from the 11/21/05 permit except that this permit;

1. Reducing the monitoring frequency for settleable solids from 1/Day to 5/week.
2. Establishing an annual certification requirement pursuant to department rule, Chapter 530, *Surface Water Toxics Control Program*.

- b. History: The most recent significant permitting/licensing actions completed for the Town's Hulls Cove Plant include the following:

June 12, 1990 – The Department issued WDL #W002591-46-C-R to the Town for separate discharges from three wastewater treatment facilities (Hulls Cove Plant, Main Plant, and DeGregoire Park Plant). As a matter of convenience and expedience, the Department combined the licensing of the three facilities into the one document.

July 18, 1990 – The Natural Resources Council of Maine (NRCM) filed an appeal with the Board of Environmental Protection (Board) of the 6/12/90 WDL.

February 10, 1993 – The Department issued revised WDL #W002591-46-C-Z to the Town based on a settlement of the appeal filed by NRCM on 7/18/90. The license was modified to contain requirements for the Town to conduct toxicity testing of wastewater discharges, work to eliminate combined sewer overflows (CSOs) at the Main and Hulls Cove facilities, and to eliminate the discharge of chlorine in toxic amounts via construction/reconfiguration of outfall structures that provide adequate dilution for the flows discharged. It is noted that the Hulls Cove CSO has not been eliminated as of the effective date of this permit.

May 18, 1993 – The USEPA issued NPDES permit #ME0102695 to the Town for the discharges from the Main Plant, Hulls Cove Plant and DeGregoire Park facilities. The 5/18/93 permit superseded previous NPDES permits issued to the Town for the three facilities. See Page 1 of 11 of the 5/18/93 permit for a complete listing of NPDES permit numbers and their associated effective dates.

November 3, 1997 – The Department issued a letter to the Town, thereby administratively modifying the 2/10/93 WDL, to establish a monthly average concentration limit of 15 colonies/100 ml and to revise the daily maximum concentration limit from 15 colonies/100 ml to 50 colonies/100 ml for fecal coliform bacteria.

December 14, 2000 – The Department issued WDL #W002590-5L-D-R to the Town for the discharge from the Hulls Cove Plant. It is noted the Town's Main and DeGregoire Park wastewater treatment facilities were licensed independently.

2. PERMIT SUMMARY (cont'd)

July 10, 2000 – Pursuant to Maine law, 38 M.R.S.A. §420 and §413 and Department rule, 06-096 CMR Chapter 519, *Interim Effluent Limitations and Controls for the Discharge of Mercury*, the Department issued a *Notice of Interim Limits for the Discharge of Mercury* to the permittee thereby administratively modifying WDL # W002591-46-C-Z by establishing interim monthly average and daily maximum effluent concentration limits of 24.4 parts per trillion (ppt) and 36.6 ppt, respectively, and a minimum monitoring frequency requirement of 2 tests per year for mercury.

January 12, 2001 – The Department received authorization from the USEPA to administer the NPDES program in Maine.

June 18, 2001 – The Town submitted an application to the Department to modify the 12/14/00 WDL for the Hulls Cove Plant to incorporate the terms and conditions of the MEPDES program.

August 28, 2001 – The Department issued WDL #W002590-5L-E-M / MEPDES permit #MEU502590 to the Town for the monthly average discharge of up to 0.150 MGD from the Hulls Cove Plant to Frenchman Bay of the Atlantic Ocean. The 8/28/01 WDL Modification/MEPDES permit superseded the 12/14/00 WDL.

August 26, 2005 – The Town submitted a General Application to the Department for renewal of the 8/25/01 MEPDES permit. The application was accepted for processing on August 29, 2005 and was assigned WDL # W002590-5L-F-R / MEPDES #ME0102466.

November 21, 2005 – The Department issued MEPDES permit #ME0102466/WDL #W002590-5L-F-R for five year term.

April 21, 2010 – The Department and the Town entered into a Consent Agreement pertaining to overflows at the Hulls Cove Pump Station.

May 26, 2010 – The Town submitted a timely and complete application to the Department to renew the MEPDES permit/WDL for the discharge from its waste water treatment facility.

3. CONDITIONS OF PERMITS

Maine law, 38 M.R.S.A. Section 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., Section 420 and Department rule 06-096 CMR Chapter 530, *Surface Water Toxics Control Program*, require the regulation of toxic substances not to exceed levels set forth in Department rule 06-096 CMR Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants*, 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

Maine law, 38 M.R.S.A. §469 classifies all estuarine and marine waters lying within the boundaries of the State and which are not otherwise classified, which includes Frenchman Bay at the point of discharge, as Class SB waters. Maine law, 38 M.R.S.A. §465-B(2) describes the standards for Class SB waters as follows:

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

The dissolved oxygen content of Class SB waters must be not less than 85% of saturation. Between May 15th and September 30th, the numbers of enterococcus bacteria of human and domestic animal origin in these waters may not exceed a geometric mean of 8 per 100 milliliters or an instantaneous level of 54 per 100 milliliters. In determining human and domestic animal origin, the department shall assess licensed and unlicensed sources using available diagnostic procedures. The numbers of total coliform bacteria or other specified indicator organisms in samples representative of the waters in shellfish harvesting areas may not exceed the criteria recommended under the National Shellfish Sanitation Program, United States Food and Drug Administration.

Discharges to Class SB waters may not cause adverse impact to estuarine and marine life in that the receiving waters must be of sufficient quality to support all estuarine and marine species indigenous to the receiving water without detrimental changes in the resident biological community. There may be no new discharge to Class SB waters that would cause closure of open shellfish areas by the Department of Marine Resources. For the purpose of allowing the discharge of aquatic pesticides approved by the department for the control of mosquito-borne diseases in the interest of public health and safety, the department may find that the discharged effluent will not cause adverse impact to estuarine and marine life as long as the materials and methods used provide protection for nontarget species. When the department issues a license for the discharge of aquatic pesticides authorized under this paragraph, the department shall notify the municipality in which the application is licensed to occur and post the notice on the department's publicly accessible website.

5. RECEIVING WATER QUALITY CONDITIONS

The State of Maine 2008 Integrated Water Quality Monitoring and Assessment Report, prepared pursuant to Sections 303(d) and 305(b) of the Federal Water Pollution Control Act, lists Frenchman Bay at Bar Harbor (Waterbody # 714-21) as, "Category 5-B-2: Estuarine and Marine Waters Impaired by Bacteria From Combined Sewer Overflow)." This permitting action requires the Town to develop and implement a CSO master plan for the elimination or abatement of all CSO points associated with the Hulls Cove Plant collection system. As the Town's Hulls Cove Plant and the sewer collection system are upgraded and maintained in accordance to the CSO Master Plan and Nine Minimum Controls, there should be reductions in the frequency and volume of CSO activities and, over time, improvement in the quality of the wastewater discharged to the receiving waters.

5. RECEIVING WATER QUALITY CONDITIONS (cont'd)

The Maine Department of Marine Resources (DMR) assesses information on shellfish growing areas to ensure that shellfish harvested are safe for consumption. The DMR has authority to close shellfish harvesting areas wherever there is a pollution source, a potential pollution threat, or poor water quality. The DMR traditionally closes shellfish harvesting areas if there are known sources of discharges with unacceptable bacteria levels (instream thresholds established in the National Shellfish Sanitation Program) or maintains shellfish harvesting closure areas due to lack of updated information regarding ambient water quality conditions. In addition, the DMR prohibits shellfish harvesting in the immediate vicinity of all wastewater treatment outfall pipes as a precautionary measure in the event of a failure in the treatment plant's disinfection system. Thus, shellfish harvesting area #C47 is closed to the harvesting of shellfish due to insufficient or limited ambient water quality data to determine that the area meets the standards in the National Shellfish Sanitation Program. The shellfish closure area is identified on the map included as Fact Sheet **Attachment A**. The Department is making the determination that compliance with the fecal coliform bacteria and other secondary wastewater treatment limits established in this permitting action ensure that the discharge of secondary treated wastewater from the Town's Hulls Cove Plant will not cause or contribute to the failure of the receiving waters to meet the standards of its designated classification.

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 0.150 million gallons per day (MGD) based on the design capacity of the treatment facility, a daily maximum discharge flow reporting requirement and a "continuous recorder" minimum monitoring frequency requirement.

A review of the monthly DMR data for the period January 2007 - December 2009 indicates the facility has been in compliance with the flow limit 100% of the time in said period as results have been reported as follows:

Flow (DMRs=36)

Value	Limit (MGD)	Range (MGD)	Mean (MGD)
Monthly average	0.150	0.032 – 0.084	0.025
Daily maximum	Report	0.056 – 0.268	0.16

- b. Dilution Factors: Department rule, 06-096 CMR Chapter 530 Section 4.A.2..a, *Surface Water Toxics Control Program*, 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." Based on the configuration of the outfall structure and a discharge flow limit of 0.150 MGD, dilution factors associated with the discharge are as follows:

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

Acute = 27:1 Chronic = 478:1 Harmonic mean = 1,434:1¹

- c. Biochemical Oxygen Demand (BOD₅) and Total Suspended Solids (TSS): The previous permitting action established, and this permitting action is carrying forward, technology-based monthly and weekly average biochemical oxygen demand (BOD5) and total suspended solids (TSS) concentration limits of 30 mg/L and 45 mg/L, respectively, based on secondary treatment requirements of the Clean Water Act of 1977 §301(b)(1)(B), as defined in 40 CFR 133.102 and Department rule, 06-096 CMR Chapter 525(3)(III). The previous permitting action established, and this permitting action is carrying forward, technology-based daily maximum BOD₅ and TSS concentration limits of 50 mg/L based on a Department best professional judgement of best practicable treatment. The previous permitting action established, and this permitting action is carrying forward, monthly average, weekly average and daily maximum mass limits based on calculations using the monthly average flow limit of 0.150 MGD and the appropriate concentration limits as follows:

Monthly Average Mass Limit: (30 mg/L)(8.34 lbs./gallon)(0.150 MGD) = 38 lbs./day

Weekly Average Mass Limit: (45 mg/L)(8.34 lbs./day)(0.150 MGD) = 56 lbs./day

Daily Maximum Mass Limit: (50 mg/L)(8.34 lbs./day)(0.150 MGD) = 62 lbs./day

A review of the monthly Discharge Monitoring Report (DMR) data for the period January 2007 – December 2009 indicates the following:

BOD Mass (DMRs=36)

Value	Limit (lbs/day)	Range (lbs/day)	Average (lbs/day)
Monthly Average	38	1.2 – 4.93	
Weekly Average	56	1.5 – 8.2	4.6
Daily Maximum	62	1.5 – 8.2	4.6

BOD Concentration (DMRs=36)

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	30	3.3 – 12.5	6
Weekly Average	45	4 - 20	8
Daily Maximum	50	4 - 20	8

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 U.S. EPA publication, "Technical Support Document for Water Quality-Based Toxics Control" (Office of Water; EPA/505/2-90-001, page 88), and represents an estimation of harmonic mean flow on which human health dilutions are based in a riverine 7Q10 flow situation.

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

TSS mass (DMRs=36)

Value	Limit (lbs/day)	Range (lbs/day)	Average (lbs/day)
Monthly Average	38	1.0 – 6.26	2.1
Weekly Average	56	1.5 – 9.21	4.2
Daily Maximum	62	1.5 – 9.21	4.2

TSS concentration (DMRs=36)

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	30	3.3 – 17	5.5
Weekly Average	45	4.0 – 25	7.8
Daily Maximum	50	4.0 - 25	7.8

The previous permitting action established, and this permitting action is carrying forward a requirement to achieve a minimum 30-day average removal of 85 percent for BOD₅ and TSS pursuant to Department rule, 06-096 CMR Chapter 525(3)(III)(a&b)(3).

The previous permitting action established, and this permitting action is carrying forward, a minimum monitoring frequency requirement of once per week (1/Week) for BOD₅ and TSS, which is based on Department guidance for POTWs permitted to discharge between 0.1 and 0.5 MGD, and a “24-hour composite” sample type.

- d. Settleable Solids: The previous permitting action established, and this permitting action is carrying forward, a daily maximum, technology-based concentration limit of 0.3 ml/L for settleable solids, which is considered a best practicable treatment limitation (BPT), and a minimum monitoring frequency requirement of once per day (1/Day), which is based on Department guidance for POTWs permitted to discharge between 0.1 and 0.5 MGD, and a “grab” sample type for settleable solids.

A review of the monthly Discharge Monitoring Report (DMR) data for the period January 2007 – December 2009 indicates the following:

Settleable solids (DMRs=36)

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

Given settleable solids values have never been reported as anything other than <0.1 ml/L, this permitting action is reducing the monitoring frequency from 1/day to 5/week.

- e. Fecal Coliform Bacteria: The previous permitting action established, and this permitting action is carrying forward, seasonal monthly average and daily maximum concentration limits of 15 colonies/100 ml and 50 colonies/100 ml, respectively, for fecal coliform bacteria, which are consistent with the National Shellfish Sanitation Program, a minimum monitoring frequency requirement of once per week (1/Week), which is based on Department guidance

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

for POTWs permitted to discharge between 0.1 and 0.5 MGD, and a “grab” sample type. 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.

A review of the monthly DMR data for the period January 2007 - December 2009 indicates the permittee has been in compliance with the bacteria limits 100% of the time as values have been reported as follows:

Fecal coliform bacteria (DMRs=45)

Value	Limit (col/100 ml)	Range (col/100 ml)	Mean (col/100 ml)
Monthly Average	15	1.3 - 14	6.5
Daily Maximum	50	2 - 28	17

- f. Total Residual Chlorine (TRC): The previous permitting action established a daily maximum, technology-based concentration limit of 0.3 mg/L and a minimum monitoring frequency requirement of once per day (1/Day), which is based on Department guidance for POTWs permitted to discharge between 0.1 and 0.5 MGD, and a “grab” sample type 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 Threshold	Chronic Threshold
0.013 mg/L	0.0075 mg/L	27:1 (A) 478:1 (C)	0.35 mg/L	3.6 mg/L

The Department has established a daily maximum BPT limitation of 1.0 mg/L for facilities that disinfect their effluent with elemental chlorine or chlorine-based compounds. For facilities that need to dechlorinate the discharge in order to meet water quality based thresholds, the Department has established daily maximum and monthly average BPT limits of 0.3 mg/L and 0.1 mg/L, respectively. The Town dechlorinates the effluent prior to discharge in order to consistently achieve compliance with the water quality-based thresholds. The daily maximum technology-based standard of 0.3 mg/L is more stringent than the calculated acute water quality-based threshold of 0.35 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 3.6 mg/L and is therefore being established in this permitting action. This permitting action is carrying forward the minimum monitoring frequency of once per day (1/Day).

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

A review of the DMR data for the period January 2007 – December 2009 indicates the permittee has been in compliance with the TRC limit every month as concentration values being reported as follows:

Total residual chlorine (DMRs=14)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly average	0.1	0.02 – 0.06	0.035
Daily maximum	0.3	0.08 – 0.27	0.16

- g. pH: The previous permitting action established, and this permitting action is carrying forward, a technology-based pH limit of 6.0 – 9.0 standard units, which is based on Department rule, 06-096 CMR Chapter 525(3)(III), and a minimum monitoring frequency requirement of once per day (1/Day) based on Department guidance for POTWs permitted to discharge between 0.1 and 0.5 MGD.
- h. Whole Effluent Toxicity (WET), Priority Pollutant, and Analytical Chemistry Testing: Maine law 38 M.R.S.A., Sections 414-A and 420, prohibit the discharge of effluents containing substances in amounts that would cause the surface waters of the State to contain toxic substances above levels set forth in Federal Water Quality Criteria as established by the USEPA. Department Rules, 06-096 CMR Chapter 530, *Surface Water Toxics Control Program*, and Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants* set forth ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters. WET, priority pollutant and analytical chemistry testing as required by Chapter 530, is included in this permit in order to fully characterize the effluent. This permit also provides for reconsideration of effluent limits and monitoring schedules after evaluation of toxicity testing results. The monitoring schedule includes consideration of results currently on file, the nature of the wastewater, existing treatment and receiving water characteristics.

WET monitoring is required to assess and protect against impacts upon water quality and designated uses caused by the aggregate effect of the discharge on specific aquatic organisms. Acute and chronic WET tests are performed on invertebrate and vertebrate species. Priority pollutant and analytical chemistry testing is required to assess the levels of individual toxic pollutants in the discharge, comparing each pollutant to acute, chronic, and human health AWQC as established in Chapter 584.

Chapter 530 establishes four categories of testing requirements based predominately on the chronic dilution factor. The categories are as follows:

- 1) Level I – chronic dilution factor of <20:1.
- 2) Level II – chronic dilution factor of ≥20:1 but <100:1.
- 3) Level III – chronic dilution factor ≥100:1 but <500:1 or >500:1 and Q ≥1.0 MGD
- 4) Level IV – chronic dilution >500:1 and Q ≤1.0 MGD

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

Department rule Chapter 530 (1)(D) specifies the criteria to be used in determining the minimum monitoring frequency requirements for WET, priority pollutant and analytical chemistry testing. Based on the Chapter 530 criteria, the permittee's facility falls into the Level III frequency category as the facility has a chronic dilution factor of >500:1 and a Q_≥ 1.0 MGD. Chapter 530(1)(D)(1) specifies that default screening and surveillance level testing requirements are as follows:

Screening level testing – Beginning 12 months prior to permit expiration and lasting through permit expiration and every five years thereafter.

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

Surveillance level testing – Beginning upon issuance of the permit and lasting through 12 months prior to permit expiration.

Level	WET Testing	Priority pollutant testing	Analytical chemistry
III	1 per year	None required	1 per year

A review of the data on file with the Department indicates that to date, the permittee has fulfilled the WET and chemical-specific testing requirements of Chapter 530. See **Attachment C** of this Fact Sheet for a summary of the WET test results and **Attachment D** of this Fact Sheet for a summary of the chemical-specific test dates.

Department rule Chapter 530(D)(3)(b) states in part, *Dischargers in Levels III and IV may be waived from conducting surveillance testing for individual WET species or chemicals provided that testing in the preceding 60 months does not indicate any reasonable potential for exceedence as calculated pursuant to section 3(E).*

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

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

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

On April 16, 2010, the Department conducted a statistical evaluation on the most recent 60 months of WET, priority pollutant, and analytical chemistry data on file at the Department. The statistical evaluation indicates there are no exceedences or reasonable potential to exceed critical thresholds for the WET species tested to date or applicable ambient water quality criteria (AWQC). As a result, Department has determined the permittee qualifies for the surveillance level testing waiver pursuant to Chapter 530(2)(D). Therefore, the only Chapter 530 testing requirements established in Special Condition A of this permit are screening level testing requirements as follows;

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

Pursuant to Chapter 530(2)(D)(4), Special Condition K of this permit requires the permittee to file an annual certification regarding any changes or lack thereof in the characteristics of the discharge. See **Attachment C** of the Fact Sheet of this permit for an acceptable certification form to satisfy this Special Condition.

- i. Mercury: Pursuant to *Certain deposits and discharges prohibited*, Maine law, 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 on July 10, 2000, thereby administratively modifying MEPDES ME0102466/WDL W002590-5L-F-R by establishing interim monthly average and daily maximum effluent concentration limits of 24.4 parts per trillion (ppt) and 36.6 ppt, respectively, and a minimum monitoring frequency requirement of two (2) tests per year for mercury. It is noted the limitations have not been incorporated into Special Condition A, *Effluent Limitations And Monitoring Requirements*, of this permit as limitations and monitoring frequencies are regulated separately through 38 M.R.S.A. § 413 and 06-096 CMR 519 and Special Condition J, *Mercury*, of this permit. The interim limitations remain in effect and enforceable and any modifications to the limits and or monitoring requirements will be formalized outside of this permitting document.

Maine law 38 M.R.S.A., §420 1-B,(B)(1) states 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 pursuant to section 413, subsection 11. A review of the Department’s database for the previous 60-month period indicates the permittee has been in compliance with both limitations 100% of the time as mercury test results have reported in the range from 0.6 ppt to 4.2 ppt with an arithmetic mean (n=10) of 2.3 ppt.

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 Atlantic Ocean (Frenchman Bay) 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 May 26, 2010. The Department receives public comments on an application until the date a final agency action is taken on the application. Those persons receiving copies of draft permits shall have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to Chapter 522 of the Department's rules.

9. DEPARTMENT CONTACTS

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

Gregg Wood
Division of Water Quality management
Bureau of Land & Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Telephone: (207) 287-7693
e-mail: gregg.wood@maine.gov

10. RESPONSE TO COMMENTS

During the period of July 29 2010, through the issuance date of the permit/license, the Department solicited comments on the proposed draft permit/license to be issued for the discharge(s) from the permittee's facility. The Department did not receive comments from the permittee, state or federal agencies or interested parties that resulted in any substantive change(s) in the terms and conditions of the permit. Therefore, the Department has not prepared a Response to Comments.