



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

December 5, 2005

JOHN ELIAS BALDACCI

GOVERNOR

DAWN R. GALLAGHER

COMMISSIONER

Mr. Tom Severance, Superintendent  
Winter Harbor Utilities District  
Wastewater Treatment Facility  
P.O. Box 39  
39 Meadow Lane  
Winter Harbor, ME 04693

**RE: *Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0100731  
Maine Waste Discharge License (WDL) Application #W000562-5L-C-R  
Final MEPDES Permit/WDL***

Dear Mr. Severance:

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 #ME0100731 last issued for your facility by the Environmental Protection Agency (EPA) on November 21, 1985. 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

Lori Mitchell, DEP



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

## 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**

WINTER HARBOR UTILITIES DISTRICT	)	MAINE POLLUTANT DISCHARGE
PUBLICLY OWNED TREATMENT WORKS	)	ELIMINATION SYSTEM PERMIT
WINTER HARBOR, HANCOCK COUNTY	)	AND
#ME0100731	)	WASTE DISCHARGE LICENSE
#W000562-5L-C-R <b>APPROVAL</b>	)	<b>RENEWAL</b>

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 WINTER HARBOR UTILITIES DISTRICT (District), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

**APPLICATION SUMMARY**

The District has applied to the Department for renewal of Waste Discharge License (WDL) #W000562-5L-B-R, which was issued on July 11, 2000 and expired on July 11, 2005. The WDL authorized the monthly average discharge of up to 0.125 million gallons per day (MGD) of secondary treated sanitary wastewater from a publicly owned treatment works (POTW) to the Atlantic Ocean at Winter Harbor, Class SB, in Winter Harbor, Maine.

On January 12, 2001, the Department received authorization from the U.S. Environmental Protection Agency (USEPA) to administer the National Pollutant Discharge Elimination System (NPDES) permit program in Maine, excluding areas of special interest to Maine Indian Tribes. From that point forward, the program has been referred to as the Maine Pollutant Discharge Elimination System (MEPDES) permit program, and permit #ME0100731 (same as NPDES permit number) will be utilized as the primary reference number.

## PERMIT SUMMARY

**This permitting action is similar to the 7/11/00 licensing action in that it is:**

1. Carrying forward the monthly average discharge flow limitation of 0.125 MGD and daily maximum discharge flow reporting requirement;
2. Carrying forward the monthly average, weekly average and daily maximum technology-based concentration and mass limit for biochemical oxygen demand (BOD<sub>5</sub>) 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 concentration limitations for fecal coliform bacteria;
5. Carrying forward the technology-based monthly average concentration limit for total residual chlorine (TRC);
6. Carrying forward the minimum monitoring frequency requirements for all monitored parameters.

**This permitting action is different from the 7/11/00 licensing action in that it is:**

1. Establishing a requirement to achieve a minimum 30-day average of 85 percent removal for BOD<sub>5</sub> and TSS;
2. Revising the daily maximum concentration limit for TRC from a water quality-based limit of 0.22 mg/L to a technology-based limit of 0.3 mg/L based on revised dilution factors;
3. Revising the pH range limitation to 6.0 – 9.0 standard units;
4. Requiring the submission of a revised Wet Weather Management Plan for Department review and comment; and
5. Establishing whole effluent toxicity (WET), priority pollutant, and analytical chemistry testing requirements.

## 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 discharge will be subject to effluent limitations that require application of best practicable treatment as defined in Maine law, 38 M.R.S.A. §414-A(1)(D).

**ACTION**

THEREFORE, the Department APPROVES the above noted application of the WINTER HARBOR UTILITIES DISTRICT to discharge a monthly average flow of up to 0.125 MGD of secondary treated sanitary wastewater to the Atlantic Ocean at Winter Harbor, Class SB, in Winter Harbor, Maine, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations including:

1. "Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable To All Permits," revised July 1, 2002, copy attached.
2. The attached Special Conditions, including any effluent limitations and monitoring requirements.
3. The expiration date of this permit is five (5) years from the date of signature below.

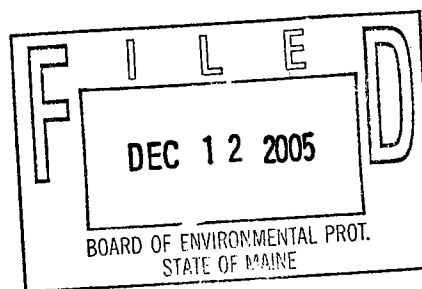
DONE AND DATED AT AUGUSTA, MAINE, THIS 7<sup>TH</sup> DAY OF DECEMBER, 2005.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:   
DAWN R. GALLAGHER, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: July 26, 2005  
Date of application acceptance: July 27, 2005



Date filed with Board of Environmental Protection: \_\_\_\_\_

**SPECIAL CONDITIONS**

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

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

Effluent Characteristic	Discharge Limitations				Monitoring Requirements			
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow [50050]	as specified 0.125 MGD [03]	--	as specified Report MGD [03]	--	--	--	as specified Continuous [99/99]	as specified Recorder [RC]
BOD <sub>5</sub> [00310]	31 lbs./day [26]	47 lbs./day [26]	52 lbs./day [26]	30 mg/L [19]	45 mg/L [19]	50 mg/L [19]	1/Week [01/07]	24-Hour Composite [24]
BOD <sub>5</sub> Percent Removal <sup>(2)</sup> [81010]	---	---	---	85% [23]	---	---	1/Month [01/30]	Calculate [CA]
TSS [00530]	31 lbs./day [26]	47 lbs./day [26]	52 lbs./day [26]	30 mg/L [19]	45 mg/L [19]	50 mg/L [19]	1/Week [01/07]	24-Hour Composite [24]
TSS Percent Removal <sup>(2)</sup> [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 <sup>(3)</sup> [31616] May 15-September 30	--	--	--	15/100 ml <sup>(4)</sup> [13]	--	50/100 ml [13]	1/Week [01/07]	Grab [GR]
Total Residual Chlorine <sup>(5)</sup> [50060]	--	--	--	0.1 mg/L [19]	--	0.3 mg/L [19]	1/Day [01/01]	Grab [GR]
pH [00400]	--	--	--	--	--	6.0 - 9.0 SU [12]	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 Pages 8 through 11 of this permit for applicable footnotes.

**SPECIAL CONDITIONS**

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

2. SURVEILLANCE LEVEL TESTING. During the period beginning the effective date of this permit and lasting through 12 months prior to permit expiration for Outfall #001A, the permittee shall perform WHOLE EFFLUENT TOXICITY (WET) and ANALYTICAL CHEMISTRY MONITORING as follows:

Whole Effluent Toxicity (WET) <sup>(6)</sup>	Daily Maximum	Minimum Frequency	Sample Type
<u>Acute No Observed Effect Level (A-NOEL)</u> Invertebrate-Mysid Shrimp ( <i>Mysidopsis bahia</i> ) [TDA3E]	Report % [23]	1/Year [01/YR]	Composite [24]
<u>Chronic No Observed Effect Level (C-NOEL)</u> Invertebrate-Sea Urchin ( <i>Arbacia punctulata</i> ) [TBH3A]	Report % [23]	1/Year [01/YR]	Composite [24]
<u>Analytical Chemistry</u> <sup>(7)</sup> [51168]	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 8 through 11 of this permit for applicable footnotes.



**SPECIAL CONDITIONS**

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

3. **SCREENING LEVEL TESTING.** During the period beginning 12 months prior to permit expiration and lasting through permit expiration for **Outfall #001A**, the permittee shall perform **WHOLE EFFLUENT TOXICITY (WET)**, **PRIORITY POLLUTANT TESTING AND ANALYTICAL CHEMISTRY MONITORING** as follows:

<b>Whole Effluent Toxicity (WET) <sup>(6)</sup></b>	<b>Daily Maximum</b>	<b>Minimum Frequency</b>	<b>Sample Type</b>
<b><u>Acute No Observed Effect Level (A-NOEL)</u></b> Invertebrate-Mysid Shrimp <i>(Mysidopsis bahia) [TDA3E]</i>	Report % [23]	1/Year [01/YR]	Composite [24]
<b><u>Chronic No Observed Effect Level (C-NOEL)</u></b> Invertebrate-Sea Urchin <i>(Arbacia punctulata) [TBH3A]</i>	Report % [23]	1/Year [01/YR]	Composite [24]
<b>Priority Pollutant <sup>(8)</sup></b> [50008]	Report ug/L [28]	1/Year [01/YR]	Composite/Grab [24/GR]
<b>Analytical Chemistry <sup>(9)</sup></b> [51168]	Report ug/L [28]	1/Quarter [01/QR]	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 8 through 11 of this permit for applicable footnotes.

## SPECIAL CONDITIONS

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

#### FOOTNOTES:

1. **Monitoring – Influent monitoring shall be conducted at the discharge end of the facility's grit chamber. Following completion of the installation of a composite sampler at the Main Street pump station, influent samples shall be conducted at the Main Street pump station, or other location specified by the Department. All effluent monitoring shall be conducted at a location following the last treatment unit in the treatment process as to be representative of end-of-pipe effluent characteristics. Effluent monitoring shall be conducted from the chlorine contact chamber at a point immediately following dechlorination, or other location specified by the Department.**

Any change in sampling location must be approved by the Department in writing. Sampling and analysis must be conducted in accordance with: a) methods approved by 40 Code of Federal Regulations (CFR) Part 136; b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136; or c) as otherwise specified by the Department. Samples that are sent out for analysis shall be analyzed by a laboratory certified by the State of Maine's Department of Human Services.

2. **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 the purposes of Discharge Monitoring Report (DMR) reporting when the monthly average influent concentration is less than 200 mg/L, enter "NODI-9" indicating "monitoring not required this monitoring period."**
3. **Bacteria Limits – Fecal coliform bacteria limits and monitoring requirements are seasonal and apply between May 15 and September 30 of each year. The Department reserves the right to require year-round bacteria limits 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. **TRC Monitoring – Monitoring for TRC is only required when elemental chlorine or chlorine-based compounds are in use for effluent disinfection. 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. For the purposes of Discharge Monitoring Report (DMR) reporting when a facility has not disinfected with chlorine-based compounds for an entire reporting period, enter "NODI-9" indicating "monitoring not required this monitoring period."**

## SPECIAL CONDITIONS

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

#### FOOTNOTES:

6. **Whole Effluent Toxicity (WET) Testing** – Definitive WET testing is a multi-concentration testing event [a minimum of five dilutions bracketing the critical acute and chronic thresholds of 3.8% and 0.63%, respectively, (mathematical inverse of acute and chronic dilution factors)], 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.
7. **Beginning upon issuance of this permit and lasting through 12 months prior to permit expiration**, the permittee shall conduct surveillance level WET testing at a minimum frequency of once per year (1/Year) in a different calendar quarter for each testing event, such that at least one test is conducted in all four quarters after four years of testing. Acute tests shall be conducted on the mysid shrimp (*Mysidopsis bahia*); chronic tests shall be conducted on the sea urchin (*Arbacia punctulata*). The permittee shall evaluate test results being submitted and identify to the Department possible exceedences of the critical acute and chronic water quality thresholds of 3.8% and 0.63%, respectively. Results shall be submitted to the Department within ten (10) business days after receiving the data report from the laboratory conducting the testing. For the purposes of Discharge Monitoring Report (DMR) reporting when WET testing is not required during the reporting period, enter “NODI-9” indicating “**monitoring not required this monitoring period.**”

**Results of WET tests shall be reported on the “WET Results Report – Marine Waters” form included as Attachment A of this permit each time a WET test is performed. The permittee is required to analyze the effluent for the parameters specified on the “WET and Analytical Chemistry Results – Marine Waters” form included as Attachment B 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. U.S. Environmental Protection Agency. 2002. *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, 5<sup>th</sup> ed. EPA 821-R-02-012. U.S. Environmental Protection Agency, Office of Water, Washington, D.C., October 2002 (the acute method manual).
  - b. U.S. Environmental Protection Agency. 2002. *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms*, 3<sup>rd</sup> ed. EPA 821-R-02-014. U.S. Environmental Protection Agency, Office of Water, Washington, D.C., October 2002 (the marine chronic method manual).
7. **Analytical Chemistry** – Analytical chemistry refers to a suite of chemical tests that include ammonia nitrogen (as N), total aluminum, total arsenic, total cadmium, total chromium, total copper, total cyanide, total lead, total nickel, total silver, total zinc and total residual chlorine, as specified in Department rule 06-096 CMR Chapter 530 Section 2.C.4.

## SPECIAL CONDITIONS

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

#### FOOTNOTES:

**Beginning upon issuance of this permit and lasting through 12 months prior to permit expiration** (surveillance level), the permittee shall conduct analytical chemistry monitoring at a minimum frequency of once per year (1/Year). Tests shall be conducted in a different calendar quarter for each testing event, such that at least one test is conducted in all four calendar quarters after four years of testing.

**Beginning 12 months prior to the expiration of this permit and lasting through permit expiration** (screening level), the permittee shall conduct analytical chemistry monitoring at a minimum frequency of once per calendar quarter (1/Quarter).

Analytical chemistry 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 ten (10) business days of the permittee receiving the data report from the laboratory conducting the testing. The permittee shall evaluate test results being submitted and identify to the Department possible exceedences of applicable ambient water quality criteria. For the purposes of Discharge Monitoring Report (DMR) reporting when analytical chemistry monitoring is not required during the reporting period, enter "NODI-9" indicating "monitoring not required this monitoring period."

The permittee is required to analyze the effluent for the "analytes required for analytical chemistry" as provided on the "WET and Analytical Chemistry Results – Marine Waters" form included as Attachment B of this permit each time analytical chemistry monitoring is performed.

8. **Priority Pollutant Testing** – Priority pollutant testing refers to analysis for levels of priority pollutants listed in Department rule 06-096 CMR Chapter 525 Section 4.VI.

**Beginning 12 months prior to permit expiration and lasting through permit expiration** (screening level), the permittee shall conduct priority pollutant testing at a minimum frequency of once per year (1/Year) in a different calendar quarter for each testing event, such that at least one test is conducted in all four quarters after four years of testing.

Priority pollutant testing shall be conducted on samples collected at the same time as those collected for whole effluent toxicity tests, when applicable. Priority pollutant 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. See Attachment C of the accompanying Fact Sheet. The permittee shall evaluate test results being submitted and identify to the Department, possible exceedences of the acute chronic or human health water quality criteria as established in Chapter 584. Results shall be submitted to the Department within ten (10) business 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" indicating "testing done this monitoring period" or enter "NODI-9" indicating "monitoring not required this monitoring period."

## SPECIAL CONDITIONS

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

#### FOOTNOTES:

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

### 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 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.

### D. TREATMENT PLANT OPERATOR

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

### E. LIMITATIONS FOR INDUSTRIAL USERS

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

## SPECIAL CONDITIONS

### F. 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 (13<sup>th</sup>) 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 (15<sup>th</sup>) 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 addresses:

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

### G. NOTIFICATION REQUIREMENT

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

1. Any introduction of pollutants into the wastewater collection and treatment system from an indirect discharger in a primary industrial category discharging process wastewater; and
2. Any substantial change in the volume or character of pollutants being introduced into the wastewater collection and treatment system by a source introducing pollutants into the system at the time of permit issuance. For the purposes of this section, notice regarding substantial change shall include information on:
  - (a) the quality and quantity of wastewater introduced to the wastewater collection and treatment system; and
  - (b) any anticipated impact caused by the change in the quantity or quality of the wastewater to be discharged from the treatment system.

### H. 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.

## SPECIAL CONDITIONS

### I. WET WEATHER FLOW MANAGEMENT PLAN

**On or before April 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 their 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.**

### J. OPERATION & MAINTENANCE (O&M) PLAN

The permittee shall maintain a current written comprehensive Operation & Maintenance (O&M) Plan at the facility. The plan shall provide a systematic approach by which the permittee shall at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit.

**By December 31 of each year, or within 90 days of any process changes or minor equipment upgrades**, the permittee shall evaluate and modify the O&M Plan including site plan(s) and schematic(s) for the wastewater treatment facility to ensure that it is up-to-date. The O&M Plan shall be kept on-site at all times and made available to Department and USEPA personnel upon request.

**Within 90 days of completion of new and or substantial upgrades of the wastewater treatment facility**, the permittee shall submit the updated O&M Plan to their Department inspector for review and comment.

## SPECIAL CONDITIONS

### K. DISPOSAL OF SEPTAGE WASTE IN WASTEWATER TREATMENT FACILITY

During the effective period of this permit, the permittee is authorized to receive and introduce into the treatment process or solids handling or treatment plant process up to **a daily maximum of up to 1,250 gallons per day** of septage, subject to the following terms and conditions:

1. 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.
2. At no time shall the addition of septage cause or contribute to effluent quality violations. If such conditions do exist, the introduction of septage into the treatment process or solids handling stream shall be suspended until effluent quality can be maintained.
3. 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 water treatment influent and test results.
4. The addition of septage into the treatment process or solids handling stream shall not cause the treatment facilities design capacity to be exceeded. If, for any reason, the treatment process or solids handling facilities become overloaded, introduction of septage into the treatment process or solids handling stream shall be reduced or terminated in order to eliminate the overload condition.
5. Septage known to be harmful to the treatment processes shall not be accepted. Wastes that contain heavy metals, toxic chemicals, extreme pH, flammable or corrosive materials in concentrations harmful to the treatment operation shall be refused.
6. Holding tank waste water shall not be recorded as septage but should be reported in the treatment facility's influent flow.
7. During wet weather flows, no septage shall be added to the treatment process or solids handling facilities.

### L. 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.

### M. SEVERABILITY

In the event that any provision, or part thereof, of this permit is declared to be unlawful by a reviewing court, the remainder of the permit shall remain in full force and effect, and shall be construed and enforced in all respects as if such unlawful provision, or part thereof, had been omitted, unless otherwise ordered by the court.



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

**FACT SHEET**

Date: **NOVEMBER 29, 2005**

MEPDES PERMIT: **#ME0100731**  
WASTE DISCHARGE LICENSE: **#W000562-5L-C-R**

NAME AND ADDRESS OF APPLICANT:

**WINTER HARBOR UTILITIES DISTRICT  
P.O. BOX 39  
39 MEADOW LANE  
WINTER HARBOR, ME 04693**

COUNTY: **HANCOCK**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

**WINTER HARBOR UTILITIES DISTRICT  
39 MEADOW LANE  
WINTER HARBOR, ME 04693**

RECEIVING WATER / CLASSIFICATION: **TIDEWATERS OF WINTER HARBOR / CLASS SB**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **TOM SEVERANCE  
SUPERINTENDENT  
(207) 963-5579**

**1. APPLICATION SUMMARY**

Application: The Winter Harbor Utilities District (District) has applied to the Department of Environmental Protection (Department) for renewal of Waste Discharge License (WDL) #W000562-5L-B-R, which was issued on July 11, 2000 and expired on July 11, 2005. The WDL authorized the monthly average discharge of up to 0.125 million gallons per day (MGD) of secondary treated sanitary wastewater from a publicly owned treatment works (POTW) to the Atlantic Ocean at Winter Harbor, Class SB, in Winter Harbor, Maine.

## 2. PERMIT SUMMARY

- a. **Regulatory:** On January 12, 2001, the Department received authorization from the U.S. Environmental Protection Agency (USEPA) to administer the National Pollutant Discharge Elimination System (NPDES) permit program in Maine, excluding areas of special interest to Maine Indian Tribes. On October 30, 2003, after consultation with the U.S. Department of Justice, the USEPA extended Maine's NPDES program delegation to all but tribally owned lands. In those areas, the Department maintains the authority to issue WDLs pursuant to Maine law. The extent of Maine's delegated authority is under appeal at the time of this permitting action. From that point forward, the program has been referred to as the Maine Pollutant Discharge Elimination System (MEPDES) program and permit #ME0100731 (same as NPDES permit number) will be utilized as the primary reference number for the Winter Harbor Utilities District' MEPDES permit.
- b. **Terms and Conditions:** **This permitting action is similar to the 7/11/00 licensing action in that it is:**
- 1: Carrying forward the monthly average discharge flow limitation of 0.125 MGD and daily maximum discharge flow reporting requirement;
  2. Carrying forward the monthly average, weekly average and daily maximum technology-based concentration and mass limit for biochemical oxygen demand (BOD<sub>5</sub>) 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 concentration limitations for fecal coliform bacteria;
  5. Carrying forward the technology-based monthly average concentration limit for total residual chlorine (TRC);
  6. Carrying forward the minimum monitoring frequency requirements for all monitored parameters.

**This permitting action is different from the 7/11/00 licensing action in that it is:**

1. Establishing a requirement to achieve a minimum 30-day average of 85 percent removal for BOD<sub>5</sub> and TSS;
2. Revising the daily maximum concentration limit for TRC from a water quality-based limit of 0.22 mg/L to a technology-based limit of 0.3 mg/L based on revised dilution factors;
3. Revising the pH range limitation to 6.0 – 9.0 standard units;
4. Requiring the submission of a revised Wet Weather Management Plan for Department review and comment; and
5. Establishing whole effluent toxicity (WET), priority pollutant, and analytical chemistry testing requirements.

## 2. PERMIT SUMMARY (cont'd)

- c. Facility History: This section provides a summary of significant licensing/permitting actions that have been completed for the Winter Harbor Utilities District.

April 6, 1985 – The Department issued WDL #W000562-45-A-R to the District.

February 15, 1995 – The Department issued a letter to the District advising that the facility was exempt from toxics testing (whole effluent toxicity and chemical-specific) based on the Department's determination that the facility had an effective dilution factor of at least 1,000:1.

November 21, 1985 – The USEPA issued NPDES permit #ME0100731 to the District for the discharge of secondary treated sanitary wastewater to tidewaters of Winter Harbor.

May 23, 2000 – The Department administratively modified WDL #W000562-45-A-N by establishing interim monthly average and daily maximum concentration limits of 6.0 parts per trillion (ppt) and 9.0 ppt, respectively, and a minimum monitoring frequency requirement of 2 times per year for mercury. It is noted the limitations have not been incorporated into Special Condition A, *Effluent Limitations And Monitoring Requirements*, of this permit as limitations and monitoring frequencies are regulated separately through Maine law, 38 M.R.S.A. §413 and Department rule Chapter 519. However, the interim limitations remain in effect and enforceable and any modifications to the limits and or monitoring requirements will be formalized outside of this permitting document.

July 11, 2000 – The Department issued WDL #W000562-5L-B-R to the District for the monthly average discharge of up to 0.125 MGD of secondary treated sanitary wastewater to tidewaters of Winter Harbor. The 7/11/00 WDL superseded the 4/6/85 WDL.

July 26, 2005 – The District submitted a General Application to the Department for renewal of WDL #W000562-5L-B-R. The application was accepted for processing on July 27, 2005, and assigned WDL #W000562-5L-C-R / MEPDES #ME0100731.

- d. Source Description: The Winter Harbor Utilities District is a publicly owned treatment works (POTW) that owns and operates a wastewater treatment facility, located on Meadow Lane in Winter Harbor, for the treatment of waste waters generated by approximately 280 domestic and commercial users in the Town of Winter Harbor. There are no significant industrial users contributing flows to the treatment facility and no combined sewer overflow (CSO) points associated with the collection system. The sewer collection system is approximately five (5) miles in length and contains four pump stations. The pump stations are located on Main Street, School Street, Sergeant Street, and Beach Street. Emergency back-up power is provided to the latter three pump stations by a portable generator, while the Main Street pump station is equipped with a permanent back-up generator. The Main Street pump station, which conveys all flows to the treatment plant, is scheduled to be upgraded in the fall of 2005 including the installation of a composite sampler for influent samples. Until the upgraded is completed, the District shall continue to collect influent samples from the facility grit chamber as described below.

## 2. PERMIT SUMMARY (cont'd)

The previous licensing action authorized the District to accept and introduce into the treatment process a daily maximum of up to 1,250 gallons per day (GPD) of septage wastes from local haulers. The septage is received directly from the trucks into an 8,000-gallon aerated sludge holding tank and aerated for a minimum of four days. Aerated sludge is pumped to a sludge holding tank and then into a reed (*Phragmites* sp.) bed for final disposal. Septage is not introduced into the wastewater stream. This permitting action carries forward authorization to receive up to 1,250 GPD of septage wastes pursuant to Chapter 555, *Standards for the Addition of Septage to Waste Water Treatment Facilities*, and based on a written Septage Management Plan dated, July 15, 2005

A map showing the location of the treatment facility and Outfall #001A is included as Fact Sheet Attachment A.

- e. Wastewater Treatment: The District provides a secondary level of treatment via an extended aeration activated sludge treatment process. Raw wastewater is conveyed from the Main Street pump station to a grit chamber at the head end of the treatment facility. The treatment system contains a comminutor and a bar screen, but reports that neither is used. Grease is periodically removed from the Main Street pump station and disposed of. Grit screenings are removed and disposed of at a landfill. Screened flow is conveyed from the grit chamber to a flow splitter box, combined with return activated sludge and evenly distributed to two (2) 43,900-gallon capacity, 24-foot long by 24-foot wide by 10 foot deep aeration basins fitted with mechanical aerators. The flow is then conveyed to two (2) 18-foot diameter, 8-10-foot deep circular secondary clarifiers. Scum from each clarifier's surface is conveyed to scum pits and then pumped back to the aeration basins for further treatment. From the clarifiers, the flow is conveyed to a 13-foot wide by 24-foot long by 9-foot deep chlorine contact chamber. The chamber is segregated into two equal chambers, and both sides are utilized, except that one side may be taken off line for maintenance purposes. The wastewater is treated with sodium hypochlorite for disinfection and with sodium bisulfite for dechlorination on a seasonal basis.

Waste sludge is periodically pumped to a reed bed for final disposal. The vegetative portions of the reeds are cut back annually.

Final effluent is conveyed for discharge to the Atlantic Ocean at Henry Cove in Winter Harbor via a 16-inch diameter outfall pipe that extends approximately 1,250 linear feet into the receiving water from the spring high tide level to a measured depth of 2.3 meters feet below the surface of the water at neap tide. The outfall pipe is not fitted with a diffuser or other mechanism to enhance mixing of the effluent with the receiving water. The mixing characteristics of the effluent with the receiving water have not been determined.

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

### 3. CONDITIONS OF PERMIT

Maine law, 38 M.R.S.A. Section 414-A, requires that the effluent limitations prescribed for discharges, including, but not limited to, effluent toxicity, require application of best practicable treatment (BPT), be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System. In addition, 38 M.R.S.A., Section 420 and Department rule 06-096 CMR Chapter 530, *Surface Water Toxics Control Program*, require the regulation of toxic substances not to exceed levels set forth in Department rule 06-096 CMR Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants*, and that ensure safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected.

### 4. RECEIVING WATER QUALITY STANDARDS

Maine law, 38 M.R.S.A. §469 classifies all estuarine and marine waters lying within the boundaries of the State and which are not otherwise classified, which includes tidewaters of Winter Harbor 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.

### 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 Winter Harbor at the point of discharge (Waterbody #714-17) as, "*Category 2: Estuarine and Marine Waters Attaining Some Designated Uses – Insufficient Information for Other Uses.*"

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 #C51 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 District 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 licensing action established a monthly average discharge flow limitation of 0.125 MGD based on the design capacity of the treatment facility, which is being carried forward in this permitting action along with a “continuous recorder” monitoring requirement. This permitting action is also carrying forward a daily maximum discharge flow reporting requirement.
- 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.” Based on the configuration of the outfall structure and a discharge flow limit of 0.125 MGD, dilution factors associated with the discharge are as follows:

Acute = 26:1

Chronic = 160:1

Harmonic Mean<sup>1</sup> = 480:1

It is noted that the District submitted outfall pipe depth measurements taken at neap tide to the Department in September 2005 and that this information resulted in revised dilution factors that are lower than previously modeled. The difference in dilution ratios is caused by a difference in assumed outfall pipe depth. The previous model runs assumed an outfall pipe depth of 2.9 meters at neap tide while the new information submitted by the District indicates that the actual depth at neap tide is 2.3 meters.

- c. Biochemical Oxygen Demand (BOD<sub>5</sub>) and Total Suspended Solids (TSS): The previous licensing action established monthly average and weekly average BOD<sub>5</sub> & TSS concentration limits of 30 mg/L and 45 mg/L, respectively, that 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<sub>5</sub> & TSS concentration limit of 50 mg/L based on a Department best professional judgement of best practicable treatment (BPT). All three concentration limits are being carried forward in this permitting action. The previous permitting action established monthly average, weekly average, and daily maximum mass limits of 31 lbs./day and 47 lbs./day, and 52 lbs./day, respectively, which are being carried forward in this permitting action and were derived as follows:

Monthly Average Mass Limit:  $(30 \text{ mg/L})(8.34 \text{ lbs./gallon})(0.125 \text{ MGD}) = 31 \text{ lbs./day}$

Weekly Average Mass Limit:  $(45 \text{ mg/L})(8.34 \text{ lbs./day})(0.125 \text{ MGD}) = 47 \text{ lbs./day}$

Daily Maximum Mass Limit:  $(50 \text{ mg/L})(8.34 \text{ lbs./day})(0.125 \text{ MGD}) = 52 \text{ lbs./day}$

---

<sup>1</sup> 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)**

This permitting action is also establishing a new requirement for a minimum of 85% removal of BOD<sub>5</sub> & 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 once per week (1/Week) for BOD<sub>5</sub> & TSS based on Department guidance for POTWs permitted to discharge between 0.1 and 0.5 MGD.

- d. Settleable Solids: The previous licensing action established a daily maximum technology-based concentration limit of 0.3 ml/L for settleable solids, which is being carried forward in this permitting action as it is considered by the Department as BPT for secondary treated wastewater, and is carrying forward the minimum monitoring frequency requirement of five times per week (5/Week), which is less frequent than Department guidance, in consideration of the District's past demonstrated performance with this parameter which indicates that effluent settleable solids values are consistently less than 0.1 ml/L.
- e. Fecal Coliform Bacteria: The previous licensing action established seasonal monthly average and daily maximum concentration limits of 15 colonies/100 ml (geometric mean) and 50 colonies/100 ml (instantaneous level), respectively, for fecal coliform bacteria consistent with the National Shellfish Sanitation Program and a minimum monitoring frequency requirement of once per week. This permitting action is carrying forward both concentration limits consistent with the National Shellfish Sanitation Program, and is carrying forward the minimum monitoring frequency requirement of once per week (1/Week) based on Department guidance for POTWs permitted to discharge between 0.1 and 0.5 MGD.
- f. Total Residual Chlorine (TRC): The previous licensing action established technology-based monthly average and water quality-based daily maximum concentration limits of 0.1 mg/L and 0.22 mg/L, respectively, and a minimum monitoring frequency requirement of once per day 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 licensing/permitting actions impose the more stringent of either a water quality-based or BPT-based limit. With dilution factors as determined above, end-of-pipe (EOP) water quality-based concentration thresholds for TRC may be calculated as follows:

Acute (A) Criterion	Chronic (C) Criterion	A & C Dilution Factors	Calculated	
			Acute Threshold	Chronic Threshold
0.013 mg/L	0.0075 mg/L	26:1 (A) 160:1 (C)	0.34 mg/L	1.20 mg/L

The Department has established a daily maximum BPT limitation of 1.0 mg/L for facilities that disinfect their effluent with elemental chlorine or chlorine-based compounds. For facilities that need to dechlorinate the discharge in order to meet water quality based thresholds, the Department has established daily maximum and monthly average BPT limits of 0.3 mg/L and 0.1 mg/L, respectively. The District dechlorinates the effluent prior to discharge in order to consistently achieve compliance with the water quality-driven effluent limits. The daily maximum technology-based standard of 0.3 mg/L is more stringent than the calculated acute water quality-based threshold

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

of 0.34 mg/L and is therefore being established in this permitting action. The monthly average technology-based standard of 0.1 mg/L is more stringent than the calculated chronic water quality-based threshold of 1.20 mg/L and is therefore being carried forward in this permitting action. This permitting action is carrying forward the minimum monitoring frequency of once per day (1/Day) based on Department guidance for POTWs permitted to discharge between 0.1 and 0.5 MGD.

This permitting action is revising the daily maximum concentration limit for TRC from 0.22 mg/L to 0.3 mg/L based on new information regarding the outfall configuration and resulting revised dilution factors associated with the discharge. The Department is making the best professional judgment determination that revising the daily maximum concentration limit for TRC based on current dilution factors and evaluations of water quality thresholds is appropriate and justified at this time, and this action will not cause or contribute to the failure of the receiving waters to meet the standards of its assigned classification.

- 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 five times per week. 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 five times per week (5/Week), which is less frequent than Department guidance for POTWs permitted to discharge between 0.1 and 0.5 MGD, which is less frequent than Department guidance, in consideration of the District's past demonstrated performance with this parameter which indicates no exceptions to the 6.0 – 9.0 pH range within the last 60 months.
- h. Whole Effluent Toxicity (WET) and Priority Pollutant, and Analytical Chemistry Testing: Maine law, 38 M.R.S.A., §414-A and §420, prohibit the discharge of effluents containing substances in amounts that would cause the surface waters of the State to contain toxic substances above levels set forth in Federal Water Quality Criteria as established by the USEPA. Department rule, 06-096 CMR Chapter 530, *Surface Water Toxics Control Program* (toxics rule) sets forth effluent monitoring requirements and procedures to establish safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected and narrative and numeric water quality criteria are met. Department rule 06-096 CMR Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants*, sets forth ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters.

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



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

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.

On February 15, 1995, the Department issued a letter to the District notifying them that the Department had made a best professional judgement determination that the Winter Harbor facility was exempt from toxicity testing pursuant to Department rule Chapter 530.5. Department rule 06-096 CMR Chapter 530 Section 2.A states, in part, that *"all licensed dischargers of industrial process wastewater or domestic wastes discharging to surface waters of the State must meet the testing requirements of [the Surface Waters Toxics Control Program]."* The Winter Harbor Utilities District discharges treated domestic wastewater to surface waters of the State and is therefore subject to toxics testing requirements prescribed by the rule.

Chapter 530 Section 2.B. categorizes dischargers subject to the toxics rule into one of four levels (Levels I through IV). Level III dischargers are those *"having a chronic dilution factor of at least 100 but less than 500 to 1, or dischargers having a chronic dilution factor of more than 500 to 1 and a permitted flow of 1 million gallons per day or greater."* The Winter Harbor facility is permitted to discharge a flow of 0.125 MGD and has a chronic dilution factor of 160 to 1. Therefore, the District is considered a Level III facility for purposes of toxics testing. Chapter 530 Section 2.D specifies, and this permitting action is establishing, WET, priority pollutant and analytical chemistry test schedules for Level III dischargers as follows:

Level III Dischargers	WET Testing	Priority Pollutant Testing	Analytical Chemistry
Surveillance Level (first 4 years)	1 per year	None Required	1 per year
Screening Level (last year)	1 per year	1 per year	4 per year

Department rule Chapter 530 Section (D)(3)(b) states dischargers in Levels III and IV may be waived from conducting surveillance testing for individual WET species or chemicals provided that testing in the preceding 60 months does not indicate any reasonable potential for exceedences. The District, however, has not been required to perform toxics testing for the Department and no data are available to evaluate the discharge as it pertains to waived testing.

Priority pollutant and analytical chemistry 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. See Attachment C of this Fact Sheet for a list of minimum reporting levels of detection.

## 7. DISPOSAL OF SEPTAGE WASTE IN WASTE WATER TREATMENT FACILITY

This permitting action is carrying forward authorization to receive and introduce into the treatment process and/or sludge handling stream up to 1,250 gallons per day of septage from local haulers.

## 8. 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 water body to meet standards for Class SB classification.

## 9. PUBLIC COMMENTS

Public notice of this application was made in the *Ellsworth American* newspaper on or about July 21, 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.

## 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 September 22, 2005 through October 21, 2005, the Department solicited comments on the proposed draft Maine Pollutant Discharge Elimination System Permit to be issued to the Winter Harbor Utilities District for the proposed discharge. The Department received no significant comments on the proposed draft permit; therefore, a response to comments was not prepared.