STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAWN R. GALLAGHER
COMMISSIONER

Thomas Allen, Chief Operator
Freeport Sewer District
P.O. Box 76
Freeport, Maine 04032

April 19, 2005

RE: Maine Pollutant Discharge Elimination System Permit (MEPDES) # ME0101036
Maine Waste Discharge License (WDL) Application # W000617-5L-D-R
Final Document

Dear Mr. Allen:

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

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

We would like to make you aware of the fact that your monthly Discharge Monitoring Reports (DMR) 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 permitting action that do not appear on the DMR. Please see the attached April 2003 O&M Newsletter article regarding this matter.

If you have any questions regarding this matter, please feel free to call me at 287-7658.

Sincerely,

David Silver
Division of Water Resource Regulation
Bureau of Land and Water Quality

Enc. Stuart Rose, DEP/SMRO
Roger Janson, USEPA

WDS:W000617

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: (207) 764-1507

web site: www.state.me.us/dep

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DMR Lag

(reprinted from April 2003 O&M Newsletter)

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.

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

DEPARTMENT ORDER

IN THE MATTER OF

FREEPORT SEWER DISTRICT	) MAINE POLLUTANT DISCHARGE
PUBLICLY OWNED TREATMENT WORKS	) ELIMINATION SYSTEM PERMIT
FREEPORT, CUMBERLAND COUNTY	) AND
#ME0101036	) WASTE DISCHARGE LICENSE
#W000617-5L-D-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 FREEPORT SEWER DISTRICT (Freeport), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

The applicant has applied to the Department for renewal of Waste Discharge License (WDL) #W000617-5L-C-R, which was issued on May 3, 2000 and is scheduled to expire on May 3, 2005. The WDL authorized the monthly average discharge of up to 0.75 million gallons per day (MGD) of secondary treated sanitary wastewater from a publicly owned treatment works (POTW) to the tidewaters of the Harraseeket River, Class SB, in Freeport, 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 this point forward, the program will be referred to as the Maine Pollutant Discharge Elimination System (MEPDES) permit program, and permit #ME0101036 (same as NPDES permit number) will be utilized as the primary reference number for the Freeport facility.

PERMIT SUMMARY

This permitting action is similar to the May 3, 2000 licensing action in that it is:

1. Carrying forward the monthly average discharge flow limitation of 0.75 MGD;

2. Carrying forward the monthly average, weekly average and daily maximum technology-based concentration and mass limitations for biochemical oxygen demand (BOD_5) and total suspended solids (TSS);

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

4. Carrying forward the monthly average and daily maximum water quality-based concentration limitations for fecal coliform bacteria;

5. Carrying forward the daily maximum and monthly average technology-based concentration limitations for total residual chlorine (TRC);

6. Carrying forward a whole effluent toxicity (WET) and chemical-specific (priority pollutant) screening level testing requirement during the last year of the effective term of this permit; and

7. Carrying forward the minimum monitoring frequency requirements for all monitored parameters.

This permitting action is different from the May 3, 2000 licensing action in that it is

1. Establishing a requirement for a 30-day average minimum of 85% removal of BOD_5 and TSS;

2. Revising the pH range limitation from 6.0 to 8.5 standard units (SU) to 6.0 to 9.0 SU;

3. Requiring the submission of a new or revised Wet Weather Management Plan for Department review and approval; and

4. Requiring the submission of a current written comprehensive Operation & Maintenance (O&M) Plan.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated February 28, 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 discharge will be subject to effluent limitations that require application of best practicable treatment.

ACTION

THEREFORE, the Department APPROVES the above noted application of the FREEPORT SEWER DISTRICT to discharge a monthly average of up to 0.75 MGD of secondary treated sanitary wastewater to the tidewaters of the Harraseeket River in Casco Bay, Class SB, in Freeport, 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 19TH DAY OF April, 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: February 25, 2005
Date of application acceptance: February 25, 2005

Date filed with Board of Environmental Protection: FILED APR 21 2005 BOARD OF ENVIRONMENTAL PROT. STATE OF MAINE

This Order prepared by David Silver, BUREAU OF LAND & WATER QUALITY
#ME0101036 / #W000617-5L-D-R 19APR05

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 #001** to the tidewaters of the Harraseeket River, Casco Bay, Class SB. Such discharges shall be limited and monitored by the permittee as specified below[1]:

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified	Measurement Frequency as specified	Sample Type as specified
Flow *[50050]*	0.75 MGD *[03]*	---	---	---	---	---	Continuous *[99/99]*	Recorder *[RC]*
BOD_5 *[00310]*	123 lbs./day *[26]*	183 lbs./day *[26]*	204 lbs./day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	2/Week *[02/07]*	24-Hour Composite *[24]*
BOD_5 Percent Removal[2] *[81010]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
TSS *[00530]*	123 lbs./day *[26]*	183 lbs./day *[26]*	204 lbs./day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	2/Week *[02/07]*	24-Hour Composite *[24]*
TSS Percent Removal[2] *[81011]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
Settleable Solids *[00545]*	---	---	---	---	---	0.3 ml/L *[25]*	5/Week *[05/07]*	Grab *[GR]*
Fecal Coliform Bacteria[3] *[31616]*	---	---	---	15/100 ml[4] *[13]*	---	50/100 ml *[13]*	2/Week *[03/07]*	Grab *[GR]*
Total Residual Chlorine[3] *[00665]*	---	---	---	0.1 mg/L *[19]*	---	0.3 mg/L *[19]*	1/Day *[01/01]*	Grab *[GR]*
pH *[00400]*	---	---	---	---	---	6.0 – 9.0 SU *[12]*	1/Day *[01/01]*	Grab *[GR]*

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

FOOTNOTES: See Pages 7 and 8 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

2. SCREENING LEVEL TESTING: Beginning 12 months prior to permit expiration and lasting through permit expiration for Outfall #001.

Whole Effluent Toxicity (WET) [5]	Daily Maximum	Minimum Frequency	Sample Type
Acute No Observed Effect Level (A-NOEL)			
Invertebrate-**Mysid Shrimp** (*Mysidopsis bahia*) *[TDA3E]*	Report % *[23]*	1/Year *[01/YR]*	Composite *[24]*
Vertebrate-**Inland Silverside** (*Menidia berrylina*) *[TDA6B]*	Report % *[23]*	1/Year *[01/YR]*	Composite *[24]*
Chronic No Observed Effect Level (C-NOEL)			
Invertebrate-**Sea Urchin** (*Arbacia punctulata*) *[TBH3A]*	Report % *[23]*	1/Year *[01/YR]*	Composite *[24]*
Vertebrate-**Inland Silverside** (*Menidia berrylina*) *[TBP6B]*	Report % *[23]*	1/Year *[01/YR]*	Composite *[24]*
Chemical-Specific[6] *[50008]*	Report ug/L *[28]*	1/Year *[01/YR]*	Composite/Grab *[24/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 Pages 7 and 8 of this permit for applicable footnotes.

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

FOOTNOTES:

1. **Monitoring** – All effluent monitoring shall be conducted at a location following the last treatment unit in the treatment process as to be representative of end-of-pipe effluent characteristics (in the case of Freeport, the monitoring location is a sampling port located in the flow process downgradient from the dechlorination unit). 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. **Percent Removal** – The treatment facility shall maintain a minimum of 85 percent removal of both biochemical oxygen demand and total suspended solids for all flows receiving secondary treatment. The percent removal shall be calculated based on influent and effluent concentration values. The percent removal shall be waived when the monthly average influent concentration is less than 200 mg/L. For instances when this occurs, the facility shall report **"NODI-9"** for this parameter on the monthly Discharge Monitoring Report (DMR).

3. **Bacteria and TRC Limits** – Fecal coliform bacteria and total residual chlorine (TRC) limits and monitoring requirements are in effect year-round at the request of the Maine Department of Marine Resources in order to protect local shellfish resources near the outfall and to protect the health, safety and welfare of the public.

4. **Bacteria Reporting** – The monthly average fecal coliform bacteria limitation is a geometric mean limitation and sample results shall be reported as such.

5. **Whole Effluent Toxicity (WET)** – Definitive WET testing is a multi-concentration testing event (a minimum of five dilutions bracketing the critical acute (1.35%) and chronic (0.87%) water quality thresholds), which provides a point estimate of toxicity in terms of No Observed Effect Level, commonly referred to as NOEL or NOEC. A-NOEL is defined as the acute no observed effect level with survival as the end point. C-NOEL is defined as the chronic no observed effect level with survival, reproduction and growth as the end points.

   Beginning 12 months prior to permit expiration and lasting through permit expiration, the permittee shall conduct **screening level WET testing** at a minimum frequency of once per year (1/Year). Acute tests shall be conducted on the mysid shrimp (*Mysidopsis bahia*) and the inland silverside (*Menidia berrylina*). Chronic tests shall be conducted on the inland silverside (*Menidia berrylina*) and on the sea urchin (*Arbacia punctulta*). Results shall be submitted within 30 days of receiving the results from the laboratory conducting the testing.

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

FOOTNOTES:

The permittee is also required to analyze the effluent for the parameters specified in the analytic chemistry on the form in Attachment A of this permit each time a WET test is performed.

Toxicity tests must be conducted by an experienced laboratory approved by the Department. The laboratory must follow procedures as described in the following USEPA methods manuals.

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

b. Methods for Measuring the Acute Toxicity of Effluent and Receiving Waters to Freshwater and Marine Organisms, Third Edition, October 2002, EPA-821-R-02-012.

6. **Chemical-Specific Testing –** Priority pollutants (chemical-specific testing pursuant to Department rule Chapter 530.5) are those parameters listed by the USEPA pursuant to Section 307(a) of the Clean Water Act and published at 40 CFR Part 122, Appendix D, Tables II and III.

Beginning 12 months prior to permit expiration and lasting through permit expiration, the permittee shall conduct **screening level chemical-specific testing** at a minimum frequency of once per year in any calendar quarter. Chemical-specific testing shall be conducted on samples collected at the same time as those collected for whole effluent toxicity tests, when applicable. Chemical-specific testing shall be conducted using methods that permit detection of a pollutant at existing levels in the effluent or that achieve minimum reporting levels of detection as specified by the Department. Results shall be submitted to the Department within thirty (30) days of the permittee receiving the data report from the laboratory conducting the testing. **For the purposes of Discharge Monitoring Report (DMR) reporting, enter a "1" for *yes*, *testing done this monitoring period* or "NODI-9" *monitoring not required this period.***

All mercury sampling shall be conducted in accordance with EPA's "clean sampling techniques" found in EPA Method 1669, Sampling Ambient Water For Trace Metals At EPA Water Quality Criteria Levels. All mercury analysis shall be conducted in accordance with EPA Method 1631, Determination of Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Fluorescence Spectrometry.

SPECIAL CONDITIONS
B. NARRATIVE EFFLUENT LIMITATIONS

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

C. 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 TRC 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. The facility shall provide notification to local and state authorities (including the Department of Marine Resources) in the event of a failure of the disinfection system in accordance with its Emergency Response Plan Agreement.

D. TREATMENT PLANT OPERATOR

The treatment facility must be operated by a person holding a minimum of a **Grade III** certificate 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.

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:

Maine Department of Environmental Protection
312 Canco Road
Portland, Maine 04103
Attn: [Assigned Inspector]

SPECIAL CONDITIONS

F. NOTIFICATION REQUIREMENT

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

1. Any introduction of pollutants into the wastewater collection and treatment system from an indirect discharger in a primary industrial category discharging process wastewater; and
2. Any substantial change (increase or decrease) 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. 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.

H. UNAUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from Outfall #001. 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.

I. WET WEATHER FLOW MANAGEMENT PLAN

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.

On or before August 1, 2005, the permittee shall submit to the Department for review and approval, a new or revised Wet Weather Management Plan that conforms to Department guidelines for such plans ***[PCS Code 06799]***. 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.

Once the Wet Weather Management Plan has been approved, the permittee shall review their plan annually and record any necessary changes to keep the plan up to date.

SPECIAL CONDITIONS

J. OPERATION & MAINTENANCE (O&M) PLAN

On or before August 1, 2005, the permittee shall submit to the Department a current written comprehensive Operation & Maintenance (O&M) Plan ***[PSC Code 59199].*** 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.

K. CHAPTER 530.5(B)(7)(c)(iii) CERTIFICATION

By December 31st of each calendar year *(PCS Code 01299)*, the permittee shall provide the Department with a certification describing any of the following that have occurred since the effective date of this permit:

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

SPECIAL CONDITIONS

L. DISPOSAL OF SEPTAGE WASTE IN WASTEWATER TREATMENT FACILITY

During the effective period of this permit, the permittee is authorized to receive **3,000 gallons per day** of septage into its waste water treatment facility subject to the following terms and conditions:

This approval is limited to methods and plans described in the application and supporting documents. Any variations are subject to review and approval prior to implementation.

1. -At no time shall addition of septage cause or contribute to effluent quality violations. If such conditions do exist, receipt of septage shall be suspended until effluent quality can be maintained.
2. The permittee shall maintain records which shall include, as a minimum, the following by date: volume of septage received, source of the septage (name of municipality), the hauler transporting the septage, the dates and volume of septage added to the waste treatment influent and test results.
3. Additional septage shall not cause the treatment facilities design capacity to be exceeded. If, for any reason, the treatment facility becomes overloaded, receipt of septage shall be reduced or terminated in order to eliminate the overload condition.
4. Septage known to be harmful to the treatment processes shall not be accepted. Wastes which contain heavy metals, toxic chemicals, extreme pH, flammable or corrosive materials in concentrations harmful to the treatment operation shall be refused.
5. Holding tank waste water shall not be recorded as septage and should not be reported in the treatment facilities influent flow.

M. 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 anytime 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.

ATTACHMENT A

MARINE WHOLE EFFLUENT TOXICITY (WET) TEST REPORT

Facility _____ DEP License No _____ NPDES permit No _____

Contact person _____ Telephone No _____

Date initially sampled _____ (mm/dd/yy) Date tested _____ (mm/dd/yy) Chlorinated? _____

Test type screening _____ surveillance _____ Dechlorinated? _____

Test required by: DEP/EPA _____

Results % effluent

	Mysid shrimp	sea urchin	silverside
LC50			
A-NOEL			
C-NOEL			

Receiving Water Concentration

A-NOEL	
C-NOEL	

Data summary

	Mysid shrimp	sea urchin	silver side		
	% survival	% fertilized	% survival		final wt (mg)
QC standard	A>90	>70	A>90	C>80	>0.50
lab control					
receiving water contrl					
conc. 1 (%)					
conc. 2 (%)					
conc. 3 (%)					
conc. 4 (%)					
conc. 5 (%)					
conc. 6 (%)					
stat test used					

place * next to values statistically different from controls

Reference toxicant

	Mysid shrimp	sea urchin	silver side	
	LC50/A-NOEL	C-NOEL	LC50/A-NOEL	C-NOEL
toxicant /date				
limits (mg/l)				
results (mg/l)				

Salinity Adjustment

brine	
sea salt	
other	

Comments _____

Laboratory Conducting Tests. To the best of my knowledge this information is true, accurate, and complete

signature _____ company _____

printed name _____ address _____

tel. no. _____

ANALYTICAL CHEMISTRY RESULTS
MARINE WATERS

Date collected _____ mm/dd/yy

Date analyzed _____ mm/dd/yy

Lab ID No. _____

Analyte	Report Units	Results receiving water	Results effluent	Detection level	Method
Ammonia nitrogen	µg/L			µg/L	
Salinity	ppt			ppt	
Total residual oxidants	mg/L			mg/L	
Total organic carbon	mg/L			mg/L	
Total solids	mg/L			mg/L	
Total suspended solids	mg/L			mg/L	
Total aluminum	µg/L			µg/L	
Total cadmium	µg/L			µg/L	
Total chromium	µg/L			µg/L	
Total copper	µg/L			µg/L	
Total lead	µg/L			µg/L	
Total nickel	µg/L			µg/L	
Total zinc	µg/L			µg/L	
other (pH)	S.U.			S.U.	
other ( )					

Comments

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Laboratory conducting test. To the best of my knowledge this information is true, accurate, and complete

signature _____ lab name _____

printed name _____ address _____

tel. no. _____

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
AND
WASTE DISCHARGE LICENSE

FACT SHEET

Date: February 28, 2005

MEPDES PERMIT: #ME0101036
WASTE DISCHARGE LICENSE: #W000617-5L-D-R

NAME AND ADDRESS OF APPLICANT:

FREEPORT SEWER DISTRICT
P.O. BOX 76
FREEPORT, ME 04032

COUNTY: Cumberland

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

Freeport Sewer District
South Freeport Road
Freeport, ME 04032

RECEIVING WATER / CLASSIFICATION: Tidewaters of Harraseeket River/Class SB

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: Mr. Thomas Allen,
(207) 934-5714

1. APPLICTION SUMMARY

Application: The applicant has applied to the Department for renewal of Waste Discharge License (WDL) #W000617-5L-C-R, which was issued on May 3, 2000 and is scheduled to expire on May 3, 2005. The WDL authorized the monthly average discharge of up to 0.75 million gallons per day (MGD) of secondary treated sanitary wastewater from a publicly owned treatment works (POTW) to the tidewaters of the Harraseeket River, Class SB, in Freeport, 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 this point forward, the program will be referred to as the Maine Pollutant Discharge Elimination System (MEPDES) program and permit #ME0101036 (same as NPDES permit number) will be utilized as the primary reference number for the Freeport Sewer District MEPDES permit. NPDES permit #ME0101036, last issued by the USEPA on September 19, 1995, will be replaced by the final MEPDES permit upon issuance. Once the MEPDES permit has been issued, all terms and conditions of the NPDES become null and void.

b. Facility History: This section provides a summary of significant licensing/permitting actions and milestones that have been completed for the Freeport Sewer District.

June 13, 1994 -- The Department issued WDL #W000617-59-B-R that renewed the authorization to discharge 0.49 MGD of treated wastewater to the Harraseeket River.

September 19, 1995 -- The U.S. EPA issued a NPDES permit for the facility.

June 30, 2000 – Pursuant to Maine law, 38 M.R.S.A. §420 and Department rule, 06-096 CMR Chapter 519, *Interim Effluent Limitations and Controls for the Discharge of Mercury*, the Department issued a *Notice of Interim Limits for the Discharge of Mercury* to the permittee thereby administratively modifying WDL #W000617-59-B-R by establishing interim monthly average and daily maximum effluent concentration limits of 24.0 parts per trillion (ppt) and 36.0 ppt, respectively, and a minimum monitoring frequency requirement of 4 tests per year for mercury. The interim mercury limits were scheduled to expire on October 1, 2001. However, effective June 15, 2001, the Maine Legislature enacted Maine law, 38 M.R.S.A. §413 (11) specifying that interim mercury limits and monitoring requirements remain in effect. It is noted that the mercury effluent limitations have not been incorporated into Special Condition A, *Effluent Limitations And Monitoring Requirements*, of this permit as the limits and monitoring frequencies are regulated separately through Maine law, 38 M.R.S.A. §413 and Department rule Chapter 519. The interim mercury limits remain in effect and enforceable and modifications to the limits and/or monitoring frequencies will be formalized outside of this permitting document pursuant to Maine law, 38 M.R.S.A. §413 and Department rule Chapter 519.

Calendar year 2000 -- Certain infrastructure improvements were made to the headworks building, chlorination contact tanks, piping, and control structures at the treatment plant. These improvements enhance the ability of the facility to treat wastewater and discharge effluent that is within Freeport's permit limits.

May 3, 2000 -- The Department issued Waste Discharge License (WDL) #W000617-5L-C-R to the Freeport Sewer District authorizing an increased discharge (from 0.49 to 0.75 MGD) of secondary treated effluent to tidewaters of the Harraseeket River in Casco Bay. The WDL is scheduled to expire on May 3, 2005.

February 25, 2005 -- The permittee submitted an application to the Department requesting renewal of the authorization to discharge effluent treated by the facility which was accepted by the Department for processing.

c. Source Description: The Freeport Sewer District, located at 43 South Freeport Road (Weston Point Area), treats domestic and commercial sanitary waste water generated in the Town of Freeport. There are no significant industrial users that contribute flows greater than 10% of the District's influent flow. The District maintains a separated sewage collection system without combined sewer outfalls. The facility has been authorized to receive and treat up to 3,000 gallons of septage per day. A map showing the location of the treatment facility and the receiving waters is included as an Attachment to the Fact Sheet.

d. Wastewater Treatment:

A secondary level of waste water treatment is accomplished by means of three "extended aeration" type of activated sludge package plants operated in parallel. Package units can be operational or idle, depending on the amount of influent flow volume. Each package unit consists of an aeration basin, secondary clarifier, and sludge digester. Influent flow is now directed to a new headworks building constructed in 2001. The headworks building includes of a screening and grit removal process as well as chemical storage space. After secondary treatment in the package units, the effluent flows to a chlorine detention tank that was upgraded in the year 2000. The effluent flow is chlorinated with sodium hypochlorite and dechlorinated prior to discharge to the Harraseeket River via a outfall pipe that is 12 inches in diameter and a multiport diffuser that has six (6) outfall port orifices. The outfall ports each have a diameter of 3 inches, with a distance between adjacent ports measuring 3.3 feet. The ports are at a horizontal position on the diffuser pipe and discharge at a depth of 11 feet below mean low water.

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 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 Chapter 530.5, *Surface Water Toxics Control Program,* require the regulation of toxic substances at the levels set forth for Federal Water Quality Criteria as published by the U.S. Environmental Protection Agency pursuant to the Clean Waters Act.

4. RECEIVING WATER QUALITY STANDARDS

Maine law, 38 M.R.S.A. §469 classifies the Harraseeket River at the point of discharge as a 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 2002 Integrated Water Quality Monitoring and Assessment Report, prepared pursuant to Sections 303(d) and 305(b) of the Federal Water Pollution Control Act, lists the marine waters at the Freeport outfall (Waterbody #802-4) as, *"Category 3: Estuary and Marine Waters With Insufficient Data Or Information To Determine If Designated Uses Are Attained."* Attainment in this context is in regard to the designated use of harvesting of shellfish. Currently, portions of the Maine Department of Marine Resources shellfish harvesting area #C17 around the treatment plant outfall is closed to the harvesting of shellfish due to insufficient (limited) ambient water quality data to meet the standards in the National Shellfish Sanitation Program. The Department has conducted sampling in the river and found that low levels of algae and nitrogen were observed in the Harraseeket estuary (Nitrogen is usually the limiting factor for algae growth in the marine environment). The Department also found that the Class SB dissolved oxygen criteria are maintained except for a location in a small cove above the discharge. The Department finds that the non-attainment at that location is from sediment oxygen demand and not related to the discharge from the Freeport Sewer District. Compliance with the fecal coliform bacteria limits in this permitting action and year-round disinfection ensures that the discharge from the Freeport wastewater precautionary safety zone established by the Department of Marine Resources is maintained. The shellfish closure area and conditionally approved area are identified on the map included as an attachment to the Fact Sheet.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

a. Flow: The previous licensing action established a monthly average discharge flow limitation of 0.75 MGD and continuous recorder monitoring requirement, which is being carried forward in this permitting action as it remains representative of the design capacity of the treatment works.

b. Dilution Factors: Department rule, 06-096 CMR Chapter 530.5(D)(3)(b), *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 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 or CORMIX."* Based on the location and configuration of the outfall pipe, the Department has determined that the dilution factors associated with the discharge from Freeport are as follows:

Acute = 74:1 Chronic = 115:1 Harmonic Mean[1] = 345:1

Footnote:

1. The harmonic mean dilution factor is approximated by multiplying the chronic dilution factor by three (3). This multiplying factor is based on guidelines for estimation of human health dilution presented in the U.S. EPA publication, *"Technical Support Document for Water Quality-Based Toxics Control"* (Office of Water; EPA/505/2-90-001, page 88), and represents an estimation of harmonic mean flow on which human health dilutions are based in a riverine 7Q10 flow situation.

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

c. Biochemical Oxygen Demand (BOD_5) and Total Suspended Solids (TSS): The previous licensing action established monthly average and weekly average BOD_5 & TSS concentration limits of 30 mg/L and 45 mg/L, respectively, 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, Chapter 525(3)(III). The previous licensing action also established daily maximum BOD_5 & TSS concentration limits of 50 mg/L based on a Department best professional judgement (BPJ) of best practicable treatment (BPT), and a minimum monitoring frequency requirement of three times per week. All three technology-based concentration limits are being carried forward in this permitting action. Department rule Chapter 523(6)(f) states that all pollutants limited in permits shall have limitations, standards or prohibitions expressed in terms of mass. The previous licensing action established monthly average, weekly average and daily maximum technology-based mass limits of 123 lbs./day, 183 lbs./day, and 204 lbs./day, respectively, which are being carried forward in this permitting action and were derived (using the previous monthly average flow limit of 0.49 MGD in order to maintain previously established mass loading and avoid the need for a waste load allocation study for the river), as follows:

Monthly Average Mass Limit: (30 mg/L)(8.34 lbs./gallon)(0.49 MGD) = 123 lbs./day
Weekly Average Mass Limit: (45 mg/L)(8.34 lbs./day)(0.49 MGD) = 183 lbs./day
Daily Maximum Mass Limit: (50 mg/L)(8.34 lbs./day)(0.49 MGD) = 204 lbs./day

This permitting action is also establishing a new requirement for a 30-day average minimum of 85% removal of BOD_5 & TSS pursuant to Chapter 525(3)(III)(a)(3) and (b)(3) of the Department's rules.

This permitting action is carrying forward the minimum monitoring frequency requirement of two times per week (2/Week) based on Department guidance for POTWs permitted to discharge between 0.5 and 1.5 MGD.

d. Settleable Solids: The previous licensing action established a daily maximum technology-based concentration limit of 0.3 ml/L and a minimum monitoring frequency requirement of once per day for settleable solids. This permitting action is carrying forward the technology-based daily maximum concentration limit of 0.3 ml/L as it is considered by the Department to be BPT for secondary treated sanitary wastewater, and the minimum monitoring frequency requirement of once per day.

e. Fecal Coliform Bacteria: The previous licensing action established year round monthly average and daily maximum water quality-based concentration limits for fecal coliform bacteria of 15 colonies/100 ml (geometric mean) and 50 colonies/100 ml (instantaneous level), respectively, based on the National Shellfish Sanitation Program and a minimum monitoring frequency requirement of two times per week. This permitting action is carrying forward both water quality-based concentration limits based on the National Shellfish Sanitation Program and the minimum monitoring frequency requirement of two times per week (2/Week) based on Department guidance for POTWs permitted to discharge between 0.5 and 1.5 MGD. Pursuant to a request from the Maine Department of Marine Resources, disinfection is required year-round in order to ensure compliance with fecal coliform bacteria limits and thereby providing for the protection of local shellfish resources.

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

f. Total Residual Chlorine (TRC): The previous licensing action established daily maximum and monthly average technology-based concentration limitations of 0.3 mg/L and 0.1 mg/L, respectively, and a minimum monitoring frequency requirement of once per day for TRC. Department licensing/permitting actions impose the more stringent of either a water quality-based or BPT based limit. End-of-pipe water quality based concentration thresholds 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	74:1 (A) 115:1 (C)	0.92 mg/L	0.86 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 must dechlorinate the effluent in order to consistently achieve compliance with 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 Freeport wastewater treatment process does include effluent dechlorination following disinfection because of the inability to consistently achieve compliance with water quality based thresholds without dechlorination. Therefore, this permitting action is carrying forward the daily maximum and monthly average technology-based concentration limits of 0.3 and 0.1 mg/L, respectively, and minimum monitoring frequency of once per day (1/Day) based on Department guidance for POTWs permitted to discharge between 0.5 and 1.5 MGD. Freeport has alarms on the disinfection process to warn operators of failures.

g. pH: The previous licensing action established a pH range limit of 6.0 – 8.5 standard units (SU), which was based on a Department BPJ determination of BPT for secondary treated wastewater at that time, and a minimum monitoring frequency requirement of once per day. Pursuant to a new Department rule found at Chapter 525(3)(III)(c), this permitting action is revising the pH range limitation to 6.0 – 9.0 SU, which is now considered BPT for secondary treated wastewater. This permitting action is carrying forward the minimum monitoring frequency requirement of once per day (1/Day) based on Department guidance for POTWs permitted to discharge between 0.5 and 1.5 MGD.

h. Whole Effluent Toxicity (WET) and Chemical-Specific Testing: Maine law, 38 M.R.S.A., Sections 414-A and 420, prohibit the discharge of effluents containing substances in amounts that would cause the surface waters of the State to contain toxic substances above levels set forth in Federal Water Quality Criteria as established by the USEPA. Department rule, 06-096 CMR Chapter 530.5, *Surface Water Toxics Control Program*, set forth ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters.

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

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*) and vertebrate species inland silverside (*Menidia beryllina*). Chronic WET tests are performed on sea urchin (*Arbacia punctulata*) and inland silverside. Chemical-specific 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.

Pursuant to criteria established in Department rule Chapter 530.5, Freeport has been placed in the low frequency category for WET testing, as the facility has a dilution ratio of greater than 100:1 and in the low frequency category for chemical-specific testing, as the facility is permitted to discharge less than 1.0 MGD, with no categorical industrial sources of waste water.

The previous licensing action established the WET and chemical-specific testing requirements for the Freeport in accordance with the Maine Department of Environmental Protection guidance entitled, *Toxicity Program Implementation Protocols*, July 1998 and Department rule Chapter 530.5(B)(7)(c). The previous licensing action established screening level (during the last year of the effective term of the license only) WET testing at a minimum frequency of once per year and screening level chemical-specific testing at a minimum frequency of once per year.

A review of the WET and chemical-specific test results on file with the Department indicates that the Freeport Sewer District has fulfilled the Chapter 530.5 testing requirements established in WDL #W000617-5L-C-R. See an Attachment of this Fact Sheet for a summary of the WET test results and an Attachment of this Fact Sheet for a summary of the chemical-specific test dates. Department rule Chapter 530.5 and Protocol E(1) of the *Toxicity Program Implementation Protocols* states that statistical evaluations shall be periodically performed on the most recent 60 months of WET and chemical-specific data for a given facility to determine if water quality based limitations must be included in the permit.

On December 22, 2004, the Department performed a statistical evaluation on the aforementioned tests results in accordance with the statistical approach outlined in the USEPA's March 1991 document entitled, *Technical Support Document (TSD) for Water Quality Based Toxics Control*, Chapter 3.3.2, and with the *Toxicity Program Implementation Protocols*.

The 12/22/04 statistical evaluation indicates that the discharge does not exceed or have a reasonable potential (RP) to exceed acute or chronic ambient water quality thresholds for WET species tested to date, or any ambient water quality criteria (AWQC) (acute, chronic, or human health) for chemical specific parameters tested to date.

The Department has made the determination that Freeport qualifies for the WET and chemical-specific testing reduction pursuant to Department rule Chapter 530.5(B)(7)(c) and has therefore made a BPJ determination to carry forward the reduction in WET and chemical-specific testing to a screening level of testing. Therefore, this permitting action is carrying forward the screening level WET testing requirement and minimum monitoring frequency requirement of once per year (1/Year) and the screening level chemical-specific testing requirement and minimum monitoring frequency requirement of once per year (1/Year) in the 12-month period prior to the expiration date of the permit.

In the interim, no surveillance level testing is required. In accordance with Department rule Chapter 530.5(B)(7)(c) and Special Condition K of this permit, *Chapter 530.5(B)(7(c)(iii) Certification*, **the permittee must annually submit to the Department a written statement evaluating its current status for each of the four conditions listed in Special Condition K of this permit.**

7. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

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

8. PUBLIC COMMENTS

Public notice of this application was made in the a newspaper with circulation in the area of the discharge on or about February 25, 2005. The Department receives public comments on an application until the date a final agency action is taken on the application. Those persons receiving copies of draft permits shall have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to Chapter 522 of the Department's rules.

9. DEPARTMENT CONTACTS

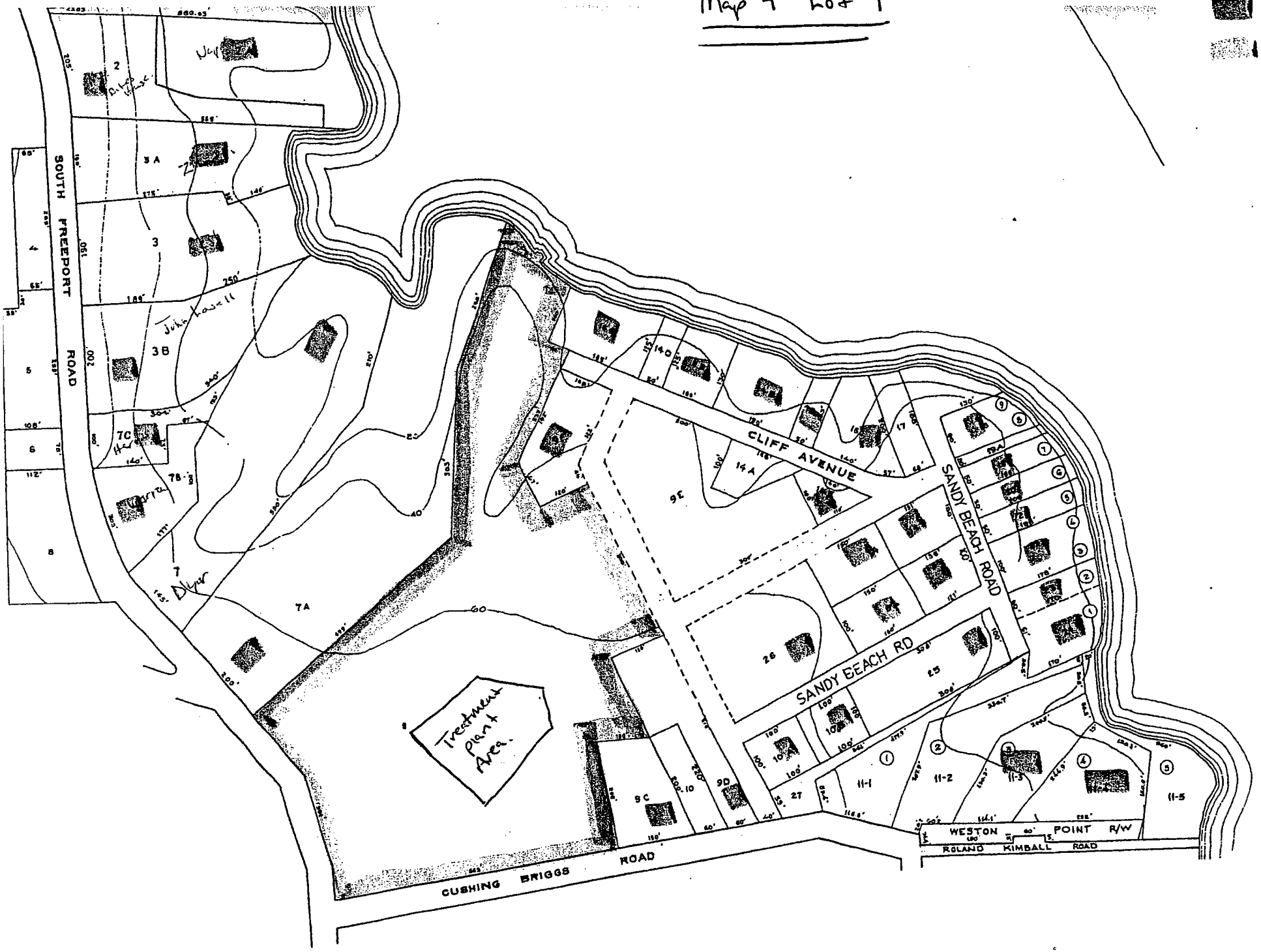
Additional information concerning this permitting action may be obtained from, and written comments sent to:

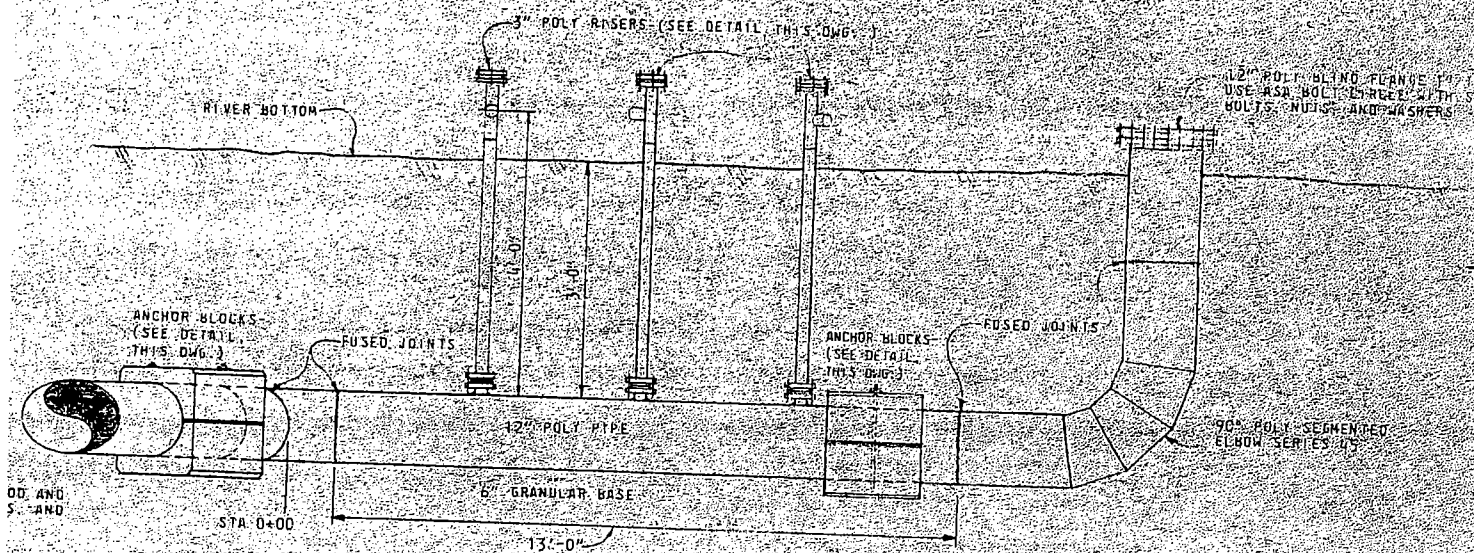
David Silver
Division of Water Resource Regulation
Bureau of Land & Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Telephone: (207) 287-7658

10. RESPONSE TO COMMENTS

During the period of February 28, 2005 through April 11, 2005, the Department solicited comments on the proposed draft Maine Pollutant Discharge Elimination System Permit to be issued to Freeport for the proposed discharge. During this period, the Department received no significant comments on the proposed draft permit, therefore a response comments section was not prepared.

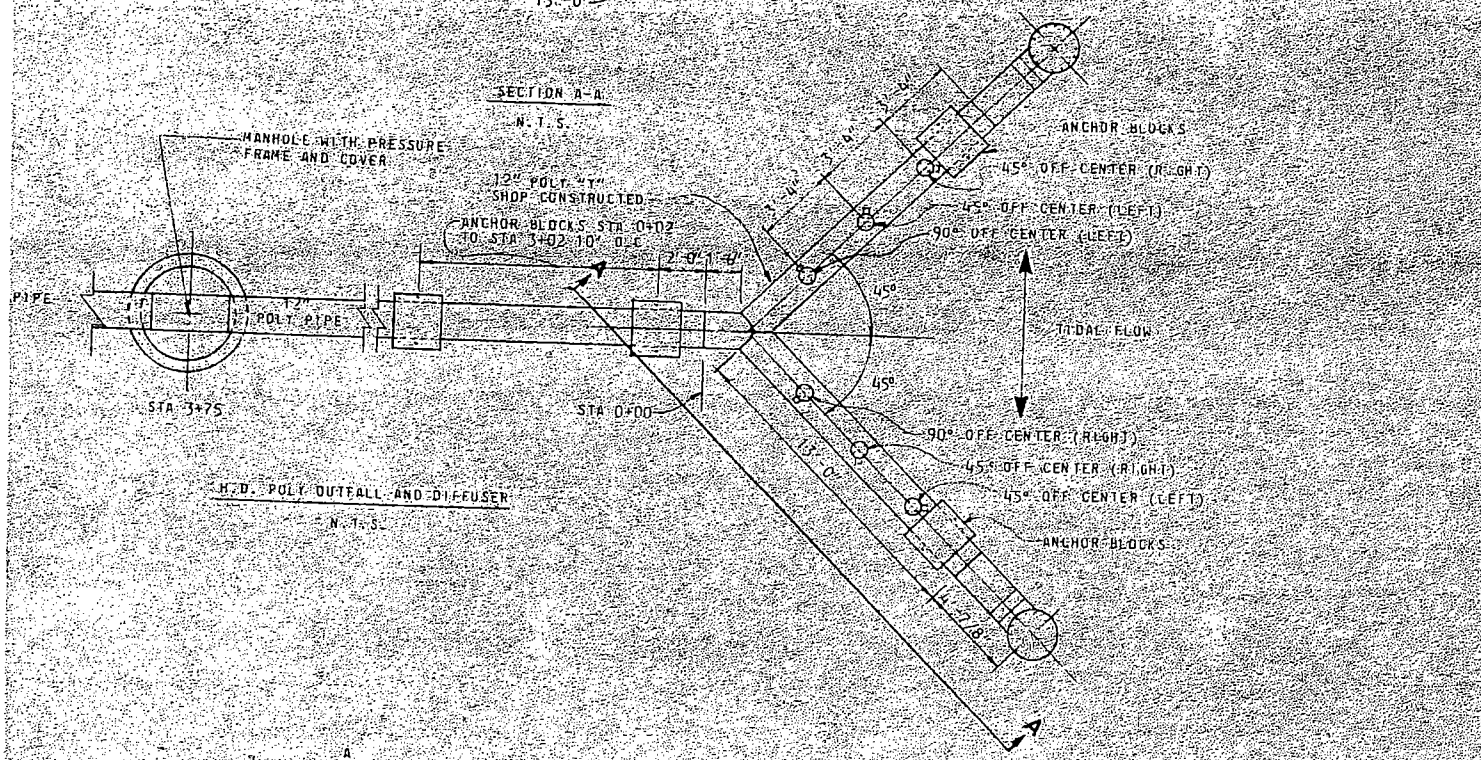
Map 4 Lot 9


Houses
Property
outfall
SOUTH FREEPORT ROAD
CLIFF AVENUE
SANDY BEACH ROAD
SANDY BEACH RD
CUSHING BRIGGS ROAD
WESTON POINT R/W
ROLAND KIMBALL ROAD
Treatment plant Area.
John Lowell
Dyer
outfall



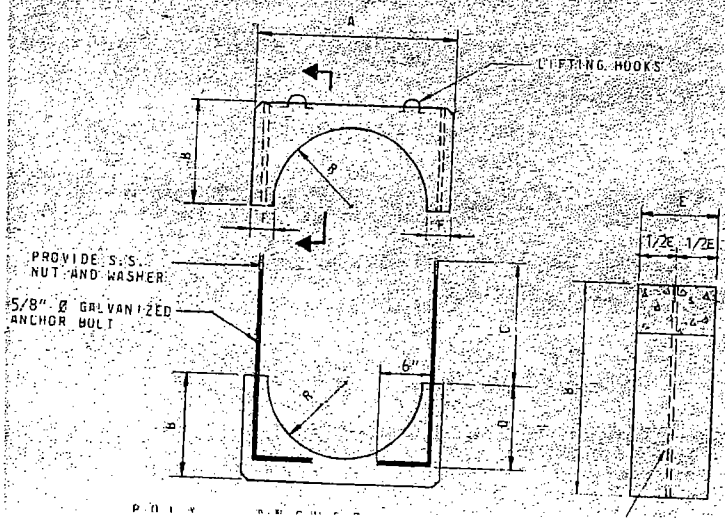
SECTION A-A

N.T.S.



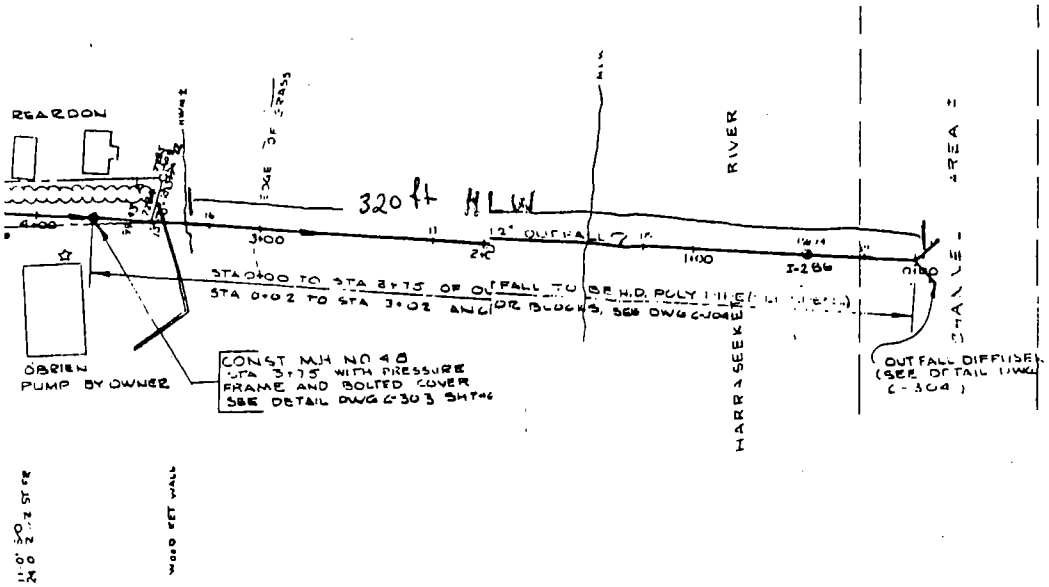
H.D. POLY OUTFALL AND DIFFUSER

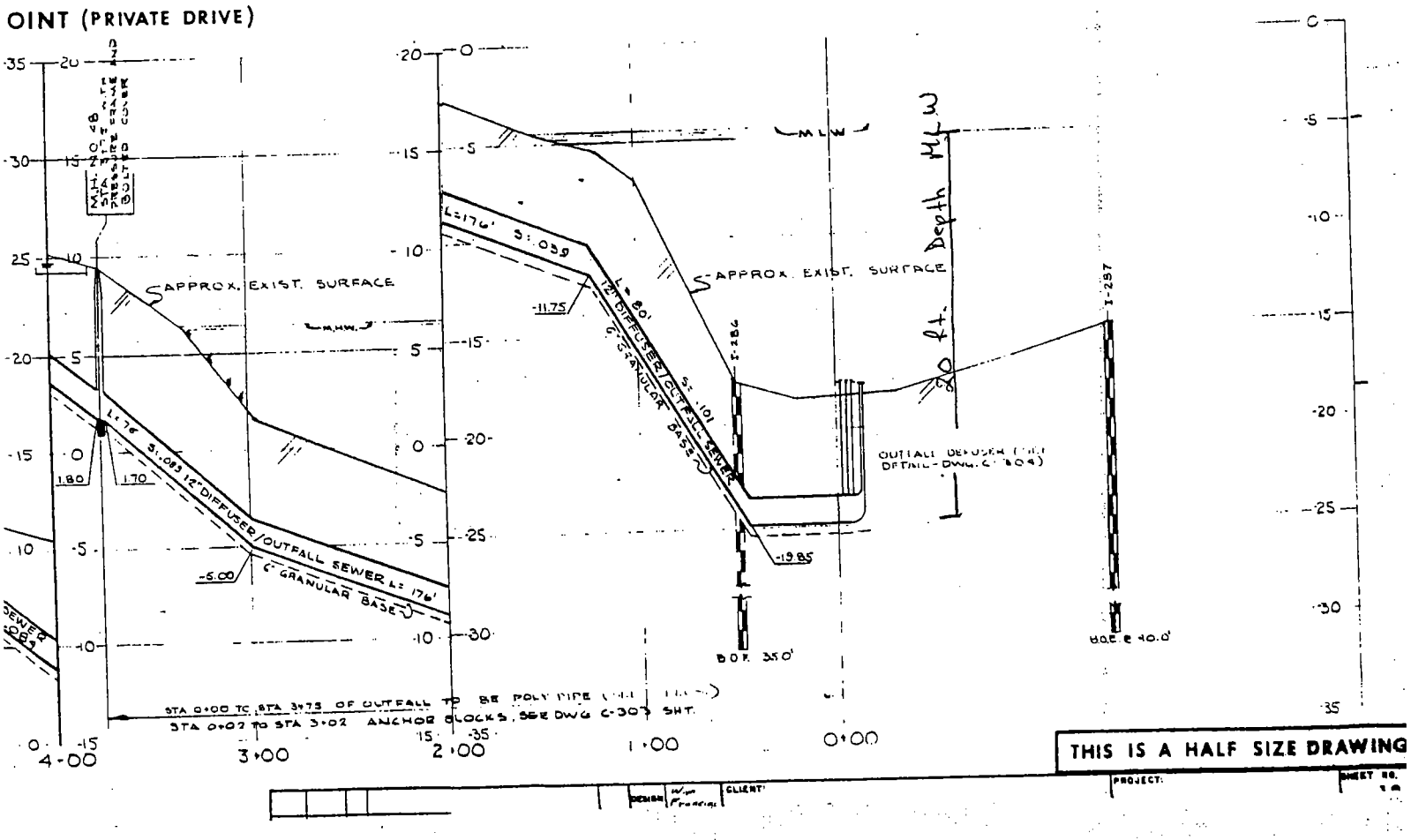
N.T.S.

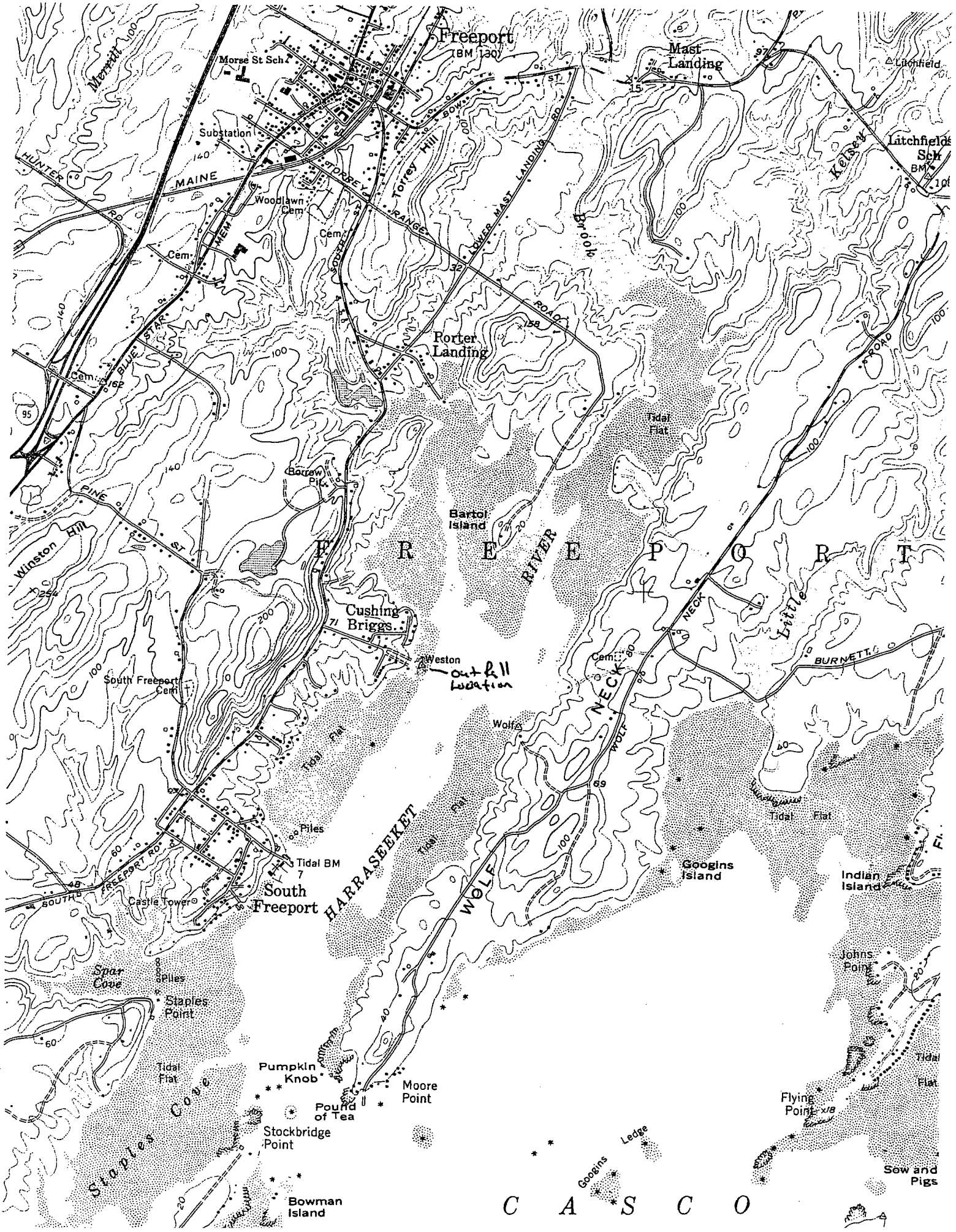


NOTES

1. ANCHOR BLOCKS FOR HARR. C/C FORCE MAIN SHALL BE SPACED 10' ON CENTER STARTING WITH STA. 2+00 AND PROCEEDING TO STA 31+00.
2. OUTFALL ANCHOR BLOCKS SHALL BE SPACED 10' ON CENTER STARTING WITH STA 0+02 AND PROCEEDING TO STA 3+02.
3. THREE (3) WRAPS OF 10 MIL POLYETHELENE SHEET SHALL BE MADE AROUND THE PIPE AT EACH ANCHOR LOCATION BEFORE SECURING THE ANCHOR TO ALLOW FOR LONGITUDINAL MOVEMENT WITHOUT ABRADING THE PIPE.
4. ALL SHARP EDGES SHALL BE GROUND FROM THE ANCHORS ON THE INTERIOR CIRCLE TO PREVENT PIPE ABRASION.
5. ALL NUTS, BOLTS, AND WASHERS USED IN INSTALLATION OF OUTFALL SHALL BE 304 S.S.

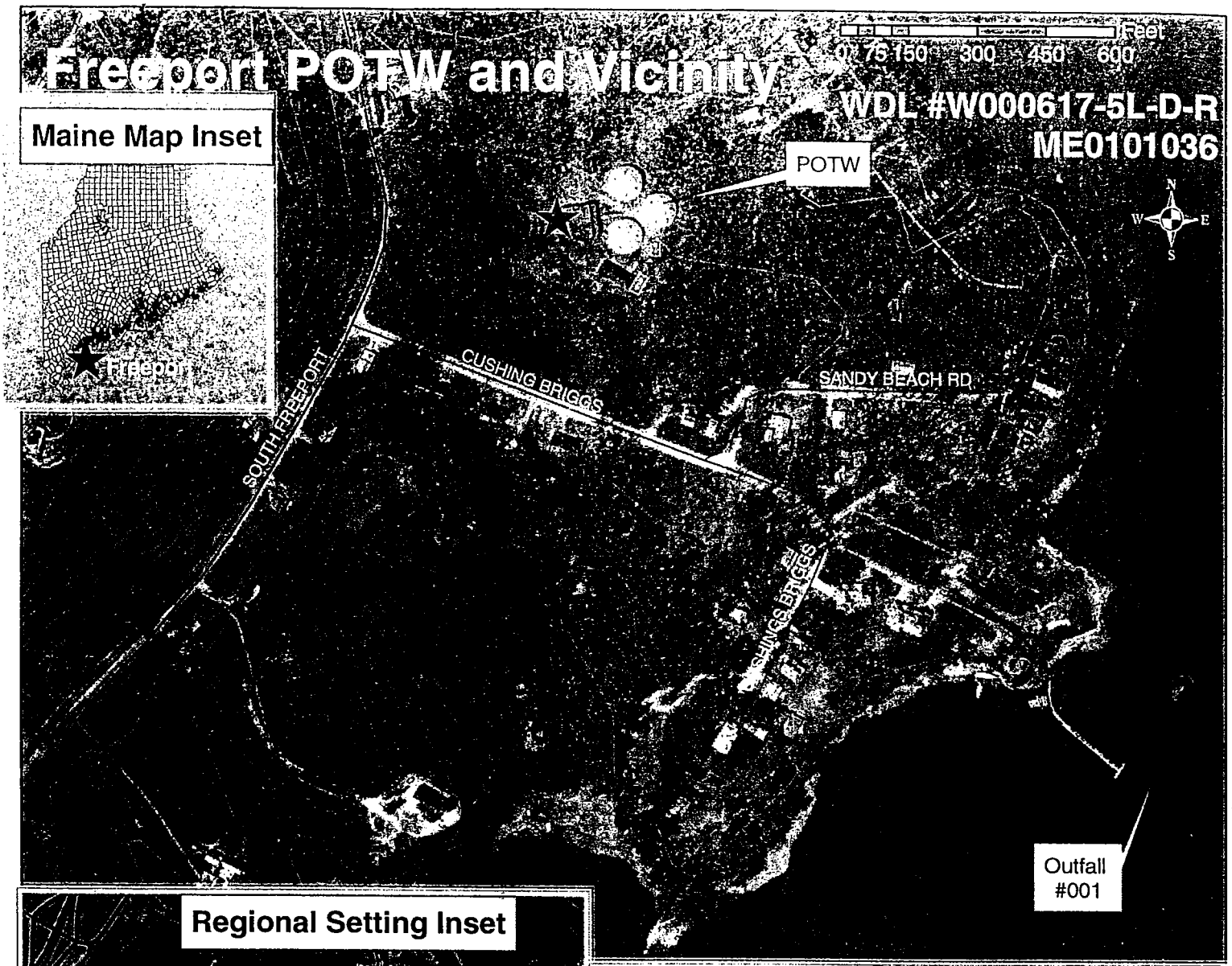

REARDON
320 ft HLW
12" OUTFALL
STA 0+00 TO STA 3+75 OF OUTFALL TO BE H.D. POLY PIPE
STA 0+02 TO STA 3+02 ANCHOR BLOCKS, SEE DWG C-304
CONST MH NO 48
STA 3+75 WITH PRESSURE
FRAME AND BOLTED COVER
SEE DETAIL DWG C-303 SHT
OBRIEN
PUMP BY OWNER
OUTFALL DIFFUSER
(SEE DETAIL DWG
C-304)
HARRASEEKET RIVER
I-286
I-287
WOOD KEY WALL

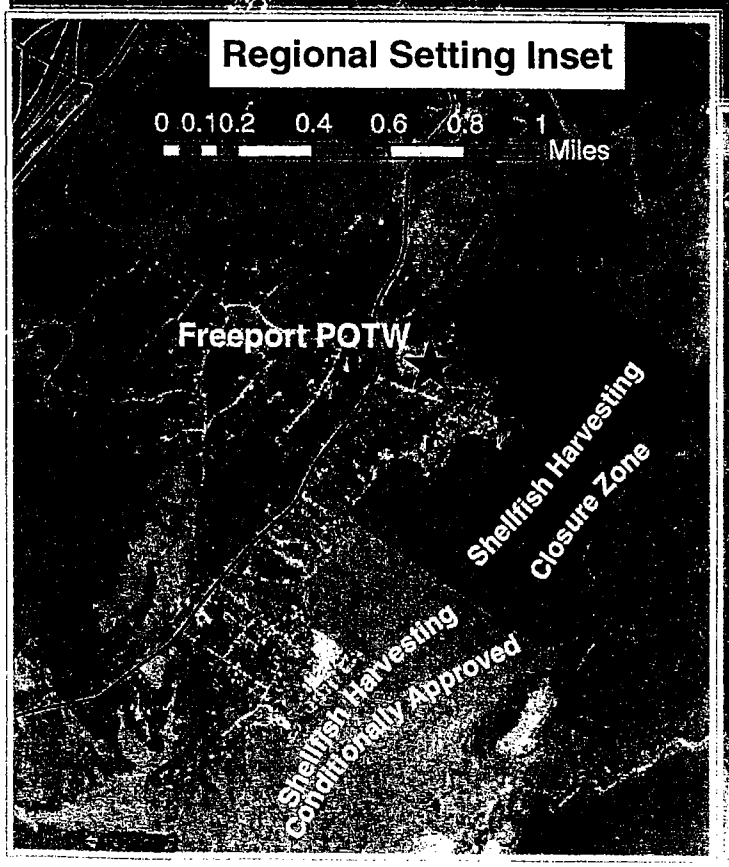

OINT (PRIVATE DRIVE)
APPROX. EXIST. SURFACE
APPROX. EXIST. SURFACE
L=176' S=.059
L=80'
12" DIFFUSER/OUTFALL SEWER
6" GRANULAR BASE
S=.101
-11.75
-19.85
-5.00
1.80
1.70
L=176' S=.089 12" DIFFUSER/OUTFALL SEWER L=176'
6" GRANULAR BASE
MLW
80 ft. Depth MLW
OUTFALL DIFFUSER
DETAIL-DWG. C-304
I-286
I-287
B.O.E. 35.0'
B.O.E. 40.0'
STA 0+00 TO STA 3+75 OF OUTFALL TO BE POLY PIPE
STA 0+02 TO STA 3+02 ANCHOR BLOCKS, SEE DWG C-303 SHT.
4+00
3+00
2+00
1+00
0+00
THIS IS A HALF SIZE DRAWING
DESIGN
CLIENT
PROJECT:
SHEET NO.

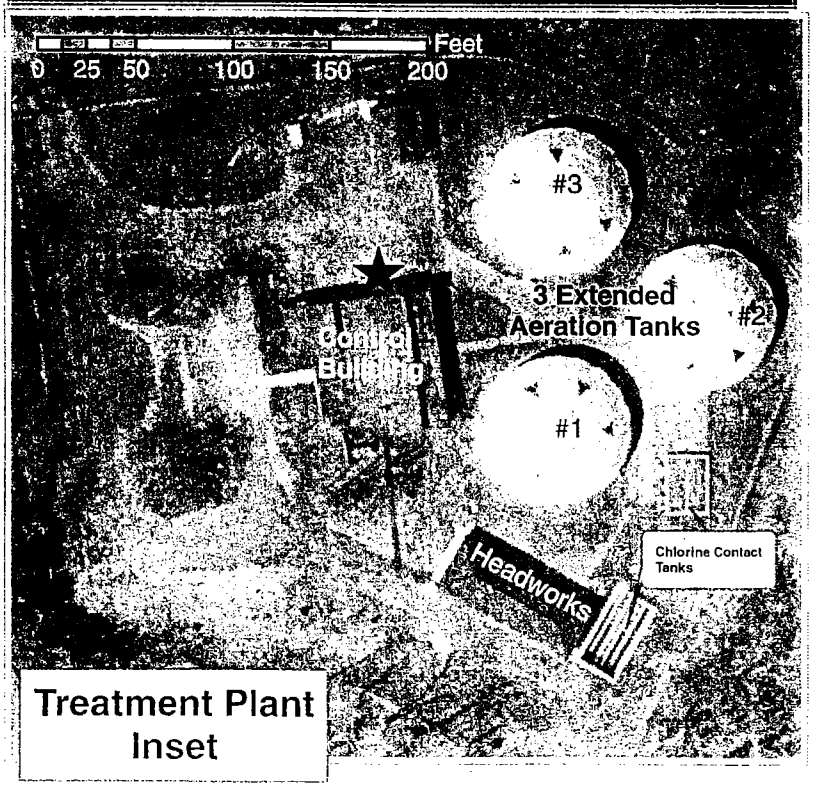

Freeport
(BM 130)
Mast Landing
Litchfield
Litchfields Sch
Morse St Sch
Substation
Merrill
HUNTER RD
MAINE
TORREY RANGE
Woodlawn Cem
Cem
Torrey Hill
BOW ST
LOWER MAST LANDING RD
Brook
Kelsey
ROAD
Porter Landing
BLUE STAR
Cem
95
Tidal Flat
Borrow Pit
PINE ST
Winston Hill
Bartol Island
F R E E P O R T
RIVER
Cushing Briggs
Weston
Out fall Location
South Freeport Cem
Cem
NECK
Little
BURNETT
Wolf
Tidal Flat
Piles
Tidal BM 7
South Freeport
Castle Tower
SOUTH FREEPORT RD
HARRASEEKET
WOLF
Googins Island
Indian Island
Johns Point
Spar Cove
Piles
Staples Point
Tidal Flat
Pumpkin Knob
Moore Point
Pound of Tea
Staples Cove
Stockbridge Point
Bowman Island
Flying Point
Sow and Pigs
Googins Ledge
C A S C O

Freeport POTW and Vicinity

WDL #W000617-5L-D-R
ME0101036







6Jan05 / DS /DWRR/MeDEP