



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

November 28, 2005

JOHN ELIAS BALDACCI

GOVERNOR

DAWN R. GALLAGHER

COMMISSIONER

Mrs. Laurel Ritter
2336 Stone Valley Road
Alamo, CA 94507

Mr. Adolph Neuber
737 W North Street
Carlisle, PA 17013-2227

**RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0036781
Maine Waste Discharge License (WDL) Application #W004110-5B-B-R
Final MEPDES Permit/WDL**

Dear Mrs. Ritter and Mr. Neuber:

Enclosed, please find a copy of your **final** MEPDES permit and Maine WDL which was approved by the Department of Environmental Protection. This permit/license for your facility replaces National Pollutant Discharge Elimination System (NPDES) permit #ME0036781 last issued for your facility by the Environmental Protection Agency (EPA) on May 14, 1975. Please read the permit/license 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.*"

We would like to make you aware of the fact that your monthly Discharge Monitoring Reports (DMRs) may not reflect the revisions in this permitting action for several months however, you are required to report applicable test results for parameters required by this MEPDES permit/WDL that do not appear on the DMR. Please see attached April 2003 O&M Newsletter article regarding this matter.

If you have any questions regarding the matter, please feel free to call me at 287-7659.

Sincerely,

Bill Hinkel
Division of Water Resource Regulation
Bureau of Land and Water Quality

Enc.

cc: Chris Johnson, DEP

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

Roger Janson, USEPA

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

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

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769-2094
(207) 764-0477 FAX: 764-1507

DMR Lag

When the Department renews discharge permits, the parameter limits may change or parameters may be added or deleted. In some cases, it is merely the replacement of the federally issued NPDES permit with a state-issued MEPDES permit that results in different limits. When the new permit is finalized, a copy of the permit is passed to our data entry staff for coding into EPA's Permits Compliance System (PCS) database. PCS was developed in the 1970's and is not user-friendly. Entering or changing parameters can take weeks or even months.

This can create a lag between the time your new permit becomes effective and the new permit limits appearing on your DMRs. If you are faced with this, it can create three different situations that have to be dealt with in different ways.

1. If the parameter was included on previous DMRs, but only the limit was changed, there will be a space for the data. Please go ahead and enter it. When the changes are made to PCS, the program will have the data and compare it to the new limit.
2. When a parameter is eliminated from monitoring in your new permit, but there is a delay in changing the DMR, you will have a space on the DMR that needs to be filled. For a parameter that has been eliminated, please enter the space on the DMR for that parameter only with "NODI-9" (No Discharge Indicator Code #9). This code means monitoring is conditional or not required this monitoring period.
3. When your new permit includes parameters for which monitoring was not previously required, and coding has not caught up on the DMRs, there will not be any space on the DMR identified for those parameters. In that case, please fill out an extra sheet of

paper with the facility name and permit number, along with all of the information normally required for each parameter (parameter code, data, frequency of analysis, sample type, and number of exceedances). Each data point should be identified as monthly average, weekly average, daily max, etc. and the units of measurement such as mg/L or lb/day. Staple the extra sheet to the DMR so that the extra data stays with the DMR form. Our data entry staff cannot enter the data for the new parameters until the PCS coding catches up. When the PCS coding does catch up, our data entry staff will have the data right at hand to do the entry without having to take the extra time to seek it from your inspector or from you.

EPA is planning significant improvements for the PCS system that will be implemented in the next few years. These improvements should allow us to issue modified permits and DMRs concurrently. Until then we appreciate your assistance and patience in this effort.

Phil Garwood



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

DEPARTMENT ORDER

IN THE MATTER OF

CRESCENT BEACH ASSOCIATION	)	MAINE POLLUTANT DISCHARGE
OVERBOARD DISCHARGE	)	ELIMINATION SYSTEM PERMIT
OWLS HEAD, KNOX COUNTY	)	AND
#ME0036781	)	WASTE DISCHARGE LICENSE
#W004110-5B-B-R	)	RENEWAL
APPROVAL		

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

APPLICATION SUMMARY

The Crescent Beach Association has applied to the Department for renewal of Waste Discharge License (WDL) #W004110-40-A-R, which was issued on September 18, 1990 and expired on September 18, 1995. The WDL authorized the daily maximum, year-round discharge of up to 2,700 gallons per day (GPD) of secondary treated sanitary wastewater from a ten-unit condominium complex to the Atlantic Ocean at Fisherman Island Passage, Class SB, in Owls Head, Maine.

On January 12, 2001, the Department received authorization from the U.S. Environmental Protection Agency (USEPA) to administer the National Pollutant Discharge Elimination System (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 #ME0036781 will be utilized as the primary reference number for Crescent Beach Association's MEPDES permit. It is noted that the previous licensing action utilized a Permit Compliance System (PCS) tracking number of MEU504110 for the management of effluent compliance data for this facility which is being replaced by the above referenced MEPDES number.

PERMIT SUMMARY

This permitting action is similar to the 9/18/90 licensing action in that it is:

1. Carrying forward authorization to discharge up to 2,700 gallons per day (GPD) of treated sanitary wastewater on a year-round basis;
2. Carrying forward the monthly average and daily maximum technology-based concentration and mass limits for biochemical oxygen demand (BOD₅) and total suspended solids (TSS);
3. Carrying forward the daily maximum technology-based concentration limitation for settleable solids;
4. Carrying forward the monthly average concentration limit for fecal coliform bacteria; and
5. Carrying forward the daily maximum technology-based concentration limit for total residual chlorine (TRC).

This permitting action is different from the 9/18/90 licensing action in that it is:

1. Eliminating Permit Compliance System (PCS) tracking number MEU504110 and assigning a new MEPDES permit number of ME0036781 for this facility;
2. Establishing weekly average technology-based concentration and mass limits for BOD₅ and TSS;
3. Establishing a requirement to achieve a minimum 30-day average of 85 percent removal for BOD₅ and TSS;
4. Eliminating the monthly average concentration limitation of 0.1 ml/L for settleable solids;
5. Revising the daily maximum concentration limitation for fecal coliform bacteria from 15 colonies/100 ml to 50 colonies/100 ml;
6. Revising the pH range limitation to 6.0 – 9.0 standard units;
7. Revising the minimum monitoring frequency requirements for all monitored parameters; and
8. Requiring the submission of a revised Operation and Maintenance (O&M) manual for Department review and comment.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated November 23, 2005, 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 could 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 CRESCENT BEACH ASSOCIATION to discharge a monthly average flow of up to 2,700 gallons per day of secondary treated sanitary wastewater to the Atlantic Ocean at Owls Head, Class SB, in Owls Head, 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. The expiration date of this permit is five (5) years from the date of signature below.

DONE AND DATED AT AUGUSTA, MAINE, THIS 29th DAY OF November, 2005.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

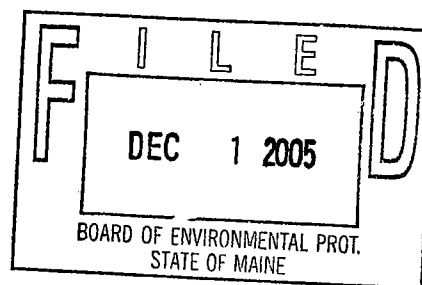
BY: _____

DAWN R. GALLAGHER, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: July 8, 1997

Date of application acceptance: July 8, 1997



Date filed with Board of Environmental Protection: _____

This Order prepared by William F. Hinkel, BUREAU OF LAND & WATER QUALITY
#ME0036781 / #W004110-5B-B-R November 23, 2005

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- During the period beginning the effective date of this permit and lasting through permit expiration, the permittee is authorized to discharge secondary treated sanitary wastewater from Outfall #001A to the Atlantic Ocean at Owls Head. Such discharges shall be limited and monitored by the permittee as specified below⁽¹⁾:

Effluent Characteristic	Discharge Limitations					Monitoring Requirements		
	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow [50050]	as specified 2,700 GPD [07]	--	--	--	--	--	as specified	as specified
BOD ₅ ⁽³⁾ [00310]	0.7 lbs./day [26]	1.0 lbs./day [26]	1.1 lbs./day [26]	30 mg/L [19]	45 mg/L [19]	50 mg/L [19]	Quarterly ⁽²⁾ [01/90]	Metered [MT]
TSS ⁽³⁾ [00530]	0.7 lbs./day [26]	1.0 lbs./day [26]	1.1 lbs./day [26]	30 mg/L [19]	45 mg/L [19]	50 mg/L [19]	Quarterly ⁽²⁾ [01/90]	Grab [GR]
Settleable Solids [00545]	--	--	--	--	--	0.3 ml/L [25]	Quarterly ⁽²⁾ [01/90]	Grab [GR]
Fecal Coliform Bacteria ⁽⁴⁾ [31616] May 15-Sept. 30	--	--	--	15/100 ml ⁽⁵⁾ [13]	--	50/100 ml [13]	1/Month ⁽⁶⁾ [01/30]	Grab [GR]
Total Residual Chlorine [50060]	--	--	--	--	--	1.0 mg/L [19]	1/Month ⁽⁷⁾ [01/30]	Grab [GR]
pH [00400]	--	--	--	--	--	6.0 – 9.0 SU [12]	Quarterly ⁽²⁾ [01/90]	Grab [GR]

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** – 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 secondary effluent chamber following the chlorination unit.**, or other location specified by the Department. 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 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 Human Services.
2. **Quarterly Monitoring** – Quarterly monitoring is required for all parameters (except bacteria) during the months of **March, June, September and December**. The permittee shall also conduct effluent monitoring during the months of **July and August**. For the purposes of Discharge Monitoring Report (DMR) reporting during months when effluent monitoring is not required, enter "**NODI-9**" indicating "**monitoring not required this monitoring period.**"
3. **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 calculated based on assumed BOD₅ and TSS influent values of 300 mg/L and actual effluent concentration values.
4. **Bacteria Limits** – Fecal coliform bacteria limits and monitoring requirements are seasonal and apply between May 15 and September 30 of each year. The Department reserves the right to require year-round disinfection to protect the health, safety and welfare of the public.
5. **Bacteria Reporting** – The monthly average fecal coliform bacteria limitation is a geometric mean limitation and sample results shall be reported as such.
6. **Bacteria Monitoring Period** – Monthly monitoring for fecal coliform bacteria is required during the months of **May, June, July, August and September** only.
7. **TRC Monitoring** – Monthly monitoring for total residual chlorine is required during the months of **May, June, July, August and September** only, or any time when elemental chlorine or chlorine-based compounds are in use for effluent disinfection. For instances when a facility has not disinfected with chlorine-based compounds for an entire reporting period, the facility shall report "**NODI-9**" for this parameter on the monthly DMR.

SPECIAL CONDITIONS

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 anniversary 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.

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*," above.

SPECIAL CONDITIONS

E. 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 **postmarked on or before the thirteenth (13th) day of the month or hand-delivered to the Department's Regional Office such that the DMR's are received by the Department on or before the fifteenth (15th) day of the month** following the completed reporting period. A signed copy of the DMR and all other reports required herein shall be submitted to the following address:

Department of Environmental Protection
Bureau of Land and Water Quality
Division of Water Resource Regulation
17 State House Station
Augusta, ME 04333-0017

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. UNAUTHORIZED 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 are not authorized under this permit, and shall be reported in accordance with Standard Condition B(5), *Bypasses*, of this permit.

Discharges of a volume or quantity of wastewater that were not licensed as of June 1, 1987 are prohibited by this permit. Maine law, 38 M.R.S.A. §464(4)(6). Increases in the volume or quantity of wastewater discharged are not authorized by this permit.

SPECIAL CONDITIONS

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. EMERGENCY BACK-UP POWER

During power failure, all wastewaters which are normally treated shall receive a minimum of primary treatment and disinfection. Unless otherwise approved, alternate power supplies shall be provided for pumping stations and treatment facilities. Alternate power supplies shall be on-site generating units or an outside power source which is separate and independent from sources used for normal operation of the wastewater facilities.

J. OPERATION & MAINTENANCE (O&M) PLAN

On or before June 1, 2006, the permittee shall submit to the Department a current written comprehensive Operation & Maintenance (O&M) Plan [*PCS Code 09699*]. 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. The plan shall also provide a systematic approach by which the permittee shall, during periods of wet weather events, ensure proper operation and maintenance of the treatment system.

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

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.

L. 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
WASTE DISCHARGE LICENSE**

FACT SHEET

Date: **NOVEMBER 23, 2005**

MEPDES PERMIT: **#ME0036781**
WASTE DISCHARGE LICENSE: **#W004110-5B-B-R**

NAME AND ADDRESS OF APPLICANT:

**CRESCENT BEACH ASSOCIATION
120 BELLEVUE STREET UNIT 3
OWLS HEAD, MAINE 04854**

COUNTY: **KNOX**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

**CRESCENT BEACH ASSOCIATION
BELLEVUE STREET
OWLS HEAD, MAINE 04854**

RECEIVING WATER / CLASSIFICATION: **CRESCENT BEACH / CLASS SB
(ATLANTIC OCEAN AT OWLS HEAD)**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER:

**MRS. LAUREL RITTER, TREASURER
(207) 594-0612 (925) 837-8340**

**MR. ADOLPH NEUBER (207) 594-5880
MR. PAUL FOWLES (207) 594-5593**

1. APPLICATION SUMMARY

Application: The Crescent Beach Association has applied to the Department of Environmental Protection (Department) for renewal of Waste Discharge License (WDL) #W004110-40-A-R, which was issued on September 18, 1990 and expired on September 18, 1995. The WDL authorized the daily maximum discharge of up to 2,700 gallons per day (GPD) of secondary treated sanitary wastewater from a ten-unit condominium complex to the Atlantic Ocean at Fisherman Island Passage, Class SB, in Owls Head, Maine.

2. PERMIT SUMMARY

- a. Regulatory: On January 12, 2001, the Department received authorization from the U.S. Environmental Protection Agency (USEPA) to administer the National Pollutant Discharge Elimination System (NPDES) permit program in Maine, excluding areas of special interest to Maine Indian Tribes. On October 30, 2003, after consultation with the U.S. Department of Justice, the USEPA extended Maine's NPDES program delegation to all but tribally owned lands. In those areas, the Department maintains the authority to issue WDLs pursuant to Maine law. The extent of Maine's delegated authority is under appeal at the time of this permitting action. From that point forward, the program has been referred to as the Maine Pollutant Discharge Elimination System (MEPDES) program and permit #ME0036781 will be utilized as the primary reference number for Crescent Beach Association's MEPDES permit.
- b. Terms and Conditions: **This permitting action is similar to the 9/18/90 licensing action in that it is:**
 1. Carrying forward authorization to discharge up to 2,700 gallons per day (GPD) of treated sanitary wastewater on a year-round basis;
 2. Carrying forward the monthly average and daily maximum technology-based concentration and mass limits for biochemical oxygen demand (BOD₅) and total suspended solids (TSS);
 3. Carrying forward the daily maximum technology-based concentration limitation for settleable solids;
 4. Carrying forward the monthly average concentration limit for fecal coliform bacteria; and
 5. Carrying forward the daily maximum technology-based concentration limit for total residual.

This permitting action is different from the 9/18/90 licensing action in that it is:

1. Eliminating Permit Compliance System (PCS) tracking number MEU504110 and assigning a new MEPDES permit number of ME0036781 for this facility;
2. Establishing weekly average technology-based concentration and mass limits for BOD₅ and TSS;
3. Establishing a requirement to achieve a minimum 30-day average of 85 percent removal for BOD₅ and TSS;
4. Eliminating the monthly average concentration limitation of 0.1 ml/L for settleable solids;
5. Revising the daily maximum concentration limitation for fecal coliform bacteria from 15 colonies/100 ml to 50 colonies/100 ml;
6. Revising the pH range limitation to 6.0 – 9.0 standard units;
7. Revising the minimum monitoring frequency requirements for all monitored parameters; and
8. Requiring the submission of a revised Operation and Maintenance (O&M) manual for Department review and comment.

2. PERMIT SUMMARY (cont'd)

- c. Facility History: This section provides a summary of significant licensing/permitting actions that have been completed for the Crescent Beach Association.

September 18, 1990 – The Department issued WDL #W004110-40-A-R to the Crescent Beach Association for the daily maximum discharge of up to 2,700 GPD of secondary treated sanitary wastewater to tidewaters of Owls Head. It is noted that the previous license referred to the receiving water as Fisherman Island Passage, which is an area of the Atlantic Ocean at Owls Head. The 9/18/90 WDL superseded WDL #4110 issued on October 19, 1982.

July 8, 1997 – The Crescent Beach Association submitted a General Application for renewal of WDL #W004110-40-A-R. The application was accepted for processing on July 8, 1997, and assigned WDL #W004110-5B-B-R / MEPDES permit #ME0036781.

April 2, 2004 – The permittee submitted a letter, as addendum to their renewal application, from Charles B. Dolham, P.E. Soil Testing & Septic Design, dated March 26, 2004, which states that an evaluation of the property indicates that there is insufficient space for the installation of a subsurface wastewater disposal system on the site.

- d. Source Description: The Crescent Beach Association consists of a ten-unit condominium complex and two single-family dwellings. Each of the ten condo units contain two units (20 total bedrooms) and are located on a parcel of land referred to as Lot # 6 of local tax map #7. The two single-family dwellings contain a total of 3 bedrooms each and are located on separate parcels referred to as Lots 2 and 4 on tax map #7. All three parcels are located on Bellevue Avenue in Owls Head. The Crescent Beach Association owns and operates the sanitary wastewater collection and treatment system on Lot #6. All wastewater generated by these residential properties is conveyed to the treatment system to receive a secondary level of treatment. There are no industrial or commercial users connected to the Crescent Beach Association's collection and treatment systems.

The residences and treatment system are occupied intermittently and seasonally such that little to no wastewater flows are conveyed to the treatment system between October and April of each year. Therefore, effluent monitoring is not required between October 1 and April 30 of each year. The Department reserves the right to reopen this permit in accordance with Special Condition N to require year-round effluent monitoring if determined to be necessary.

A map showing the location of the Crescent Beach Association properties and the approximately location of the outfall (#001A) associated with the wastewater treatment system is included as Fact Sheet Attachment A.

- e. Wastewater Treatment: Crescent Beach Association provides a secondary level of wastewater treatment via a sand filtration system which was installed in 1959. Raw wastewater is conveyed by gravity to a 3,000-gallon septic tank for primary settling of solids. The permittee indicated the septic tank is pumped once every three years to prevent excessive solids accumulation. Septic tank supernatant flows to an adjacent tank (primary effluent chamber) and is then pumped via a 2-inch diameter polyvinyl chloride (PVC) force main to an outlet distribution box and four (4) 4-inch diameter PVC distribution pipes. Wastewater is distributed to a 32-foot wide by 40-foot long

2. PERMIT SUMMARY (cont'd)

(1,280 square foot) sand filter bed, which is designed to provide a secondary level of treatment through biological decomposition and physical filtration. Wastewater flows down through the filter media and is collected in a 4-inch diameter, perforated PVC collection pipe. Filtered wastewater is conveyed to a chamber containing a wastewater disinfection tablet feed system for seasonal (May through September) disinfection using chlorine tablets. Final effluent flows to a secondary effluent chamber from which effluent samples shall be collected for compliance demonstration purposes.

Final effluent is conveyed for discharge to the Atlantic Ocean at Owls Head via a 4-inch diameter outfall pipe that extends out into the receiving water approximately 300 feet to a depth of approximately 3 feet below the water surface at mean low water.

A schematic of the wastewater treatment process is included as Fact Sheet Attachment B.

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., §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 the Atlantic Ocean at the point of discharge in Owls Head, as Class SB waters. Maine law, 38 M.R.S.A. §465-B(2) describes the standards for Class SB waters.

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 Howard Cove (Waterbody # 722-9) as, "Category 2: Estuarine and Marine Waters Attaining Some Designated Uses – Insufficient Information for Other Uses." "Insufficient information for other uses" in this context refers to the designated use of shellfish harvesting.

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

5. RECEIVING WATER QUALITY CONDITIONS (cont'd)

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 #C29-A 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 Crescent Beach Association 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 a daily maximum discharge flow limitation of 2,700 gallons per day (GPD) (equivalent to 0.0027 million gallons per day, MGD) based on a hydraulic sand filter loading rate of 2 gallons per day per square foot filter area. For consistency with the limits established in permits for other sanitary wastewater treatment facilities, this permitting action is establishing the discharge flow limit of 2,700 GPD as a monthly average rather than a daily maximum limitation. Discharge flow limitations and monitoring requirements are in effect on a year-round basis; however, compliance monitoring is required quarterly during the months of **March, June, September and December**. The permittee shall also conduct effluent monitoring during the months of **July and August** when sanitary flows to the system are expected to be highest.

b. Dilution Factors: Department rule, 06-096 CMR Chapter 530(4)(A)(2)(a), *Surface Water Toxics Control Program*, states that, "For discharges to the ocean, dilution must be calculated as near-field or initial dilution, or that dilution available as the effluent plume rises from the point of discharge to its trapping level, at mean low water level and slack tide for the acute exposure analysis, and at mean tide for the chronic exposure analysis using appropriate models determined by the Department such as MERGE, CORMIX or another predictive model." Based on the configuration of the outfall structure and a discharge flow limit of 2,700 GPD, dilution factors associated with the discharge are as follows:

Acute: 662:1 Chronic: 3,014:1 Harmonic Mean: 9,042:1

c. Biochemical Oxygen Demand (BOD₅) and Total Suspended Solids (TSS): The previous licensing action established monthly average BOD₅ & TSS concentration limits of 30 mg/L based on secondary treatment requirements of the Clean Water Act of 1977 §301(b)(1)(B), as defined in 40 CFR 133.102, and Department rule, 06-096 CMR Chapter 525(3)(III), and monthly average BOD₅ & TSS mass limits of 0.7 lbs./day. The previous licensing action also established daily maximum TSS and BOD₅ concentration limits of 50 mg/L based on a Department best professional judgement (BPJ) of best practicable treatment (BPT) and daily maximum BOD₅ & TSS mass limits of 1.1 lbs./day.

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

The secondary treatment requirements of the Clean Water Act and Department rule Chapter 525(3)(III) require the establishment of weekly average BOD₅ and TSS concentration limits of 45 mg/L. In addition, Department rule 06-096 CMR Chapter 523(6)(f) states that all pollutants limited in permits shall have limitations, standards or prohibitions expressed in terms of mass.

Therefore, this permitting action is carrying forward the monthly average and daily maximum BOD₅ & TSS concentration and mass limits and is establishing weekly average BOD₅ & TSS concentration and mass limits of 45 mg/L and 1.0 lbs./day. Mass limits were derived based on the discharge flow limit and applicable concentration limits as follows:

Monthly Average Mass Limit: $(30 \text{ mg/L})(8.34 \text{ lbs./gallon})(0.0027 \text{ MGD}) = 0.7 \text{ lbs./day}$
Weekly Average Mass Limit: $(45 \text{ mg/L})(8.34 \text{ lbs./day})(0.0027 \text{ MGD}) = 1.0 \text{ lbs./day}$
Daily Maximum Mass Limit: $(50 \text{ mg/L})(8.34 \text{ lbs./day})(0.0027 \text{ MGD}) = 1.1 \text{ lbs./day}$

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 existing treatment system is not equipped with a representative sampling port prior to primary settling in the septic tank. Thus, the Crescent Beach wastewater treatment system does not contain an influent sampling location that is representative of raw wastewater 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" high end range of values, influent values for BOD₅ and TSS may be assumed to be 300 mg/L. Therefore, this permitting action authorizes Crescent Beach Association to assume an influent BOD₅ and TSS concentration value of 300 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.

This permitting action is carrying forward a "grab" sample type based on Department guidance for overboard discharge systems permitted to discharge between 2,000 and 4,999 GPD, and is revising the minimum monitoring frequency requirement from once per month to once per quarter during the months of **March, June, September and December**. The permittee shall also conduct effluent monitoring during the months of **July and August** when sanitary flows to the system are expected to be highest. Monitoring frequencies are based on a Department BPJ determination of the appropriate monitoring frequency for this facility.

- d. Settleable Solids: The previous licensing action established monthly average and daily maximum technology-based concentration limits of 0.1 ml/L and 0.3 ml/L, respectively, for settleable solids. The previous license specified that settleable solids monitoring was to be performed during the months of May, June, July and August only.

The Department has since reconsidered the limits for settleable solids and has concluded that a daily maximum concentration limit of 0.3 ml/L provides sufficient information to assess whether the treatment facility is providing BPT. Therefore, this permitting action is eliminating the monthly average concentration limit of 0.1 ml/L and is carrying forward the daily maximum limit of

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

0.3 ml/L as a year-round limitation. This permitting action is carrying forward the “grab” sample type and is revising the minimum monitoring frequency requirement from once per month to once per quarter during the months of **March, June, September and December**. The permittee shall also conduct effluent monitoring during the months of **July and August** when sanitary flows to the system are expected to be highest. Monitoring frequencies are based on a Department BPJ determination of the appropriate monitoring frequency for this facility.

- e. Fecal Coliform Bacteria: The previous licensing action established a seasonal (May through August) concentration limit of 15 colonies/100 ml as both monthly average (geometric mean) and daily maximum (instantaneous level) limitations. The daily maximum limit is not consistent with the National Shellfish Sanitation Program or the limits established in permits for other sanitary wastewater discharges in Maine. In this permitting action, the Department is correctly establishing (revising) the daily maximum concentration bacteria limit to 50 colonies/100 ml (instantaneous level), and is carrying forward the monthly average limit of 15 colonies/100 ml (geometric mean).

The bacteria limits established in this permitting action are seasonal and apply between May 15 and September 30 of each year. The Department reserves the right to require year-round disinfection to protect the health, safety and welfare of the public.

This permitting action is carrying forward the “grab” sample type and is revising the minimum monitoring frequency requirement from once per month to monthly during the months of **May, June, July, August and September** only. Monitoring frequencies are based on a Department BPJ determination of the appropriate monitoring frequency for this facility.

- f. Total Residual Chlorine (TRC): The previous licensing action established a technology-based daily maximum concentration limit of 1.0 mg/L for TRC. Limitations on TRC are specified to ensure that ambient water quality standards are maintained and that BPT technology is being applied to the discharge. Department permitting actions impose the more stringent of either a water quality-based or BPT-based limit. With dilution factors as determined above, end-of-pipe (EOP) water quality-based concentration thresholds for TRC may be calculated as follows:

Acute (A) Criterion	Chronic (C) Criterion	Modified A & C Dilution Factors	Calculated	
			Acute Threshold	Chronic Threshold
0.013 mg/L	0.0075 mg/L	662:1 (A) 3,014:1 (C)	8.6 mg/L	22.6 mg/L

The Department has established a daily maximum BPT limitation of 1.0 mg/L for facilities that disinfect their effluent with elemental chlorine or chlorine-based compounds. For facilities that 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. Crescent Beach Association currently does not dechlorinate the effluent prior to discharge.

The technology-based daily maximum concentration limit of 1.0 mg/L is more stringent than either the calculated acute or chronic water quality-based thresholds and is therefore being carried forward in this permitting action. This permitting action is carrying forward the “grab” sample type and is and is revising the minimum monitoring frequency requirement from once per month to monthly

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

during the months of **May, June, July, August and September** only. Monitoring frequencies are based on a Department BPJ determination of the appropriate monitoring frequency for this facility.

It is noted that TRC monitoring is required any time chlorine-based compounds are in use for effluent disinfection. For instances when the chlorine-based compounds have not been utilized for effluent disinfection for an entire reporting period, the permittee shall report "NODI-9" for this parameter on the monthly discharge monitoring report (DMR).

- g. 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 wastewater and a minimum monitoring frequency requirement of once per day. Pursuant to a new Department rule found at Chapter 525(3)(III)(c), the pH range limitation is being revised to 6.0 – 9.0 SU, which is now considered BPT for secondary treated wastewater. This permitting action is carrying forward the "grab" sample type and is revising minimum monitoring frequency requirement from once per month to once per quarter during the months of **March, June, September and December**. The permittee shall also conduct effluent monitoring during the months of **July and August** when sanitary flows to the system are expected to be highest. Monitoring frequencies are based on a Department BPJ determination of the appropriate monitoring frequency for this facility.
- h. Whole Effluent Toxicity (WET) and Chemical Specific 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.

The previous licensing action neither established nor addressed WET or chemical-specific testing requirements of the toxics rule. Chapter 530(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.*

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

Based on these criteria and a permitted discharge flow limit of 2,700 gallons per day, the Department concludes that the discharge from the Crescent Beach Association wastewater treatment system qualifies for exemption from Chapter 530 testing requirements. This permitting action is not establishing WET or chemical-specific testing requirements at this time.

7. ANTI-DEGRADATION

This permitting action eliminates the monthly average concentration limit for settleable solids and revises the daily maximum concentration limit for fecal coliform bacteria from 15 colonies/100 ml to 50 colonies/100 ml as discussed in Section 6 of this fact sheet. The Department has determined that this action will not cause or contribute to the failure of the receiving water to meet the standards of its assigned classification.

8. 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.

9. PUBLIC COMMENTS

Public notice of this application was made in a local newspaper on or about April 26, 1997. 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.

10. DEPARTMENT CONTACTS

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

William F. Hinkel
Division of Water Resource Regulation
Bureau of Land & Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Telephone: (207) 287-7659

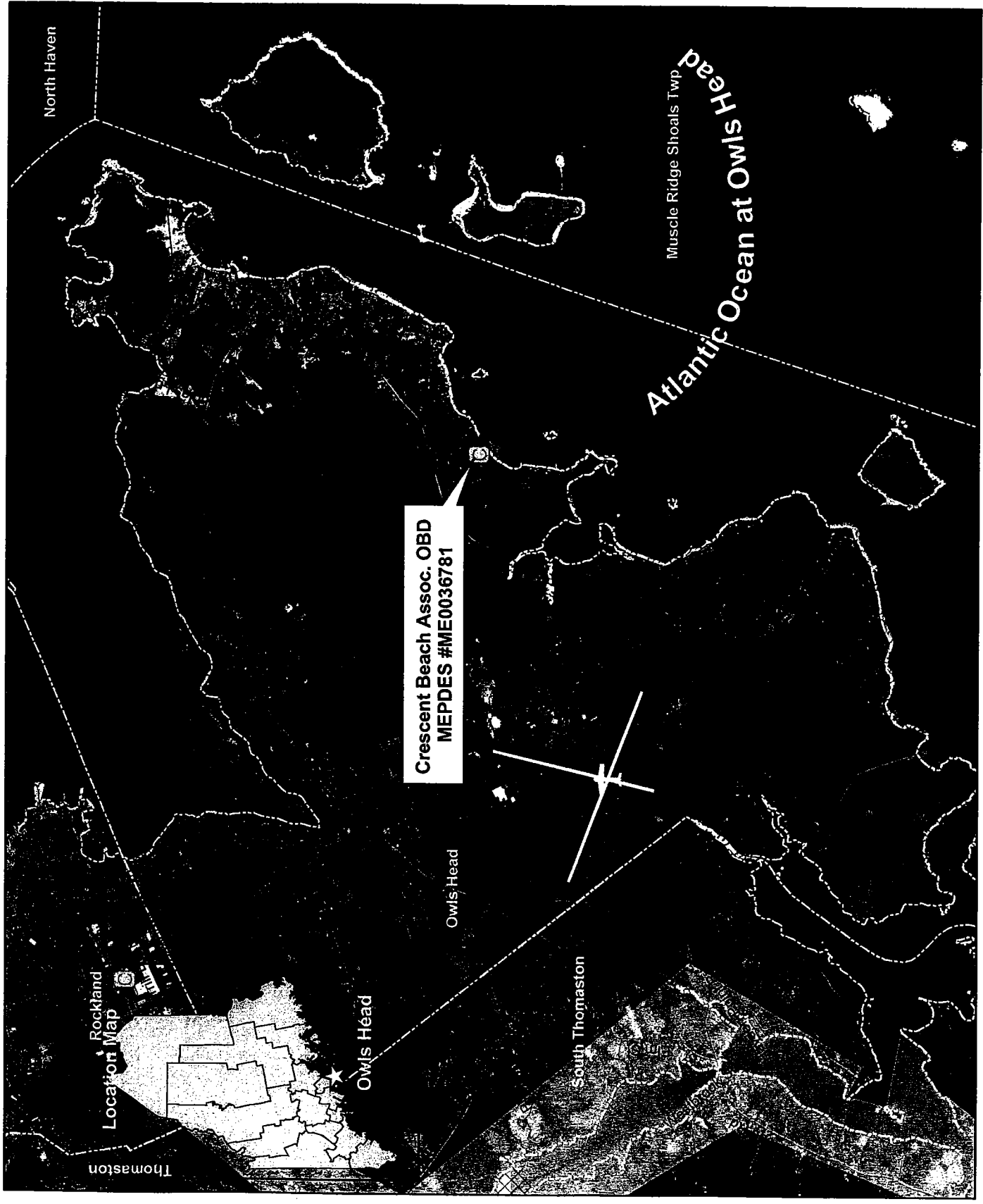
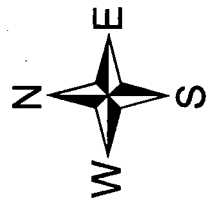
11. RESPONSE TO COMMENTS

During the period of October 19, 2005 through November 21, 2005, the Department solicited comments on the proposed draft Maine Pollutant Discharge Elimination System Permit to be issued to Crescent Beach Association. No significant comments were received during the public comment period; therefore, a response to comments was not prepared.

ATTACHMENT A

Legend

- Wastewater_Facilities
- Wastewater_Outfalls
- Ponds_and_Lakes
- Stream Class
 - AA
 - A
 - B
 - C
- Shellfish_Bed_Closures
 - CLASS
 - Approved (within another classification)
 - Conditionally Approved
 - Restricted
 - Conditionally Restricted
 - Prohibited
- Towns_lines
- Airports



Map created by Bill Hinkel
 Division of Water Resource Regulation
 Maine Department of Environmental Protection
 September 29, 2005

Owls Head, Maine

ATTACHMENT B

