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 Ave.
Bar Harbor, ME. 04609

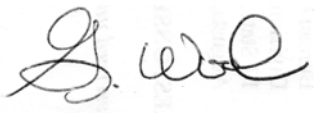
RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0102474
Maine Waste Discharge License (WDL) Application #W002584-6B-G-R
**Final Permit – DeGregoire Park Plant**

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,



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 |
| ME0102474 | ) | WASTE DISCHARGE LICENSE |
| W002584-6B-G-R **APPROVAL** | ) | **RENEWAL** |
| **DEGREGOIRE PARK 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/permitee 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 #ME0102474/Maine Waste Discharge License (WDL) #W002584-5L-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 0.012 million gallons per day (MGD) of secondary treated sanitary waste water from the Town's DeGregoire Park Plant to the Atlantic Ocean at Frenchman Bay, 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.

**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 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 0.012 million gallons per day of secondary treated sanitary waste water from the Town's DeGregoire Park Plant 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.

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

COMMISSIONER OF ENVIRONMENTAL PROTECTION

BY:_____
David P. Littell, COMMISSIONER

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

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date filed with Board of Environmental Protection _____

This Order prepared by GREGG WOOD, BUREAU OF LAND & WATER QUALITY
ME0102474 2010 8/31/10

## SPECIAL CONDITIONS

## A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. Beginning the effective date of this permit, the permittee is authorized to discharge secondary treated sanitary waste water from **Outfall #001** 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 | |
|---|---|---|---|---|---|---|---|---|
| | Monthly Average | Weekly Average | Daily Maximum | Monthly Average | Weekly Average | Daily Maximum | Measurement Frequency | Sample Type |
| **Flow** *[50050]* | 0.012 MGD *[03]* | --- | Report, MGD *[03]* | --- | --- | --- | Continuous *[99/99]* | Recorder *[RC]* |
| **$BOD_5$** *[00310]* | 3.0 lbs./day *[26]* | 4.5 lbs./day *[26]* | 5.0 lbs./day *[26]* | 30 mg/L *[19]* | 45 mg/L *[19]* | 50 mg/L *[19]* | 2/Month *[02/30]* | 24-Hour Composite *[24]* |
| **$BOD_5$ Percent Removal**[(2)] *[81010]* | --- | --- | --- | 85% *[23]* | --- | --- | 1/Month *[01/30]* | Calculate *[CA]* |
| **TSS** *[00530]* | 3.0 lbs./day *[26]* | 4.5 lbs./day *[26]* | 5.0 lbs./day *[26]* | 30 mg/L *[19]* | 45 mg/L *[19]* | 50 mg/L *[19]* | 2/Month *[02/30]* | 24-Hour Composite *[24]* |
| **TSS Percent Removal**[(2)] *[81011]* | --- | --- | --- | 85% *[23]* | --- | --- | 1/Month *[01/30]* | Calculate *[CA]* |
| **Settleable Solids** *[00545]* | --- | --- | --- | --- | --- | 0.3 ml/L *[25]* | 5/Week *[05/07]* | Grab *[GR]* |
| **Fecal coliform bacteria**[(3)] ***(May 15 – September 30)*** *[31616]* | --- | --- | --- | 15/100 ml[(4)] *[13]* | --- | 50/100 ml *[13]* | 2/Month *[02/30]* | Grab *[GR]* |
| **Total Residual Chlorine**[(5)] *[50060]* | --- | --- | --- | 0.1 mg/L *[19]* | --- | 0.3 mg/L *[19]* | 1/Day *[01/01]* | Grab *[GR]* |
| **pH** *[00400]* | --- | --- | --- | --- | --- | 6.0 – 9.0 SU *[12]* | 1/Day *[01/01]* | Grab *[GR]* |

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.

## SPECIAL CONDITIONS

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

**Footnotes:**

1. **Monitoring –** Influent monitoring shall be conducted at the effluent end of the influent comminutor. 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 conducted at the discharge manhole following chlorination and dechlorination. 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. 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.

### 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.

## SPECIAL CONDITIONS

### 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. 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.

### 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. 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 A,** *Effluent Mercury Test Report*, of this permit for the Department's form for reporting mercury test results.

### J. PUMP STATION EMERGENCY BYPASSES

Discharges from emergency bypass structures in pump stations are not authorized by this permit. The permittee shall make provisions to monitor the pump stations listed below, in accordance with a monitoring plan reviewed and approved by the Department, to determine the frequency and quantity (via measurement or estimation) of wastewater discharged from the bypass structures. Discharges from the following pump stations shall be reported in accordance with Standard Condition B(5), *Bypasses*, and Special Condition E, *Unauthorized Discharges*, of this permit.

| Outfall # | Location |
|---|---|
| 002 | DeGregoire Park Pump Station |

### K. 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

### L. 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 ($13^{th}$) day of the month or hand-delivered to a Department Regional Office such that the DMRs are received by the Department by the fifteenth ($15^{th}$) 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 $15^{th}$ 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 ($13^{th}$) 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 ($15^{th}$) 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 $15^{th}$ day of the month following the completed reporting period.

### M. 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.

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

# FACT SHEET

Date: **July 29, 2010**

PERMIT NUMBER: **ME0102474**
LICENSE NUMBER: **W002584-6B-G-R**

NAME AND ADDRESS OF APPLICANT:

**TOWN OF BAR HARBOR**
**Waste water Treatment Facility**
**136 Ledgelawn Avenue**
**Bar Harbor, Maine 04609**

COUNTY: **Hancock**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

**DeGregoire Park Plant**
**Bar Harbor, Maine 04609**

RECEIVING WATER/CLASSIFICATION: **Atlantic Ocean, Frenchman Bay /Class SB**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **Mr. Robert Kane**
**e-mail: wwsupt@barharbormaine.gov**
**(207) 288-4028**

## 1. APPLICATION SUMMARY

a. Application: The Town of Bar Harbor (Town/permittee hereinafter) has submitted a timely and complete application to the Department for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0102474/Maine Waste Discharge License (WDL) #W002584-5L-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 0.012 million gallons per day (MGD) of secondary treated sanitary waste water from the Town's DeGregoire Park Plant to the Atlantic Ocean at Frenchman Bay, Class SB, in Bar Harbor, Maine. See **Attachment A** of this Fact Sheet for a location map.

## 1. APPLICATION SUMMARY (cont'd)

b. Source Description: The Town's three wastewater 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 DeGregoire Park facility receives wastewater generated by residential customers located in a small neighborhood surrounding the facility. There are no significant industrial facilities discharging to the system, and there are no combined sewer overflow (CSO) points located within the collection system. The collection system for DeGregoire Park is approximately 0.78 miles in length and contains one (1) pump station. The Town reported that the pump station is small enough to be pumped down by a truck with a suction hose in the event of high water events. The pump station contains an emergency bypass which is designed to discharge in the event of an electrical or mechanical failure; however, bypass discharges are not authorized by this permit and any bypass event is considered a violation, is reportable, and is subject to Department enforcement.

Special Condition J of this permit, *Pump Station Emergency Bypasses*, establishes a requirement for the town to make provisions to monitor the pump station to determine the frequency and quantity (via measurement or estimation) of wastewater discharged from the bypass structures. The Town is not authorized to receive septage wastes at the DeGregoire Park facility.

c. Wastewater Treatment: The Town's DeGregoire Park Plant provides a secondary level of wastewater treatment via an extended aeration activated sludge package treatment system. The treatment system consists of an approximately 32-foot long by 12-foot wide by 10-foot deep steel rectangular tank that is separated into two nearly equal basins. The first basin serves as the aeration basin and the second serves as the clarifier. Periodic removal of solids is accomplished by use of a pump truck with the solids being transported to the Town's Main Plant (MEPDES #ME0101214) for processing. Following clarification, the flow is conveyed to an approximately 16-foot long by 7-foot wide by 20-inch deep chlorine contact tank for disinfection using sodium hypochlorite and dechlorination using sodium bisulfite on a seasonal basis.

Final effluent is discharged to Frenchman Bay (Atlantic Ocean) via a 6-inch diameter outfall pipe that extends out into the receiving water approximately 240 linear feet to a depth of approximately 3.5 feet below the surface of the water at mean low tide.

A schematic of the treatment facility 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.

b. Regulatory history: The most recent significant permitting/licensing actions completed for the Town's DeGregoire Park 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 (DeGregoire Park Plant, Main Plant, and Hulls Cove 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 of the 6/12/90 WDL with the Board of Environmental Protection (Board).

*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.

*May 18, 1993* – The USEPA issued NPDES permit #ME0102709 to the Town for the discharges from the DeGregoire Park, Main and Hulls Cove 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.

**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 43.2 parts per trillion (ppt) and 64.8 ppt, respectively, and a minimum monitoring frequency requirement of 2 tests per year for mercury.

*December 8, 2000* – The Department issued WDL #W002584-5L-D-R to the Town for the discharge from the DeGregoire Park Plant. It is noted the Town's Main and Hulls Cove waste water treatment facilities were licensed independently.

*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 DeGregoire Park Plant to incorporate the terms and conditions of the MEPDES program.

*August 28, 2001* – The Department issued WDL #W002584-5L-E-M / MEPDES permit #ME0102474 (8/28/01 MEPDES permit hereinafter) to the Town for the monthly average discharge of up to 0.012 MGD from the DeGregoire Park Plant to Frenchman Bay of the Atlantic Ocean. The 8/28/01 MEPDES permit superseded the 12/14/00 WDL.

*May 17, 2005* – The Department issued a Notice of Violation (NOV) to the Town for the unlicensed bypass that occurred from the DeGregoire Park pump station on March 29 and March 30, 2005. The NOV required the submission of a revised standard operating procedure (SOP) for identifying and responding to pump station bypasses from the DeGregoire Park treatment facility, and implementation of the Department-approved SOP by August 1, 2005.

*June 30, 2005* – The Town responded in writing to the Department's 5/17/05 NOV.

*November 21, 2005* – The Department issued MEPDES permit #ME0102474/WDL #W002584-5L-F-R for five year term.

*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 2004 Integrated Water Quality Monitoring and Assessment Report*, prepared pursuant to Sections 303(d) and 305(b) of the Federal Water Pollution Control Act, lists Bar Harbor (Waterbody # 714-21) as, *"Category 5-B-2: Estuarine and Marine Waters Impaired by Bacteria From Combined Sewer Overflows (TMDL Required Only if Control Plans are Insufficient)."* The Town's DeGregoire Park collection system does not contain combined sewer overflow (CSO) points and therefore does not cause or contribute to the impairment caused by bacteria from CSO discharges. The Department is requiring the Town to develop and implement CSO Master Plans for the elimination or abatement of all CSO points associated with the Town's Hulls Cove and Main Plant wastewater collection system. As the Town's Hulls Cove and Main Plants and the sewer collection systems are upgraded and maintained in according with the CSO Master Plans 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 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.

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 #47 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 DeGregoire Park 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 0.012 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" monitoring 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 | 0.012 | 0.0007 – 0.011 | 0.0056 |
| Daily maximum | Report | 0.0013 – 0.024 | 0.013 |

b. Dilution Factors: Department rule, 06-096 CMR Chapter 530. Section 4.A.2., *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 0.012 MGD, dilution factors associated with the discharge are as follows:

Acute = 62:1 Chronic = 643:1 Harmonic mean = 1,929:1*

Footnote:

* 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)

c. Biochemical Oxygen Demand ($BOD_5$) 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 pursuant to 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 $BOD_5$ 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 0.012 MGD and the appropriate concentration limits as follows:

Monthly Average Mass Limit: (30 mg/L)(8.34 lbs./gallon)(0.012 MGD) = 3.0 lbs./day
Weekly Average Mass Limit: (45 mg/L)(8.34 lbs./day)(0.012 MGD) = 4.5 lbs./day
Daily Maximum Mass Limit: (50 mg/L)(8.34 lbs./day)(0.012 MGD) = 5.0 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 | 3.0 | 0.04 – 0.49 | 0.23 |
| Weekly Average | 4.5 | 0.07 – 1.19 | 0.39 |
| Daily Maximum | 5.0 | 0.07 – 1.19 | 0.39 |

**BOD Concentration (DMRs=36)**

| Value | Limit (mg/L) | Range (mg/L) | Average (mg/L) |
|---|---|---|---|
| Monthly Average | 30 | 3.3 – 9 | 5 |
| Weekly Average | 45 | 4.0 - 16 | 8 |
| Daily Maximum | 50 | 4.0 - 16 | 8 |

**TSS mass (DMRs=36)**

| Value | Limit (lbs/day) | Range (lbs/day) | Average (lbs/day) |
|---|---|---|---|
| Monthly Average | 3.0 | 0.2 – 0.44 | 0.21 |
| Weekly Average | 4.5 | 0.1 – 0.75 | 0.36 |
| Daily Maximum | 5.0 | 0.1 – 0.75 | 0.36 |

**TSS concentration (DMRs=36)**

| Value | Limit (mg/L) | Range (mg/L) | Average (mg/L) |
|---|---|---|---|
| Monthly Average | 30 | 3 – 9.5 | 5 |
| Weekly Average | 45 | 4.0 - 15 | 7 |
| Daily Maximum | 50 | 4.0 - 15 | 7 |

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

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 $BOD_5$ 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 twice per month (2/Month) for $BOD_5$ and TSS, which is based on Department guidance for POTWs permitted to discharge up to 0.1 MGD, and a "24-hour composite" sample type for $BOD_5$ and TSS. Influent samples for $BOD_5$ and TSS may be collected as grab samples, unless otherwise specified by the Department.

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). The 11/21/05 permit established a minimum monitoring frequency requirement of once per day (1/Day), which was based on Department guidance for POTWs permitted to discharge up to 0.1 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 |

Based on the excellent compliance history, 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 twice per month (2/Month), which is based on Department guidance for POTWs permitted to discharge up to 0.1 MGD, and a "grab" sample type. Bacteria limits are seasonal and apply between May 15 and September 30, inclusive, 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=14)**

| Value | Limit (col/100 ml) | Range (col/100 ml) | Mean (col/100 ml) |
|---|---|---|---|
| Monthly Average | 15 | 0 - 9 | 4.0 |
| Daily Maximum | 50 | 0 - 35 | 13 |

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

f. Total Residual Chlorine (TRC): The previous permitting action established a technology-based daily maximum concentration limit of 0.3 mg/L and a minimum monitoring frequency requirement of once per day (1/Day) for TRC, which is based on Department guidance for POTWs permitted to discharge up to 0.1 MGD, and a "grab" sample type. 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 | 62:1 (A)<br>643:1 (C) | 0.81 mg/L | 4.8 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 0.81 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 4.8 mg/L and is therefore being carried forward in this permitting action. This permitting action is carrying forward the minimum monitoring frequency of once per day (1/Day) for TRC, which is based on Department guidance for POTWs permitted to discharge up to 0.1 MGD, and "grab" sample type.

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=15)**

| Value | Limit (mg/L) | Range (mg/L) | Mean (mg/L) |
|---|---|---|---|
| Monthly average | 0.1 | 0.1 – 0.3 | 0.022 |
| Daily maximum | 0.3 | 0.4 – 0.25 | 0.12 |

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.

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

h. Whole Effluent Toxicity (WET), Priority Pollutant, and Analytical Chemistry Testing: Maine law, 38 M.R.S.A., §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 rule, 06-096 CMR Chapter 530, *Surface Water Toxics Control Program* (toxics rule) 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. Department rule 06-096 CMR Chapter 584, Surface *Water Quality Criteria for Toxic Pollutants*, sets forth ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters.

Chapter 530 Section (2)(A) specifies the criteria for exemption of certain discharges from toxics testing as follows:

*(1) Discharges from individual discharge points licensed to discharge less than 50,000 gallons per day of solely domestic wastewater and with a chronic dilution factor of at least 50 to 1, provided no holding tank wastes containing chemicals are accepted by the facility;*

*(2) Discharges from residential overboard discharge systems; or*

*(3) Discharges from combined sewer overflow discharge points, provided the owner of the sewerage system is conducting or participating in a discharge abatement program.*

The DeGregoire Park facility is permitted to discharge less than 50,000 gallons per day, and has a chronic dilution factor greater than 50:1. Thus, the Department concludes that the discharge from the Town's DeGregoire Park facility qualifies for exemption from Chapter 530 testing requirements. This permitting action is not establishing WET, priority pollutant or analytical chemistry monitoring requirements at this time.

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 ME0102474/WDL W002584-5L-F-R by establishing interim monthly average and daily maximum effluent concentration limits of 43.2 parts per trillion (ppt) and 64.8 ppt, respectively, and a minimum monitoring frequency requirement of four (4) 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

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

monitoring 519 and Special Condition I, *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 at 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.