STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAWN R. GALLAGHER
COMMISSIONER

December 1, 2005

Ms. Sandra Altmannsberger
Business Manager
Downeast Correctional Facility
HCR #70 Box 428
Machiasport, ME 04655

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0090000
Maine Waste Discharge License (WDL) Application #W003242-5D-B-R
Final MEPDES Permit/WDL

Dear Ms. Altmannsberger:

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 #ME0090000 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: Clarissa Trasko, DEP
Jon Carmen, J.M.C. Wastewater Service
Roger Janson, USEPA

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

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

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

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

web site: www.maine.gov/dep

printed on recycled paper

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

STATE OF MAINE	)	MAINE POLLUTANT DISCHARGE
DOWNEAST CORRECTIONAL FACILITY	)	ELIMINATION SYSTEM PERMIT
OVERBOARD DISCHARGE	)	
MACHIASPORT, WASHINGTON COUNTY	)	AND
#ME0090000	)	WASTE DISCHARGE LICENSE
#W003242-5D-B-R **APPROVAL**	)	**RENEWAL**

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 STATE OF MAINE DOWNEAST CORRECTIONAL FACILITY (DECF), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

The DECF has applied to the Department for renewal of Waste Discharge License (WDL) #W003242-45-A-R, which was issued on May 30, 1985 and expired on May 30, 1990. The WDL authorized the daily maximum, year-round discharge of up to 40,000 gallons per day (GPD) of secondary treated sanitary wastewater from a State Correctional Facility to the Atlantic Ocean at Howard Cove in Machias Bay, Class SA, in Machiasport, Maine. It is noted that the Maine Legislature reclassified the receiving water at the point of discharge from Class SA to Class SB since issuance of the 5/30/85 WDL.

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 #ME0090000 (same as NPDES permit number) will be utilized as the primary reference number.

PERMIT SUMMARY

This permitting action is similar to the 5/30/85 licensing action in that it is:

1. Carrying forward authorization to discharge up to 40,000 GPD of treated wastewater on a year-round basis, but establishing this limitation as a monthly average rather than a daily maximum limit;

2. Carrying forward the monthly average, weekly average and daily maximum technology-based concentration limits for total suspended solids (TSS);

3. Carrying forward the daily maximum concentration limit for biochemical oxygen demand (BOD_5); and

4. Carrying forward the daily maximum technology-based concentration limitation for settleable solids.

This permitting action is different from the 5/30/85 licensing action in that it is:

1. Establishing a daily maximum discharge flow reporting requirement;

2. Establishing monthly average and weekly average concentration limits for BOD_5;

3. Establishing monthly average, weekly average and daily maximum technology-based mass limits for BOD_5 and TSS;

4. Establishing a requirement to achieve a minimum 30-day average of 85 percent removal for BOD_5 and TSS;

5. Eliminating the weekly average concentration limitation of 0.1 ml/L for settleable solids;

6. Revising the daily maximum concentration limitation for fecal coliform bacteria from 15 colonies/100 ml to 50 colonies/100 ml consistent with the National Shellfish Sanitation Program;

7. Establishing a monthly average concentration limitation of 15 colonies/100 ml for fecal coliform bacteria consistent with the National Shellfish Sanitation Program;

8. Revising the technology-based daily maximum concentration limitation for total residual chlorine (TRC) of 1.0 mg/L to a new water quality-based limit of 0.013 mg/L, and establishing a new monthly average water quality-based limitation of 0.0075 mg/L based on the Department's assessment of dilution factors associated with the discharge;

9. Revising the pH range limitation to 6.0 – 9.0 standard units;

10. Requiring the submission of a revised Operation and Maintenance manual for Department review and comment;

11. Requiring the submission of a revised Wet Weather Management Plan for Department review and comment;

12. Revising the sample type for BOD_5 and TSS from "grab" to "8-hour composite;"

13. Revising the minimum monitoring frequency requirement for all monitored parameters based on Department guidance; and

14. Establishing Special Condition O for the extension of the outfall structure.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated November 29, 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 STATE OF MAINE to discharge a monthly average flow of up to 40,000 GPD of secondary treated sanitary wastewater from the DOWNEAST CORRECTIONAL FACILITY to the Atlantic Ocean at Howard Cove in Machias Bay, Class SB, in Machiasport, 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 30TH 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: March 30, 1998
Date of application acceptance: May 12, 1998

FILED
DEC 1 2005
BOARD OF ENVIRONMENTAL PROT.
STATE OF MAINE

Date filed with Board of Environmental Protection: _____

This Order prepared by William F. Hinkel, BUREAU OF LAND & WATER QUALITY
#ME0090000 / #W003242-5D-B-R November 29, 2005

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. 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 Howard Cove in Machias Bay. Such discharges shall be limited and monitored by the permittee as specified below[1]:

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type
	as specified	as specified	as specified	as specified	as specified	as specified	as specified	as specified
Flow *[50050]*	40,000 GPD *[07]*	--	Report GPD *[07]*	--	--	--	Continuous *[99/99]*	Metered *[MT]*
BOD_5 *[00310]*	10 lbs./day *[26]*	15 lbs./day *[26]*	17 lbs./day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	2/Month *[02/30]*	8-Hour Composite[2] *[08]*
BOD_5 Percent Removal[3] *[81010]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
TSS *[00530]*	10 lbs./day *[26]*	15 lbs./day *[26]*	17 lbs./day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	2/Month *[02/30]*	8-Hour Composite[2] *[08]*
TSS Percent Removal[3] *[81011]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
Settleable Solids *[00545]*	--	--	--	--	--	0.3 ml/L *[25]*	5/Week *[05/07]*	Grab *[GR]*
Fecal Coliform Bacteria[4] *[31616]* **YEAR-ROUND**	--	--	--	15/100 ml[5] *[13]*	--	50/100 ml *[13]*	2/Month *[02/30]*	Grab *[GR]*
Total Residual Chlorine[6] *[50060]*	--	--	--	0.013 mg/L *[19]*	--	0.0075 mg/L *[19]*	5/Week *[05/07]*	Grab *[GR]*
pH *[00400]*	--	--	--	--	--	6.0 – 9.0 SU *[12]*	5/Week *[05/07]*	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. **Influent and Effluent Monitoring** – Influent monitoring shall be conducted at the **effluent end of the influent grinder**. 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. The Department and DECF have determined that the **effluent end of the chlorine contact chamber following the point of dechlorination** is the appropriate and representative location from which to collect effluent samples.

   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. **BOD_5 and TSS Sample Type** – Eight-hour composite samples for BOD_5 and TSS shall consist of four flow-proportioned grab samples collected at equally spaced intervals over an eight-hour period which are combined prior to analysis. It is noted that the permittee may, upon notification to the Department, initiate 24-hour composite sampling.

3. **Percent Removal** – The treatment facility shall maintain a minimum of 85 percent removal of both BOD_5 and TSS for all flows receiving secondary treatment. The percent removal shall be calculated based on influent and effluent concentration values. The percent removal shall be waived when the monthly average influent concentration is less than 200 mg/L, and the permittee shall report **"NODI-9"** for this parameter on the monthly Discharge Monitoring Report (DMR).

4. **Bacteria Limits** – Fecal coliform bacteria limits and monitoring requirements are in effect on a **year-round** basis 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. **TRC Monitoring** – Monitoring for TRC is only required when elemental chlorine or chlorine-based compounds are in use for effluent disinfection. For instances when a facility has not disinfected with chlorine-based compounds for an entire reporting period, the facility shall report **"NODI-9"** for this parameter on the monthly DMR. ***TRC shall be tested using Amperometric Titration or the DPD Spectrophotometric Method.*** The USEPA approved methods are found in Standard Methods for the Examination of Water and Waste Water, (most current edition), Method 4500-CL-E and Method 4500-CL-G or USEPA Manual of Methods of Analysis of Water and Wastes. Compliance will be based on the current minimum level (ML) of detection specified by the Department (currently 0.05 mg/L). For analytical results detected below the ML, the facility shall report **"NODI-Q"** 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.

E. TREATMENT PLANT OPERATOR

The treatment facility must be operated by a person holding a minimum of a **Grade II** certificate (or Registered Maine Professional Engineer) pursuant to Title 32 M.R.S.A. §4171 *et seq*. All proposed contracts for facility operation by any person must be approved by the Department before the permittee may engage the services of the contract operator.

F. LIMITATIONS FOR INDUSTRIAL USERS

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

SPECIAL CONDITIONS

G. 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
Eastern Maine Regional Office
Bureau of Land and Water Quality
Division of Engineering, Compliance and Technical Assistance
106 Hogan Road
Bangor, Maine 04401

H. 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 or proposed 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.

I. 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

J. 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.

K. 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.

L. OPERATION & MAINTENANCE (O&M) PLAN

On or before March 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.

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

M. WET WEATHER FLOW MANAGEMENT PLAN

On or before March 1, 2006, the permittee shall submit to the Department for review and approval, a new or revised Wet Weather Management Plan ***[PCS Code 06799]*** that conforms to Department guidelines for such plans. The revised plan shall include operating procedures for a range of intensities, address solids handling procedures (including septic waste and other high strength wastes if applicable) and provide written operating and maintenance procedures during the events.

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

The permittee shall review the plan at least annually and record any necessary changes to keep the plan up to date. Any changes to the plans must be submitted to the Department for review and approval.

N. EXTENSION OF OUTFALL STRUCTURE INTO RECEIVING WATERS

Pursuant to the requirements of Maine Pollutant Discharge Elimination System Permits Standard Condition B.1(f) and provisions of Department rule, 06-096 CMR 523 Section 7 (Waste Discharge License Conditions), this permit establishes a schedule of compliance for the DECF to provide an outfall of a design approved by the Department which is placed in the receiving waters in such a manner that the maximum mixing and dispersion of the wastewater will be achieved as rapidly as possible.

On or before June 1, 2006, submit a facilities plan and schedule, for Department review and approval, which provides an engineered outfall design and schedule for the commencement and completion of a proposed project to extend the outfall pipe into the receiving waters such that it maximizes mixing and dispersion of the wastewater with the receiving water ***[PCS Code 53999]***. The plan shall identify all relevant Federal, State or local permits or approvals necessary to complete the proposed project and a schedule to obtain all required permits or approvals.

The Department may reopen this permit with notice to the permittee and in accordance with Special Condition P of this permit to establish interim or final compliance dates based on dates provided in a Department approved outfall extension plan.

SPECIAL CONDITIONS

O. 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.

P. 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 29, 2005**

MEPDES PERMIT: **#ME0090000**
WASTE DISCHARGE LICENSE: **#W003242-5D-B-R**

NAME AND ADDRESS OF APPLICANT:

STATE OF MAINE
DEPARTMENT OF CORRECTIONS
HCR #70 BOX 428
MACHIASPORT, ME 04655

COUNTY: **WASHINGTON**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

DOWNEAST CORRECTIONAL FACILITY
STATE ROUTE 92
MACHIASPORT, ME 04655

RECEIVING WATER / CLASSIFICATION: **ATLANTIC OCEAN AT HOWARD COVE / CLASS SB**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **MS. SANDRA ALTMANNSBERGER**
BUSINESS MANAGER
(207) 255-1121

1. APPLICATION SUMMARY

Application: The State of Maine Department of Corrections has applied to the Department of Environmental Protection (Department) for renewal of Waste Discharge License (WDL) #W003242-45-A-R, which was issued on May 30, 1985 and expired on May 30, 1990. The WDL authorized the daily maximum discharge of up 40,000 gallons per day (GPD) of secondary treated sanitary wastewater from the Downeast Correctional Facility (DECF) to the Atlantic Ocean at Howard Cove in Machias Bay, Class SA, in Machiasport, Maine. It is noted that the Maine Legislature reclassified the receiving water at the point of discharge from Class SA to Class SB since issuance of the 5/30/85 WDL.

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 #ME0090000 (same as NPDES permit number) will be utilized as the primary reference number for the DECF's MEPDES permit.

b. Terms and Conditions: **This permitting action is similar to the 5/30/85 licensing action in that it is:**

1. Carrying forward authorization to discharge up to 40,000 GPD of treated wastewater on a year-round basis, but establishing this limitation as a monthly average rather than a daily maximum limit;

2. Carrying forward the monthly average, weekly average and daily maximum technology-based concentration limits for total suspended solids (TSS);

3. Carrying forward the daily maximum concentration limit for biochemical oxygen demand (BOD_5); and

4. Carrying forward the daily maximum technology-based concentration limitation for settleable solids.

This permitting action is different from the 5/30/85 licensing action in that it is:

1. Establishing a daily maximum discharge flow reporting requirement;

2. Establishing monthly average and weekly average concentration limits for BOD_5;

3. Establishing monthly average, weekly average and daily maximum technology-based mass limits for BOD_5 and TSS;

2. PERMIT SUMMARY (cont'd)

4. Establishing a requirement to achieve a minimum 30-day average of 85 percent removal for BOD_5 and TSS;

5. Eliminating the weekly average concentration limitation of 0.1 ml/L for settleable solids;

6. Revising the daily maximum concentration limitation for fecal coliform bacteria from 15 colonies/100 ml to 50 colonies/100 ml consistent with the National Shellfish Sanitation Program;

7. Establishing a monthly average concentration limitation of 15 colonies/100 ml for fecal coliform bacteria consistent with the National Shellfish Sanitation Program;

8. Revising the technology-based daily maximum concentration limitation for total residual chlorine (TRC) of 1.0 mg/L to a new water quality-based limit of 0.013 mg/L, and establishing a new monthly average water quality-based limitation of 0.0075 mg/L based on the Department's assessment of dilution factors associated with the discharge;

9. Revising the pH range limitation to 6.0 – 9.0 standard units;

10. Requiring the submission of a revised Operation and Maintenance manual for Department review and comment;

11. Requiring the submission of a revised Wet Weather Management Plan for Department review and comment;

12. Revising the sample type for BOD_5 and TSS from "grab" to "8-hour composite;"

13. Revising the minimum monitoring frequency requirement for all monitored parameters based on Department guidance; and

14. Establishing Special Condition O for the extension of the outfall structure.

c. Facility History: This section provides a summary of significant licensing/permitting actions, as well as other significant milestones that have been completed for the DECF.

May 14, 1975 – The USEPA issued NPDES permit #ME0090000 to the United States Air Force 907th Radar Squadron (now DECF) for the monthly average discharge of up to 40,000 GPD of secondary treated sanitary wastewater to the tidewaters of Machiasport in Machiasport, Maine.

May 30, 1985 – The Department issued WDL #W003242-45-A-R to the DECF for the daily maximum discharge of up to 40,000 GPD of secondary treated sanitary wastewater to the tidewaters of Machiasport in Machiasport, Maine. The 5/30/85 WDL superseded WDL #3242 issued to the U.S. Air Force on August 14, 1980.

2. PERMIT SUMMARY (cont'd)

August 8, 1990 – The Board of Environmental Protection ratified an Administrative Consent Agreement and Enforcement Order for the DECF. The Consent Agreement and Enforcement Order resolved violations of effluent limitations established for TRC, fecal coliform bacteria, BOD, TSS, and settleable solids. The Enforcement Order required several corrective actions to be completed to ensure future compliance.

1995 – The DEFC completed several upgrades of the existing wastewater treatment facility, including, but not limited to, the construction of a new chlorine contact chamber and installation of a new influent grinder.

March 30, 1998 – The DECF submitted a General Application to the Department for renewal of WDL #W003242-45-A-R. The application was accepted for processing on May 12, 1998, and assigned WDL #W003242-5D-B-R/MEPDES permit #ME0090000.

May 2, 2000 – Consulting engineer firm, Olver Associates, Inc., provided the DEFC with a report summarizing an evaluation of the DECF's wastewater collection system and treatment infrastructure. Problems of particular interest that were identified in the report include hydraulic overloading due to excessive inflow and infiltration (I/I), sludge wasting practices were arbitrary and fundamentally flawed, size of the secondary clarifier was inadequate for the volume of wastewater received, the sludge return recycle rate was too high, outdated and inefficient equipment/practices (aeration basin, coarse bubble diffuser, chemical dosing system, and operation and maintenance of the sludge storage tank).

November 7, 2001 – The Department provided written authorization to the DEFC to shut down and redirect flows originating from the housing complex collection system. Wastewater flows from the housing complex collection system have since been eliminated in an effort to reduce I/I to the treatment facility.

March 18, 2002 – The Department issued a letter to the DEFC advising that their request to revise year-round disinfection to seasonal (May 15 – September 30 of each year) disinfection had been granted. It is noted that this authorization effectively changed applicable bacteria limits to season limits rather than year-round TRC limits to seasonal limits. TRC monitoring is required any time the facility utilized chlorine-based compounds for effluent disinfection.

d. Source Description: The State of Maine Department of Corrections owns and operates the Downeast Correctional Facility and it's associated overboard discharge (OBD) wastewater treatment system. The correctional facility is located on State Route 92 (Machias Road) in Machiasport. DEFC's treatment system receives sanitary wastewater generated by approximately 150 inmates and 70 employees of the correctional facility and one (1) employee of a Federal Aviation Administration radar facility. There are no combined sewer overflow (CSO) points and no industrial users associated with the collection system, and the facility is not required to implement a formal pretreatment program or authorized to receive septage wastes. The DECF's sewer collection system consists of gravity sewer lines. The DECF has replaced significant portions of old vitrified clay sewer lines with ductile iron pipe and has placed plastic sleeves around portions of old, deteriorating lines.

2. PERMIT SUMMARY (cont'd)

A map showing the location of the DEFC treatment facility and the approximately location of the existing outfall (#001A) associated with the wastewater treatment system is included as Fact Sheet Attachment A.

e. Wastewater Treatment: The DECF provides a secondary level of wastewater treatment via a package-type activated sludge treatment system. The wastewater treatment system was installed in 1959 and has received several upgrades since that time. Significant upgrades completed since issuance of the previous waste discharge license include the construction and activation of a new influent grinder, a new chlorine contact chamber and the installation of a sludge storage tank.

Raw wastewater is conveyed by gravity to an influent structure containing an influent grinder. Return activated sludge is introduced at the effluent end of the influent grinder. The mixed liquor enters a 42,000-gallon capacity (approximately 19 feet wide by 27 feet long by 12 feet deep) reinforced concrete aeration tank fitted with coarse bubble diffusers. Decant from the sludge storage tank is periodically drained to the aeration tank for addition treatment. From the aeration tank, wastewater is conveyed to a 6,729-gallon capacity (approximately 16 feet long by 6 feet wide by 11 feet deep) reinforced concrete secondary clarifier. Settled sludge is mechanically raked into an approximately 463-gallon sludge hopper at one end of the clarifier and pumped to an aerated sludge holding tank for additional settling and decant of supernatant. Clarifier supernatant is conveyed to a chlorine contact chamber for disinfection using aqueous sodium hypochlorite and subsequent dechlorination using aqueous sodium bisulfite. The chemical dosing system is regulated using ultrasonic flow meters installed at the head end (chlorine injection point) and tail end (bisulfite injection point) of the contact chamber. This permitting action requires year-round disinfection of the effluent based on public health concerns associated with the existing outfall configuration.

Final effluent is conveyed for discharge to the Atlantic Ocean at Machiasport (Howard Cove in Machias Bay) via an approximately 1,400 foot long, 8-inch diameter outfall pipe. The 8-inch pipe terminates at a concrete headwall on a portion of land that is approximately 50 linear feet inland of and approximately 20-30 vertical feet above the unconsolidated rocky shoreline of Howard Cove. The effluent is conveyed in a scoured and partially vegetated ditch through the wooded area to a steep slope terminating at or slightly above the maximum spring high tide elevation of Howard Cove. Once on the shoreline, the effluent flows across the unconsolidated rocky shoreline and enters the cove as sheet flow. Based on a Department best professional judgment determination following an inspection of the facility and outfall structure on August 23, 2005, the discharge of sanitary wastewater as described in this paragraph poses a risk to public health, safety and welfare and does not comply with Standard Condition B.1(f) of the MEPDES standards conditions, which requires the pipe be extend into the receiving water. As currently configured, the wastewater flows across a rocky shoreline and inter-tidal zone that is immediately adjacent to residential, waterfront homes and that is contiguous with a public beach located within approximately ¼ mile of the discharge area. Extension of the outfall into the receiving waters is necessary to protect the health, safety and welfare of the public. Therefore, Special Condition O of this permit establishes a Special Condition for the permanent extension of the outfall structure into Howard Cove. 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. §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 tidewaters of Machiasport and Howard Cove in Machias Bay at the point of discharge, as Class SB waters. Maine law, 38 M.R.S.A. §465-B(2) describes the standards for Class SB waters. It is noted that the Maine Legislature has reclassified the receiving water at the point of discharge from Class SA to Class SB since issuance of the 5/30/85 WDL.

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 # 709-2) 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 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 #C55-B 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 DECF 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 40,000 GPD based on the dry weather design capacity of the treatment system. For consistency with the limits established in permits for other sanitary wastewater treatment facilities, this permitting action is establishing the discharge flow limit of 40,000 GPD as a monthly average rather than a daily maximum limitation. This permitting action is establishing a daily maximum discharge flow reporting requirement to assist in compliance evaluations and system performance evaluations. This permitting action is specifying that effluent flow shall be measured continuously to ensure that representative discharge flow data are obtained.

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

The outfall pipe associated with the discharge from the DECF terminates in a wooded area inland of Howard Cove, and thus receives no initial dilution with the receiving waters. Therefore, dilution factors associated with the discharge from the DECF are as follows:

Acute: 1:1 Chronic: 1:1 Harmonic Mean: 1:1

It is noted that Special Condition O of this permit establishes a Special Condition to extend the outfall pipe into the receiving waters. Once completed, the outfall extension is anticipated to result in improved mixing and dispersion of the wastewater with the receiving water. Upon completion of the outfall extension project, the permittee may request that the Department evaluate dilution factors associated with the discharge and new outfall structure. The Department may administratively modify this permit to revise dilution factors and applicable effluent limits as appropriate.

c. Biochemical Oxygen Demand (BOD_5) and Total Suspended Solids (TSS): The previous licensing action established monthly average and weekly average concentration limits of 30 mg/L and 45 mg/L, respectively, for TSS only, which were based on secondary treatment requirements of the Clean Water Act of 1977 §301(b)(1)(B), as defined in 40 CFR 133.102, and Department rule, 06-096 CMR Chapter 525(3)(III). The previous permitting action also established a daily maximum BOD_5 and TSS concentration limits of 50 mg/L based on a Department best professional judgement (BPJ) of best practicable treatment (BPT).

This permitting action is carrying forward all three concentration limits for TSS, the daily maximum concentration limit for BOD_5, and is establishing monthly average and weekly average concentration limits of 30 mg/L and 45 mg/L, respectively, for BOD_5, which were derived on the bases described above.

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

Department rule 06-096 CMR Chapter 523 Section 6.f. states that all pollutants limited in permits shall have limitations, standards or prohibitions expressed in terms of mass. With a monthly average discharge flow limit of 40,000 GPD (0.040 million gallons per day, MGD), this permitting action is establishing monthly average, weekly average and daily maximum technology-based mass limits for BOD_5 and TSS, which were derived as follows:

Monthly Average Mass Limit: (30 mg/L)(8.34 lbs./gallon)(0.040 MGD) = 10 lbs./day
Weekly Average Mass Limit: (45 mg/L)(8.34 lbs./day)(0.040 MGD) = 15 lbs./day
Daily Maximum Mass Limit: (50 mg/L)(8.34 lbs./day)(0.040 MGD) = 17 lbs./day

This permitting action is also establishing a new requirement for a minimum of 85% removal of BOD_5 and TSS pursuant to Chapter 525 Section3.III.a.3. and b.3. of the Department's rules.

The previous licensing action established a "grab" sample type for BOD_5 and TSS. This permitting action is revising the sample type to "8-hour composite" samples for BOD_5 and TSS to ensure representative sampling, that results are comparable with results from other sanitary wastewater treatment facilities, and for consistency with Department guidance for overboard discharge facilities licensed to discharge between 20,000 and 49,999 GPD. Composite samples shall consist of four flow-proportioned grab samples collected at equally spaced internals over an eight-hour period which are combined prior to analysis. The previous licensing action established a minimum monitoring frequency requirement of once per month. This permitting action is revising the minimum monitoring frequency requirement from once per month to twice per month (2/Month) based on Department guidance for overboard discharge facilities licensed to discharge between 20,000 and 49,999 GPD.

d. Settleable Solids: The previous licensing action established weekly average and daily maximum technology-based concentration limits of 0.1 ml/L and 0.3 ml/L, respectively, for settleable solids. 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 weekly average concentration limit of 0.1 ml/L and is carrying forward the daily maximum limit of 0.3 ml/L. This permitting action is revising the minimum monitoring frequency requirement from once per day to five times per week (5/Week) based on Department guidance for overboard discharge facilities licensed to discharge between 20,000 and 49,999 GPD.

The Department has determined that the action of eliminating the weekly average limit for settleable solids will not cause or contribute to the failure of the receiving water to meet the standards of its assigned classification.

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

e. Fecal Coliform Bacteria: The previous licensing action established a year-round daily maximum concentration limit of 15 colonies/100 ml (instantaneous level) consistent with the National Shellfish Sanitation Program. The previous licensing action did not establish a monthly average (geometric mean) limitation for bacteria.

In this permitting action, the Department is correctly establishing monthly average and daily maximum concentration bacteria limits for the discharge. Therefore, this permitting action is revising the daily maximum limit from 15 colonies/100 ml to 50 colonies/100 ml (instantaneous level), and is establishing a monthly average limit of 15 colonies/100 ml (geometric mean), which are consistent with the National Shellfish Sanitation Program. The Department has determined that the action of eliminating the monthly average limit for settleable solids will not cause or contribute to the failure of the receiving water to meet the standards of it's assigned classification.

On March 18, 2002, the Department issued a letter to the DECF advising that the applicability of the bacteria limit had been revised from year-round to seasonal (May 15 through September 30 of each year) consistent with the seasonal timeframe provided in Maine law, 38 M.R.S.A. §465-B(2)(B). In this permitting action, the Department is identifying that the existing outfall structure results in the discharge of treated effluent across a beach accessible by the public poses and that that activity poses a risk to public health, safety and welfare. **Therefore, this permitting action imposes bacteria limits on a year-round basis.** Upon completion of the outfall extension project, the permittee may request that the Department administratively modify this permit to revise bacteria limits to be in effect on a seasonal basis between May 15 and September 30 of each year. The Department reserves the right, at any time, to require year-round disinfection to protect the health, safety and welfare of the public.

This permitting action is revising the minimum monitoring frequency requirement for fecal coliform bacteria from once per week to twice per month (2/Month) based on Department guidance for overboard discharge facilities licensed to discharge between 20,000 and 49,999 GPD.

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	A & C Dilution Factors	Calculated Acute Threshold	Calculated Chronic Threshold
0.013 mg/L	0.0075 mg/L	1:1 (A) 1:1 (C)	0.013 mg/L	0.0075 mg/L

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

The Department has established a daily maximum BPT limitation of 1.0 mg/L for facilities that disinfect their effluent with elemental chlorine or chlorine-based compounds. For facilities that 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 DECF currently dechlorinates the effluent prior to discharge.

The calculated acute and chronic water quality-based thresholds of 0.013 mg/L and 0.0075 mg/L, respectively, are more stringent than the technology-based standards and are therefore being established in this permitting action. This permitting action is revising the minimum monitoring frequency from once per day to five times per week (5/Week) based on Department guidance for overboard discharge facilities licensed to discharge between 20,000 and 49,999 GPD.

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

In April of 1992, the USEPA Region I Quality Assurance Office established a Minimum Level of detection (ML) of 0.05 mg/L (50 ug/L) for TRC. This permitting action establishes monthly average and daily maximum water quality based limitations for TRC that are below the ML. Therefore, compliance with the TRC limits established in this permit will be based on the minimum level (ML) of detection of 0.05 mg/L, or as otherwise specified by the Department. It is noted that based on the current ambient water quality criteria for chlorine, an acute dilution factor of greater than or equal to 3.8:1 and a chronic dilution of greater than or equal to 6.7:1 are the thresholds that will result in a permit limitations of greater than or equal to the ML of 0.050 mg/L (50 ug/L).

Upon completion of the outfall extension project, as required by Special Condition O of this permit, the permittee may request that the Department update the calculated acute and chronic water quality thresholds for TRC based on revised dilution factors associated with the discharge. The Department may administratively modify this permit, if appropriate, based on the permittee's request to reconsider TRC limits following extension of the outfall structure into the receiving water.

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 revising the minimum monitoring frequency requirement from once per day to five times per week (5/Week) based on Department guidance for overboard discharge facilities licensed to discharge between 20,000 and 49,999 GPD.

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

h. Whole Effluent Toxicity (WET) & 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.

WET monitoring is required to assess and protect against impacts upon water quality and designated uses caused by the aggregate effect of the discharge on specific aquatic organisms. Acute WET tests are performed on invertebrate species mysid shrimp (*Mysidopsis bahia*); chronic WET tests are performed on sea urchin (*Arbacia punctulata*). Priority pollutant monitoring is required to assess the levels of individual toxic pollutants in the discharge, comparing each pollutant to acute, chronic, and human health water quality criteria. Priority pollutant testing refers to the analysis for levels of priority pollutants listed in Department rule 06-096 CMR Chapter 525 Section 4.VI. Analytical chemistry refers to a suite of chemical tests for ammonia-nitrogen, total aluminum, total cadmium, total chromium, total copper, total hardness (fresh water only), total lead, total nickel, total silver, total zinc, total arsenic, total cyanide and total residual chlorine..

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 DECF is permitted to discharge a flow of less than 50,000 gallons per day, but does not currently have a chronic dilution factor of at least 50:1. Therefore, the facility is categorically subject to all testing requirement prescribed by the rule. Special Condition O of this permit requires the DECF to submit an engineered outfall extension design plan and schedule to extend the outfall into the receiving water to maximize mixing and dispersion of the wastewater, as determined and approved by the Department. Upon completion of this outfall extension project, the Department anticipates that the chronic dilution factor associated with the discharge will be at least 50:1. Therefore, in consideration of the costs associated with this project, the Department is making a best professional judgment determination to temporarily waive toxics testing requirements pending review and approval of a proposed outfall extension plan and schedule.

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

The Department will, however, reopen this permit with notice to the permittee and in accordance with Special Condition O of this permit to require WET, priority pollutant and analytical chemistry testing, as prescribed by Chapter 530, if the outfall extension project has not been substantially and satisfactorily completed in a timely fashion, or if the Department determines that the chronic dilution factor associated with the discharge following outfall extension is less than 50:1.

7. ANTIDEGRADATION

Maine law, 38 M.R.S.A. §464(4)(F) specifies the provisions of the State's antidegradation policy. This permitting action eliminates the weekly 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 7 of this fact sheet. The Department has determined that these actions will not cause or contribute to the failure of the receiving water to meet the standards of it's 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 March 19, 1998. 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

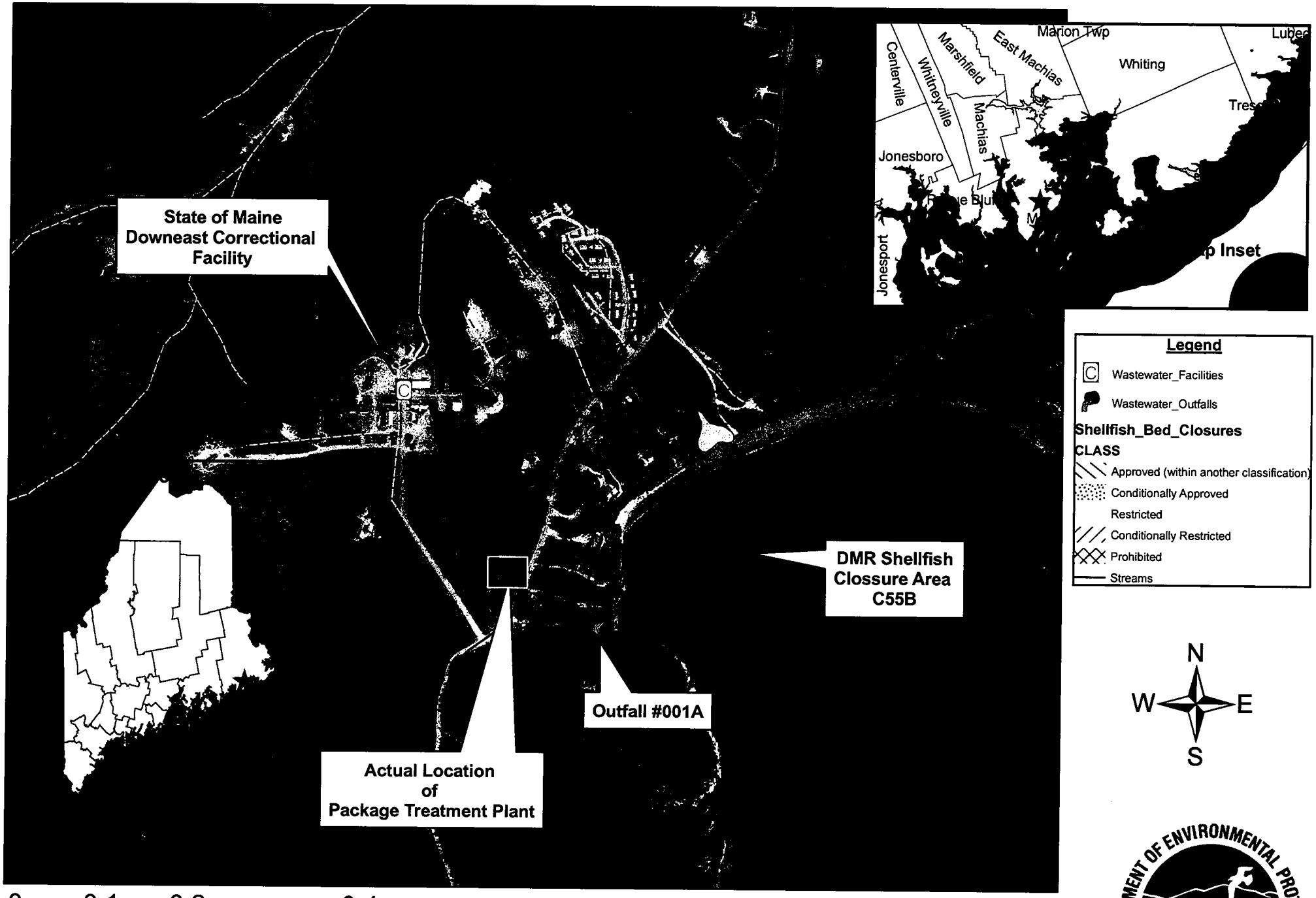
Additional information concerning this permitting action may be obtained from, and written comments sent to:

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 3, 2005 through November 3, 2005, the Department solicited comments on the proposed draft Maine Pollutant Discharge Elimination System Permit to be issued to the DECF for the proposed discharge. The Department received no significant comments on the proposed draft permit; therefore, a response to comments was not prepared.

ATTACHMENT A



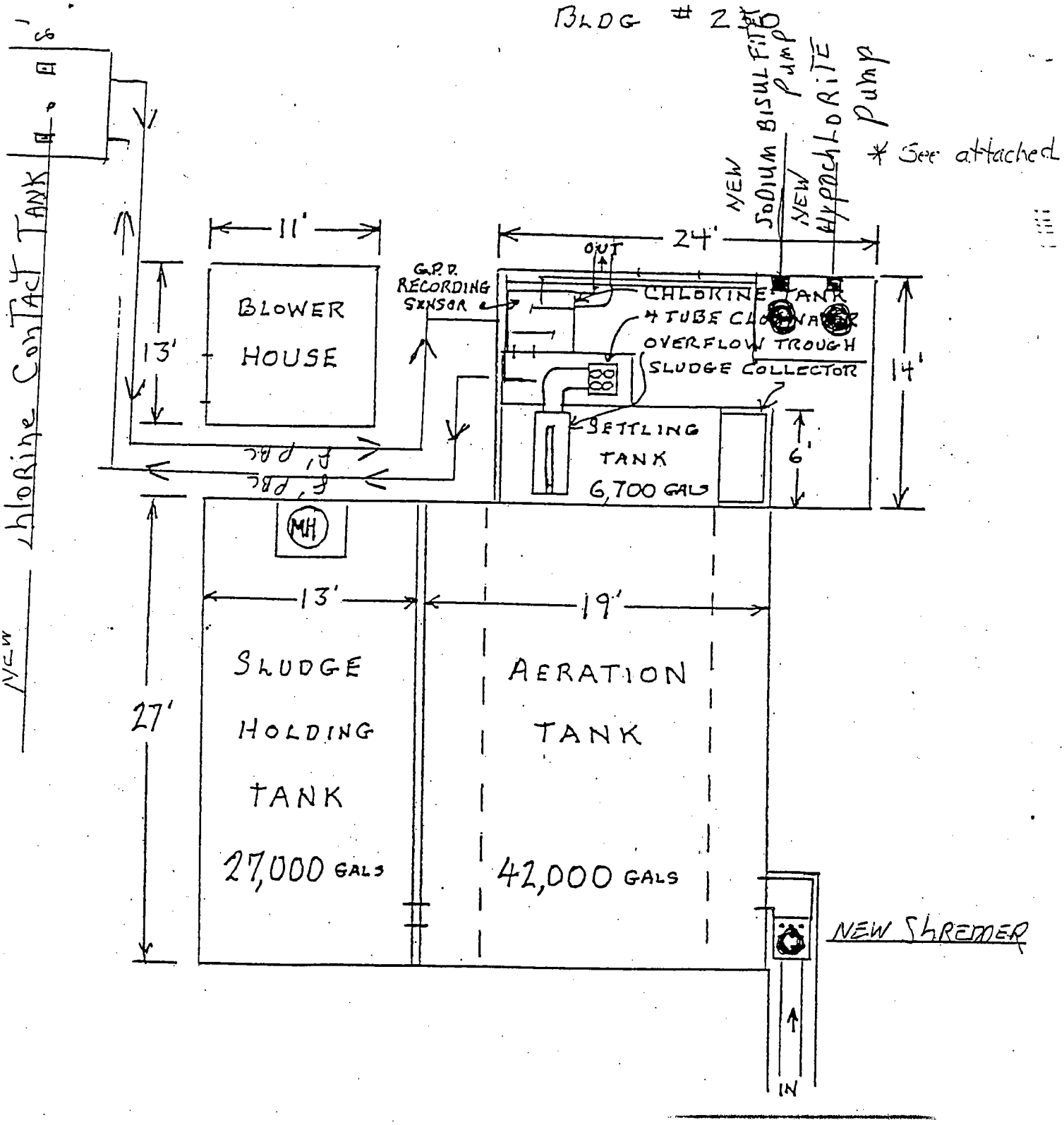
0 0.1 0.2 0.4 Miles

Machiasport, Maine

Map created by Bill Hinkel
Division of Water Resource Regulation
Maine Department of Environmental Protection
November 7, 2005

DEPARTMENT OF ENVIRONMENTAL PROTECTION
STATE OF MAINE

ATTACHMENT B

SEWERAGE TREATMENT PLANT

BLDG # 2