

MASTER



STATE OF MAINE
Department of Environmental Protection

Paul R. Lepage
GOVERNOR

Patricia W. Aho
COMMISSIONER

Mr. Joseph Madigan
Orono Water Pollution Control Facility
P.O. Box 130
Orono, ME. 04473

November 13, 2012

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0100498
Maine Waste Discharge License (WDL) Application #W002673-6D-H-R
Final Permit

Dear Mr. Madigan:

Enclosed, please find a copy of your **final** combination MEPDES Permit/Maine 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.*"

If you have any questions regarding the matter, please feel free to call me at 287-7693.

Sincerely,

A handwritten signature in cursive script, appearing to read "G. Wood".

Gregg Wood
Division of Water Quality Management
Bureau of Land and Water Quality

Enc.

cc: Clarissa Trasko, DEP/EMRO
Sandy Mojica, USEPA

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-3901 FAX: (207) 287-3435
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

PRRSQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRRSQUE ISLE, MAINE 04769-2094
(207) 764-6477 FAX: (207) 764-1507



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

DEPARTMENT ORDER

IN THE MATTER OF

TOWN OF ORONO)	MAINE POLLUTANT DISCHARGE
WATER POLLUTION CONTROL FACILITY)	ELIMINATION SYSTEM PERMIT
ORONO, PENOBSCOT COUNTY)	AND
PUBLICLY OWNED TREATMENT WORKS)	WASTE DISCHARGE LICENSE
ME0100498)	
W002673-6D-H-R)	
APPROVAL)	RENEWAL

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

APPLICATION SUMMARY

The permittee has submitted a timely and complete application to the Department to renew combination Maine Pollutant Discharge Elimination System (MEPDES) permit # ME0100498/Waste Discharge License #W002673-5L-F-R (permit hereinafter), which was issued on November 30, 2007 for a five-year term. The 11/30/07 permit was subsequently revised on May 20, 2011, November 29, 2011, and February 6, 2012. The permit and subsequent revisions approved the discharge of up to a monthly average flow of 1.84 million gallons per day (MGD) of secondary treated sanitary wastewater from a municipal wastewater treatment facility and an unspecified quantity of untreated storm water and sanitary wastewater from one combined sewer overflow (CSO) to the Penobscot River, Class B, in Orono, Maine.

PERMIT SUMMARY

This permitting action is carrying forward all the terms and conditions of the previous permitting actions.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated September 26, 2012 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 MRSA Section 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 natural 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 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 (including the CSO) will be subject to effluent limitations that require application of best practicable treatment.

ACTION

THEREFORE, the Department APPROVES the above noted application of the TOWN OF ORONO to discharge up to a monthly average flow of 1.84 MGD of secondary treated sanitary wastewater and an unspecified quantity of untreated storm water and sanitary wastewaters from one combined sewer overflow to the Penobscot River, Class B, SUBJECT TO THE FOLLOWING CONDITIONS, and all applicable standards and regulations:

1. "Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable To All Permits," revised July 1, 2002, copy attached.
2. The attached Special Conditions, including any effluent limitations and monitoring requirements.
3. This permit and the authorization to discharge become effective upon the date of signature below and expire at midnight five (5) years after that date. If a renewal application is timely submitted and accepted as complete for processing prior to the expiration of this permit, the authorization to discharge and the terms and conditions of this permit and all modifications and minor revisions thereto remain in effect until a final Department decision on the renewal application becomes effective. [*Maine Administrative Procedure Act*, 5 M.R.S.A. § 10002 and *Rules Concerning the Processing of Applications and Other Administrative Matters*, 06-096 CMR 2(21)(A) (effective April 1, 2003)].

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

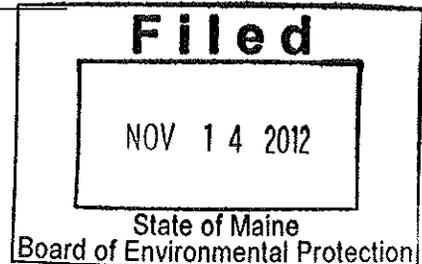
DONE AND DATED AT AUGUSTA, MAINE, THIS 13th ^{NOVEMBER,} DAY OF DECEMBER, 2012.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Michael Kuhns
for Patricia W. Aho, Commissioner

Date of initial receipt of application: August 27, 2012.

Date of application acceptance: September 5, 2012



Date filed with Board of Environmental Protection: _____

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

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. Beginning the effective date of this permit, the permittee is authorized to discharge secondary treated sanitary wastewaters from **Outfall #001A** to the Penobscot River. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow <i>[50050]</i>	1.84 MGD <i>[03]</i>	---	Report MGD <i>[03]</i>	---	---	---	Continuous <i>[99/99]</i>	Recorder <i>[RC]</i>
Biochemical Oxygen Demand (BOD ₅) <i>[00310]</i>	460 lbs/day <i>[26]</i>	690 lbs/day <i>[26]</i>	Report lbs/day <i>[26]</i>	30 mg/L <i>[19]</i>	45 mg/L <i>[19]</i>	50 mg/L <i>[19]</i>	2/Week <i>[02/07]</i>	24-Hr. Composite <i>[24]</i>
BOD ₅ % Removal ⁽¹⁾ <i>[81010]</i>	---	---	---	85% <i>[23]</i>	---	---	1/Month <i>[01/30]</i>	Calculate <i>[CA]</i>
Total Suspended Solids (TSS) <i>[00545]</i>	460 lbs/day <i>[26]</i>	690 lbs/day <i>[26]</i>	Report lbs/day <i>[26]</i>	30 mg/L <i>[19]</i>	45 mg/L <i>[19]</i>	50 mg/L <i>[19]</i>	2/Week <i>[02/07]</i>	24-Hr. Composite <i>[24]</i>
TSS % Removal ⁽¹⁾ <i>[81011]</i>	---	---	---	85% <i>[23]</i>	---	---	1/Month <i>[01/30]</i>	Calculate <i>[CA]</i>
Settleable Solids <i>[00545]</i>	---	---	---	---	---	0.3 ml/L <i>[25]</i>	5/Week <i>[05/07]</i>	Grab <i>[GR]</i>
<i>E. coli</i> Bacteria ⁽²⁾ May 15 to September 30 <i>[31633]</i>	---	---	---	64/100 ml ⁽³⁾ <i>[13]</i>	---	427/100 ml <i>[13]</i>	2/Week <i>[02/07]</i>	Grab <i>[GR]</i>
Total Residual Chlorine ⁽⁴⁾ <i>[50060]</i>	---	---	---	---	---	1.0 mg/L <i>[19]</i>	2/Day <i>[02/01]</i>	Grab <i>[GR]</i>
pH <i>[00400]</i>	---	---	---	---	---	6.0-9.0 s.u. <i>[12]</i>	1/Day <i>[01/01]</i>	Grab <i>[GR]</i>

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

Footnotes: See pages 7 – 10 of this permit for applicable footnotes.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall #001A

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type
Aluminum (Total) [01105]	2.8 lbs/day [26]	---	---	Report ug/L [28]	---	---	1/Year [01/YR]	Composite [24]
Copper (Total) [01042]	0.46 lbs/day [26]	---	0.79 lbs/day [26]	Report ug/L [28]	---	Report ug/L [28]	1/Year [01/YR]	Composite [24]
Lead (Total) [01051]	0.08 lbs/day [26]	---	---	Report ug/L [28]	---	---	1/Year [01/YR]	Composite [24]
Mercury (Total) ⁽⁵⁾ [71900]	---	---	---	9.4 ng/L [3M]	---	14.2 ng/L [3M]	1/Year [01/YR]	Grab [GR]
Total Phosphorus ⁽⁶⁾ (June 1 – September 30) [00665]	Report lbs/day [26]	---	Report lbs/day [26]	Report mg/L [19]	---	Report mg/L [19]	2/Month [02/30]	Composite [24]

Footnotes: See pages 7 – 10 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

3. **SCREENING LEVEL** - Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration and every five years thereafter.

Effluent Characteristic	Discharge Limitations				Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Whole Effluent Toxicity ⁽⁷⁾						
Acute – NOEL						
<i>Ceriodaphnia dubia</i> (Water flea) [TDA3B]	---	---	---	Report % ^[23]	1/Year ^[01/YR]	Composite ^[24]
<i>Salvelinus fontinalis</i> (Brook trout) [TDA6F]	---	---	---	Report % ^[23]	1/Year ^[01/YR]	Composite ^[24]
Chronic – NOEL						
<i>Ceriodaphnia dubia</i> (Water flea) [TBP3B]	---	---	---	Report % ^[23]	1/Year ^[01/YR]	Composite ^[24]
<i>Salvelinus fontinalis</i> (Brook trout) [TBQ6F]	---	---	---	Report % ^[23]	1/Year ^[01/YR]	Composite ^[24]
Analytical Chemistry ^(8,9) [54177]	---	---	---	Report ug/L ^[28]	1/Quarter ^[01/90]	Composite/Grab ^[24]
Priority Pollutant ⁽⁹⁾ [50008]	---	---	---	Report ug/L ^[28]	1/Year ^[01/YR]	Composite/Grab ^[24]

Footnotes: See pages 7 – 10 of this permit for applicable footnotes.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Footnotes:

Sampling Locations:

Influent sampling for BOD₅ and TSS shall be collected after the comminutor at the headworks of the facility.

Effluent sampling for all parameters shall be collected after the last treatment process prior to discharge to the receiving water. Any change in sampling location(s) must be reviewed and 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 Health and Human Services. Samples that are sent to a POTW licensed pursuant to *Waste discharge licenses*, 38 M.R.S.A. § 413 are subject to the provisions and restrictions of *Maine Comprehensive and Limited Environmental Laboratory Certification Rules*, 10-144 CMR 263 (last amended February 13, 2000).

All analytical test results shall be reported to the Department including results which are detected below the respective reporting limits (RLs) specified by the Department or as specified by other approved test methods. See **Attachment A** of this permit for a list of the Department's RLs. If a non-detect analytical test result is below the respective RL, the concentration result shall be reported as <Y where Y is the RL achieved by the laboratory for each respective parameter. Reporting a value of <Y that is greater than an established RL or reporting an estimated value ("J" flagged) is not acceptable and will be rejected by the Department. Reporting analytical data and its use in calculations must follow established Department guidelines specified in this permit or in available Department guidance documents.

1. **Percent removal** - The treatment facility shall maintain a minimum of 85 percent removal of both BOD₅ and TSS. The percent removal shall be based on a monthly average calculation using influent and effluent concentrations. The percent removal limit 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" on the monthly Discharge Monitoring Report.
2. ***E. coli* bacteria limits and monitoring requirements** – *E. coli* bacteria limits and monitoring requirements are seasonal and apply between May 15th and September 30th of each year. The Department reserves the right to require bacteria limits to be in effect on a year-round basis to protect the health and welfare of the public.

SPECIAL CONDITIONS

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

Footnotes:

3. **Geometric mean** – The monthly average *E. coli* bacteria limitation is a geometric mean and shall be calculated and reported as such.
4. **Total residual chlorine limits and monitoring requirements** – Limitations and monitoring requirements are in effect any time elemental chlorine or chlorine-based compounds are utilized to disinfect the discharge(s). The permittee shall utilize an EPA-approved test method capable of bracketing the TRC limitations specified in this permitting action. Chlorine monitoring shall be required twice per day during normal working days and shall be required once per day on weekends and holidays.
5. **Mercury** – All mercury sampling (1/Year) required to determine compliance with interim limitations established pursuant to *Interim Effluent Limitations and Controls for the Discharge of Mercury*, 06-096 CMR 519 (last amended October 6, 2001) 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 analyses shall be conducted in accordance with EPA Method 1631E, Determination of Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Fluorescence Spectrometry. See **Attachment B**, *Effluent Mercury Test Report*, of this permit for the Department's form for reporting mercury test results.

The limitation in the monthly average column in table Special Condition A of this permit is defined as the arithmetic mean of all the mercury tests ever conducted for the facility utilizing sampling Methods 1669 and analysis Method 1631E.

6. **Total Phosphorus** – There shall be at least ten (10) days between sampling events. See **Attachment C** of this permit for a Department protocol for total phosphorus.
7. **Whole Effluent Toxicity (WET)** - Definitive WET testing is a multi-concentration testing event (a minimum of five dilutions bracketing the acute and chronic critical thresholds of 0.40% and 0.09% respectively), 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. The critical acute and chronic thresholds were derived as the mathematic inverse of the applicable acute and chronic dilution factors of 252.8:1 and 1,117.5:1 respectively.

SPECIAL CONDITIONS

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

Footnotes:

- a. **Screening-level testing** – Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration and every five years thereafter, the permittee shall conduct screening level WET testing at a minimum frequency of once per year (1/Year). Acute and chronic tests shall be conducted on the water flea (*Ceriodaphnia dubia*) and the brook trout (*Salvelinus fontinalis*). It is noted pursuant to *Surface Water Toxics Control Program*, 06-096 CMR 530 (effective October 9, 2005), surveillance level WET testing is being waived for the first four years of the term of the permit.
- b. **Surveillance level testing** – Pursuant to 06-096 CMR 530, surveillance level testing is waived for this facility.

WET test results must be submitted to the Department not later than the next Discharge Monitoring Report (DMR) required by the permit provided, however, that the permittee may review the toxicity reports for up to 10 business days of their availability before submitting them. 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 0.40% and 0.09% respectively. See **Attachment D** of this permit for a copy of the Department's WET report form.

Toxicity tests must be conducted by an experienced laboratory approved by the Department. The laboratory must follow procedures as described in the following U.S.E.P.A. methods manuals.

- a. Short Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Water to Freshwater Organisms, Fourth Edition, October 2002, EPA-821-R-02-013.
- b. Methods for Measuring the Acute Toxicity of Effluent and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, October 2002, EPA-821-R-02-012.

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

SPECIAL CONDITIONS

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

Footnotes:

8. **Analytical chemistry** – Refers to a suite of chemical tests listed in **Attachment A** of the permit.
 - a. **Screening level testing** – Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration and every five years thereafter, the permittee shall conduct analytical chemistry testing at a minimum frequency of once per calendar quarter (1/Quarter) for four (4) consecutive calendar quarters.
 - b. **Surveillance level testing** – Pursuant to 06-096 CMR 530, surveillance level testing is waived for this facility.
9. **Priority pollutant testing** – Priority pollutant testing refers to analyses for a suite of chemicals listed in **Attachment A** of this permit.
 - a. **Screening level testing** - Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration and every five years thereafter, the permittee shall conduct priority pollutant testing at a minimum frequency of once per year (1/Year).
 - b. **Surveillance level** - Pursuant to 06-096 CMR 530 testing is not required pursuant to 06-096 CMR 530 (2)(D).

Analytical chemistry and priority pollutant testing shall be conducted on samples collected at the same time as those collected for whole effluent toxicity tests, when applicable, and shall be conducted using methods that permit detection of a pollutant at existing levels in the effluent or that achieve the most current minimum reporting levels of detection as specified by the Department.

Test results must be submitted to the Department not later than the next Discharge Monitoring Report (DMR) required by the permit, provided, however, that the permittee may review the toxicity reports for up to 10 business days of their availability before submitting them. The permittee shall evaluate test results being submitted and identify to the Department, possible exceedences of the acute, chronic or human health AWQC as established in 06-096 CMR 584. For the purposes of DMR reporting, enter a "1" for yes, testing done this monitoring period or "NODI-9" monitoring not required this period.

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 for 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 for the classification of the receiving waters.
3. The discharge shall not cause visible discoloration or turbidity in the receiving waters, which would impair the usages designated for 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. TREATMENT PLANT OPERATOR

The person who has the management responsibility over the treatment facility must hold a **Grade IV** certificate (or higher) or must be a Maine Registered Professional Engineer pursuant to *Sewerage Treatment Operators*, Title 32 M.R.S.A., § 4171-4182 and *Regulations for Wastewater Operator Certification*, 06-096 CMR 531 (effective May 8, 2006). 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.

D. 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. The licensee shall conduct an Industrial Waste Survey (IWS) at any time a new industrial user proposes to discharge within its jurisdiction, an existing user proposes to make a significant change in its discharge, or, at an alternative minimum, once every permit cycle. The IWS shall identify, in terms of character and volume of pollutants, any Significant Industrial Users discharging into the POTW subject to Pretreatment Standards under section 307(b) of the federal Clean Water Act, 40 CFR Part 403 (general pretreatment regulations) or *Pretreatment Program*, 06-096 CMR 528 (last amended March 17, 2008).

SPECIAL CONDITIONS

E. 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 waste water.
2. Any substantial change in the volume or character of pollutants being introduced by individual users into the wastewater collection system.
3. For the purposes of this section, adequate notice shall include information on:
 - (a) the quality and quantity of wastewater introduced to the wastewater collection and treatment system; and
 - (b) any anticipated impact of the change in the quantity or quality of the wastewater to be discharged from the treatment system.

F. UNAUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with: 1) the permittee's General Application for Waste Discharge Permit, accepted for processing on September 5, 2012, 2) the terms and conditions of this permit; and 3) only from Outfall #001A and Outfall #003A (the CSO). 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)(*Bypass*) of this permit.

G. AMBIENT WATER QUALITY MONITORING

Between July 1 and September 30 of each year, the permittee is required to participate in the monitoring of ambient water quality on the Penobscot River pursuant to a Department prepared monitoring plan. The total cost to the permittee for the monitoring program shall not exceed a five-year cap of \$1,000.

H. WET WEATHER MANAGEMENT PLAN

The permittee shall maintain a current written 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 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 permittee shall review their plan annually** and record any necessary changes to keep the plan up to date.

SPECIAL CONDITIONS

I. OPERATION AND MAINTENANCE (O&M) PLAN

This facility shall have a current written comprehensive Operation & Maintenance (O&M) Plan. 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 EPA 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.

J. DISPOSAL OF TRANSPORTED WASTES IN WASTEWATER TREATMENT FACILITY

During the effective period of this permit, the permittee is authorized to receive and introduce to the treatment process or solids handling stream **a maximum of 3,000 gallons per day (gpd)** of transported wastes, subject to the following terms and conditions:

1. "Transported wastes" means any liquid non-hazardous waste delivered to a wastewater treatment facility by a truck or other similar conveyance that has different chemical constituents or a greater strength than the influent described on the facility's application for a waste discharge license. Such wastes may include, but are not limited to septage; industrial wastes or other wastes to which chemicals in quantities potentially harmful to the treatment facility or receiving water have been added.
2. The character and handling of all transported wastes received must be consistent with the information and management plans provided in application materials submitted to the Department.

SPECIAL CONDITIONS

J. DISPOSAL OF TRANSPORTED WASTES IN WASTEWATER TREATMENT FACILITY (cont'd)

3. At no time shall the addition of transported wastes cause or contribute to effluent quality violations. Transported wastes may not cause an upset of or pass through the treatment process or have any adverse impact on the sludge disposal practices of the wastewater treatment facility. Wastes that contain heavy metals, toxic chemicals, extreme pH, flammable or corrosive materials in concentrations harmful to the treatment operation must be refused. Odors and traffic from the handling of transported wastes may not result in adverse impacts to the surrounding community. If any adverse effects exist, the receipt or introduction of transported wastes into the treatment process or solids handling stream shall be suspended until there is no further risk of adverse effects.
4. The permittee shall maintain records for each load of transported wastes in a daily log which shall include at a minimum the following:
 - (a) The date;
 - (b) The volume of transported wastes received;
 - (c) The source of the transported wastes;
 - (d) The person transporting the transported wastes;
 - (e) The results of inspections or testing conducted;
 - (f) The volumes of transported wastes added to each treatment stream; and
 - (g) The information in (a) through (d) for any transported wastes refused for acceptance.

These records shall be maintained at the treatment facility for a minimum of five years.

5. The addition of transported wastes 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 transported wastes into the treatment process or solids handling stream shall be reduced or terminated in order to eliminate the overload condition.
6. Holding tank wastewater from domestic sources to which no chemicals in quantities potentially harmful to the treatment process have been added shall not be recorded as transported wastes but should be reported in the treatment facility's influent flow.
7. During wet weather events, transported wastes may be added to the treatment process or solids handling facilities only in accordance with a current Wet Weather Management Plan approved by the Department pursuant to Special Condition H that provides for full treatment of transported wastes without adverse impacts.

SPECIAL CONDITIONS

J. DISPOSAL OF TRANSPORTED WASTES IN WASTEWATER TREATMENT FACILITY (cont'd)

8. In consultation with the Department, chemical analysis is required prior to receiving transported wastes from new sources that are not of the same nature as wastes previously received. The analysis must be specific to the type of source and designed to identify concentrations of pollutants that may pass through, upset or otherwise interfere with the facility's operation.
9. Access to transported waste receiving facilities may be permitted only during the times specified in the application materials and under the control and supervision of the person responsible for the wastewater treatment facility or his/her designated representative.
10. The authorization in this Special Condition is subject to annual review and, with notice to the permittee and other interested parties of record, may be suspended or reduced by the Department as necessary to ensure full compliance with *Standards for the Addition of Septage to Waste Water Treatment Facilities*, 06-096 CMR 555 (last amended March 9, 2009) and the terms and conditions of this permit.

K. CONDITIONS FOR COMBINED SEWER OVERFLOWS

Pursuant to *Combined Sewer Overflow Abatement*, 06-096 CMR 570, the permittee is authorized to discharge mixed sanitary and stormwater from the following locations of CSOs (storm water/sanitary waste water) subject to the conditions and requirements contained herein:

1. CSO Location

Outfall No.	Description	Location	Receiving Water / Class
003A	Untreated sanitary/storm water	Treatment Plant	Penobscot River / B

CSO Outfall #003A discharges from the same outlet structure as Outfall #001A, but is designated separately for administrative purposes.

2. Prohibited Discharges

- a) The discharge of dry weather flows is prohibited. All such discharges shall be reported to the Department in accordance with Standard Condition D (1) of this permit.
- b) No discharge shall occur as a result of mechanical failure, improper design or inadequate operation or maintenance.

SPECIAL CONDITIONS

K. CONDITIONS FOR COMBINED SEWER OVERFLOWS (cont'd)

- c) No discharges shall occur at flow rates below the maximum design capacities of the wastewater treatment facility, pumping stations or sewerage system.

3. Narrative Effluent Limitations

- a) The effluent shall not contain a visible oil sheen, settled substances, foam, or floating solids at any time that impair the characteristics and designated uses ascribed to the classification of the receiving waters.
- b) The effluent shall not contain materials in concentrations or combinations that are hazardous or toxic to aquatic life; or which would impair the usage designated by the classification of the receiving waters.
- c) The discharge shall not impart color, turbidity, toxicity, radioactivity or other properties that cause the receiving waters to be unsuitable for the designated uses and other characteristics ascribed to their class.
- d) Notwithstanding specific conditions of this permit, the effluent by itself or in combination with other discharges shall 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.

4. CSO Master Plan (see 06-096 CMR 570 § 2 & § 3)

The permittee shall implement CSO control projects in accordance with an approved CSO Master Plan and abatement schedule. The CSO Master Plan, entitled *Sewer System Master Plan For CSO Abatement, Town of Orono, Maine*, dated December 1994 was approved by the Department on January 23, 1997. Revised abatement schedules were submitted to the Department in letters dated June 22, 1998 and December 13, 1999, and approved by the Department on June 25, 1998 and December 13, 1999, respectively. The CSO Master Plan was updated in the document entitled, *Wastewater Infrastructure Facilities Evaluation, Town of Orono, Maine*, dated January 2005 and approved by the Department on May 16, 2005.

SPECIAL CONDITIONS

K. CONDITIONS FOR COMBINED SEWER OVERFLOWS (cont'd)

On or before December 31, 2016, [PCS Code 06699] the permittee shall submit a CSO Master Plan Update and abatement schedule to the Department for review and approval.

To modify the date and or project specified above (but not dates in the Master Plan), the permittee must file an application with the Department to formally modify this permit. The work items identified in the abatement schedule may be amended from time to time based upon approval by the Department. The permittee must notify the Department in writing prior to any proposed changes to the implementation schedule.

5. Nine Minimum Controls (NMC) (see 06-096 CMR 570 § 5)

The permittee shall implement and follow the Nine Minimum Control documentation as approved by EPA on August 12, 1997. Work performed on the Nine Minimum Controls during the year shall be included in the annual *CSO Progress Report* (see below).

6. CSO Compliance Monitoring Program (see 06-096 CMR 570 § 6)

The permittee shall conduct block testing or flow monitoring according to an approved *Compliance Monitoring Program* on all CSO points, as part of the CSO Master Plan. Annual flow volumes for all CSO locations shall be determined by actual flow monitoring, or by estimation using a model such as EPA's Storm Water Management Model (SWMM).

Results shall be submitted annually as part of the annual *CSO Progress Report* (see below), and shall include annual precipitation, CSO volumes (actual or estimated) and any block test data required. Any abnormalities during CSO monitoring shall also be reported. The results shall be reported on the Department form, "*CSO Activity and Volumes*" (Attachment E of this permit) or similar format and submitted to the Department in an electronic format approved by the Department. CSO control projects that have been completed shall be monitored for volume and frequency of overflow to determine the effectiveness of the project toward CSO abatement. This requirement shall not apply to those areas where complete separation has been completed and CSO outfalls have been eliminated.

CSO control projects that have been completed shall be monitored for volume and frequency of overflow to determine the effectiveness of the project toward CSO abatement. This requirement shall not apply to those areas where complete separation has been completed and CSO outfalls have been eliminated.

SPECIAL CONDITIONS

K. CONDITIONS FOR COMBINED SEWER OVERFLOWS (cont'd)

7. Additions of New Wastewater (see 06-096 CMR 570 § 8)

06-096 CMR § 8 lists requirements relating to any proposed addition of wastewater to the combined sewer system. Documentation of the new wastewater additions to the system and associated mitigating measures shall be included in the annual *CSO Progress Report* (see below). Reports must contain the volumes and characteristics of the wastewater added or authorized for addition and descriptions of the sewer system improvements and estimated effectiveness. Any sewer extensions upstream of a CSO must be reviewed and approved by the Department prior to their connection to the collection system. A Sewer Extension/Addition Reporting Form shall be completed and submitted to the Department along with plans and specifications of the proposed extension/addition.

8. Annual CSO Progress Reports (see 06-096 CMR 570 § 7)

By March 1 of each year (PCS Code 11099), the permittee shall submit a *CSO Progress Reports* covering the previous calendar year (January 1 to December 31). The CSO Progress Report shall include, but is not necessarily limited to, the following topics as further described in Chapter 570: CSO abatement projects, schedule comparison, progress on inflow sources, costs, flow monitoring results, CSO activity and volumes, nine minimum controls update, sewer extensions, and new commercial or industrial flows.

The CSO Progress Reports shall be completed on a standard form entitled "*Annual CSO Progress Report*", furnished by the Department, and submitted in electronic form to the Department's CSO Coordinator at the address in Special Condition M, *Monitoring and Reporting*, of this permit.

The CSO Progress Reports shall be completed on a standard form entitled "Annual CSO Progress Report", furnished by the Department, and submitted in electronic form, if possible, to the following address:

CSO Coordinator
Department of Environmental Protection
Bureau of Land and Water Quality
Division of Engineering, Compliance and Technical Assistance
17 State House Station
Augusta, Maine 04333
e-mail: CSOCoordinator@state.me.us

SPECIAL CONDITIONS

K. CONDITIONS FOR COMBINED SEWER OVERFLOWS (cont'd)

9. Signs

If not already installed, the permittee shall install and maintain an identification sign at each CSO location as notification to the public that intermittent discharges of untreated sanitary wastewater occur. The sign must be located at or near the outfall and be easily readable by the public. The sign shall be a minimum of 12" x 18" in size with white lettering against a green background and shall contain the following information:

**TOWN OF ORONO WATER POLLUTION CONTROL FACILITY
WET WEATHER
SEWAGE DISCHARGE
CSO # AND NAME**

10. Definitions

For the purposes of this permitting action, the following terms are defined as follows:

- a. Combined Sewer Overflow - a discharge of excess waste water from a municipal or quasi-municipal sewerage system that conveys both sanitary wastes and storm water in a single pipe system and that is in direct response to a storm event or snowmelt.
- b. Dry Weather Flows - flow in a sewerage system that occurs as a result of non-storm events or are caused solely by ground water infiltration.
- b. Wet Weather Flows - flow in a sewerage system that occurs as a direct result of a storm event, or snowmelt in combination with dry weather flows.

L. 06-096 CMR 530(2)(D)(4) STATEMENT FOR REDUCED/WAIVED TOXICS TESTING

On or before December 31 of each year [PCS code 95799] the permittee is required to file a statement with the Department describing the following.

- 1. Changes in the number or types of non-domestic wastes contributed directly or indirectly to the wastewater treatment works that may increase the toxicity of the discharge;
- 2. Changes in the operation of the treatment works that may increase the toxicity of the discharge; and
- 3. Changes in industrial manufacturing processes contributing wastewater to the treatment works that may increase the toxicity of the discharge.

SPECIAL CONDITIONS

L. 06-096 CMR 530(2)(D)(4) STATEMENT FOR REDUCED/WAIVED TOXICS TESTING (cont'd)

In addition, in the comments section of the certification form, the permittee shall provide the Department with statements describing:

4. Changes in storm water collection or inflow/infiltration affecting the facility that may increase the toxicity of the discharge.
5. Increases in the type or volume of hauled wastes accepted by the facility.

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. See **Attachment F** of the attached Fact Sheet for an acceptable certification form to satisfy this Special Condition.

M. 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 a Department 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 Department assigned compliance inspector (unless otherwise specified) at the following address:

Department of Environmental Protection
Bureau of Land and Water Quality
Eastern Maine Regional Office
106 Hogan Road
Bangor, Maine 04401

Alternatively, if submitting an electronic DMR (eDMR), the completed eDMR must be electronically submitted to the Department by a facility authorized DMR Signatory not later than close of business on the 15th day of the month following the completed reporting period. Hard Copy documentation submitted in support of the eDMR must be postmarked on or before the thirteenth (13th) day of the month or hand-delivered to the Department's Regional Office such that it is received by the Department on or before the fifteenth (15th) day of the month following the completed reporting period. Electronic documentation in support of the eDMR must be submitted not later than close of business on the 15th day of the month following the completed reporting period.

SPECIAL CONDITIONS

M. MONITORING AND REPORTING (cont'd)

An electronic version of "*CSO Activity and Volumes*" (**Attachment E** of this permit) or similar format shall be submitted to the Department inspector at the above address and to the CSO Coordinator at the address below:

CSO Coordinator
Department of Environmental Protection
Bureau of Land & Water Quality
Division of Water Quality Management
17 State House Station
Augusta, Maine 04333
e-mail: CSOCoordinator@maine.gov

N. 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 including, but not limited to, new information from ambient water quality studies of the receiving waters.

O. SEVERABILITY

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

ATTACHMENT A

Maine Department of Environmental Protection
WET and Chemical Specific Data Report Form

This form is for reporting laboratory data and facility information. Official compliance reviews will be done by DEP.

Facility Name _____ MEPDES # _____ Facility Representative Signature _____
Pipe # _____ To the best of my knowledge this information is true, accurate and complete.

Licensed Flow (MGD)
Acute dilution factor
Chronic dilution factor
Human health dilution factor
Criteria type: M(arine) or F(resh)

Flow for Day (MGD)⁽¹⁾ Flow Avg. for Month (MGD)⁽²⁾
Date Sample Collected Date Sample Analyzed

Laboratory _____ Telephone _____
Address _____
Lab Contact _____ Lab ID # _____

Last Revision - April 25, 2012

ERROR WARNING ! Essential facility information is missing. Please check required entries in bold above. **FRESH WATER VERSION**
Please see the footnotes on the last page.

WHOLE EFFLUENT TOXICITY		Effluent Limits, %			Receiving Water or Ambient	Effluent Concentration (ug/L or as noted)	WET Result, % Do not enter % sign	Reporting Limit Check	Possible Exceedence ⁽⁷⁾		
		Acute	Chronic					Acute	Chronic		
	Trout - Acute										
	Trout - Chronic										
	Water Flea - Acute										
	Water Flea - Chronic										
WET CHEMISTRY											
	pH (S.U.) ⁽⁹⁾				(8)						
	Total Organic Carbon (mg/L)				(8)						
	Total Solids (mg/L)										
	Total Suspended Solids (mg/L)										
	Alkalinity (mg/L)				(8)						
	Specific Conductance (umhos)										
	Total Hardness (mg/L)				(8)						
	Total Magnesium (mg/L)				(8)						
	Total Calcium (mg/L)				(8)						
ANALYTICAL CHEMISTRY ⁽³⁾		Effluent Limits, ug/L						Possible Exceedence ⁽⁷⁾			
	Also do these tests on the effluent with WET. Testing on the receiving water is optional	Reporting Limit	Acute ⁽⁶⁾	Chronic ⁽⁵⁾	Health ⁽⁶⁾			Reporting Limit Check	Acute	Chronic	Health
	TOTAL RESIDUAL CHLORINE (mg/L) ⁽⁹⁾	0.05				NA					
	AMMONIA	NA				(8)					
M	ALUMINUM	NA				(8)					
M	ARSENIC	5				(8)					
M	CADMIUM	1				(8)					
M	CHROMIUM	10				(8)					
M	COPPER	3				(8)					
M	CYANIDE	5				(8)					
M	LEAD	.3				(8)					
M	NICKEL	5				(8)					
M	SILVER	1				(8)					
M	ZINC	5				(8)					

Maine Department of Environmental Protection
WET and Chemical Specific Data Report Form

This form is for reporting laboratory data and facility information. Official compliance reviews will be done by DEP.

PRIORITY POLLUTANTS ⁽⁴⁾		Effluent Limits				Reporting Limit Check	Possible Exceedance ⁽⁷⁾		
		Reporting Limit	Acute ⁽⁶⁾	Chronic ⁽⁶⁾	Health ⁽⁶⁾		Acute	Chronic	Health
M	ANTIMONY	5							
M	BERYLLIUM	2							
M	MERCURY (5)	0.2							
M	SELENIUM	5							
M	THALLIUM	4							
A	2,4,6-TRICHLOROPHENOL	5							
A	2,4-DICHLOROPHENOL	5							
A	2,4-DIMETHYLPHENOL	5							
A	2,4-DINITROPHENOL	45							
A	2-CHLOROPHENOL	5							
A	2-NITROPHENOL	5							
A	4,6-DINITRO-O-CRESOL (2-Methyl-4,6-dinitrophenol)	25							
A	4-NITROPHENOL	20							
A	P-CHLORO-M-CRESOL (3-methyl-4-chlorophenol)+B&O	5							
A	PENTACHLOROPHENOL	20							
A	PHENOL	5							
BN	1,2,4-TRICHLOROENZENE	5							
BN	1,2-(O)DICHLOROENZENE	5							
BN	1,2-DIPHENYLHYDRAZINE	20							
BN	1,3-(M)DICHLOROENZENE	5							
BN	1,4-(P)DICHLOROENZENE	5							
BN	2,4-DINITROTOLUENE	6							
BN	2,6-DINITROTOLUENE	5							
BN	2-CHLORONAPHTHALENE	5							
BN	3,3'-DICHLOROENZIDINE	16.5							
BN	3,4-BENZO(B)FLUORANTHENE	5							
BN	4-BROMOPHENYLPHENYL ETHER	5							
BN	4-CHLOROPHENYL PHENYL ETHER	5							
BN	ACENAPHTHENE	5							
BN	ACENAPHTHYLENE	5							
BN	ANTHRACENE	5							
BN	BENZIDINE	45							
BN	BENZO(A)ANTHRACENE	8							
BN	BENZO(A)PYRENE	5							
BN	BENZO(G,H,I)PERYLENE	5							
BN	BENZO(K)FLUORANTHENE	5							
BN	BIS(2-CHLOROETHOXY)METHANE	5							
BN	BIS(2-CHLOROETHYL)ETHER	6							
BN	BIS(2-CHLOROISOPROPYL)ETHER	6							
BN	BIS(2-ETHYLHEXYL)PHTHALATE	10							
BN	BUTYLBENZYL PHTHALATE	5							
BN	CHRYSENE	5							
BN	DI-N-BUTYL PHTHALATE	5							
BN	DI-N-OCTYL PHTHALATE	5							
BN	DIBENZO(A,H)ANTHRACENE	5							
BN	DIETHYL PHTHALATE	5							
BN	DIMETHYL PHTHALATE	5							
BN	FLUORANTHENE	5							

ATTACHMENT B

Maine Department of Environmental Protection
Effluent Mercury Test Report

Name of Facility: _____ Federal Permit # ME _____
Pipe # _____

Purpose of this test: Initial limit determination
 Compliance monitoring for: year _____ calendar quarter _____
 Supplemental or extra test

SAMPLE COLLECTION INFORMATION

Sampling Date:	<table border="1"><tr><td> </td><td> </td><td> </td></tr><tr><td>mm</td><td>dd</td><td>yy</td></tr></table>				mm	dd	yy	Sampling time:	_____ AM/PM
mm	dd	yy							
Sampling Location:									
Weather Conditions:									
Please describe any unusual conditions with the influent or at the facility during or preceding the time of sample collection:									
Optional test - not required but recommended where possible to allow for the most meaningful evaluation of mercury results:									
Suspended Solids	_____ mg/L	Sample type:	_____ Grab (recommended) or _____ Composite						

ANALYTICAL RESULT FOR EFFLUENT MERCURY

Name of Laboratory:	_____		
Date of analysis:	_____	Result:	_____ ng/L (PPT)
Please Enter Effluent Limits for your facility			
Effluent Limits:	Average = _____ ng/L	Maximum = _____ ng/L	
Please attach any remarks or comments from the laboratory that may have a bearing on the results or their interpretation. If duplicate samples were taken at the same time please report the average.			

CERTIFICATION

I certify that to the best of my knowledge the foregoing information is correct and representative of conditions at the time of sample collection. The sample for mercury was collected and analyzed using EPA Methods 1669 (clean sampling) and 1631 (trace level analysis) in accordance with instructions from the DEP.	
By: _____	Date: _____
Title: _____	

PLEASE MAIL THIS FORM TO YOUR ASSIGNED INSPECTOR

ATTACHMENT C

Protocol for Total Phosphorus Sample Collection and Analysis for Waste Water and Receiving Water Monitoring Required by Permits

Approved Analytical Methods: EPA 365.1 (Rev. 2.0), 365.3, 365.4; SM 4500-P B.5, 4500-P E, 4500-P F; ASTM D515-88(A), D515-88(B); USGS I-4600-85, I-4610-91; OMAAOAC 973.55, 973.56

Sample Collection: The Maine DEP is requesting that total phosphorus analysis be conducted on composite effluent samples, unless a facility's Permit specifically designates grab sampling for this parameter. Facilities can use individual collection bottles or a single jug made out of glass or polyethylene. Bottles and/or jugs should be cleaned prior to each use with dilute HCL. This cleaning should be followed by several rinses with distilled water. Commercially purchased, pre-cleaned sample containers are an acceptable alternative. The sampler hoses should be cleaned, as needed.

Sample Preservation: During compositing the sample must be at 0-6 degrees C (without freezing). If the sample is being sent to a commercial laboratory or analysis cannot be performed the day of collection then the sample must be preserved using H₂SO₄ to obtain a sample pH of <2 su and refrigerated at 0-6 degrees C (without freezing). The holding time for a preserved sample is 28 days.

Note: Ideally, Total P samples are preserved as described above. However, if a facility is using a commercial laboratory then that laboratory may choose to add acid to the sample once it arrives at the laboratory. The Maine DEP will accept results that use either of these preservation methods.

Laboratory QA/QC: Laboratories must follow the appropriate QA/QC procedures that are described in each of the approved methods.

Sampling QA/QC: If a composite sample is being collected using an automated sampler, then once per month run a blank on the composite sampler. Automatically, draw distilled water into the sample jug using the sample collection line. Let this water set in the jug for 24 hours and then analyze for total phosphorus. Preserve this sample as described above.

ATTACHMENT D

**MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
WHOLE EFFLUENT TOXICITY REPORT
FRESH WATERS**

Facility Name _____ MEPDES Permit # _____

Facility Representative _____ Signature _____

By signing this form, I attest that to the best of my knowledge that the information provided is true, accurate, and complete.

Facility Telephone # _____ Date Collected _____ Date Tested _____
mm/dd/yy mm/dd/yy

Chlorinated? _____ Dechlorinated? _____

Results	% effluent		Effluent Limitations	
	water flea	trout	A-NOEL	C-NOEL
A-NOEL				
C-NOEL				

Data summary	water flea			trout		
	% survival		no. young	% survival		final weight (mg)
	A>90	C>80	>15/female	A>90	C>80	> 2% increase
QC standard						
lab control						
receiving water control						
conc. 1 (%)						
conc. 2 (%)						
conc. 3 (%)						
conc. 4 (%)						
conc. 5 (%)						
conc. 6 (%)						
stat test used						

place * next to values statistically different from controls

for trout show final wt and % incr for both controls

Reference toxicant	water flea		trout	
	A-NOEL	C-NOEL	A-NOEL	C-NOEL
toxicant / date				
limits (mg/L)				
results (mg/L)				

Comments _____

Laboratory conducting test
Company Name _____ Company Rep. Name (Printed) _____

Mailing Address _____ Company Rep. Signature _____

City, State, ZIP _____ Company Telephone # _____

Report WET chemistry on DEP Form "ToxSheet (Fresh Water Version), March 2007."

ATTACHMENT E

**MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
CSO ACTIVITY AND VOLUMES**

MUNICIPALITY OR DISTRICT				MEPDES / NPDES PERMIT NO.							
REPORTING YEAR				SIGNED BY:							
YEARLY TOTAL PRECIPITATION				INCHES							
CSO EVENT NO.	START DATE OF STORM	PRECIP. DATA		FLOW DATA (GALLONS PER DAY) OR BLOCK ACTIVITY("1")							
		TOTAL INCHES	MAX. HR. INCHES	LOCATION: NUMBER:	LOCATION: NUMBER:	LOCATION: NUMBER:	LOCATION: NUMBER:	LOCATION: NUMBER:	LOCATION: NUMBER:	EVENT OVERFLOW GALLONS	EVENT DURATION HRS
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
TOTALS											

Note 1: Flow data should be listed as gallons per day. Storms lasting more than one day should show total flow for each day.

Note 2: Block activity should be shown as a "1" if the block floated away.

1. APPLICATION SUMMARY (cont'd)

- b. Source Description: The permittee receives wastewater flows from 1,322 residential, institutional, and commercial users of the system with a population of 9,112. The University of Maine (U of M) contributes 54% of the flow to the treatment facility based on the municipal water meter readings. The wastewater collection system consists of approximately 15 miles of pipe, 4 pump stations and one CSO. The CSO outfall is numbered #003A for administrative purposes, but discharges through the same outfall as the treatment plant effluent (#001A). This outfall is located in the Penobscot River beyond Ayers Island.

The permittee's 4 pump stations are located at Penobscot Street, Stillwater Avenue, College Avenue, and Union Street. The Union Street pump station and the Penobscot Street pump station previously contained sanitary sewer overflows (SSOs). The Union Street pump station SSO was permanently blocked in 1990 and the Penobscot Street pump station SSO was permanently blocked on July 19, 2002. Available data indicates that the remaining two pump stations do not contain SSOs.

The permittee is authorized to receive and treat up to 2,000 GPD and 20,000 gallons per month of transported wastes.

- c. Wastewater Treatment: The permittee provides a secondary level of treatment via a conventional activated sludge system. The treatment system consists of an aerated grit chamber, a bar rack, a comminutor, 2 aeration basins of 0.396 million gallons capacity each, 4 surface aerators, 2 clarifiers of 0.270 million gallons capacity each, and a chlorine contact chamber followed by a dechlorination zone. Disinfection is provided on a seasonal basis via UV and their secondary source is sodium hypochlorite.

Transported wastes are received directly into the 3,000 gallon scum pit at the plant. From there it is pressed and transported to the Old Town/Orono Compost Facility, where it is composted. The filtrate from the belt press then goes to the return activated sludge pumps where it is pumped to the aeration basins.

Treated wastewaters are discharged to the Penobscot River by way of a 24-inch diameter reinforced concrete pipe extending approximately 600 feet out into the river to a depth of 2-feet at mean low water. There is no diffuser and the depth of water over the discharge pipe at low river flows is unknown. The discharge flow is measured with a continuous recording flow meter.

The following improvements/upgrades were undertaken during the previous permitting cycle: new headworks screening and grit removal, new diffused aeration, clarifier modifications, ultraviolet disinfection, aerobic digester, scum holding tank, and building additions and modifications. See **Attachment B** of this Fact Sheet for a schematic of the waste water treatment facility.

2. PERMIT SUMMARY

- a. Terms and conditions – This permitting action is carrying forward all the terms and conditions of the previous permitting actions.
- b. History: The most recent relevant regulatory actions include the following:

December 18, 1996 – The Department issued WDL #W-002673-46-D-R to the Orono WPCF for the discharge of a monthly average of 1.84 MGD of secondary treated sanitary wastewater and the discharge of untreated CSO storm water and sanitary wastewaters to the Penobscot River in Orono. The WDL superseded WDL #W-002673-46-C-R, issued on June 22, 1988. The license removed effluent limits for phenols and chromium due to closure of the Striar Textile Mill.

January 23, 1997 – The Department approved the Orono WPCF's CSO plan submitted in December 1994. Revised abatement schedules were submitted to the Department in letters dated June 22, 1998 and December 13, 1999, and approved by the Department on June 25, 1998 and December 13, 1999, respectively.

July 18, 1997 – The Department issued water quality certification #W002673-68-E-N certifying that the discharge proposed in a pending NPDES permit was in compliance with applicable sections of the Federal Water Pollution Control Act and State law.

August 7, 1997 – The USEPA issued a renewal of the NPDES Permit #ME0100498 for a 5-year term. The 1997 NPDES Permit superseded the previous NPDES permit issued June 24, 1992.

May 23, 2000 - Pursuant to State law, 38 M.R.S.A. §420 and §413 and Department rule, *Interim Effluent Limitations and Controls for the Discharge of Mercury*, 06-096 CMR 519 (last amended October 6, 2001), the Department modified WDL #W002673-46-D-R, establishing interim effluent limits and monitoring requirements for mercury.

October 29, 2002 - The Department issued WDL #W002673-5L-E-R / MEPDES Permit #ME0100498 for the discharge of up to a monthly average of 1.84 MGD of secondary treated sanitary wastewater and an unspecified quantity of untreated storm water and sanitary wastewaters from one CSO to the Penobscot River. The Permit/WDL incorporated the terms and conditions of the MEPDES permit program and was issued for a five-year term.

October 31, 2003 – The Department issued an Administrative Modification of WDL #W002673-5L-E-R / MEPDES Permit #ME0100498, extending the deadline for submission of the Operations and Maintenance Plan and evidence to support a reduction in the BOD, TSS, and *E. coli* bacteria monitoring frequency requirements contained therein from November 3, 2003 to November 26, 2003.

2. PERMIT SUMMARY (cont'd)

May 16, 2005 – The Department approved the Orono WPCF's updated CSO Master Plan, *Wastewater Infrastructure Facilities Evaluation, Town of Orono, Maine*, dated Jan. 2005.

September 6, 2005 - The Department issued an Administrative Modification of WDL #W002673-5L-E-R / MEPDES Permit #ME0100498 suspending requirements to collect seasonal effluent phosphorus data at the Orono WPCF. The Department determined that phosphorus data collected by the Orono WPCF during the summers of 2003 – 2005 would be incorporated into an updated water quality model and that it would be sufficient until a Total Maximum Daily Load assessment is completed.

April 10, 2006 – The Department issued a Modification of WDL #W002673-5L-E-R / MEPDES Permit #ME0100498 to revise toxicity testing requirements for the Orono facility pursuant to *Surface Water Toxics Control Program*, 06-096 CMR 530, and *Surface Water Quality Criteria for Toxic Pollutants*, 06-096 CMR 584.

November 30, 2007 – The Department issued combination WDL #W002673-5L-F-R / MEPDES Permit #ME0100498 for a five-year term.

November 29, 2011 – The Department issued an Administrative Modification of WDL #W002673-5L-F-R / MEPDES Permit #ME0100498 to change the date in the schedule of compliance in Special Condition K, *Conditions of Combined Sewer Overflow*, § 4, *CSO Master Plan*, from December 31, 2010 to November 30, 2012.

May 20, 2011 – The Department issued a Minor Revision of WDL #W002673-5L-F-R / MEPDES Permit #ME0100498 to establish water quality-based limitations for toxic pollutants. The Minor Revision was assigned WDL #W002673-6D-G-M.

February 6, 2012 – The Department issued a Modification of WDL #W-002673-5L-F-R / MEPDES Permit #ME0100498 for reduction of mercury testing frequency from 4/Year to 1/Year based on *Certain deposits and discharges prohibited*, 38 M.R.S.A., § 420 sub-§1-B(F).

August 27, 2012– The permittee submitted a timely and complete application to the Department for permit renewal. The application was accepted as complete on September 5, 2012 and was assigned WDL #W002673-6D-H-R.

3. CONDITIONS OF PERMITS

Conditions of Licenses, 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, *Certain Deposits and Discharges Prohibited*, 38 M.R.S.A. Section 420 and *Surface Water Toxics Control Program*, 06-096 CMR 530 (effective October 9, 2005), require the regulation of toxic substances not to exceed levels set forth in *Surface Water Quality Criteria for Toxic Pollutants*, 06-096 CMR 584 (effective October 9, 2005), 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

Classification of Major River Basins, 38 M.R.S.A. § 467(7)(A)(5), indicates the Penobscot River main stem, from the Maine Central Railroad bridge in Bangor to a line extended in an east-west direction from the confluence of Reeds Brook in Hampden, is classified as a Class B waterway. The Legislature finds that the free-flowing habitat of this river segment provides irreplaceable social and economic benefits and that this use must be maintained. classifies the Penobscot River at the point of discharge as a Class B waterway. *Standards for Classification of Fresh Surface Waters*, 38 M.R.S.A., § 465(3) describes standards for classification of Class B waters as follows:

Class B waters must be of such quality that they are suitable for the designated uses of drinking water supply after treatment; fishing; agriculture; recreation in and on the water; industrial process and cooling water supply; hydroelectric power generation, except as prohibited under Title 12, section 403; navigation; and as habitat for fish and other aquatic life. The habitat must be characterized as unimpaired.

The dissolved oxygen content of Class B waters may not be less than 7 parts per million or 75% of saturation, whichever is higher, except that for the period from October 1st to May 14th, in order to ensure spawning and egg incubation of indigenous fish species, the 7-day mean dissolved oxygen concentration may not be less than 9.5 parts per million and the 1-day minimum dissolved oxygen concentration may not be less than 8.0 parts per million in identified fish spawning areas. Between May 15th and September 30th, the number of Escherichia coli bacteria of human and domestic animal origin in these waters may not exceed a geometric mean of 64 per 100 milliliters or an instantaneous level of 236 per 100 milliliters. In determining human and domestic animal origin, the department shall assess licensed and unlicensed sources using available diagnostic procedures.

Discharges to Class B waters may not cause adverse impact to aquatic life in that the receiving waters must be of sufficient quality to support all aquatic species indigenous to the receiving water without detrimental changes in the resident biological community.

5. RECEIVING WATER QUALITY CONDITIONS

The State of Maine 2010 *Integrated Water Quality Monitoring and Assessment Report* (also known as the “305b Report”) prepared pursuant to Sections 303(d) and 305(b) of the Federal Water Pollution Control Act, includes the receiving water in the designation *Penobscot River at Orono* (Assessment Unit ID ME0102000509_233R_02) listed in Category 4-A: *Rivers and Streams with Impaired Use Other Than Mercury, TMDL Completed*. The listing identifies *E. coli* as the cause. Recreational use impairment for this segment is now in Category 4-A due to approval of statewide bacteria TMDL. This permitting action carries forward appropriate requirements for the listed CSO based on Department policy.

In the summers of 1997, 2001 and 2007, the Department conducted ambient water quality sampling on a 103-mile segment of the Penobscot River from Millinocket to Bucksport. Reports entitled, *Penobscot River Modeling Report, Final, June 2000*, *Penobscot River Data Report May 2002*, and *Penobscot River Modeling Report Draft, March 2003*, prepared by the Department, indicate there are sections of non-attainment of dissolved oxygen standards as a result of algal blooms in portions of the Class B sections of the river. These sections of river have experienced measured DO non-attainment at various locations during periods of low flow and high water temperature. Measured DO non-attainment is predominantly in the early morning hours in sections of river with significant diurnal dissolved oxygen (DO) swings. These significant diurnal DO swings are caused by nutrient enrichment and resulting plant growth. The Department has issued a report entitled, *Penobscot River Phosphorus Waste Load Allocation, May 2011*, stating seasonal mass-based total phosphorus limitations are necessary for the four industrial dischargers on the river as well as monitoring for total phosphorus for five municipal waste water treatment facilities, including the permittee. The specific eutrophication-related responses that are targeted by the waste load allocation are not expected to persist into the tidally influenced portion of the Penobscot River. However, water quality improvements associated with the waste load allocation are expected to extend into the tidally influenced section of the river. The effectiveness of the nutrient load reductions will be assessed through routine ambient monitoring for total phosphorous, dissolved oxygen and biochemical oxygen demand. See Special Condition G, *Ambient Water Quality Monitoring* of this permit.

If ambient water quality monitoring or future modeling determines that at full permitted discharge limits the permittee’s discharge is causing or contributing to the non-attainment of standards, this permit will be re-opened per Special Condition N, *Reopening of Permit For Modifications*, to impose more stringent limitations to meet water quality standards.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS:

- a. Flow: The previous permitting action established a monthly average flow limitation of 1.84 MGD based on the dry weather design capacity of the facility along with a daily maximum reporting requirement that are being carried forward in this permitting action.

A review of the DMR data for the period August 1, 2009 – August 1, 2012 indicates the following:

Flow

Value	Limit (MGD)	Range (MGD)	Average (MGD)	Number of DMRs	Compliance
Monthly Average	1.84	0.55 – 2.23	1.22	35	91%
Daily Maximum	Report	0.81 – 4.82	2.28	35	N/A

- b. Dilution Factors: The Department has made the determination that the dilution factors associated with the discharge shall be calculated in accordance with freshwater protocols established in 06-096 CMR 530. With a permit flow limit of 1.84 MGD and the 7Q10 and 1Q10 low flow values for the Penobscot River, the dilution factors are calculated as follows:

$$\text{Acute } \frac{1}{4} \text{ of 1Q10} = 716.8 \text{ cfs} \Rightarrow \frac{(716.8 \text{ cfs})(0.6464) + 1.84 \text{ MGD}}{1.84 \text{ MGD}} = 252.8:1$$

$$\text{Acute: 1Q10} = 2,867.0 \text{ cfs} \Rightarrow \frac{(2,867.0 \text{ cfs})(0.6464) + 1.84 \text{ MGD}}{1.84 \text{ MGD}} = 1,008.2:1$$

$$\text{Chronic: 7Q10} = 3,178.0 \text{ cfs} \Rightarrow \frac{(3,178.0 \text{ cfs})(0.6464) + 1.84 \text{ MGD}}{1.84 \text{ MGD}} = 1,117.5:1$$

$$\text{Harmonic Mean} = 8,792 \text{ cfs} \Rightarrow \frac{(8,792 \text{ cfs})(0.6464) + 1.84 \text{ MGD}}{1.84 \text{ MGD}} = 3,089.7:1$$

06-096 CMR 530 § 4(B)(1) states that analyses using numeric acute criteria for aquatic life must be based on ¼ of the 1Q10 stream design flow to prevent substantial acute toxicity within any mixing zone. The regulation goes on to say that where it can be demonstrated that a discharge achieves rapid and complete mixing with the receiving water by way of an efficient diffuser or other effective method, analyses may use a greater proportion of the stream design, up to including all of it. The permittee's outfall does not have a diffuser structure and the Department has made the determination that the discharge does not have rapid and complete mixing with the receiving water. Therefore, the Department is utilizing the default stream flow of ¼ of the 1Q10 pursuant to 06-096 CMR 530 in acute evaluations.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS:

- c. Biochemical oxygen demand (BOD₅) and Total suspended solids (TSS): This permitting action is carrying forward the monthly and weekly average BOD₅ and TSS best practicable treatment (BPT) concentration limits of 30 mg/L and 45 mg/L respectively, that were based on secondary treatment requirements in 06-096 CMR 525(3)(III). The maximum daily BOD₅ and TSS concentration limits of 50 mg/L were based on a Department best professional judgment of BPT. All three concentration limits are being carried forward in this permitting action. The monthly average and weekly average technology-based mass limits were based on the monthly average flow limitation of 1.84 MGD and the applicable concentration limits and are also being carried forward in this permitting action. The mass limits are calculated as follows.

Monthly average: $(1.84 \text{ MGD})(8.34 \text{ lbs/gal})(30 \text{ mg/L}) = 460 \text{ lbs/day}$

Weekly average: $(1.84 \text{ MGD})(8.34 \text{ lbs/gal})(45 \text{ mg/L}) = 690 \text{ lbs/day}$

Daily maximum: Report Only

It is noted that no daily maximum mass limits for BOD₅ and TSS have been established in this permit (or the previous permit) due to the presence of CSOs in the collection system. Establishing such a limit would likely discourage the permittee from treating as much wastewater as the plant can physically treat during wet weather events. However, pursuant to Standard Condition B(2) of this permit, the permittee shall maximize its capacity to treat as much wastewater to a secondary level of treatment as possible during wet weather events.

This permitting action is carrying forward the BOD₅ and TSS monitoring frequencies of 2/Week from the previous permitting action.

A review of the DMR data for the period August 1, 2009 – August 1, 2012 indicates the following:

BOD₅ Mass

Value	Limit (lbs/day)	Range (lbs/day)	Average (lbs/day)	Number of DMRs	Compliance
Monthly Average	460	24 – 305	144	35	100%
Weekly Average	690	32 – 505	209	35	100%
Daily Maximum	Report	33 – 725	273	35	N/A

BOD₅ Concentration

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)	Number of DMRs	Compliance
Monthly Average	30	3 – 33	13	35	97%
Weekly Average	45	5 – 42	18	35	100%
Daily Maximum	50	5 – 43	21	35	100%

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

TSS Mass

Value	Limit (lbs/day)	Range (lbs/day)	Average (lbs/day)	Number of DMRs	Compliance
Monthly Average	460	33 – 192	88	35	100%
Weekly Average	690	42 - 464	137	35	100%
Daily Maximum	Report	46 - 727	192	35	N/A

TSS Concentration

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)	Number of DMRs	Compliance
Monthly Average	30	2 – 14	8	35	100%
Weekly Average	45	5 – 24	11	35	100%
Daily Maximum	50	6 – 35	14	35	100%

This permitting action also carries forward a requirement of 85% removal for BOD5 and TSS pursuant to 06-096 CMR 525 (3)(III)(a&b)(3).

- d. Settleable Solids – This permitting action is carrying forward a daily maximum settleable solids concentration limit of 0.3 ml/L (considered by the Department to be representative of BPT) with a minimum monitoring frequency of 5/Week. A review of the DMR data for the period of August 1, 2009 – August 1, 2012 (#DMRs = 35) indicated that the permittee reported effluent settleable solids values of <0.1 mL/L to 0.3 mL/L and 100% compliance over that period of time.

- e. Escherichia coli Bacteria (E. coli): The previous permitting action contained a seasonal (May 15 – September 30) *E. coli* monthly average (geometric mean) limit of 64 colonies/100 mL and a daily maximum (instantaneous) limit of 427 colonies/100 mL, and a monitoring frequency of 2/week. *Standards for the Classification of Fresh Surface Waters*, 38 M.R.S.A, § 465(2), establishes monthly average and daily maximum ambient water quality based *E. coli* thresholds of 64 colonies/100 mL and 236 colonies/100 mL, respectively, for Class B waters. However, the Department has developed an alternative approach to calculating daily maximum limits that considers the dilution of the receiving water for freshwater dischargers. Based on this approach, the Department has determined that any facility in Class B waters with a dilution of at least 1.1:1 would carry forward their existing end-of-pipe daily maximum *E. coli* limitation of 427 colonies/100mL. This permitting action is carrying forward the monthly average and daily maximum BPT limits of 64 colonies/100 mL and 427 colonies/100 mL, respectively, from the previous permitting action. A 2/Week monitoring requirement is being carried forward in this permitting action and is based on Department guidance for facilities with effluent flows between 1.0 MGD. and 5.0 MGD.

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

A review of the DMR data for the period August 1, 2009 – August 1, 2012 indicates the monthly average and daily maximum values have been reported as follows:

***E. coli* bacteria**

Value	Limit (#col/100 mL)	Range (#col/100 mL)	Arith. Mean (#col/100 mL)	Number of DMRs	Compliance
Monthly Average	64	1 – 18	5	14	100%
Daily Maximum	427	1 – 84	24	14	100%

Results reported as “less than” (<) were considered present at the detection limit for calculation purposes.

This permitting action is carrying forward the 2/Week *E. coli* monitoring requirement from the previous permitting action based on Department BPJ and the permittee’s compliance history.

- f. **Total Residual Chlorine (TRC):** The previous permitting action established a daily maximum technology based limit of 1.0 mg/L for the discharge. Limits on TRC are specified to ensure that ambient water quality standards are maintained and that BPT technology is being applied to the discharge. The Department imposes the more stringent of the water quality or technology based limits in permitting actions. End-of-pipe water quality based concentration thresholds may be calculated as follows:

Criterion (mg/L)	Dilution Factors	Calculated Limit (mg/L)
Acute (A)	Chronic C	Acute
0.019	0.011	252.8:1
		1,117.5:1
		4.80
		12.29

Example calculation: Acute – 0.019 mg/L (252.8) = 4.80 mg/L

Because the water quality threshold for TRC calculated above is greater than the Department’s BPT limit, the previously established BPT limit of 1.0 mg/L is being carried forward in this permit.

A review of the DMR data for the period August 1, 2009 – August 1, 2012 indicates the daily maximum TRC concentration values have been reported as follows:

Total Residual Chlorine

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)	Number of DMRs	Compliance
Daily Maximum	1.0	0.2 – 0.5	0.3	7	100%

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

The 2002 permitting action established a monitoring frequency of 2/day during normal working days based on Department guidance for wastewater treatment facilities with effluent flows of between 1.5 and 5.0 MGD. However, the frequency was reduced 1/day on weekends and holidays based on facility performance, the effluent dilution in the receiving water and Department BPJ. This monitoring frequency scenario is being carried forward in this permitting action.

Limitations and monitoring requirements for TRC are applicable year round any time elemental chlorine or chlorine-based compounds are being utilized to disinfect the discharge(s).

- g. Phosphorus: The October 29, 2002, permit required phosphorus monitoring by the permittee due to non-attainment of dissolved oxygen criteria in the Penobscot River below the Bangor dam at that time. The phosphorus data submitted during the summers of 2003 – 2005 were utilized in the Department’s water quality modeling of the Penobscot River. The May 20, 2011, minor revision re-established total phosphorus monitoring at a frequency of 2/Month during the summer months (June – September) based on the Department report entitled, *Penobscot River Phosphorus Waste Load Allocation, May 2011*, stating seasonal mass-based total phosphorus limitations are necessary for the four industrial dischargers on the river as well as monitoring for total phosphorus for five municipal waste water treatment facilities, including the permittee. The specific eutrophication-related responses that are targeted by the waste load allocation are not expected to persist into the tidally influenced portion of the Penobscot River. However, water quality improvements associated with the waste load allocation are expected to extend into the tidally influenced section of the river. The effectiveness of the nutrient load reductions will be assessed through routine ambient monitoring for total phosphorous, dissolved oxygen and biochemical oxygen demand. See Special Condition G, *Ambient Water Quality Monitoring* of this permit.

A review of the DMR data for the period August 1, 2009 – August 1, 2012 indicates the total phosphorus values have been reported as follows:

Total Phosphorus

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)	Number of DMRs	Compliance
Monthly Average	Report	13 – 33	22	5	N/A
Daily Maximum	Report	13 – 40	27	5	N/A

Total Phosphorus

Value	Limit (lbs/day)	Range (lbs/day)	Average (lbs/day)	Number of DMRs	Compliance
Monthly Average	Report	2 – 3	2	5	N/A
Daily Maximum	Report	2 – 5	3	5	N/A

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

- h. pH: This permitting action is carrying forward the BPT pH range limitation of 6.0–9.0 standard units (SU) pursuant to 06-096 CMR 525(3)(III)(c). This permitting action is carrying forward the minimum pH monitoring frequency of 1/Day. The Department reviewed DMR data for the period of August 1, 2009 – August 1, 2012 (#DMRs = 35). The permittee was in compliance with the pH limitations 91% of the time during this period.
- i. Whole Effluent Toxicity (WET) & Chemical-Specific Testing: 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. 06-096 CMR 530 and 06-096 CMR 584 set forth ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters. WET, priority pollutant and analytical chemistry testing as required by 06-096 CMR 530 are included in this permit in order to fully characterize the effluent. This permit also provides for reconsideration of effluent limits and monitoring schedules after evaluation of toxicity testing results. The monitoring schedule includes consideration of results currently on file, the nature of the wastewater, existing treatment and receiving water characteristics.

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 and chronic WET tests are performed on invertebrate and vertebrate species. Priority pollutant and analytical chemistry testing are required to assess the levels of individual toxic pollutants in the discharge, comparing each pollutant to acute, chronic, and human health AWQC as established in 06-096 CMR 584. 06-096 CMR 530 establishes four categories of testing requirements based predominately on the chronic dilution factor. The categories are as follows:

- 1) Level I – chronic dilution factor of <20:1.
- 2) Level II – chronic dilution factor of $\geq 20:1$ but <100:1.
- 3) Level III – chronic dilution factor $\geq 100:1$ but <500:1 or >500:1 and $Q \geq 1.0$ MGD
- 4) Level IV – chronic dilution >500:1 and $Q \leq 1.0$ MGD

06-096 CMR 530 (D)(1) specifies the criteria to be used in determining the minimum monitoring frequency requirements for WET, priority pollutant and analytical chemistry testing. Based on the 06-096 CMR 530 (D)(1) criteria, the permittee's facility falls into the Level III frequency category as the facility has a chronic dilution factor of >500:1 and a flow of ≥ 1.0 MGD.

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

06-096 CMR 530 (D)(1) specifies that routine screening and surveillance level testing requirements are as follows:

Screening level testing – Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the permit) and every five years thereafter.

Level	WET Testing	Priority pollutant testing	Analytical chemistry
III	1 per year	1 per year	4 per year

Surveillance level testing – Beginning upon issuance of the permit and lasting through 24 months prior to permit expiration (Years 1-3 of the permit) and commencing again 12 months prior to permit expiration and lasting through permit expiration (Year 5 of the permit).

Level	WET Testing	Priority pollutant testing	Analytical chemistry
III	1 per year	None required	1 per year

A review of the data on file with the Department indicates that to-date, the permittee has fulfilled the WET and chemical-specific testing requirements of 06-096 CMR 530. See **Attachment C** of this Fact Sheet for a summary of the WET test results and **Attachment D** of this Fact Sheet for a summary of the chemical-specific test dates.

06-096 CMR 530 (D)(3)(b) states in part, *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 exceedence as calculated pursuant to section 3(E).*

06-096 CMR 530 (3)(E) states *“For effluent monitoring data and the variability of the pollutant in the effluent, the Department shall apply the statistical approach in Section 3.3.2 and Table 3-2 of USEPA's "Technical Support Document for Water Quality-Based Toxics Control" (USEPA Publication 505/2-90-001, March, 1991, EPA, Office of Water, Washington, D.C.) to data to determine whether water-quality based effluent limits must be included in a waste discharge license. Where it is determined through this approach that a discharge contains pollutants or WET at levels that have a reasonable potential to cause or contribute to an exceedence of water quality criteria, appropriate water quality-based limits must be established in any licensing action.”*

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

WET evaluation

06-096 CMR 530(3) states, *"In determining if effluent limits are required, the Department shall consider all information on file and effluent testing conducted during the preceding 60 months. However, testing done in the performance of a Toxicity Reduction Evaluation (TRE) approved by the Department may be excluded from such evaluations."*

On February 9, 2011, the Department conducted a statistical evaluation on the most recent 60 months of WET data that indicates the discharge does not have a reasonable potential (RP) to exceed the acute or chronic critical ambient water quality criteria (AWQC) thresholds (0.40% and 0.09%, respectively – mathematical inverses of the modified acute dilution factor of 253:1 and the chronic dilution factor 1,118:1). As a result, this permitting action is not establishing WET limitations.

Given the absence of exceedences or reasonable potential to exceed critical WET thresholds for the brook trout or water flea, the permittee meets the surveillance level monitoring frequency waiver criteria found at 06-096 CMR 530 (D)(3)(b). This permitting action is carrying forward the requirement for the permittee to conduct screening level WET testing at a frequency of once per year (1/Year) on the brook trout and water flea.

In summary, this permitting action is carrying forward the waiver for surveillance level WET testing for the water flea and brook trout for the first three years and the fifth year of the term of the permit in accordance with 06-096 CMR 530 (D)(3)(b) and screening level WET testing requirements as follow:

Screening level testing – Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration and every five years thereafter:

Level	WET Testing
III	1 per year

In accordance with Special Condition L, *06-096 CMR 530 (2)(D)(4) Statement For Reduced/Waived Toxics Testing*, of this permit, the permittee must annually submit to the Department a written statement evaluating its current status for each of the conditions listed.

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

Chemical evaluation

06-096 CMR 530 (4)(C), states *"The background concentration of specific chemicals must be included in all calculations using the following procedures. The Department may publish and periodically update a list of default background concentrations for specific pollutants on a regional, watershed or statewide basis. In doing so, the Department shall use data collected from reference sites that are measured at points not significantly affected by point and non-point discharges and best calculated to accurately represent ambient water quality conditions. The Department shall use the same general methods as those in section 4(D) to determine background concentrations. For pollutants not listed by the Department, an assumed concentration of 10% of the applicable water quality criteria must be used in calculations."* The Department has limited information on the background levels of metals in the water column in the Penobscot River in the vicinity of the permittee's outfall. Therefore, a default background concentration of 10% of the applicable water quality criteria is being used in the calculations of this permitting action.

06-096 CMR 530 (4)(E), states *"In allocating assimilative capacity for toxic pollutants, the Department shall hold a portion of the total capacity in an unallocated reserve to allow for new or changed discharges and non-point source contributions. The unallocated reserve must be reviewed and restored as necessary at intervals of not more than five years. The water quality reserve must be not less than 15% of the total assimilative quantity."* Therefore, the Department is reserving 15% of the applicable water quality criteria in the calculations of this permitting action.

06-096 CMR 530 (3)(E) states *"... that a discharge contains pollutants or WET at levels that have a reasonable potential to cause or contribute to an exceedence of water quality criteria, appropriate water quality-based limits must be established in any licensing action."*

06-096 CMR 530 (4)(F) states in part *"Where there is more than one discharge into the same fresh or estuarine receiving water or watershed, the Department shall consider the cumulative effects of those discharges when determining the need for and establishment of the level of effluent limits. The Department shall calculate the total allowable discharge quantity for specific pollutants, less the water quality reserve and background concentration, necessary to achieve or maintain water quality criteria at all points of discharge, and in the entire watershed. The total allowable discharge quantity for pollutants must be allocated consistent with the following principles."*

Evaluations must be done for individual pollutants of concern in each watershed or segment to assure that water quality criteria are met at all points in the watershed and, if appropriate, within tributaries of a larger river.

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

The total assimilative capacity, less the water quality reserve and background concentration, may be allocated among the discharges according to the past discharge quantities for each as a percentage of the total quantity of discharges, or another comparable method appropriate for a specific situation and pollutant. Past discharges of pollutants must be determined using the average concentration discharged during the past five years and the facility's licensed flow.

The amount of allowable discharge quantity may be no more than the past discharge quantity calculated using the statistical approach referred to in section 3(E) [Section 3.3.2 and Table 3-2 of USEPA's "Technical Support Document for Water Quality-Based Toxics Control"] of the rule, but in no event may allocations cause the water quality reserve amount to fall below the minimum referred to in 4(E) [15% of the total assimilative capacity]. Any difference between the total allowable discharge quantity and that allocated to existing dischargers must be added to the reserve."

See **Attachment E** of this Fact Sheet for Department guidance that establishes protocols for establishing waste load allocations. The guidance states that the most protective of water quality becomes the facility's allocation. According to the 2/09/11 statistical evaluation (Report ID #342), pollutants of concern (aluminum, copper and lead) are to be limited based on the segment allocation method.

Segment allocation methodology

Historical Average:

For the segment allocation methodology, the historical average quantity (mass) for each pollutant of concern for each facility is calculated utilizing the arithmetic mean of the concentrated values reported for each pollutant, a conversion factor of 8.34 lbs/gallon and the monthly average permit limit for flow. The historical mass discharged for each pollutant for each facility is mathematically summed to determine the total mass discharged for each pollutant in the watershed. Based on the individual discharger's historical average, each discharger is assigned a percentage of the whole which is then utilized to determine the percent of the segment allocation for each pollutant for each facility. For the permittee's facility, historical averages for total aluminum, total copper and total lead were calculated as follows:

Aluminum

Mass limits

Mean concentration (n=2) = 43 ug/L or 0.043 mg/L

Permit flow limit = 1.84 MGD

Historical average mass = (0.043 mg/L)(8.34)(1.84 MGD) = 0.66 lbs/day

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

The 2/09/11 statistical evaluation (Report ID#342) indicates the historical average mass of aluminum discharged by the permittee's facility is 0.25% of the aluminum discharged by the facilities on the Penobscot River and its tributaries. Therefore, the permittee's segment allocation for aluminum is calculated as 0.25% of the acute and chronic assimilative capacities of the river at Bangor, the most downstream facility minus the assimilative capacities assigned to the tributaries on the Penobscot River that have permitted discharges. The Department has calculated a chronic assimilative capacity of 1,126 lbs/day of aluminum at Bangor. Therefore, the mass segment allocation for aluminum for the permittee can be calculated as follows:

Monthly average (chronic) mass limitations for aluminum are calculated as follows:

Monthly average: (Chronic assimilative capacity mass)(% of total aluminum discharged)
 $(1,126 \text{ lbs/day})(0.0025) = 2.8 \text{ lbs/day}$

The May 20, 2011, minor revision issued by the Department also established a monthly average concentration limit of 360 ug/L for aluminum based on the 06-096 CMR Chapter 530 (3)(D)(1) promulgated on October 12, 2005, that stated;

For specific chemicals, effluent limits must be expressed in total quantity that may be discharged and in effluent concentration. In establishing concentration, the Department may increase allowable values to reflect actual flows that are lower than permitted flows and/or provide opportunities for flow reductions and pollution prevention provided water quality criteria are not exceeded. With regard to concentration limits, the Department may review past and projected flows and set limits to reflect proper operation of the treatment facilities that will keep the discharge of pollutants to the minimum level practicable.

In the spring of 2012, the rule was modified to eliminate the requirement for establishing concentration limits for pollutants of concern. 06-096 CMR Chapter 530 (3)(D)(1) was amended as follows;

For specific chemicals, effluent limits must be expressed in total quantity that may be discharged. Unless required by an applicable effluent limitation guideline adopted by the Department, all permit limitations for metals shall be expressed only as mass-based limits. If required, in establishing concentration, the Department may increase allowable values to reflect actual flows that are lower than permitted flows and/or provide opportunities for flow reductions and pollution prevention provided water quality criteria are not exceeded. With regard to concentration limits, the Department may review past and projected flows and set limits to reflect proper operation of the treatment facilities that will keep the discharge of pollutants to the minimum level practicable.

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

Therefore, pursuant to 06-096 CMR Chapter 530 (3)(D)(1) as amended, this permitting action is not establishing concentration limits for pollutants of concern including aluminum.

Copper

Historical average mass

Mean concentration (n=4) = 14.8 ug/L or 0.015 mg/L

Permit flow limit = 1.84 MGD

Historical average mass = (0.015 mg/L)(8.34)(1.84 MGD) = 0.23 lbs/day

The 2/09/11 (Report ID #342) statistical evaluation indicates the historical average mass of copper discharged by the permittee is 1.5% of the copper discharged by the facilities on the Penobscot River and its tributaries. However, the Red Shield facility upstream of the permittee was limited by the acute individual allocation resulting in a surplus of 4.17 lbs of copper to be allocated to downstream dischargers where copper is being limited in a permit. In this case, there are three downstream dischargers being limited for copper. Therefore, the permittee's acute segment allocation for copper is calculated as 2.2% of the copper discharged on the Penobscot River and its tributaries.

The Department has calculated an acute assimilative capacity of 35.94 lbs/day and a chronic assimilative capacity of 30.51 lbs/day of copper at Bangor, the most downstream facility on the Penobscot River. Therefore, the mass segment allocations for copper for the permittee can be calculated as follows:

Daily maximum: (Acute assimilative capacity mass)(% of total copper discharged)
(35.94 lbs/day)(0.022) = **0.79 lbs/day**

Monthly average: (Chronic assimilative capacity mass)(% of total copper discharged)
(30.51 lbs/day)(0.015) = **0.46 lbs/day**

The May 20, 2011, minor revision issued by the Department also established a monthly average and daily maximum concentration limits of 65 ug/L and 100 ug/L for copper.

Pursuant to 06-096 CMR Chapter 530 (3)(D)(1) as amended, this permitting action is not establishing concentration limits for copper.

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

Lead

Mass limits

Mean concentration (n=4) = 3.62 ug/L or 0.0036 mg/L

Permit flow limit = 1.84 MGD

Historical average mass = (0.0036 mg/L)(8.34)(1.84 MGD) = 0.055 lbs/day

The 2/09/11 statistical (Report ID #342) indicates the historical average mass of lead discharged by the permittee's facility is 1.49% of the lead discharged by the facilities on the Penobscot River and its tributaries. Therefore, permittee's segment allocation for lead is calculated as 1.49% of the chronic assimilative capacity of the river at Bangor, the most downstream facility minus the assimilative capacities assigned to the tributaries on the Penobscot River that have permitted discharges. The Department has calculated a chronic assimilative capacity of 5.33 lbs/day of lead at Bangor. Therefore, the mass segment allocation for lead for the permittee can be calculated as follows:

Monthly average mass for lead

(Chronic assimilative capacity mass)(% of total lead discharged)

(5.33 lbs/day)(0.0149) = **0.08 lbs/day**

The May 20, 2011, minor revision issued by the Department also established a monthly average concentration limit of 10 ug/L for lead. Pursuant to 06-096 CMR Chapter 530 (3)(D)(1) as amended, this permitting action is not establishing concentration limits for lead.

As for the remaining chemical specific parameters tested to date, none of the test results in the 60-month evaluation period exceed or have a reasonable potential to exceed applicable acute, chronic or human health AWQC. Therefore, this permitting action is carrying forward the waiver for surveillance level reporting and monitoring frequency for analytical chemistry and priority pollutant testing. As with reduced WET testing, the permittee must file an annual certification with the Department pursuant to Special Condition L, *06-096 CMR 530 (2)(D)(4) Statement For Reduced/Waived Toxics Testing*, of this permit, the permittee must annually submit to the Department a written statement evaluating its current status for each of the conditions listed.

Beginning 24 months prior to the expiration date of the permit and lasting through 12 months prior to the expiration date of the permit and every five years thereafter, the permittee shall conduct default screening level analytical chemistry testing at 1/Quarter and priority pollutant testing of 1/Year.

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

- k. Mercury: Pursuant to Maine law, 38 M.R.S.A. §420 and Department rule, 06-096 CMR 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 # W002673-46-D-R by establishing interim monthly average and daily maximum effluent concentration limits of 9.4 parts per trillion (ppt) and 14.2 ppt, respectively, and a minimum monitoring frequency requirement of four 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, sub- §11, specifying that interim mercury limits and monitoring requirements remain in effect. On September 28, 2011, the Maine Legislature enacted, *Certain deposits and discharges prohibited*, 38 M.R.S.A. § 420 sub-§ 1-B(F), allowing the Department to reduce mercury monitoring frequencies to once per year for facilities that maintain at least five (5) years of mercury testing data. The permittee has met the data requirement, therefore, this permitting action is revising the minimum mercury monitoring frequency from 4/Year to 1/Year. A review of the Department's database for the period June 7, 2007 – June 7 2012 (#DMRs=21) indicates mercury test results have ranged from 2.1 ppt to 9.5 ppt with an arithmetic mean of 5.1 ppt.

- l. Transported Wastes: This permitting action is carrying forward the authorization for the permittee to accept and treat transported wastes at the facility. *Standards for the Addition of Transported Wastes to Wastewater Treatment Facilities*, 06-096 CMR 555, limits the quantity of transported wastes treated at a facility to 0.5% of the design capacity if the facility does not utilize sidestream treatment or storage, or if the facility utilizes a side stream treatment or storage for at least half of the transported waste, the daily maximum volume received may not exceed 1.0% of the design capacity. The facility does utilize a side stream method for treatment and storage as transported wastes received at the facility are first introduced into the on-site digester. With a design capacity of 1.84 MGD, the 2,000 gallons per day (gpd) authorized by the previous permit only represents 0.1% of said capacity. The permittee has submitted an up-to-date application for the addition of transported wastes into the wastewater treatment facility as an exhibit to their 2012 application for permit renewal. After discussion with the permittee, it was determined that a more practical quantity of transported waste received and treated at the facility is 3,000 gpd which is equal to the quantity associated with a single tanker truck. The Department has reviewed said plan and determined that under normal operating conditions, the addition of 3,000 gallons per day of transported wastes to the facility will not cause or contribute to upset conditions of the treatment process. Additional requirements are contained in permit Special Condition J, *Disposal of Transported Wastes in Wastewater Treatment Facility*.

7. COMBINED SEWER OVERFLOW

This permit does not contain effluent limitations on the CSO outfall listed in the table below.

Outfall No.	Description	Location	Receiving Water / Class
003A	Untreated sanitary/storm water	Treatment Plant	Penobscot River / B

CSO Outfall #003A discharges from the same outlet structure as Outfall #001A, but is designated separately for administrative purposes.

Combined Sewer Overflow Abatement, 06-096 CMR 570 states that for discharges from overflows from combined municipal storm and sanitary sewer systems, the requirement of, "best practicable treatment" specified in 38 M.R.S.A., § 414 A-1(D) may be met by agreement with the discharger as a condition of its permit through development of a plan within a time period specified by the Department. The permittee submitted to the Department a CSO Master Plan entitled, *Sewer System Master Plan For CSO Abatement, Town of Orono, Maine*, dated December 1994 and was approved by the Department on January 23, 1997. Revised abatement schedules were submitted to the Department in letters dated June 22, 1998 and December 13, 1999, and approved by the Department on June 25, 1998 and December 13, 1999, respectively. The most recent revised abatement schedule was approved by the Department on November 29, 2011. The CSO Master Plan was updated in the document entitled, *Wastewater Infrastructure Facilities Evaluation, Town of Orono, Maine*, dated January 2005 and approved by the Department on May 16, 2005.

The permittee has been actively implementing the recommendations of the Master Plan and to date has significantly reduced the volume of untreated combined sewer overflows to the receiving water. Special Condition K, *Conditions For Combined Sewer Overflows*, of this permit contains a schedule of compliance for items in the most current up-to-date abatement plan.

8. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

The Department acknowledges that the elimination of the CSO in the collection system is a costly long-term project. As the permittee's sewer collection system is upgraded and maintained in according to the CSO Master Plan and Nine Minimum Controls, there should be reductions in the frequency and volume of CSO activities and improvement in the quality of the waste water discharged to the receiving waters. As permitted, the Department has determined the existing water uses will be maintained and protected. If ambient water quality monitoring or future modeling determines that at full permitted discharge limits, the permittee's discharge is causing or contributing to the non-attainment of standards, this permit will be reopened per Special Condition N, *Reopening of Permit For Modifications*, to impose more stringent limitations to meet water quality standards.

9. PUBLIC COMMENTS

Public notice of this application was made in the Penobscot Times newspaper on or about August 22, 2012. The Department receives public comments on an application until the date a final agency action is taken on that 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 *Application Processing Procedures for Waste Discharge Licenses*, 06-096 CMR 522 (effective January 12, 2001).

10. DEPARTMENT CONTACTS

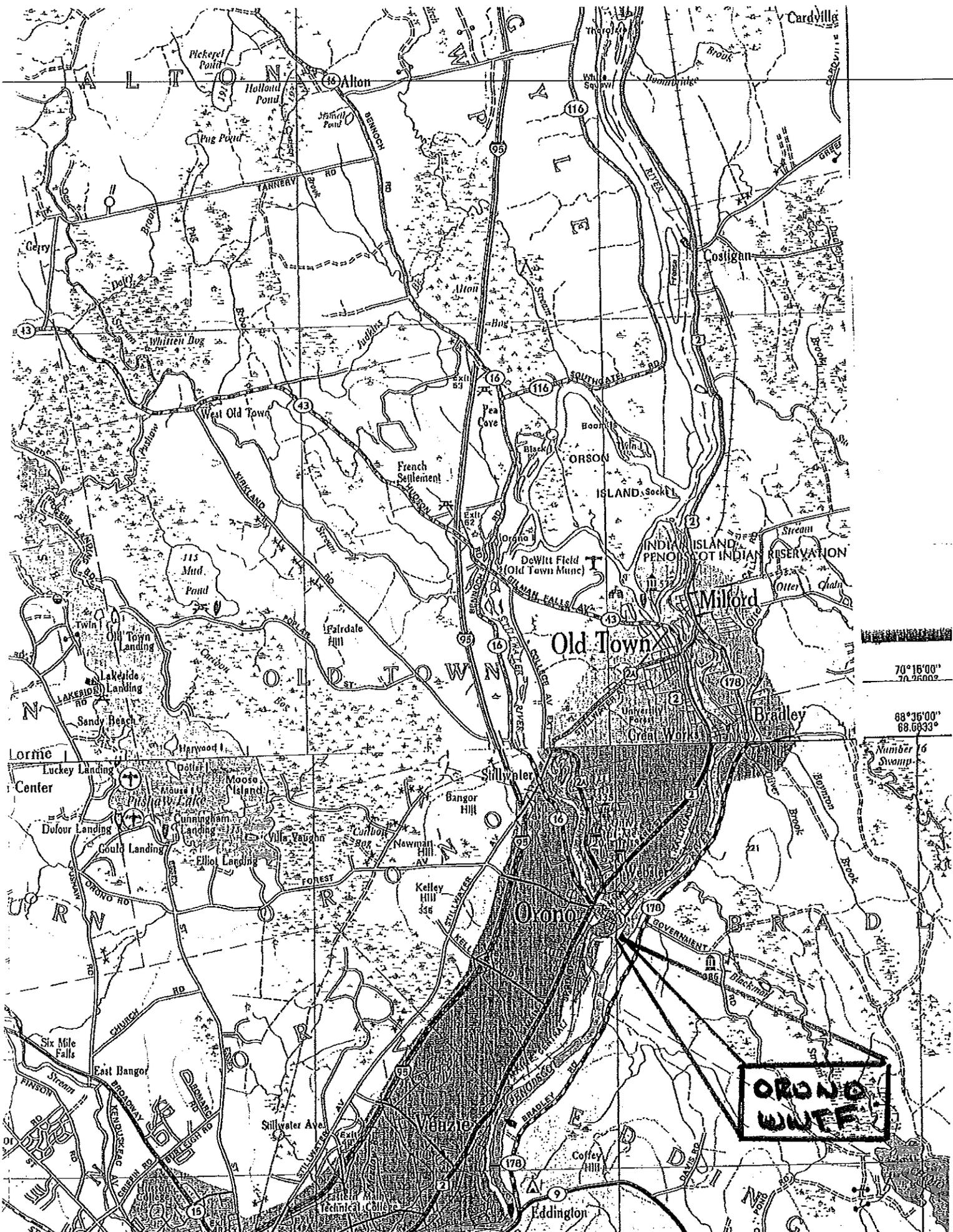
Additional information concerning this permitting action may be obtained from and written comments should be sent to:

Gregg Wood
Division of Water Quality Management
Bureau of Land & Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Tel: (207) 287-7693 Fax: (207) 287-3435
e-mail: gregg.wood@maine.gov

11. RESPONSE TO COMMENTS

During the period of September 26, 2012, through the issuance date of the permit/license, the Department solicited comments on the proposed draft permit/license to be issued for the discharge(s) from the permittee's facility. The Department did not receive comments from the permittee, state or federal agencies or interested parties that resulted in any substantive change(s) in the terms and conditions of the permit. Therefore, the Department has not prepared a Response to Comments.

ATTACHMENT A



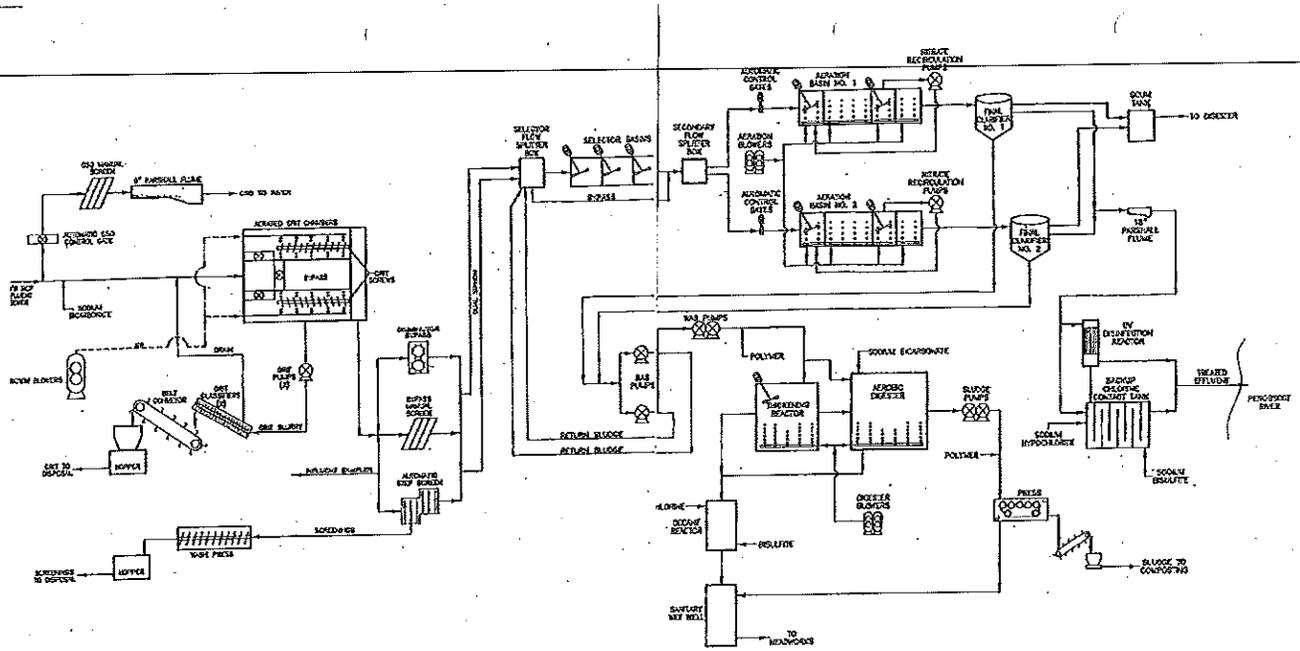
70° 15' 00"
70.25000

68° 35' 00"
68.58333

Number 16
Swamp

**ORONO
WUFF**

ATTACHMENT B



ORONO POLLUTION CONTROL FACILITY
 HEADWORKS TREATMENT
 PROCESS SCHEMATIC
 FIGURE 2
 OLIVER ASSOCIATES INC.
 ENVIRONMENTAL ENGINEERS
 290 MAIN STREET WINTHROP, MASS.

ATTACHMENT C

2/4/2011

WET TEST REPORT

Data for tests conducted for the period
04/Feb/2006 ~ 04/Feb/2011 period



ORONO

NPDES= ME010049

Effluent Limit: Acute (%) = 0.099

Chronic (%) = 0.089

Species	Test	Percent	Sample date	Critical %	Exception	RP
TROUT	A_NOEL	100	04/22/2007	0.099		
TROUT	C_NOEL	100	04/22/2007	0.089		
WATER FLEA	A_NOEL	100	04/22/2007	0.099		
WATER FLEA	C_NOEL	100	04/22/2007	0.089		

ATTACHMENT D

9/28/2012

PRIORITY POLLUTANT DATA SUMMARY



Date Range: 28/Sep/2007-28/Sep/2012

Facility Name: ORONO

NPDES: ME0100498

Test Date	Monthly (Flow MGD)	Daily	Total Test Number	Test # By Group						Clean	Hg
				M	V	BN	P	O	A		
10/04/2011	1.21	1.22	3	3	0	0	0	0	0	F	0
11/15/2011	1.18	1.21	123	13	28	46	25	0	11	F	0
02/22/2012	1.02	1.16	123	13	28	46	25	0	11	F	0
05/16/2012	1.25	1.65	13	10	0	0	0	3	0	F	0

Key:

A = Acid O = Others P = Pesticides
 BN = Base Neutral M = Metals V = Volatiles

ATTACHMENT E

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

MEMORANDUM

DATE: October 2008

TO: Interested Parties

FROM: Dennis Merrill, DEP

SUBJECT: DEP's system for evaluating toxicity from multiple discharges

Following the requirements of DEP's rules, Chapter 530, section 4(F), the Department is evaluating discharges of toxic pollutants into a freshwater river system in order to prevent cumulative impacts from multiple discharges. This is being through the use of a computer program known internally as "DeTox". The enclosed package of information is intended to introduce you to this system.

Briefly, the DeTox program evaluates each wastewater facility within a watershed in three different ways in order to characterize its effluent: 1) the facility's past history of discharges, 2) its potential toxicity at the point of discharge on an individual basis, and 3) the facility's contribution to cumulative toxicity within a river segment in conjunction with other facilities. The value that is most protective of water quality becomes the value that is held in the DeTox system as an allocation for the specific facility and pollutant.

The system is not static and uses a five-year "rolling" data window. This means that, over time, old test results drop off and newer ones are added. The intent of this process is to maintain current, uniform facility data to estimate contributions to a river's total allowable pollutant loading prior to each permit renewal.

Many facilities are required to do only a relatively small amount of pollutant testing on their effluent. This means, statistically, the fewer tests done, the greater the possibility of effluent limits being necessary based on the facility's small amount of data. To avoid this situation, most facilities, especially those with low dilution factors, should consider conducting more than the minimum number of tests required by the rules.

Attached you will find three documents with additional information on the DeTox system:

- Methods for evaluating the effects of multiple discharges of toxic pollutants
- Working definitions of terms used in the DeTox system
- Reviewing DeTox Reports
- Prototype facility and pollutant reports

If you have questions as you review these, please do not hesitate to contact me at Dennis.L.Merrill@maine.gov or 287-7788.

Maine Department of Environmental Protection

Methods for evaluating the effects of multiple discharges of toxic pollutants.

Reference: DEP Rules, Chapter 530, section 4(F)

To evaluate discharges of toxic pollutants into a freshwater river system and prevent cumulative impacts from multiple discharges, DEP uses a computer program called "DeTox" that functions as a mathematical evaluation tool.

It uses physical information about discharge sources and river conditions on file with the Department, established water quality criteria and reported effluent test information to perform these evaluations. Each toxic pollutant and associated water quality criterion for acute, chronic and/or human health effects is evaluated separately.

Each facility in a river drainage area has an assigned position code. This "address" is used to locate the facility on the river segment and in relation to other facilities and tributary streams. All calculations are performed in pounds per day to allow analysis on a mass balance. Pollutants are considered to be conservative in that once in the receiving water they will not easily degrade and have the potential to accumulate.

The process begins with establishing an assimilative capacity for each pollutant and water quality criterion at the most downstream point in the river segment. This calculation includes set-aside amounts for background and reserve quantities and assumed values for receiving water pH, temperature and hardness. The resulting amount of assimilative capacity is available for allocation among facilities on the river.

Each facility is evaluated to characterize its past discharge quantities. The historical discharge, in pounds per day, is figured using the average reported concentration and the facility's permitted flow. As has been past practice, a reasonable potential (RP) factor is used as a tool to estimate the largest discharge that may occur with a certain degree of statistical certainty. The RP factor is multiplied by the historical average to determine an allocation based on past discharges. The RP factor is also multiplied by the single highest test to obtain a maximum day estimate. Finally, the direct average without RP adjustment is used to determine the facility's percent contribution to the river segment in comparison to the sum of all discharges of the pollutant. This percent multiplied by the total assimilative capacity becomes the facility's discharge allocation used in evaluations of the segment loadings.

Additionally, individual facility discharges are evaluated as single sources, as they have been in the past to determine if local conditions are more limiting than a segment evaluation.

With all of this information, facilities are evaluated in three ways. The methods are:

1. The facility's past history. This is the average quantity discharged during the past five years multiplied by the applicable RP factor. This method is often the basis for an allocation when the discharge quantity is relatively small in comparison to the water quality based allocation.
2. An individual evaluation. This assumes no other discharge sources are present and the allowable quantity is the total available assimilative capacity. This method may be used when a local condition such as river flow at the point of discharge is the limiting factor.
3. A segment wide evaluation. This involves allocating the available assimilative capacity within a river segment based on a facility's percent of total past discharges. This method would be used when multiple discharges of the same pollutant to the same segment and the available assimilative capacity is relatively limited.

The value that is most protective of water quality becomes the facility's allocation that is held in the system for the specific facility and pollutant. It is important to note that the method used for allocation is facility and pollutant specific and different facilities on the same segment for the same pollutant can have different methods used depending on their individual situations.

Discharge amounts are always allocated to all facilities having a history of discharging a particular pollutant. This does not mean that effluent limits will be established in a permit. Limits are only needed when past discharge amounts suggest a reasonable potential to exceed a water quality based allocation, either on an individual or segment basis. Similar to past practices for single discharge evaluations, the single highest test value is multiplied by a RP factor and if product is greater than the water quality allowance, an effluent limit is established. It is important to remember an allocation is "banking" some assimilative capacity for a facility even if effluent limits are not needed.

Evaluations are also done for each tributary segment with the sum of discharge quantities in tributaries becoming a "point source" to the next most significant segment. In cases where a facility does not use all of its assimilative capacity, usually due to a more limiting individual water quality criterion, the unused quantity is rolled downstream and made available to other facilities.

The system is not static and uses a five-year rolling data window. Over time, old tests drop off and newer ones are added on. These changes cause the allocations and the need for effluent limits to shift over time to remain current with present conditions. The intent is to update a facility's data and relative contribution to a river's total assimilative capacity prior to each permit renewal. Many facilities are required to do only minimal testing to characterize their effluents. This creates a greater degree of statistical uncertainty about the true long-term quantities. Accordingly, with fewer tests the RP factor will be larger and result in a greater possibility of effluent limits being necessary. To avoid this situation, most facilities, especially those with relatively low dilution factors, are encouraged to conduct more than a minimum number of tests. It is generally to a facility's long-term benefit to have more tests on file since their RP factor will be reduced.

Maine Department of Environmental Protection

Working Definitions of Terms Used in the DeTox System.

Allocation. The amount of pollutant loading set aside for a facility. Separate amounts are set for each *water quality criterion*. Each pollutant having a history of being discharged will receive an allocation, but not all allocations become *effluent limits*. Allocation may be made in three ways: *historical allocation*, *individual allocation* or *segment allocation*.

Assimilative capacity. The amount of a pollutant that river segment can safely accept from point source discharges. It is determined for the most downstream point in a river segment using the *water quality criterion* and river flow. Separate capacities are set for acute, chronic and human health criteria as applicable for each pollutant. Calculation of this capacity includes factors for *reserve* and *background* amounts.

Background. A concentration of a pollutant that is assumed to be present in a receiving water but not attributable to discharges. By rule, this is set as a rebuttable presumption at 10% of the applicable *water quality criterion*.

Effluent limit. A numeric limit in a discharge permit specifically restricting the amount of a pollutant that may be discharged. An effluent limit is set only when the highest discharge, including an adjustment for *reasonable potential*, is greater than a facility's water quality based *allocation* for a pollutant.

Historical allocation (or RP history). One of three ways of developing an *allocation*. The facility's average history of discharges, in pounds at design flow, is multiplied by the appropriate *reasonable potential* factor. An allocation using this method does not become an *effluent limit*.

Historical discharge percentage. For each pollutant, the average discharge concentration for each facility in a segment is multiplied by the permitted flow (without including a *reasonable potential* factor). The amounts for all facilities are added together and a percent of the total is figured for each facility. When a facility has no detectable concentrations, that pollutant is assumed to be not present and it receives no percentage.

Individual allocation. One of three ways of developing an *allocation*. The facility's single highest discharge on record multiplied by the appropriate *reasonable potential* factor is compared to a water quality based quantity with an assumption that the facility is the only point source to that receiving water. If the RP-adjusted amount is larger, the water quality amount may become an *effluent limit*.

Less than. A qualification on a laboratory report indicating the concentration of a pollutant was below a certain concentration. Such a result is evaluated as being one half of the Department's reporting limit in most calculations.

Reasonable potential (RP). A statistical method to determine the highest amount of a pollutant likely to be present at any time based on the available test results. The method produces a value or RP factor that is multiplied by test results. The method relies on an EPA guidance document, and considers the coefficient of variation and the number of tests. Generally, the fewer number of tests, the higher the RP factor.

Reserve. An assumed concentration of a pollutant that set aside to account for non-point source of a pollutant and to allow new discharges of a pollutant. By rule this is set at 15% of the applicable *water quality criterion*.

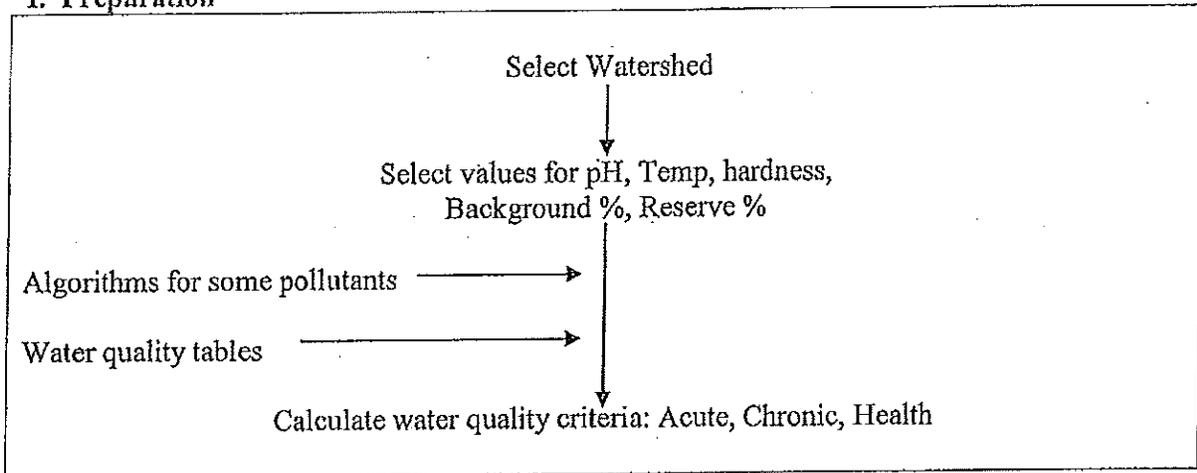
Segment allocation. One of three ways of developing an *allocation*. The amount is set by multiplying a facility's *historical discharge percentage* for a specific pollutant by the *assimilative capacity* for that pollutant and criterion. A facility will have different allocation percentages for each pollutant. This amount may become an *effluent limit*.

Tributary. A stream flowing into a larger one. A total pollutant load is set by adding the all facilities *allocations* on the tributary and treating this totaled amount as a "point source" to the next larger segment.

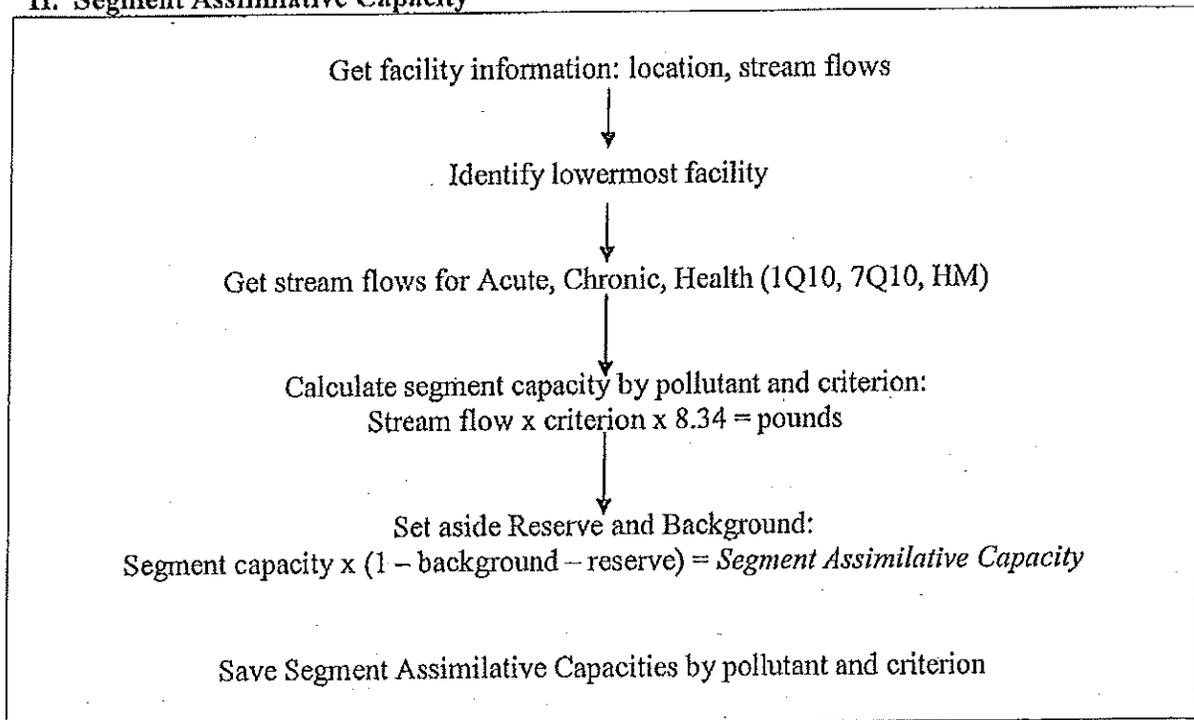
Water quality criteria. Standards for acceptable in-stream or ambient levels of pollutants. These are established in the Department's Chapter 584 and are expressed as concentrations in ug/L. There may be separate standards for acute and chronic protection aquatic life and/or human health. Each criterion becomes a separate standard. Different stream flows are used in the calculation of each.

Maine Department of Environmental Protection
General Processing Steps in "DeTox"

I. Preparation

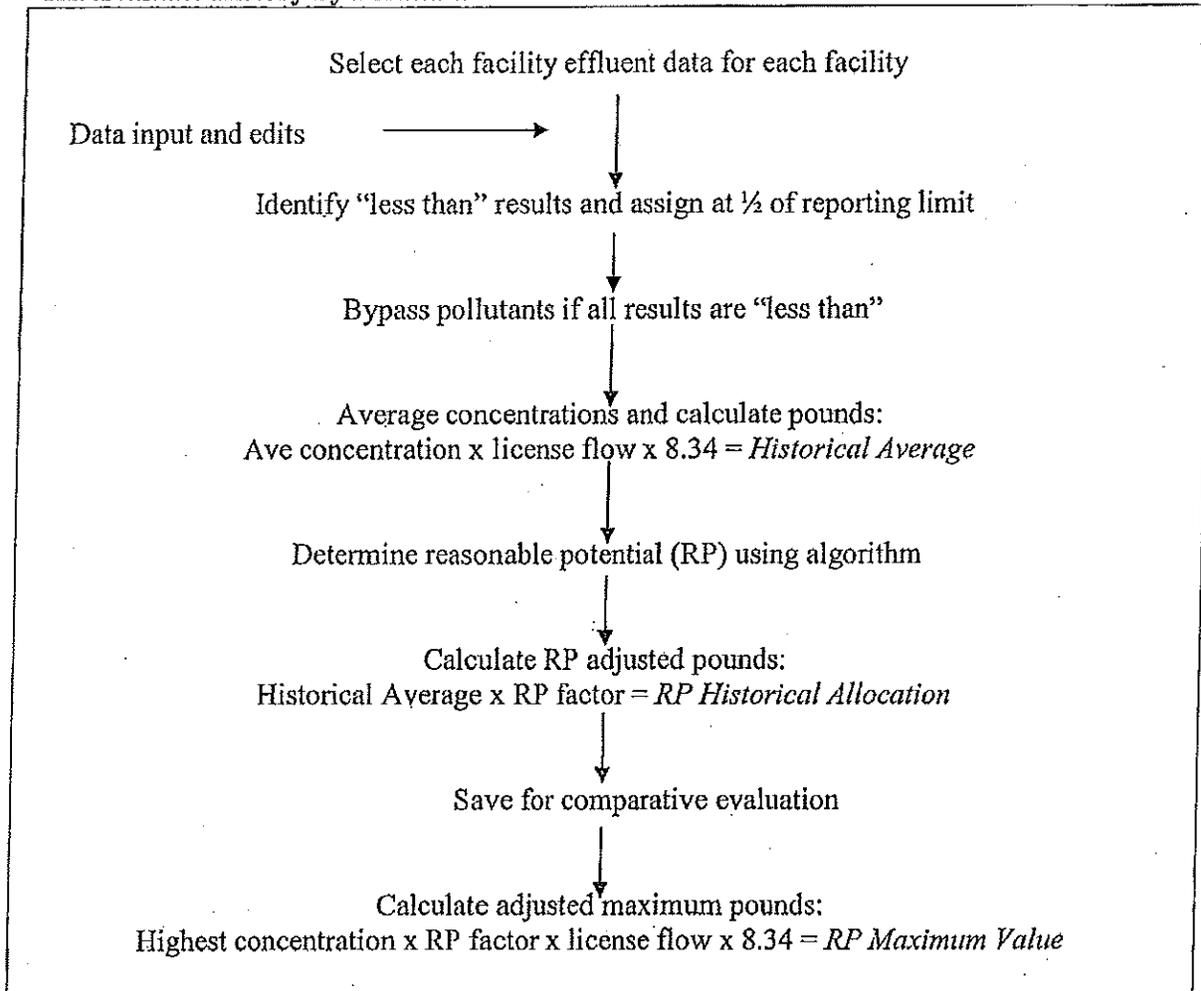


II. Segment Assimilative Capacity

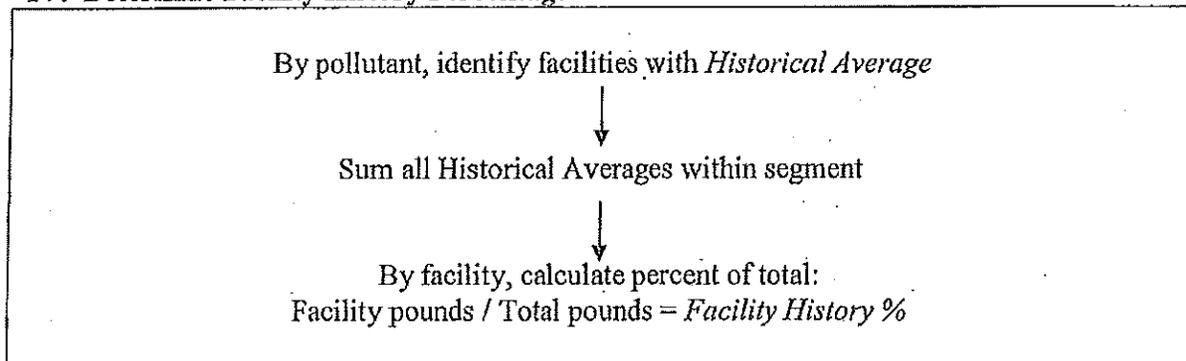


Maine Department of Environmental Protection
General Processing Steps in "DeTox"

III. Evaluate History by Pollutant

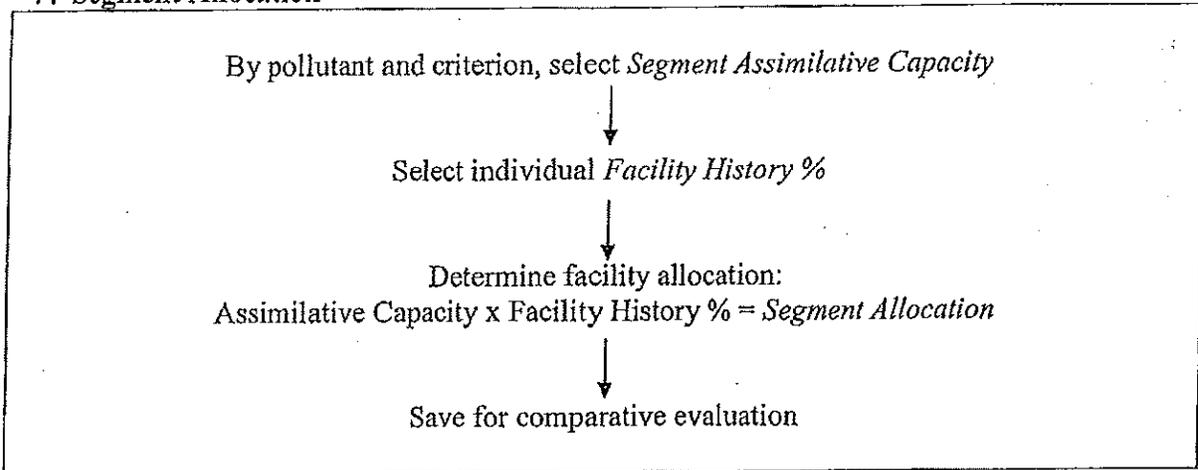


IV. Determine Facility History Percentage

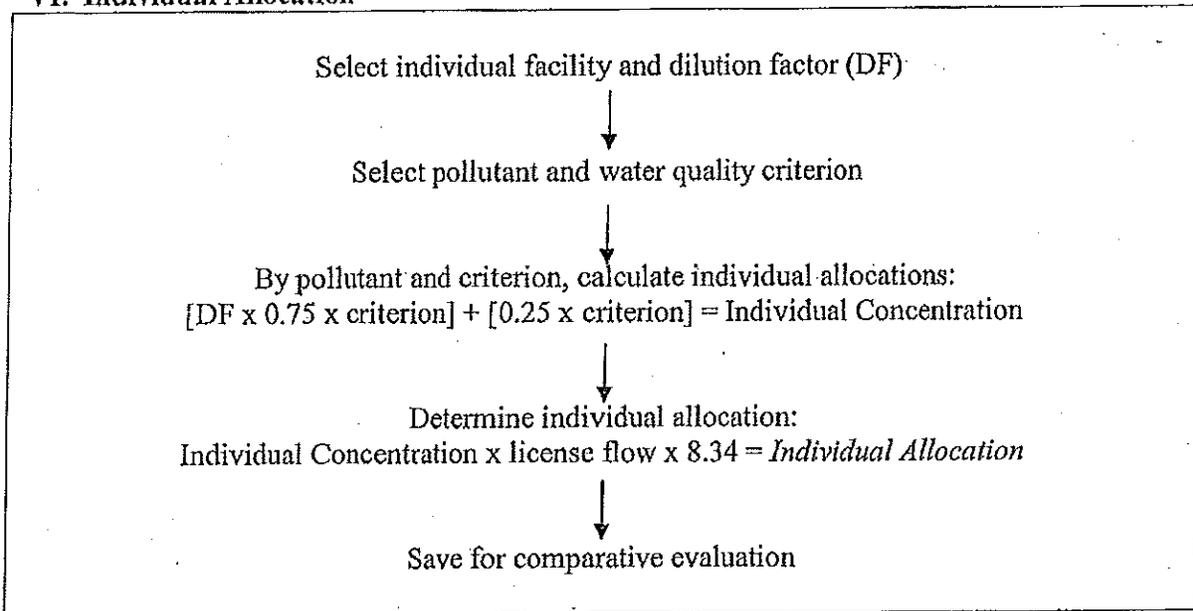


Maine Department of Environmental Protection
General Processing Steps in "DeTox"

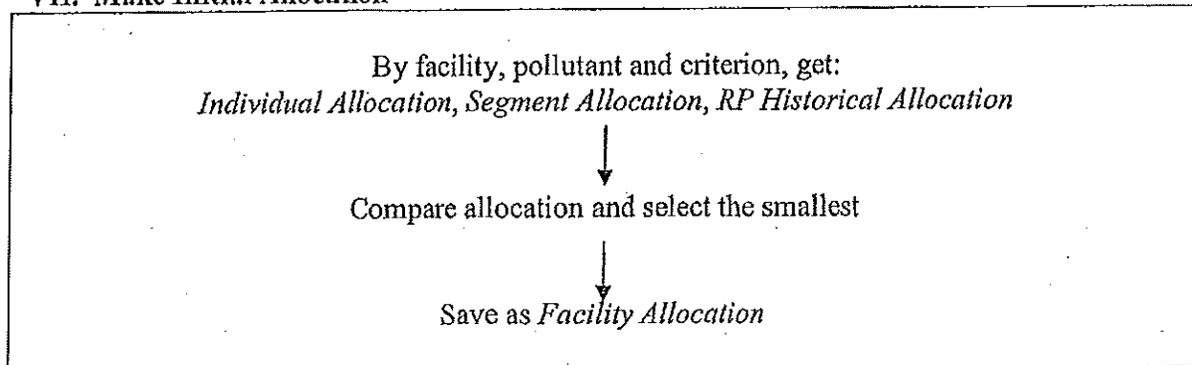
V. Segment Allocation



VI. Individual Allocation

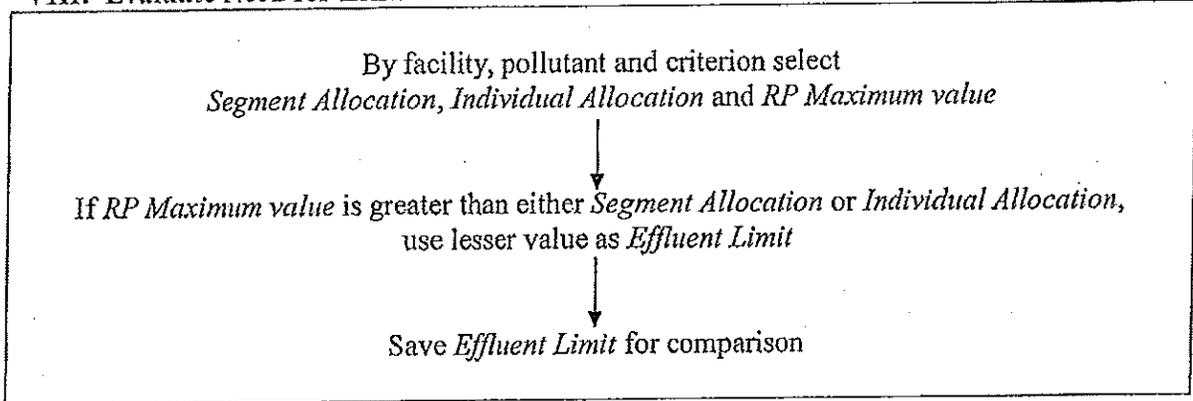


VII. Make Initial Allocation

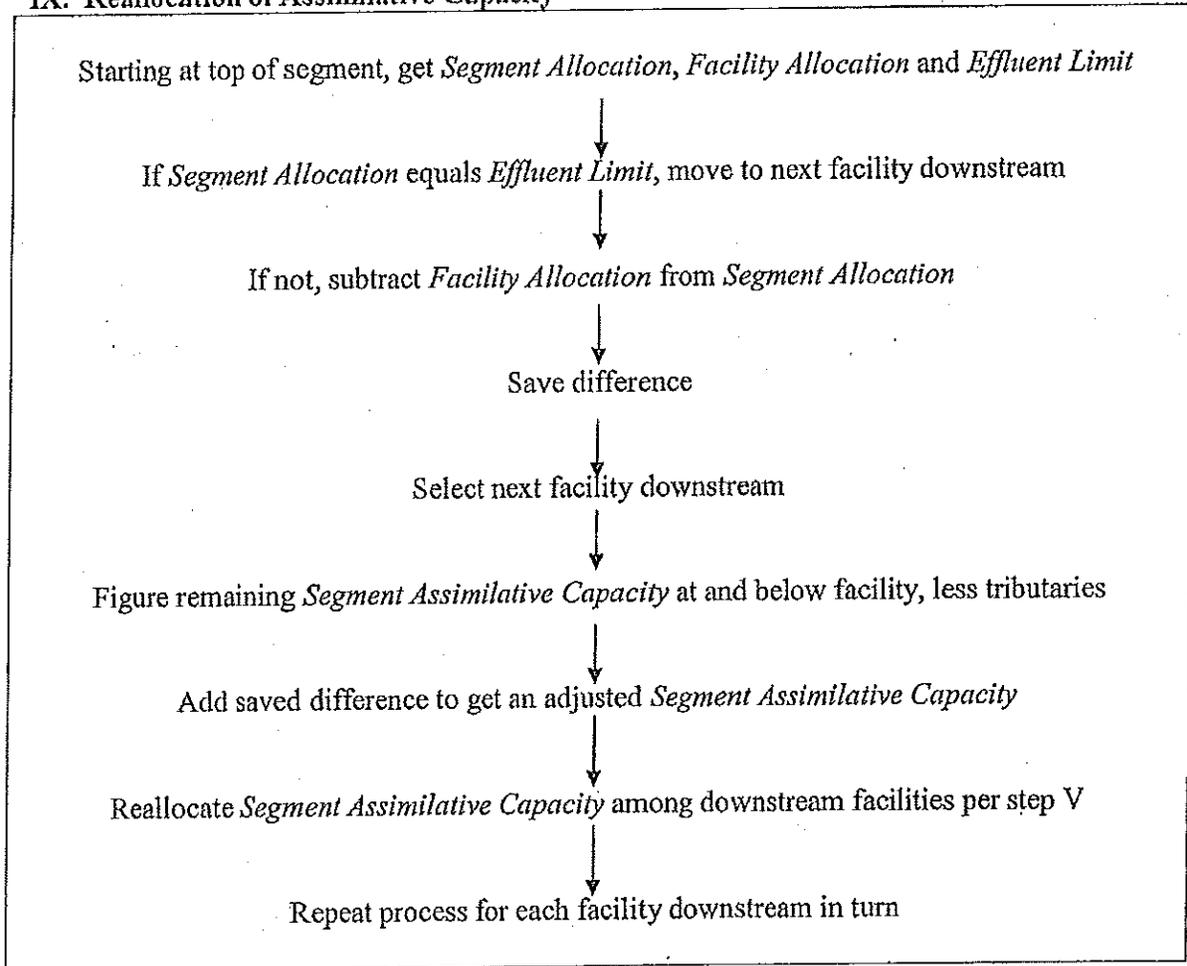


Maine Department of Environmental Protection
General Processing Steps in "DeTox"

VIII. Evaluate Need for Effluent Limits



IX. Reallocation of Assimilative Capacity



MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

CONTENTS

SECTION	TOPIC	PAGE
A	GENERAL PROVISIONS	
1	General compliance	2
2	Other materials	2
3	Duty to Comply	2
4	Duty to provide information	2
5	Permit actions	2
6	Reopener clause	2
7	Oil and hazardous substances	2
8	Property rights	3
9	Confidentiality	3
10	Duty to reapply	3
11	Other laws	3
12	Inspection and entry	3
B	OPERATION AND MAINTENANCE OF FACILITIES	
1	General facility requirements	3
2	Proper operation and maintenance	4
3	Need to halt reduce not a defense	4
4	Duty to mitigate	4
5	Bypasses	4
6	Upsets	5
C	MONITORING AND RECORDS	
1	General requirements	6
2	Representative sampling	6
3	Monitoring and records	6
D	REPORTING REQUIREMENTS	
1	Reporting requirements	7
2	Signatory requirement	8
3	Availability of reports	8
4	Existing manufacturing, commercial, mining, and silvicultural dischargers	8
5	Publicly owned treatment works	9
E	OTHER PROVISIONS	
1	Emergency action - power failure	9
2	Spill prevention	10
3	Removed substances	10
4	Connection to municipal sewer	10
F	DEFINITIONS	10

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

A. GENERAL PROVISIONS

1. **General compliance.** All discharges shall be consistent with the terms and conditions of this permit; any changes in production capacity or process modifications which result in changes in the quantity or the characteristics of the discharge must be authorized by an additional license or by modifications of this permit; it shall be a violation of the terms and conditions of this permit to discharge any pollutant not identified and authorized herein or to discharge in excess of the rates or quantities authorized herein or to violate any other conditions of this permit.

2. **Other materials.** Other materials ordinarily produced or used in the operation of this facility, which have been specifically identified in the application, may be discharged at the maximum frequency and maximum level identified in the application, provided:

(a) They are not

- (i) Designated as toxic or hazardous under the provisions of Sections 307 and 311, respectively, of the Federal Water Pollution Control Act; Title 38, Section 420, Maine Revised Statutes; or other applicable State Law; or
- (ii) Known to be hazardous or toxic by the licensee.

(b) The discharge of such materials will not violate applicable water quality standards.

3. **Duty to comply.** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of State law and the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

- (a) The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act, and 38 MRSA, §420 or Chapter 530.5 for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.
- (b) Any person who violates any provision of the laws administered by the Department, including without limitation, a violation of the terms of any order, rule license, permit, approval or decision of the Board or Commissioner is subject to the penalties set forth in 38 MRSA, §349.

4. **Duty to provide information.** The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.

5. **Permit actions.** This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

6. **Reopener clause.** The Department reserves the right to make appropriate revisions to this permit in order to establish any appropriate effluent limitations, schedule of compliance or other provisions which may be authorized under 38 MRSA, §414-A(5).

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

7. **Oil and hazardous substances.** Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties to which the permittee is or may be subject under section 311 of the Federal Clean Water Act; section 106 of the Federal Comprehensive Environmental Response, Compensation and Liability Act of 1980; or 38 MRSA §§ 1301, et. seq.

8. **Property rights.** This permit does not convey any property rights of any sort, or any exclusive privilege.

9. **Confidentiality of records.** 38 MRSA §414(6) reads as follows. "Any records, reports or information obtained under this subchapter is available to the public, except that upon a showing satisfactory to the department by any person that any records, reports or information, or particular part or any record, report or information, other than the names and addresses of applicants, license applications, licenses, and effluent data, to which the department has access under this subchapter would, if made public, divulge methods or processes that are entitled to protection as trade secrets, these records, reports or information must be confidential and not available for public inspection or examination. Any records, reports or information may be disclosed to employees or authorized representatives of the State or the United States concerned with carrying out this subchapter or any applicable federal law, and to any party to a hearing held under this section on terms the commissioner may prescribe in order to protect these confidential records, reports and information, as long as this disclosure is material and relevant to any issue under consideration by the department."

10. **Duty to reapply.** If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.

11. **Other laws.** The issuance of this permit does not authorize any injury to persons or property or invasion of other property rights, nor does it relieve the permittee of its obligation to comply with other applicable Federal, State or local laws and regulations.

12. **Inspection and entry.** The permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the EPA Administrator), upon presentation of credentials and other documents as may be required by law, to:

- (a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- (d) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

B. OPERATION AND MAINTENANCE OF FACILITIES

1. General facility requirements.

- (a) The permittee shall collect all waste flows designated by the Department as requiring treatment and discharge them into an approved waste treatment facility in such a manner as to

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

maximize removal of pollutants unless authorization to the contrary is obtained from the Department.

- (b) The permittee shall at all times maintain in good working order and operate at maximum efficiency all waste water collection, treatment and/or control facilities.
- (c) All necessary waste treatment facilities will be installed and operational prior to the discharge of any wastewaters.
- (d) Final plans and specifications must be submitted to the Department for review prior to the construction or modification of any treatment facilities.
- (e) The permittee shall install flow measuring facilities of a design approved by the Department.
- (f) The permittee must provide an outfall of a design approved by the Department which is placed in the receiving waters in such a manner that the maximum mixing and dispersion of the wastewaters will be achieved as rapidly as possible.

2. Proper operation and maintenance. 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. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

3. Need to halt or reduce activity not a defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

4. Duty to mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

5. Bypasses.

(a) Definitions.

- (i) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
- (ii) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

(b) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (c) and (d) of this section.

(c) Notice.

- (i) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

(ii) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph D(1)(f), below. (24-hour notice).

(d) Prohibition of bypass.

(i) Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:

(A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(C) The permittee submitted notices as required under paragraph (c) of this section.

(ii) The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three conditions listed above in paragraph (d)(i) of this section.

6. Upsets.

(a) Definition. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

(b) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (c) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

(c) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(i) An upset occurred and that the permittee can identify the cause(s) of the upset;

(ii) The permitted facility was at the time being properly operated; and

(iii) The permittee submitted notice of the upset as required in paragraph D(1)(f), below. (24 hour notice).

(iv) The permittee complied with any remedial measures required under paragraph B(4).

(d) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

C. MONITORING AND RECORDS

1. General Requirements. This permit shall be subject to such monitoring requirements as may be reasonably required by the Department including the installation, use and maintenance of monitoring equipment or methods (including, where appropriate, biological monitoring methods). The permittee shall provide the Department with periodic reports on the proper Department reporting form of monitoring results obtained pursuant to the monitoring requirements contained herein.

2. Representative sampling. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. If effluent limitations are based wholly or partially on quantities of a product processed, the permittee shall ensure samples are representative of times when production is taking place. Where discharge monitoring is required when production is less than 50%, the resulting data shall be reported as a daily measurement but not included in computation of averages, unless specifically authorized by the Department.

3. Monitoring and records.

- (a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- (b) Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years, the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.
- (c) Records of monitoring information shall include:
 - (i) The date, exact place, and time of sampling or measurements;
 - (ii) The individual(s) who performed the sampling or measurements;
 - (iii) The date(s) analyses were performed;
 - (iv) The individual(s) who performed the analyses;
 - (v) The analytical techniques or methods used; and
 - (vi) The results of such analyses.
- (d) Monitoring results must be conducted according to test procedures approved under 40 CFR part 136, unless other test procedures have been specified in the permit.
- (e) State law provides that any person who tampers with or renders inaccurate any monitoring devices or method required by any provision of law, or any order, rule license, permit approval or decision is subject to the penalties set forth in 38 MRSA, §349.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

D. REPORTING REQUIREMENTS

1. Reporting requirements.

- (a) Planned changes. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
 - (i) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
 - (ii) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under Section D(4).
 - (iii) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;
- (b) Anticipated noncompliance. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- (c) Transfers. This permit is not transferable to any person except upon application to and approval of the Department pursuant to 38 MRSA, § 344 and Chapters 2 and 522.
- (d) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.
 - (i) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Department for reporting results of monitoring of sludge use or disposal practices.
 - (ii) If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR part 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Department.
 - (iii) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Department in the permit.
- (e) Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
- (f) Twenty-four hour reporting.
 - (i) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

(ii) The following shall be included as information which must be reported within 24 hours under this paragraph.

(A) Any unanticipated bypass which exceeds any effluent limitation in the permit.

(B) Any upset which exceeds any effluent limitation in the permit.

(C) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit to be reported within 24 hours.

(iii) The Department may waive the written report on a case-by-case basis for reports under paragraph (f)(ii) of this section if the oral report has been received within 24 hours.

(g) Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs (d), (e), and (f) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (f) of this section.

(h) Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.

2. Signatory requirement. All applications, reports, or information submitted to the Department shall be signed and certified as required by Chapter 521, Section 5 of the Department's rules. State law provides that any person who knowingly makes any false statement, representation or certification in any application, record, report, plan or other document filed or required to be maintained by any order, rule, permit, approval or decision of the Board or Commissioner is subject to the penalties set forth in 38 MRSA, §349.

3. Availability of reports. Except for data determined to be confidential under A(9), above, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. As required by State law, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal sanctions as provided by law.

4. Existing manufacturing, commercial, mining, and silvicultural dischargers. In addition to the reporting requirements under this Section, all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Department as soon as they know or have reason to believe:

(a) That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(i) One hundred micrograms per liter (100 ug/l);

(ii) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

(iii) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with Chapter 521 Section 4(g)(7); or

(iv) The level established by the Department in accordance with Chapter 523 Section 5(f).

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

- (b) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
- (i) Five hundred micrograms per liter (500 ug/l);
 - (ii) One milligram per liter (1 mg/l) for antimony;
 - (iii) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with Chapter 521 Section 4(g)(7); or
 - (iv) The level established by the Department in accordance with Chapter 523 Section 5(f).

5. Publicly owned treatment works.

- (a) All POTWs must provide adequate notice to the Department of the following:
- (i) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of CWA or Chapter 528 if it were directly discharging those pollutants.
 - (ii) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
 - (iii) For purposes of this paragraph, adequate notice shall include information on (A) the quality and quantity of effluent introduced into the POTW, and (B) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.
- (b) When the effluent discharged by a POTW for a period of three consecutive months exceeds 80 percent of the permitted flow, the permittee shall submit to the Department a projection of loadings up to the time when the design capacity of the treatment facility will be reached, and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans.

E. OTHER REQUIREMENTS

1. Emergency action - power failure. Within thirty days after the effective date of this permit, the permittee shall notify the Department of facilities and plans to be used in the event the primary source of power to its wastewater pumping and treatment facilities fails as follows.

- (a) For municipal sources. During power failure, all wastewaters which are normally treated shall receive a minimum of primary treatment and disinfection. Unless otherwise approved, alternate power supplies shall be provided for pumping stations and treatment facilities. Alternate power supplies shall be on-site generating units or an outside power source which is separate and independent from sources used for normal operation of the wastewater facilities.
- (b) For industrial and commercial sources. The permittee shall either maintain an alternative power source sufficient to operate the wastewater pumping and treatment facilities or halt, reduce or otherwise control production and or all discharges upon reduction or loss of power to the wastewater pumping or treatment facilities.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

2. Spill prevention. (applicable only to industrial sources) Within six months of the effective date of this permit, the permittee shall submit to the Department for review and approval, with or without conditions, a spill prevention plan. The plan shall delineate methods and measures to be taken to prevent and or contain any spills of pulp, chemicals, oils or other contaminants and shall specify means of disposal and or treatment to be used.

3. Removed substances. Solids, sludges trash rack cleanings, filter backwash, or other pollutants removed from or resulting from the treatment or control of waste waters shall be disposed of in a manner approved by the Department.

4. Connection to municipal sewer. (applicable only to industrial and commercial sources) All wastewaters designated by the Department as treatable in a municipal treatment system will be cosigned to that system when it is available. This permit will expire 90 days after the municipal treatment facility becomes available, unless this time is extended by the Department in writing.

F. DEFINITIONS. For the purposes of this permit, the following definitions shall apply. Other definitions applicable to this permit may be found in Chapters 520 through 529 of the Department's rules

Average means the arithmetic mean of values taken at the frequency required for each parameter over the specified period. For bacteria, the average shall be the geometric mean.

Average monthly discharge limitation means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month. Except, however, bacteriological tests may be calculated as a geometric mean.

Average weekly discharge limitation means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Best management practices ("BMPs") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Composite sample means a sample consisting of a minimum of eight grab samples collected at equal intervals during a 24 hour period (or a lesser period as specified in the section on monitoring and reporting) and combined proportional to the flow over that same time period.

Continuous discharge means a discharge which occurs without interruption throughout the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes, or other similar activities.

Daily discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the day.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

Discharge Monitoring Report ("DMR") means the EPA uniform national form, including any subsequent additions, revisions, or modifications for the reporting of self-monitoring results by permittees. DMRs must be used by approved States as well as by EPA. EPA will supply DMRs to any approved State upon request. The EPA national forms may be modified to substitute the State Agency name, address, logo, and other similar information, as appropriate, in place of EPA's.

Flow weighted composite sample means a composite sample consisting of a mixture of aliquots collected at a constant time interval, where the volume of each aliquot is proportional to the flow rate of the discharge.

Grab sample means an individual sample collected in a period of less than 15 minutes.

Interference means a Discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

- (1) Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and
- (2) Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

Maximum daily discharge limitation means the highest allowable daily discharge.

New source means any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:

- (a) After promulgation of standards of performance under section 306 of CWA which are applicable to such source, or
- (b) After proposal of standards of performance in accordance with section 306 of CWA which are applicable to such source, but only if the standards are promulgated in accordance with section 306 within 120 days of their proposal.

Pass through means a discharge which exits the POTW into waters of the State in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

Permit means an authorization, license, or equivalent control document issued by EPA or an approved State to implement the requirements of 40 CFR parts 122, 123 and 124. Permit includes an NPDES general permit (Chapter 529). Permit does not include any permit which has not yet been the subject of final agency action, such as a draft permit or a proposed permit.

Person means an individual, firm, corporation, municipality, quasi-municipal corporation, state agency, federal agency or other legal entity.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

Point source means any discernible, confined and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation or vessel or other floating craft, from which pollutants are or may be discharged.

Pollutant means dredged spoil, solid waste, junk, incinerator residue, sewage, refuse, effluent, garbage, sewage sludge, munitions, chemicals, biological or radiological materials, oil, petroleum products or byproducts, heat, wrecked or discarded equipment, rock, sand, dirt and industrial, municipal, domestic, commercial or agricultural wastes of any kind.

Process wastewater means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.

Publicly owned treatment works ("POTW") means any facility for the treatment of pollutants owned by the State or any political subdivision thereof, any municipality, district, quasi-municipal corporation or other public entity.

Septage means, for the purposes of this permit, any waste, refuse, effluent sludge or other material removed from a septic tank, cesspool, vault privy or similar source which concentrates wastes or to which chemicals have been added. Septage does not include wastes from a holding tank.

Time weighted composite means a composite sample consisting of a mixture of equal volume aliquots collected over a constant time interval.

Toxic pollutant includes any pollutant listed as toxic under section 307(a)(1) or, in the case of sludge use or disposal practices, any pollutant identified in regulations implementing section 405(d) of the CWA. Toxic pollutant also includes those substances or combination of substances, including disease causing agents, which after discharge or upon exposure, ingestion, inhalation or assimilation into any organism, including humans either directly through the environment or indirectly through ingestion through food chains, will, on the basis of information available to the board either alone or in combination with other substances already in the receiving waters or the discharge, cause death, disease, abnormalities, cancer, genetic mutations, physiological malfunctions, including malfunctions in reproduction, or physical deformations in such organism or their offspring.

Wetlands means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Whole effluent toxicity means the aggregate toxic effect of an effluent measured directly by a toxicity test.



DEP INFORMATION SHEET

Appealing a Department Licensing Decision

Dated: March 2012

Contact: (207) 287-2811

SUMMARY

There are two methods available to an aggrieved person seeking to appeal a licensing decision made by the Department of Environmental Protection's ("DEP") Commissioner: (1) in an administrative process before the Board of Environmental Protection ("Board"); or (2) in a judicial process before Maine's Superior Court. An aggrieved person seeking review of a licensing decision over which the Board had original jurisdiction may seek judicial review in Maine's Superior Court.

A judicial appeal of final action by the Commissioner or the Board regarding an application for an expedited wind energy development (35-A M.R.S.A. § 3451(4)) or a general permit for an offshore wind energy demonstration project (38 M.R.S.A. § 480-HH(1)) or a general permit for a tidal energy demonstration project (38 M.R.S.A. § 636-A) must be taken to the Supreme Judicial Court sitting as the Law Court.

This INFORMATION SHEET, in conjunction with a review of the statutory and regulatory provisions referred to herein, can help a person to understand his or her rights and obligations in filing an administrative or judicial appeal.

I. ADMINISTRATIVE APPEALS TO THE BOARD

LEGAL REFERENCES

The laws concerning the DEP's *Organization and Powers*, 38 M.R.S.A. §§ 341-D(4) & 346, the *Maine Administrative Procedure Act*, 5 M.R.S.A. § 11001, and the DEP's *Rules Concerning the Processing of Applications and Other Administrative Matters* ("Chapter 2"), 06-096 CMR 2 (April 1, 2003).

HOW LONG YOU HAVE TO SUBMIT AN APPEAL TO THE BOARD

The Board must receive a written appeal within 30 days of the date on which the Commissioner's decision was filed with the Board. Appeals filed after 30 calendar days of the date on which the Commissioner's decision was filed with the Board will be rejected.

HOW TO SUBMIT AN APPEAL TO THE BOARD

Signed original appeal documents must be sent to: Chair, Board of Environmental Protection, c/o Department of Environmental Protection, 17 State House Station, Augusta, ME 04333-0017; faxes are acceptable for purposes of meeting the deadline when followed by the Board's receipt of mailed original documents within five (5) working days. Receipt on a particular day must be by 5:00 PM at DEP's offices in Augusta; materials received after 5:00 PM are not considered received until the following day. The person appealing a licensing decision must also send the DEP's Commissioner a copy of the appeal documents and if the person appealing is not the applicant in the license proceeding at issue the applicant must also be sent a copy of the appeal documents. All of the information listed in the next section must be submitted at the time the appeal is filed. Only the extraordinary circumstances described at the end of that section will justify evidence not in the DEP's record at the time of decision being added to the record for consideration by the Board as part of an appeal.

WHAT YOUR APPEAL PAPERWORK MUST CONTAIN

Appeal materials must contain the following information at the time submitted:

1. *Aggrieved Status.* The appeal must explain how the person filing the appeal has standing to maintain an appeal. This requires an explanation of how the person filing the appeal may suffer a particularized injury as a result of the Commissioner's decision.
2. *The findings, conclusions or conditions objected to or believed to be in error.* Specific references and facts regarding the appellant's issues with the decision must be provided in the notice of appeal.
3. *The basis of the objections or challenge.* If possible, specific regulations, statutes or other facts should be referenced. This may include citing omissions of relevant requirements, and errors believed to have been made in interpretations, conclusions, and relevant requirements.
4. *The remedy sought.* This can range from reversal of the Commissioner's decision on the license or permit to changes in specific permit conditions.
5. *All the matters to be contested.* The Board will limit its consideration to those arguments specifically raised in the written notice of appeal.
6. *Request for hearing.* The Board will hear presentations on appeals at its regularly scheduled meetings, unless a public hearing on the appeal is requested and granted. A request for public hearing on an appeal must be filed as part of the notice of appeal.
7. *New or additional evidence to be offered.* The Board may allow new or additional evidence, referred to as supplemental evidence, to be considered by the Board in an appeal only when the evidence is relevant and material and that the person seeking to add information to the record can show due diligence in bringing the evidence to the DEP's attention at the earliest possible time in the licensing process or that the evidence itself is newly discovered and could not have been presented earlier in the process. Specific requirements for additional evidence are found in Chapter 2.

OTHER CONSIDERATIONS IN APPEALING A DECISION TO THE BOARD

1. *Be familiar with all relevant material in the DEP record.* A license application file is public information, subject to any applicable statutory exceptions, made easily accessible by DEP. Upon request, the DEP will make the material available during normal working hours, provide space to review the file, and provide opportunity for photocopying materials. There is a charge for copies or copying services.
2. *Be familiar with the regulations and laws under which the application was processed, and the procedural rules governing your appeal.* DEP staff will provide this information on request and answer questions regarding applicable requirements.
3. *The filing of an appeal does not operate as a stay to any decision.* If a license has been granted and it has been appealed the license normally remains in effect pending the processing of the appeal. A license holder may proceed with a project pending the outcome of an appeal but the license holder runs the risk of the decision being reversed or modified as a result of the appeal.

WHAT TO EXPECT ONCE YOU FILE A TIMELY APPEAL WITH THE BOARD

The Board will formally acknowledge receipt of an appeal, including the name of the DEP project manager assigned to the specific appeal. The notice of appeal, any materials accepted by the Board Chair as supplementary evidence, and any materials submitted in response to the appeal will be sent to Board members with a recommendation from DEP staff. Persons filing appeals and interested persons are notified in advance of the date set for Board consideration of an appeal or request for public hearing. With or without holding a public hearing, the Board may affirm, amend, or reverse a Commissioner decision or remand the matter to the Commissioner for further proceedings. The Board will notify the appellant, a license holder, and interested persons of its decision.

II. JUDICIAL APPEALS

Maine law generally allows aggrieved persons to appeal final Commissioner or Board licensing decisions to Maine's Superior Court, see 38 M.R.S.A. § 346(1); 06-096 CMR 2; 5 M.R.S.A. § 11001; & M.R. Civ. P 80C. A party's appeal must be filed with the Superior Court within 30 days of receipt of notice of the Board's or the Commissioner's decision. For any other person, an appeal must be filed within 40 days of the date the decision was rendered. Failure to file a timely appeal will result in the Board's or the Commissioner's decision becoming final.

An appeal to court of a license decision regarding an expedited wind energy development, a general permit for an offshore wind energy demonstration project, or a general permit for a tidal energy demonstration project may only be taken directly to the Maine Supreme Judicial Court. See 38 M.R.S.A. § 346(4). Maine's Administrative Procedure Act, DEP statutes governing a particular matter, and the Maine Rules of Civil Procedure must be consulted for the substantive and procedural details applicable to judicial appeals.

ADDITIONAL INFORMATION

If you have questions or need additional information on the appeal process, for administrative appeals contact the Board's Executive Analyst at (207) 287-2452 or for judicial appeals contact the court clerk's office in which your appeal will be filed.

Note: The DEP provides this INFORMATION SHEET for general guidance only; it is not intended for use as a legal reference. Maine law governs an appellant's rights.
