



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAVID P. LITTELL
COMMISSIONER

May 1, 2007

Mr. Michael McGovern
Town Manager
Town of Cape Elizabeth
P.O. Box 6260, Ocean House Road
Cape Elizabeth, ME. 04107

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit # ME0090379
Maine Waste Discharge License (WDL) Application #W003157-5D-D-R
Final Permit

Dear Mr. McGovern:

Enclosed please find a copy of your **final** MEPDES permit and Maine WDL **renewal** which was approved by the Department of Environmental Protection. This permit/license replaces the National Pollutant Discharge Elimination System (NPDES) permit #ME0090379, last issued by the Environmental Protection Agency (EPA) on October 30, 1979. As a result, all terms and conditions of the NPDES permit are null and void. Please read the permit/license renewal 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 the 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.

cc: Chris Johnson, DEP/CMRO
Sandy Lao, USEPA

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

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BANGOR, MAINE 04401
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PORTLAND
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PORTLAND, MAINE 04103
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PRESQUE ISLE
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PRESQUE ISLE, MAINE 04769-2094
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STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
STATE HOUSE STATION 17 AUGUSTA, MAINE 04333

DEPARTMENT ORDER

IN THE MATTER OF

TOWN OF CAPE ELIZABETH)	MAINE POLLUTANT DISCHARGE
CAPE ELIZABETH, CUMBERLAND COUNTY)	ELIMINATION SYSTEM PERMIT
OVERBOARD DISCHARGE)	AND
PORTLAND HEAD LIGHT & MUSEUM)	
#ME0090379)	WASTE DISCHARGE LICENSE
#W003157-5D-D-R APPROVAL)	RENEWAL

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

APPLICATION SUMMARY

The Town has applied to the Department for renewal of overboard discharge (OBD) Conditional Permit #W003157-58-B-R which was issued by the Department on October 19, 1992, and expired on October 19, 1997. It is noted the Conditional Permit (permit hereinafter) was originally issued to the U.S. Coast Guard Service and subsequently transferred to the Town of Cape Elizabeth on November 30, 1992 via permit transfer #W003157-58-C-T. The permit authorized a year-round weekly average discharge of up to 500 gallons per day (gpd) of secondary treated waste waters to Casco Bay, Class SB, in Cape Elizabeth, Maine. It is noted the U.S. Environmental Protection Agency's (EPA) records indicate National Pollutant Discharge Elimination System (NPDES) permit #ME0090379 was last issued by the EPA on October 30, 1979 and expired on October 30, 1984.

PERMIT SUMMARY

- a. Regulatory - On January 12, 2001, the Department received authorization from the EPA to administer the NPDES permit program in Maine, excluding areas of special interest to Maine Indian Tribes. From that point forward, the program has been referred to as the Maine Pollutant Discharge Elimination System (MEPDES) permit program, and permit #ME0090379 (same as the NPDES permit number) will be utilized as the primary reference number for the Town's facility.

PERMIT SUMMARY

b. Terms and conditions

This permitting action is similar to the 10/19/92 State permitting action and 10/30/92 federal permitting action in that it is:

1. Carrying forward the year-round discharge flow limitation of 500 gpd but establishing said limit as a daily maximum limitation;
2. Carrying forward the monthly average, weekly average and daily maximum technology-based concentration limitations for biochemical oxygen demand (BOD₅) and total suspended solids (TSS);
3. Carrying forward the daily maximum technology based limitation for total residual chlorine.
4. Carrying for the NPDES permit number of ME0090379.

This permitting action is different from the 10/19/92 State permitting action and 10/30/92 federal permitting action in that it is:

5. Establishing monthly average, weekly average, and daily maximum technology-based mass limitations for BOD₅ and TSS;
6. Establishing a requirement to achieve a minimum 30-day average of 85 percent removal for BOD₅ and TSS;
7. Modifying the daily maximum concentration limit for fecal coliform bacteria to be consistent with standards in the National Shellfish Sanitation Program;
8. Eliminating the weekly average technology based concentration limits for settleable solids.
9. Establishing a requirement for the permittee to have a site evaluation performed by a licensed site evaluator with experience in designing systems for the replacement of overboard discharge systems prior the expiration date of the permit.
10. Establishing a requirement for the permittee to pump the septic tank at a minimum of once every three years.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated March 21, 2007, 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 discharges 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).
5. The overboard discharge system was in continuing existence for the 12 months preceding June 1, 1987.
6. A subsurface wastewater disposal system can not be installed in compliance with the Maine Subsurface Waste Water Disposal Rules at the time the renewal application was accepted by the Department.
7. A publicly owned sewer line is not located on or abutting land owned or controlled by the permittee or is not available for the permittee's use.
8. The discharge is not located within the boundaries of a sanitary district or sewer district.

ACTION

THEREFORE, the Department APPROVES the above noted application of the TOWN OF CAPE ELIZABETH to discharge a daily maximum flow of up to 500 gpd of secondary treated sanitary wastewater to Casco Bay, Class SB, in Cape Elizabeth, 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 expires five (5) years from the date of signature below.

DONE AND DATED AT AUGUSTA, MAINE, THIS 2nd DAY OF May, 2007.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

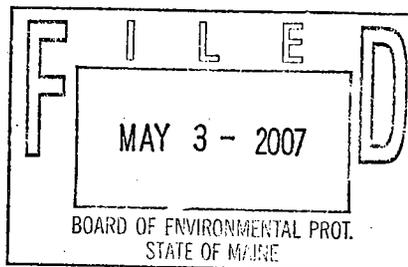
BY: 

 DAVID P. LITTELL, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: February 14, 2007

Date of application acceptance: February 21, 2007



Date filed with Board of Environmental Protection: _____

This Order prepared by Gregg Wood, BUREAU OF LAND & WATER QUALITY

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- The permittee is authorized to discharge secondary treated sanitary wastewater from Outfall #001A to Casco Bay. Such discharges shall be limited and monitored by the permittee as specified below⁽¹⁾.

Effluent Characteristic	Discharge Limitations					Monitoring Requirements		
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow [50050]	---	---	500 GPD [07]	---	---	---	---	---
BOD ₅ [00310]	0.1 lbs/day [26]	0.2 lbs/day [26]	0.2 lbs/day [26]	30 mg/L [19]	45 mg/L [19]	50 mg/L [19]	---	---
BOD ₅ Percent Removal ⁽²⁾ [81010]	---	---	---	85% [23]	---	---	---	---
TSS [00530]	0.1 lbs/day [26]	0.2 lbs/day [26]	0.2 lbs/day [26]	30 mg/L [19]	45 mg/L [19]	50 mg/L [19]	---	---
TSS Percent Removal ⁽²⁾ [81011]	---	---	---	85% [23]	---	---	---	---
Settleable Solids [00545]	---	---	---	---	---	0.3 ml/L [25]	---	---
Fecal Coliform Bacteria ⁽³⁾ [31615] (May 15 – Sept. 30)	---	---	---	15/100 ml ⁽⁴⁾ [13]	---	50/100 ml [13]	---	---
Total Residual Chlorine [50060]	---	---	---	---	---	1.0 mg/L [19]	---	---
pH [00400]	---	---	---	---	---	6.0 – 9.0 SU [12]	---	---

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

FOOTNOTES: See Page 6 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

FOOTNOTES:

1. **Monitoring** – All effluent monitoring shall be conducted at a location following the last treatment unit in the treatment process. Sampling and analysis must be conducted in accordance with: a) methods approved by 40 Code of Federal Regulations (CFR) Part 136; b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136; or c) as otherwise specified by the Department. Samples that are sent out for analysis shall be analyzed by a laboratory certified by the State of Maine's Department of Health and Human Services.

All detectable 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 BOD₅ and TSS for all flows receiving secondary treatment. The percent removal shall be calculated based on an assumed influent value of 286 mg/L and measured effluent concentration values.
3. **Bacteria Limits** – Fecal coliform bacteria limits and monitoring requirements are seasonal and apply between May 15th and September 30th of each year. The Department reserves the right to impose bacteria limits on a year-round basis to protect the health, safety, and welfare of the public.
4. **Bacteria Reporting** – The monthly average fecal coliform bacteria limitation is a geometric mean limitation.

B. ANNUAL DISCHARGE FEES

Pursuant to Maine law, 38 M.R.S.A. §353-B, the permittee is required to pay an applicable annual fee for discharges authorized by this permit. Failure to pay an annual fee within 30 days of the billing date of a license/permit is sufficient grounds for revocation of the license, permit or privilege under Maine law, 38 M.R.S.A. §341-D, subsection 3.

SPECIAL CONDITIONS

C. 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.

D. DISINFECTION

If chlorination is used as the means of disinfection, an approved chlorine contact tank providing the proper detention time consistent with good engineering practice must be utilized followed by a dechlorination system if the imposed total residual chlorine (TRC) limit cannot be achieved by dissipation in the detention tank. The total residual chlorine in the effluent shall at no time cause any demonstrable harm to aquatic life in the receiving waters. The dose of chlorine applied shall provide a TRC concentration that will effectively reduce fecal coliform bacteria levels to or below those specified in Special Condition A, "*Effluent Limitation and Monitoring Requirements*," of this permit.

E. AUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from Outfall #001A. Discharges of wastewater from any other point source not identified in the 2/07 application permit renewal are not authorized under this permit, and shall be reported in accordance with Standard Condition B(5), *Bypasses*, of this permit.

F. NOTIFICATION REQUIREMENT

In accordance with Standard Condition D, the permittee shall notify the Department of the following.

1. Any substantial change or proposed change in the volume or character of pollutants being discharged. 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.

SPECIAL CONDITIONS

G. SEPTIC TANK MAINTENANCE

1. All septic treatment tanks and other holding or treatment tanks shall be regularly inspected (at least once every three years) and maintained to ensure that they are providing best practicable treatment.
2. Tank contents should be removed whenever the sludge and scum occupies one-third of the tank's liquid capacity or whenever levels approach maximum design capacity whichever is less. Following pumping, the tanks shall be checked for damage at key joints and the inlet and outlet baffles, and repaired promptly if damaged. The permittee shall keep a pumping log including the date of pumping, quantity of material removed, name and number of licensed contractor, pumping frequency and other relevant observations. The logs must be kept current and available to the Department for inspection upon request.

H. SITE EVALUATION FOR TRANSFERRED AND RENEWED PERMITS

Prior to permit transfer or transfer of the property occupying the permitted overboard discharge system or **renewal of this permit**, a site evaluation must be performed by a licensed site evaluator with experience in designing systems for the replacement of overboard discharge systems. The Department may not grant approval for permit transfer or renewal if the site evaluation concludes that a non-discharging wastewater disposal system designed in compliance with the Maine Subsurface Waste Water Disposal Rules administered by the Maine Department of Health and Human Services, Division of Health Engineering can be installed as a replacement system for the overboard discharge.

I. 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.

J. 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 aspects as if such unlawful provision, or part thereof, had been omitted, unless otherwise ordered by the court.

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

FACT SHEET

Date: **March 21, 2007**

MEPDES PERMIT: **#ME0090379**
WASTE DISCHARGE LICENSE: **#W003157-5D-D-R**

NAME AND ADDRESS OF APPLICANT:

**TOWN OF CAPE ELIZABETH
P.O. Box 6260
Ocean House Road
Cape Elizabeth, Maine 04107**

COUNTY: **Cumberland County**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

**Portland Head Lighthouse and Museum
12 Captain Strout Circle
Cape Elizabeth, Maine 04107**

RECEIVING WATER / CLASSIFICATION: **Casco Bay/Class SB**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **Mr. Michael McGovern
Town Manager
(207) 799-5251**

1. APPLICATION SUMMARY

- a. Application - The Town of Cape Elizabeth (Town hereinafter) has applied to the Department for renewal of overboard discharge (OBD) Conditional Permit #W003157-58-B-R which was issued by the Department on October 19, 1992, and expired on October 19, 1997. It is noted the Conditional Permit (permit hereinafter) was originally issued to the U.S. Coast Guard Service and subsequently transferred to the Town of Cape Elizabeth on November 30, 1992 via permit transfer #W003157-58-C-T. The permit authorized a year-round weekly average discharge of up to 500 gallons per day (gpd) of secondary treated waste waters to Casco Bay, Class SB in Cape Elizabeth, Maine. See Attachment A of this permit for a location map of the facility.

1. APPLICATION SUMMARY (cont'd)

- b. Source Description & Waste Water Treatment– The 2/14/07 application submitted to the Department for renewal of the conditional permit indicates the facility is open from June through November of each year. Sanitary waste waters are generated by employees and the general public utilizing bathrooms at the facility. A secondary level of treatment of the waste waters is accomplished by means of a 1,000-gallon septic and a sand filter measuring approximately 20 feet by 30 feet for a total area of 600 square feet. The treated waste water is disinfected via tablet chlorinator and discharged to Casco Bay via a pipe measuring four inches in diameter that is submerged at mean low water.

2. PERMIT SUMMARY

- a. Regulatory - On January 12, 2001, the Department received authorization from the EPA to administer the NPDES permit program in Maine, excluding areas of special interest to Maine Indian Tribes. From that point forward, the program has been referred to as the Maine Pollutant Discharge Elimination System (MEPDES) permit program, and permit #ME0090379 (same as the NPDES permit number) will be utilized as the primary reference number for the Town's facility. It is noted the U.S. Environmental Protection Agency's (EPA) records indicate National Pollutant Discharge Elimination System (NPDES) permit #ME0090379 was last issued by the EPA on October 30, 1979 and expired on October 30, 1984.
- b. Terms and conditions

This permitting action is similar to the 10/19/92 State permitting action and 10/30/92 federal permitting action that it is:

1. Carrying forward the year-round discharge flow limitation of 500 gpd but establishing said limit as a daily maximum limitation;
2. Carrying forward the monthly average, weekly average and daily maximum technology-based concentration limitations for biochemical oxygen demand (BOD₅) and total suspended solids (TSS);
3. Carrying forward the daily maximum technology based limitation for total residual chlorine.
4. Carrying for the NPDES permit number of ME0090379.

This permitting action is different from the 10/19/92 State permitting action and 10/30/92 federal permitting action in that it is:

5. Establishing monthly average, weekly average, and daily maximum technology-based mass limitations for BOD₅ and TSS;
6. Establishing a requirement to achieve a minimum 30-day average of 85 percent removal for BOD₅ and TSS;
7. Modifying the daily maximum concentration limit for fecal coliform bacteria to be consistent with standards in the National Shellfish Sanitation Program;

2. PERMIT SUMMARY

8. Eliminating the weekly average technology based concentration limits for settleable solids.
 9. Establishing a requirement for the permittee to have a site evaluation performed by a licensed site evaluator with experience in designing systems for the replacement of overboard discharge systems prior the expiration date of the permit.
 10. Establishing a requirement for the permitte to pump the septic tank at a minimum of once every three years.
- c. Facility History: This section provides a summary of the most significant regulatory actions for the Town's facility.
- March 14, 1974* – The EPA issued NPDES permit #ME0090379 to the U.S. Coast Guard for a five-year term.
- October 30, 1979* – The EPA issued NPDES permit renewal #ME0090379 to the U.S. Coast Guard for a five-year term.
- June 10, 1980* – The Department issued WDL #3157 renewal to the U.S. Coast Guard for a five-year term.
- February 12, 1987* - The Department issued WDL renewal #W003157-45-A-R to the U.S. Coast Guard for a three-year term.
- October 19, 1992* – The Department issued Conditional Permit #W003157-58-B-R to the U.S. Coast Guard for a five-year term.
- November 30, 1992* – The Department issued a Conditional Permit Transfer Order. The Order transferred the 10/19/92 overboard discharge permit from the U.S. Coast Guard to the Town of Cape Elizabeth.
- February 14, 2007* – The Town of Cape Elizabeth submitted a complete application to the Department to renew the Conditional Permit for the lighthouse and museum.
- d. Replacement Options: The Town has submitted documentation with the 2/14/07 application indicating that replacement options are not technically feasible at this location due to the shallow depth to bedrock (approximately 10 inches). See Section 6(a) of this Fact Sheet.

3. CONDITIONS OF PERMIT

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(1) states that the tidewaters of Casco Bay at the point of discharge are classified as Class SB waters. Maine law 38 M.R.S.A. §465(B)(2) contains the classification standards for Class SB waterbodies.

5. RECEIVING WATER QUALITY CONDITIONS

The State of Maine's Department of Marine Resources (DMR) has designated Shellfish Harvesting Area #13-A (See Attachment B of this Fact Sheet) as being closed to the harvesting of shellfish due to elevated levels of fecal coliform bacteria. The DMR by default, closes shellfish harvesting areas in the vicinity of overboard discharges due to the risks associated with the failure of the disinfection systems.

The 305b Report lists all of Maine's fresh waters as, "*Category 4-B-3: Waters Impaired by Atmospheric Deposition of Mercury. Regional or National TMDL may be Required.*" Impairment in this context refers to a statewide fish consumption advisory due to elevated levels of mercury in some fish tissues. Department rule Chapter 519, *Interim Effluent Limitations and Controls for the Discharge of Mercury*, establishes controls on the discharge of mercury to the surface waters of the State through interim effluent limits and implementation of pollution prevention plans. However, Section 1(A)(1) of the Chapter 519 rule states in part:

"This rule applies to all persons licensed or permitted pursuant to 38 MRSA §413 to discharge pollutants to the surface waters of the State except as described below. For the purposes of this rule, the term licensee also means permittee.

- (1) Categorical exclusions. This rule does not apply to the following categories of licensees: combined sewer overflows, snow dumps, pesticide applications, and over board discharges licensed pursuant to 38 MRSA §413.[emphasis added] Except, however, specific members of these categories may be required by the department to comply with this rule on a case by case basis..."

The Department has no information at this time that the discharge from the Town's lighthouse facility causes or contributes to the impairment status of the receiving waterbody.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

- a. Best Practicable Treatment (BPT) - Overboard discharges may be permitted only where no technologically proven alternative exists. Overboard discharge treatment systems must be capable of meeting secondary treatment standards as described in CMR Chapter 525, Section 3 and Chapter 596 section 9, unless the Department finds that alternate limits are appropriate. After accepting a renewal application as complete for processing, the Department shall approve an overboard waste discharge license only if all of the following criteria are met.
- (1) A publicly owned sewer line is not located on or abutting land owned or controlled by the applicant or is not available for the applicant's use.
 - (2) A subsurface wastewater disposal system cannot be installed in compliance with the Subsurface Rules, 10-144 CMR 241, on land owned or controlled by the applicant. Or, a subsurface wastewater disposal system can be installed on land owned or controlled by the applicant and the applicant is eligible for grant funding pursuant to 38 M.R.S.A § 411-A but no funding is available.
 - (3) The discharge is not located within the boundaries of a sanitary or sewer district and the district has not agreed to service and maintain a holding tank at an annual fee that does not exceed those fees charged to other similar users of the district's services who are physically connected to the sewers of the district.
 - (4) The volume or quantity of waste water that is discharged does not exceed the limit imposed by the previous license.
 - (5) The receiving water is not:
 - (a) A Class GPA, AA, A, or SA water;
 - (b) A tributary to Class GPA water; or
 - (c) A waterbody with a drainage area of less than 10 square miles,
 - (6) The discharge meets the requirements of *Maine's Pollution Control Laws* 38 M.R.S.A. §414-A, and *Maine's Water Classification Laws* 38 M.R.S.A. §§ 464 to 469.
 - (7) The discharge receives best practicable treatment consistent with requirements in Section 9 of Department rule Chapter 596.

The Department has made the determination that the Town has met all the criteria specified above.

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

- b. Flow: The previous licensing action established a weekly average discharge flow limitation of 500 gallons per day (gpd) based on the design flow for the treatment system. The design flow is calculated using a sand filter bed loading factor of 1.05 gallons per day per square foot of filter bed and a total sand filter bed area of approximately 600 square feet.

Department rule, 06-096 CMR Chapter 523 Section 6(b)(1), specifies, "*effluent limitations, standards, or prohibitions shall be calculated based on design flow.*" This permitting action is carrying forward the discharge flow limit of 500 gpd but is establishing it as a daily maximum limit to be consistent with other OBD permitting actions by the Department. The limit is considered representative of the design flow for the facility.

- c. Biochemical Oxygen Demand (BOD₅) and Total Suspended Solids (TSS): The previous State licensing action established technology-based monthly average and daily maximum BOD₅ and TSS concentration limits of 30 mg/L and 60 mg/L, respectively. The previous federal permitting action established technology-based monthly average, weekly average and daily maximum BOD₅ and TSS concentration limits of 30 mg/L, 45 mg/L and 50 mg/L respectively. The monthly average and weekly average concentration limits in the federal permitting action were based on secondary treatment requirements of the Clean Water Act of 1977 §301(b)(1)(B), and as defined more recently in Department rule, 06-096 CMR Chapter 525(3)(III). The daily maximum BOD₅ and TSS concentration limits of 50 mg/L were based on an EPA best professional judgment (BPJ) of best practicable treatment (BPT). This permitting action is carrying forward all three technology based concentration limitations.

The previous licensing action did not establish mass limitations for BOD₅ and TSS. Department rule Chapter 523, *Waste Discharge License Conditions*, Section 6, *Calculating NPDES permit conditions*, sub-section f(1) states that, "*all pollutants limited in permits shall have limitations, standards or prohibitions expressed in terms of mass....*" Therefore, this permitting action is establishing monthly average, weekly average and daily maximum BOD₅ and TSS mass limitations based on calculations using the design flow for the facility of 500 gpd (0.0005 MGD) and the applicable concentration limits as follows:

Monthly Average Mass Limit: $(30 \text{ mg/L})(8.34 \text{ lbs./gallon})(0.0005 \text{ MGD}) = 0.1 \text{ lbs/day}$

Weekly Average Mass Limit: $(45 \text{ mg/L})(8.34 \text{ lbs./day})(0.0005 \text{ MGD}) = 0.2 \text{ lbs/day}$

Daily Maximum Mass Limit: $(50 \text{ mg/L})(8.34 \text{ lbs./day})(0.0005 \text{ MGD}) = 0.2 \text{ lbs/day}$

This permitting action is also establishing a new requirement for a minimum of 85% removal of BOD₅ and TSS pursuant to Chapter 525(3)(III)(a)(3) and (b)(3) of the Department's rules. The Town's waste water treatment system does not have an influent sampling location that is representative of raw waste water conditions. According to the USEPA's Onsite Wastewater Treatment Systems Manual, dated February 2002, table 3-7 entitled "*Constituent Mass Loadings and Concentrations in Typical Residential Wastewater*" a reasonable influent value for BOD₅ and TSS may be assumed to be 286 mg/L. Therefore, if the permittee is ever required to demonstrate compliance with the 85% removal limitation, this permitting action authorizes the permittee to assume an influent BOD₅ and TSS concentration value of 286 mg/L for purposes of calculating the monthly percent removal value until such time that the infrastructure is modified or replaced such that collection of a representative raw influent sample is practical.

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

- e. Settleable Solids: The previous State licensing action established a daily maximum technology based concentration limit of 0.1 ml/L for settleable solids. The previous federal permitting action established weekly average and daily maximum technology based concentration limits of 0.1 ml/L and 0.3 mL respectively, for settleable solids. The Department has since reconsidered its position on the imposition for settleable solids for OBD's and to be consistent with BPT limits established for all other MEPDES permits issued for like discharges, the Department has concluded that a daily maximum concentration limit of 0.3 ml/L is an appropriate BPT limitation. Therefore, this permitting action is establishing a daily maximum limit of 0.3 ml/L.
- f. Fecal coliform bacteria: The previous State licensing action established a daily maximum technology based year-round daily maximum concentration limit for fecal coliform bacteria of 200 colonies/100 ml. The previous federal permitting action established monthly average, weekly average and daily maximum water quality based limitations of 15 colonies/100 ml respectively, for fecal coliform bacteria. The monthly average value of 15 colonies/100 ml is consistent with the limitation in the National Shellfish Sanitation Program (NSSP) but it is unclear as to the origin of the weekly average and daily maximum limits. The permit was silent as to whether the limitations were effective seasonally (May 15th – September 30th) to be consistent with the time frame in which State law imposes fecal coliform bacteria standards or in effect during the entire discharge season for the Town facility, generally June through November. This permitting action is establishing a monthly average (geometric mean) concentration limitation of 15 colonies /100 ml and a daily maximum concentration limit of 50 colonies/100 ml. Both limits are consistent with the NSSP and all other like permitting actions by the Department. To be consistent with other like permits issued by the Department and consistent with Maine law found at 38 M.R.S.A., Section 465-B(2)(B), this permitting action is establishing May 15th – September 30th as the season in which the limitations are in effect.
- g. Total Residual Chlorine (TRC): The previous licensing action established a daily maximum technology based concentration limit of 1.0 mg/L for TRC while the federal permitting action did not establish any limitations 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.

The Department has established a daily maximum BPT limitation of 1.0 mg/L for facilities that disinfect their effluent with chlorine-based compounds. For facilities that 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 does not have to dechlorinate the effluent to achieve compliance with water quality-based limitations.

By way of best professional judgment, the Department has determined there is sufficient initial dilution with the receiving water such that a daily maximum technology-based effluent TRC concentration limitation of 1.0 mg/L is more stringent than a water quality-based threshold and is therefore being carried forward in this permitting action.

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

- h. **pH:** The previous licensing action established a pH range limit of 6.0 – 8.5 standard units (SU), considered by the Department at the time, as BPT for secondary treated waste water. Pursuant to Department rule found at Chapter 525(3)(III)(c), (promulgated subsequent to issuance of the previous licensing action) the pH range limitation is being revised to 6.0 – 9.0 SU, which is considered BPT for secondary treated wastewater.
- i. **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 dischargers subject to the rule as, *“all licensed dischargers of industrial process wastewater or domestic wastes discharging to surface waters of the State must meet the testing requirements of this section. Dischargers of other types of wastewater are subject to this subsection when and if the Department determines that toxicity of effluents may have reasonable potential to cause or contribute to exceedences of narrative or numerical water quality criteria.”*

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 Town's facility is exempt from the Chapter 530 requirements as it permitted to discharge less than 50,000 gpd, the chronic dilution factor is greater than 50:1 and the waste water has domestic-like characteristics. However, should there be a substantial change in the characteristics of the discharge in the future, the Department may reopen this permit pursuant to Special Condition I, *Reopening of Permit for Modifications*, to incorporate the applicable whole effluent toxicity (WET), priority pollutant or analytical testing requirements cited above.

7. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

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

8. PUBLIC COMMENTS

Public notice of this application was made in a local newspaper on or about February 14, 2007. 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

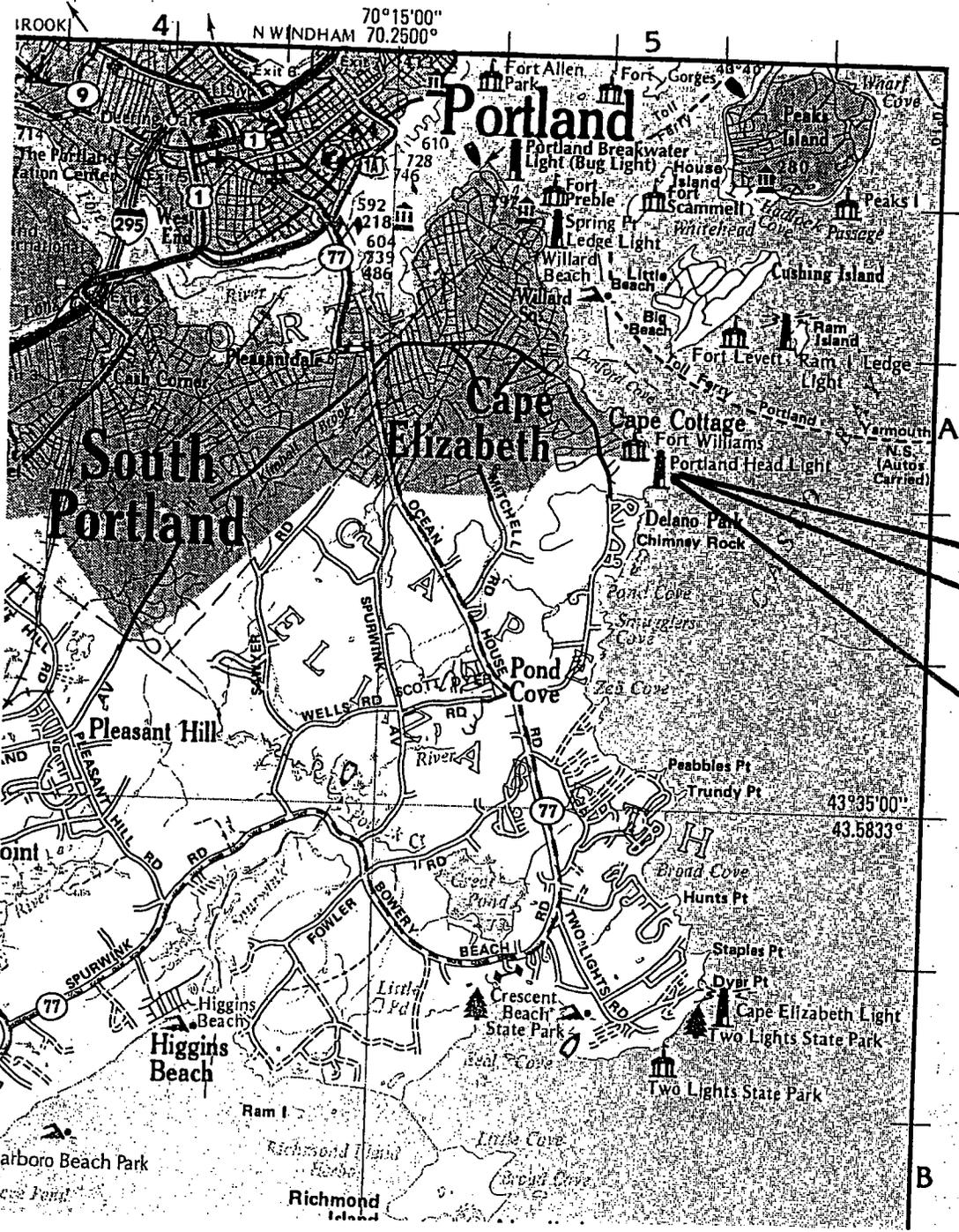
Additional information concerning this permitting action may be obtained from, and written comments sent to:

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) 287-6301
e-mail: gregg.wood@maine.gov

10. RESPONSE TO COMMENTS

During the period of March 21, 2007, 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 Town of Cape Elizabeth's waste water treatment facility at Portland Head Light. 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.

ATTACHMENT A



**TOWN
FACILITY**

ATTACHMENT B



Maine Department of Marine Resources

Pollution Closed Area No. 13-A

11/6/06



Portland Area (Cape Elizabeth to Cumberland)

