



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE  
GOVERNOR

AVERY T. DAY  
ACTING COMMISSIONER

October 1, 2015

Mr. Timothy J. Levasseur  
Superintendent  
Kennebec Sanitary Treatment District  
401 Water Street  
Waterville, ME 04901  
e-mail: [tl@kstd.com](mailto:tl@kstd.com)

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0100854  
Maine Waste Discharge License (WDL) #W000687-5M-J-R  
**Final Permit**

Dear Mr. Levasseur:

Enclosed please find a copy of your **final** MEPDES permit and Maine WDL **renewal** which was approved by the Department of Environmental Protection. Please read this permit/license renewal 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,

Gregg Wood  
Division of Water Quality Management  
Bureau of Water Quality

Enc.

cc: James Crowley, DEP/CMRO      Marelyn Vega, USEPA  
Sandy Mojica, USEPA      Olga Vergara, USEPA

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

## DEPARTMENT ORDER

### IN THE MATTER OF

KENNEBEC SANITARY TREATMENT DISTRICT	)	MAINE POLLUTANT DISCHARGE
WATERVILLE, KENNEBEC COUNTY	)	ELIMINATION SYSTEM PERMIT
PUBLICLY OWNED TREATMENT WORKS	)	AND
ME0100854	)	WASTE DISCHARGE LICENSE
W000687-5M-J-R	)	RENEWAL
APPROVAL		

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

### APPLICATION SUMMARY

The KSTD has submitted a timely and complete application to the Department for the renewal of Waste Discharge License (WDL) #W000687-5M-H-R / Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0100854 (permit hereinafter), which was issued by the Department on October 16, 2009, for a five-year term. The permit authorized the monthly average discharge of up to 12.7 million gallons per day (MGD) of secondary treated sanitary wastewaters and an unspecified quantity of excess combined sanitary and storm water from three (3) combined sewer overflow (CSO) outfalls to the Kennebec River, Class B, in Waterville, Maine.

### PERMIT SUMMARY

This permit is carrying forward all the terms and conditions of the previous permit except that this permit is:

1. Reducing the monitoring frequencies for biochemical oxygen demand (BOD), total suspended solids (TSS), settleable solids, *E. coli* bacteria and total residual chlorine from 5/week or 1/Day to 3/Week based on a statistical evaluation of test results for said parameters submitted to the Department during the term of the previous permit.
2. Establishing monthly average and or daily maximum water quality based mass limitations for total aluminum and as a statistical evaluation of test results submitted to the Department for the previous 60 months indicates the discharge has a reasonable potential to exceed applicable AWQC for said parameter.

### PERMIT SUMMARY (cont'd)

3. Establishes a 1/month monitoring and reporting requirement for *E coli* bacteria for the period October 2015 – April 2016 to assist the Maine Department of Marine Resources in its efforts to assess the impact of non-disinfected waste water being discharged from municipal waste water treatment facilities on shellfish harvesting areas at the mouth of the Kennebec River.
4. Incorporating the average and maximum numeric concentration limitations for total mercury into the permit. The limits were originally established in a permit modification dated May 23, 2000 but were never incorporated into the effluent limitations page of the permit due to the uncertainty of modifying the limitations. That uncertainty is no longer a factor.

### CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated August 26, 2015, and subject to the Conditions listed below, the Department makes the following conclusions:

1. The discharges, either individually or in combination with other discharges, will not lower the quality of any classified body of water below such classification.
2. The discharges, either individually 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, *Classification of Maine waters*, 38 M.R.S.A. § 464(4)(F), will be met, in that:
  - (a) Existing in-stream water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected;
  - (b) Where high quality waters of the State constitute an outstanding national resource, that water quality will be maintained and protected;
  - (c) Where the standards of classification of the receiving water body are not met, the discharge will not cause or contribute to the failure of the water body to meet the standards of classification;
  - (d) Where the actual quality of any classified receiving water body exceeds the minimum standards of the next highest classification that higher water quality will be maintained and protected; and
  - (e) Where a discharge will result in lowering the existing water quality of any water body, the Department has made the finding, following opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.
4. The discharges (including the three CSO points) will be subject to effluent limitations that require application of best practicable treatment as defined in 38 M.R.S.A. § 414-A(1)(D).

**ACTION**

THEREFORE, the Department APPROVES the above noted application of the KENNEBEC SANITARY TREATMENT DISTRICT to discharge a monthly average of up to 12.7 million gallons per day (MGD) of secondary treated sanitary wastewater from a publicly owned treatment works (POTW) as well as an unspecified quantity of untreated excess combined sanitary and storm water from three (3) combined sewer overflow (CSO) outfalls to the Kennebec River, Class B, in Waterville, Maine, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations including:

1. *Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable To All Permits*, revised July 1, 2002, copy attached.
2. The attached Special Conditions, including any effluent limitations and monitoring requirements.
3. This permit becomes effective upon the date of signature below and expires 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 terms and conditions of this permit and all subsequent 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)].

DONE AND DATED AT AUGUSTA, MAINE, THIS 6<sup>th</sup> DAY OF October, 2015.

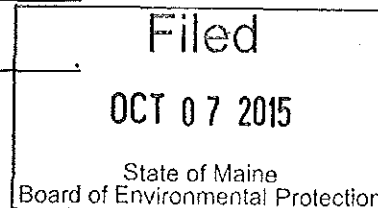
COMMISSIONER OF ENVIRONMENTAL PROTECTION

BY: Michael Kuhns  
for Avery T. Day, ACTING COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application August 14, 2014.

Date of application acceptance August 20, 2014.



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

This Order prepared by Gregg Wood, BUREAU OF WATER QUALITY

## SPECIAL CONDITIONS

### A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. The permittee is authorized to discharge secondary treated municipal waste waters via Outfall #001A to the Kennebec River. Such discharges shall be limited and monitored by the permittee as specified below<sup>(1)</sup>:

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow [50050]	12.7 MGD [03]	---	Report MGD [03]	---	---	---	Continuous [99/99]	Recorder [RC]
BOD <sub>5</sub> [00310]	3,178 lbs./day [26]	4,766 lbs./day [26]	Report lbs./day [26]	30 mg/L [19]	45 mg/L [19]	50 mg/L [19]	3/Week [03/07]	Composite [24]
BOD <sub>5</sub> Percent Removal <sup>(2)</sup> [81010]	---	---	---	85% [23]	---	---	1/Month [01/30]	Calculate [CA]
TSS [00530]	3,178 lbs./day [26]	4,766 lbs./day [26]	Report lbs./day [26]	30 mg/L [19]	45 mg/L [19]	50 mg/L [19]	3/Week [03/07]	Composite [24]
TSS Percent Removal <sup>(2)</sup> [81011]	---	---	---	85% [23]	---	---	1/Month [01/30]	Calculate [CA]
Settleable Solids [00545]	---	---	---	---	---	0.3 ml/L [25]	3/Week [03/07]	Grab [GR]
<i>E. coli</i> Bacteria <sup>(3)</sup> May 15 – Sept 30 [31633]	---	---	---	64 col/100 ml <sup>(4)</sup> [13]	---	427 col/100 ml [13]	3/Week [03/07]	Grab [GR]
<i>E. coli</i> Bacteria Oct 1, 2015 – Apr. 30, 2016 [31633]	---	---	---	---	---	Report col/100 ml [13]	1/Month <sup>(5)</sup> [01/30]	Grab [GR]
Total Residual Chlorine <sup>(6)</sup> [50060]	---	---	---	0.1 mg/L [19]	---	0.3 mg/L [19]	3/Week [03/05]	Grab [GR]
Mercury (Total) <sup>(7)</sup> [71900]	---	---	---	11.7 ng/L [3M]	---	17.6 ng/L [3M]	1/Year [01/YR]	Grab [GR]
Aluminum (Total) [01105]	35 lbs/day [26]	---	---	Report ug/L [21]	---	Report ug/L [21]	1/Year [01/YR]	Composite [24]
pH [00400]	---	---	---	---	---	6.0-9.0 SU [12]	1/Day [01/01]	Grab [GR]

**Footnotes:** See Pages 6-9 of this permit for the applicable footnotes.

**SPECIAL CONDITIONS**

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

2. Whole effluent toxicity, analytical chemistry and priority pollutant testing requirements for **Outfall #001A** <sup>(1)</sup>.

**SCREENING LEVEL** - Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement, the permittee shall perform monitoring as follows:

Effluent Characteristic	Discharge Limitations				Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Whole Effluent Toxicity <sup>(8)</sup>						
<b><u>Acute – NOEL</u></b>						
<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]
<b><u>Chronic – NOEL</u></b>						
<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 <sup>(9,11)</sup> [51477]	---	---	---	Report ug/L [28]	1/ Quarter [01/90]	Composite / Grab [24/GR]
Priority Pollutant <sup>(10,11)</sup> [50008]	---	---	---	Report ug/L [28]	1/Year [01/YR]	Composite / Grab [24/GR]

**Footnotes:** See Pages 6-9 of this permit for applicable footnotes.

## SPECIAL CONDITIONS

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

#### Footnotes:

1. **Sampling** – 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 10-144 CMR 263 (effective April 1, 2010). 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 this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report..
2. **Percent Removal** – The treatment facility shall maintain a minimum of 85 percent removal for both biochemical oxygen demand and total suspended solids for all flows receiving secondary treatment. The percent removal shall be calculated based on influent and effluent concentration values. The percent removal shall be waived when the monthly average influent concentration is less than 200 mg/L and the permittee shall enter "NODI-9" on the monthly Discharge Monitoring Report (DMR) for such instances.
3. ***E. coli* bacteria Limits (May 15 – September 30)** – *E. coli* bacteria limits and monitoring requirements are seasonal and apply between May 15 and September 30 of each year. The Department reserves the right to reopen this permit in accordance with Special Condition N, *Reopening of Permit for Modifications*, require year-round bacteria limitations to protect the health, safety and welfare of the public.
4. **Bacteria Reporting (May 15 – September 30)** – The monthly average *E. coli* bacteria limitation is a geometric mean limitation and test results shall be reported as such.
5. ***E. coli* bacteria monitoring (October 1, 2015 – April 30, 2016)**– The permittee shall sample at least one wet weather event during the fall (October – December) and one wet weather event in the spring (March – April). For the purposes of this permit, wet weather event being defined as an instantaneous influent flow rate of greater than or equal to 6,600 gpm or 9.5 MGD.
6. **Total residual chlorine (TRC)** – TRC limits and monitoring requirements are applicable whenever elemental chlorine or chlorine based compounds are being used to disinfect the discharge. The permittee shall utilize approved test methods that are capable of bracketing the limitations in this permit.

## SPECIAL CONDITIONS

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

#### Footnotes:

7. **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 A, Effluent Mercury Test Report**, of this permit for the Department's form for reporting mercury test results.

Compliance with the monthly average limitation established in Special Condition A.1 of this permit will be based on the cumulative arithmetic mean of all mercury tests results that were conducted utilizing sampling Methods 1669 and analysis Method 1631E on file with the Department for this facility.

8. **Whole effluent toxicity (WET) testing** – Definitive WET testing uses a range of serial dilutions (a minimum of five dilutions bracketing the critical acute and chronic receiving water concentrations of 3.7% and 0.8%, respectively) and provides an estimate of toxicity in terms of an Acute LC50, Acute No Observed Effect Level (A-NOEL) and Chronic No Observed Effect Level (C-NOEL). 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 mathematical inverses of the applicable acute and chronic dilution factors of 27:1 and 128:1, respectively, for Outfall #001A.
  - a. **Surveillance level testing** – Pursuant to 06-096 CMR 530(2)(D)(3)(c), surveillance level WET testing is waived for this facility.
  - b. **Screening level testing** – Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement, the permittee shall conduct screening level WET testing at a minimum frequency of once per year for the water flea (*Ceriodaphnia dubia*) and the brook trout (*Salvelinus fontinalis*).

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 specified above.



**SPECIAL CONDITIONS**

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

**Footnotes:**

Toxicity tests must be conducted by an experienced laboratory approved by the Department. The laboratory must follow procedures as described in the following USEPA methods manuals as modified by Department protocol for salmonids. See **Attachment B** of this permit for the Department protocol.

- 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.

Results of WET tests shall be reported on the "*Whole Effluent Toxicity Report Fresh Waters*" form included as **Attachment C** of this permit each time a WET test is performed. Each time a WET test is performed, the permittee shall sample and analyze for the parameters in the WET Chemistry and the Analytical Chemistry sections of the Department form entitled, *Maine Department of Environmental Protection, WET and Chemical Specific Data Report Form*. See **Attachment D** of this permit.

**9. Analytical chemistry** – Refers to a suite of chemicals in **Attachment D** of this permit.

- a. **Surveillance level testing** – Pursuant to 06-096 CMR 530(2)(D)(3)(c), surveillance level analytical chemistry testing is waived for this facility.
- b. **Screening level testing** – Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement, the permittee shall conduct analytical chemistry testing at a minimum frequency of once per calendar quarter for four consecutive calendar quarters.

**10. Priority pollutant testing** – Refers to a suite of chemicals in **Attachment D** of this permit.

- a. **Surveillance level testing** – Pursuant to 06-096 CMR 530(2)(D)(3)(c), surveillance level analytical chemistry testing is not required.
- b. **Screening level testing** – Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement, the permittee shall conduct screening level priority pollutant testing at a minimum frequency of once per year.

## SPECIAL CONDITIONS

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

#### Footnotes:

11. **Priority pollutant and analytical chemistry** - Testing shall be conducted on samples collected at the same time as those collected for whole effluent toxicity tests when applicable. Priority pollutant and analytical chemistry testing shall be conducted using methods that permit detection of a pollutant at existing levels in the effluent or that achieve minimum reporting levels of detection as specified by the Department.

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 *Surface Water Quality Criteria for Toxic Pollutants*, 06-096 CMR 584 (effective October 9, 2005). For the purposes of DMR reporting, enter a "1" for yes, testing done this monitoring period or "N-9" monitoring not required this period.

### 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 uses designated by the classification of the receiving waters.
2. The effluent shall not contain materials in concentrations or combinations which are hazardous or toxic to aquatic life, or which would impair the uses designated by the classification of the receiving waters.
3. The discharge shall not cause visible discoloration or turbidity in the receiving waters, which would impair the uses designated by the classification of the receiving waters.
4. Notwithstanding specific conditions of this permit the effluent must not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.

### C. TREATMENT PLANT OPERATOR

The person who has the management responsibility over the treatment facility must hold a minimum of a **Grade V** certificate (or Registered Maine Professional Engineer) pursuant to *Sewerage Treatment Operators*, 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.

## **SPECIAL CONDITIONS**

### **D. AUTHORIZED DISCHARGES**

The permittee is authorized to discharge only: 1) in accordance with the permittee's General Application for Waste Discharge License, accepted for processing on August 20, 2014; 2) in accordance with the terms and conditions of this permit; 3) via Outfall #001A (secondary treated waste waters); and 3) via the three combined sewer overflow points specified in Special Condition J of this permit. Discharges of wastewater from any other point source are not authorized under this permit, and shall be reported in accordance with Standard Condition D(1)(f), *Twenty-four hour reporting*, of this permit.

### **E. LIMITATIONS FOR INDUSTRIAL USERS**

Pollutants introduced into the wastewater collection and treatment system by a non-domestic source (user) must not pass through or interfere with the operation of the treatment system. The permittee must conduct an Industrial Waste Survey (IWS) 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 and submit the results to the Department. The IWS must 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).

### **F. NOTIFICATION REQUIREMENTS**

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

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

## **SPECIAL CONDITIONS**

### **G. OPERATIONS 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 waste water treatment facility to ensure that it is up-to-date. The O&M Plan shall be kept on-site at all times and made available to Department and USEPA personnel upon request.

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

### **H. WET WEATHER FLOW MANAGEMENT PLAN**

The treatment facility staff shall maintain a Wet Weather Flow 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. A specific objective of the plan shall be to maximize the volume of wastewater receiving secondary treatment under all operating conditions. The revised plan shall include operating procedures for a range of intensities, address solids handling procedures (including septic waste and other high strength wastes if applicable) and provide written operating and maintenance procedures for before, during and after the events.

**The permittee shall review their plan at least annually and record any necessary changes to keep the plan up to date.** The Department may require review and update of the plan as it is determined to be necessary.

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

This permitting action establishes reduced surveillance level testing for WET and analytical chemistry testing. **On or before December 31<sup>st</sup> of each year** of the effective term of this permit *[ICIS Code 75305]*, the permittee shall provide the Department with statements describing the following:

- (a) 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;
- (b) Changes in the operation of the treatment works that may increase the toxicity of the discharge; and
- (c) Changes in industrial manufacturing processes contributing wastewater to the treatment works that may increase the toxicity of the discharge.

## **SPECIAL CONDITIONS**

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

- (d) Changes in storm water collection or inflow/infiltration affecting the facility that may increase the toxicity of the discharge.
- (e) Increases in the type or volume of hauled wastes accepted by the facility.

The Department may require that annual testing be re-instituted if it determines that there have been changes in the character of the discharge or if annual certifications described above are not submitted.

### **J. DISPOSAL OF TRANSPORTED WASTES IN WASTEWATER TREATMENT FACILITY**

During the effective period of this permit, the permittee is authorized to receive and introduce into the treatment process or solids handling stream up to a **daily maximum of 127,000 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. Of the 127,000 gpd authorized by this permit, **the permittee may receive and introduce into the treatment process or solids handling stream up to a daily maximum of 107,000 gpd of septage wastes and up to a daily maximum of 20,000 gpd of leachate waste waters.**
3. 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.
4. 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.

**SPECIAL CONDITIONS**

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

5. 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;
  - (b) 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.

6. 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.
7. 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.
8. 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 flow management plan approved by the Department pursuant to Special Condition H of this permit that provides for full treatment of transported wastes without adverse impacts.
9. 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.
10. 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.
11. The authorization in the 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 Transported Wastes to Waste Water Treatment Facilities*, 06-096 CMR 555 (last amended February 5, 2009) and the terms and conditions of this permit.

**SPECIAL CONDITIONS**

**K. CONDITIONS FOR COMBINED SEWER OVERFLOWS**

Pursuant to *Combined Sewer Overflow Abatement* 06-096 CMR 570 (last amended February 8, 1978), the permittee is authorized to discharge from the following locations of combined sewer overflows (CSOs) (storm water and sanitary wastewater) subject to the conditions and requirements herein.

1. CSO Locations

<u>CSO Outfall #</u>	<u>Outfall Location</u>	<u>Receiving Water and Class</u>
002	Abraham Brook Interceptor, Waterville	Kennebec River, Class B
003	Main Pump Station, Waterville	Kennebec River, Class B
005	Fairfield Pump Station, Fairfield	Kennebec River, Class B

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.
- 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.

## SPECIAL CONDITIONS

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

4. CSO Master Plan [see 06-096 CMR 570(3) and 06-096 CMR 570(4)]

The permittee shall implement CSO control projects in accordance with an approved CSO Master Plan and abatement schedule contained in a document entitled, 2009 Revised CSO Master Plan for the Kennebec Sanitary Treatment District (KSTD) approved by the Department on February 24, 2012. **By December 31, 2015, (ICIS Code 81699)**, the permittee shall submit to the Department for review and approval, an update of the CSO Master Plan analyzing the effectiveness of the completed abatement projects to date and an implementation schedule for additional abatement projects.

To modify the date 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 the USEPA on May 29, 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 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 USEPA'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," included as **Attachment E** of this permit, or similar format and submitted to the Department in electronic form.

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 570(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.

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

By March 1 of each year [*ICIS Event 11099*], the permittee shall submit *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 06-096 CMR 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 following address:

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

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:

**KENNEBEC SANITARY TREATMENT DISTRICT  
WET WEATHER  
SEWAGE DISCHARGE  
CSO # AND NAME OF OUTFALL**

## SPECIAL CONDITIONS

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

#### 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.
- c. 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. INDUSTRIAL PRETREATMENT PROGRAM

1. Pollutants introduced into POTWs by a non-domestic source (user) shall not pass-through the publicly owned treatment works (POTW) or interfere with the operation or performance of the works.
  - a. The permittee shall develop and enforce specific effluent limits (local limits) for Industrial User(s), and all other users, as appropriate, which together with appropriate changes in the POTW facilities or operation, are necessary to ensure continued compliance with the POTWs MEPDES permit or sludge use or disposal practices. Specific local limits shall not be developed and enforced without individual notice to persons or groups who have requested such notice and an opportunity to respond.

Within 180 days of the effective date of this permit, [ICIS code PR002] the permittee shall prepare and submit a written technical evaluation to the Department analyzing the need to revise local limits. As part of this evaluation, the permittee shall assess how the POTW performs with respect to influent and effluent of pollutants, water quality concerns, sludge quality, sludge processing concerns/inhibition, biomonitoring results, activated sludge inhibition, worker health and safety and collection system concerns. In preparing this evaluation, the permittee shall complete the "Re-Assessment of Technically Based Local Limits" form included as Attachment F of this permit with the technical evaluation to assist in determining whether existing local limits need to be revised. Justifications and conclusions should be based on actual plant data if available and should be included in the report. Should the evaluation reveal the need to revise local limits, the permittee shall complete the revisions within 120 days of notification by the Department and submit the revisions to the Department for approval. The permittee shall carry out the local limits revisions in accordance with USEPA's document entitled, Local Limits Development Guidance (July 2004).

## SPECIAL CONDITIONS

### L. INDUSTRIAL PRETREATMENT PROGRAM (cont'd)

2. The permittee shall implement the Industrial Pretreatment Program in accordance with the legal authorities, policies, procedures, and financial provisions described in the permittee's approved Pretreatment Program, and the General Pretreatment Regulations, found at 40 CFR 403 and *Pretreatment Program*, 06-096 CMR 528 (effective January 12, 2001). At a minimum, the permittee must perform the following duties to properly implement the Industrial Pretreatment Program (IPP):
  - a. Carry out inspection, surveillance, and monitoring procedures which will determine, independent of information supplied by the industrial user, whether the industrial user is in compliance with the Pretreatment Standards. At a minimum, all significant industrial users shall be sampled and inspected at the frequency established in the approved IPP but in no case less than once per year and maintain adequate records.
  - b. Issue or renew all necessary industrial user control mechanisms within 90 days of their expiration date or within 180 days after the industry has been determined to be a significant industrial user.
  - c. Obtain appropriate remedies for noncompliance by an industrial user with any pretreatment standard and/or requirement.
  - d. Maintain an adequate revenue structure for continued implementation of the Pretreatment Program.
  - e. The permittee shall provide the Department with an annual report describing the permittee's pretreatment program activities for the twelve-month period ending 60 days prior to the due date in accordance with federal regulation found at 40 CFR 403.12(i) and 06-096 CMR 528(12)(i). The annual report [*CS code CSO10*] shall be consistent with the format described in the "*MEPDES Permit Requirements For Industrial Pretreatment Annual Report*" form included as **Attachment G** of this permit and shall be submitted no later than September 1<sup>st</sup> of each calendar year.
  - f. The permittee must obtain approval from the Department prior to making any significant changes to the industrial pretreatment program in accordance with federal regulation found at 40 CFR 403.18(c) and 06-096 CMR 528(18).
  - g. The permittee must assure that applicable National Categorical Pretreatment Standards are met by all categorical industrial users of the POTW. These standards are published in the federal regulations found at 40 CFR Parts 405 through 471.

## **SPECIAL CONDITIONS**

### **L. INDUSTRIAL PRETREATMENT PROGRAM (cont'd)**

- h. The permittee must modify its pretreatment program to conform to all changes in the federal regulations and State rules that pertain to the implementation and enforcement of the industrial pretreatment program. **Within 180 days prior to the expiration date of this permit, [ICIS code 60899]** the permittee must provide the Department in writing, proposed changes to the permittee's pretreatment program deemed necessary to assure conformity with current federal regulations and State rules. At a minimum, the permittee must address in its written submission the following areas: (1) Enforcement response plan; (2) revised sewer use ordinances; and (3) slug control evaluations. The permittee will implement these proposed changes pending the Department's approval under federal regulation 40 CFR 403.18 and 06-096 CMR 528(18). This submission is separate and distinct from any local limits analysis submission described in section 1(a) above.

### **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 shall be postmarked by the thirteenth (13<sup>th</sup>) day of the month or hand-delivered to a Department Regional Office such that the DMRs are received by the Department by the fifteenth (15<sup>th</sup>) day of the month following the completed reporting period. A signed copy of the DMR and all other reports required herein shall be submitted, unless otherwise specified, to the Department's facility inspector at:

Department of Environmental Protection  
Bureau of Water Quality  
Division of Water Quality Management  
17 State House Station  
Augusta, Maine 04333-0017

Alternatively, if you are submitting an electronic Discharge Monitoring Report (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 15<sup>th</sup> 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 (13<sup>th</sup>) 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 (15<sup>th</sup>) 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 15<sup>th</sup> day of the month following the completed reporting period.

## **SPECIAL CONDITIONS**

### **N. REOPENING OF PERMIT FOR MODIFICATION**

Upon evaluation of the tests results in the 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 monitoring if results on file are inconclusive; or (3) change monitoring requirements or limitations based on new information.

### **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

# Effluent Mercury Test Report

Name of Facility: \_\_\_\_\_ Federal Permit # ME \_\_\_\_\_

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

## SAMPLE COLLECTION INFORMATION

Sampling Date:	<input type="text"/>	<input type="text"/>	<input type="text"/>	Sampling time:	<input type="text"/>	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	<input type="text"/>	mg/L	Sample type:	<input type="text"/>	Grab (recommended) or Composite	
				<input type="text"/>		

## ANALYTICAL RESULT FOR EFFLUENT MERCURY

Name of Laboratory:		_____	
Date of analysis:	_____	Result:	<input type="text"/> ng/L (PPT)
Please Enter Effluent Limits for your facility			
Effluent Limits:	Average =	<input type="text"/> ng/L	Maximum = <input type="text"/> 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 B**



## **Salmonid Survival and Growth Test**

The Salmonid survival and growth test must follow the procedures for the fathead minnow larval survival and growth tests detailed in USEPA's freshwater acute and chronic methods manuals with the following Department modifications:

**Species** - Brook Trout, *Salvelinus fontinalis*, or other salmonid approved by the Department.

**Age** - Less than six months old for the first test each year and less than twelve months for subsequent tests.

**Size** - The largest fish must not be greater than 150% of the smallest.

**Loading Rate** - < 0.5 g/l/day

**Feeding rate** - 5% of body weight 3 times daily (15%/day)

**Temperature** -  $12^{\circ} \pm 1^{\circ}\text{C}$

**Dissolved Oxygen** - 6.5 mg/l ,aeration if needed with large bubbles (> 1 mm diameter) at a rate of <100/min

**Dilution Water** - Receiving water upstream of discharge (or other ambient water approved by the Department)

**Dilution Series** - A minimum of 5 effluent concentrations (including the instream waste concentrations bracketing acute and chronic dilutions calculated pursuant to Section D); a receiving water control; and control of known suitable water quality

**Duration** - Acute = 48 hours  
- Chronic = 10 days minimum

**Test acceptability** - Acute = minimum of 90% survival in 2 days  
- Chronic = minimum of 80% survival in 10 days; minimum growth of 20 mg/gm/d dry weight in controls, (individual fish weighed, dried at 100°C to constant weight and weighed to 3 significant figures)

## **ATTACHMENT C**

**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		
QC standard		% survival		% survival		final weight (mg)
		A>90	C>80	A>90	C>80	
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 D**

## Maine Department of Environmental Protection

## WET and Chem

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) \_\_\_\_\_

f

Flow for Day (MGD)<sup>(1)</sup> \_\_\_\_\_Flow Avg. for Month (MGD)<sup>(2)</sup> \_\_\_\_\_

Date Sample Collected \_\_\_\_\_

Date Sample Analyzed \_\_\_\_\_

Laboratory \_\_\_\_\_ Telephone \_\_\_\_\_

Address \_\_\_\_\_

Lab Contact \_\_\_\_\_ Lab ID # \_\_\_\_\_

Last Revision July 1, 2015

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.

Receiving  
Water or  
AmbientEffluent  
Concentration (ug/L or  
as noted)

WHOLE EFFLUENT TOXICITY				Effluent Limits, %		WET Result, % Do not enter % sign	Reporting Limit Check	Possible Exceedence <sup>(7)</sup>	
		Acute	Chronic	Acute	Chronic				
	Trout - Acute								
	Trout - Chronic								
	Water Flea - Acute								
	Water Flea - Chronic								
<b>WET CHEMISTRY</b>									
	pH (S.U.) <sup>(9)</sup>								
	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)			
<b>ANALYTICAL CHEMISTRY <sup>(3)</sup></b>									
	Also do these tests on the effluent with WET. Testing on the receiving water is optional	Reporting Limit	Effluent Limits, ug/L				Reporting Limit Check	Possible Exceedence <sup>(7)</sup>	
			Acute <sup>(6)</sup>	Chronic <sup>(6)</sup>	Health <sup>(6)</sup>			Acute	Chronic
	TOTAL RESIDUAL CHLORINE (mg/L) <sup>(9)</sup>	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, TOTAL	5				(8)			
	CYANIDE, AVAILABLE <sup>(3a)</sup>	5				(8)			
M	LEAD	3				(8)			
M	NICKEL	5				(8)			
M	SILVER	1				(8)			
M	ZINC	5				(8)			

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

PRIORITY POLLUTANTS <sup>(4)</sup>		Effluent Limits			Reporting Limit Check	Possible Exceedence <sup>(7)</sup>		
		Reporting Limit	Acute <sup>(6)</sup>	Chronic <sup>(6)</sup>	Health <sup>(6)</sup>	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)+B80	5						
A	PENTACHLOROPHENOL	20						
A	PHENOL	5						
BN	1,2,4-TRICHLOROBENZENE	5						
BN	1,2-(O)DICHLOROBENZENE	5						
BN	1,2-DIPHENYLHYDRAZINE	20						
BN	1,3-(M)DICHLOROBENZENE	5						
BN	1,4-(P)DICHLOROBENZENE	5						
BN	2,4-DINITROTOLUENE	6						
BN	2,6-DINITROTOLUENE	5						
BN	2-CHLORONAPHTHALENE	5						
BN	3,3'-DICHLOROBENZIDINE	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						

## Maine Department of Environmental Protection

## WET and Chem

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

[illegible]

**Maine Department of Environmental Protection  
WET and Chem**

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

V	BROMOFORM	5									
V	CARBON TETRACHLORIDE	5									
V	CHLOROBENZENE	6									
V	CHLORODIBROMOMETHANE	3									
V	CHLOROETHANE	5									
V	CHLOROFORM	5									
V	DICHLOROBROMOMETHANE	3									
V	ETHYLBENZENE	10									
V	METHYL BROMIDE (Bromomethane)	5									
V	METHYL CHLORIDE (Chloromethane)	5									
V	METHYLENE CHLORIDE	5									
	TETRACHLOROETHYLENE										
V	(Perchloroethylene or Tetrachloroethene)	5									
V	TOLUENE	5									
	TRICHLOROETHYLENE										
V	(Trichloroethene)	3									
V	VINYL CHLORIDE	5									

**Notes:**

(1) Flow average for day pertains to WET/PP composite sample day.

(2) Flow average for month is for month in which WET/PP sample was taken.

(3) Analytical chemistry parameters must be done as part of the WET test chemistry.

 (3a) Cyanide, Available (Cyanide Amenable to Chlorination) is not an analytical chemistry parameter, but may be required by certain discharge permits.

(4) Priority Pollutants should be reported in micrograms per liter (ug/L).

~~(5) Mercury is often reported in nanograms per liter (ng/L) by the contract laboratory, so be sure to convert to micrograms per liter on this spreadsheet.~~

(6) Effluent Limits are calculated based on dilution factor, background allocation (10%) and water quality reserves (15% - to allow for new or changed discharges or non-point sources).

(7) Possible Exceedence determinations are done for a single sample only on a mass basis using the actual pounds discharged. This analysis does not consider watershed wide allocations for fresh water discharges.

(8) These tests are optional for the receiving water. However, where possible samples of the receiving water should be preserved and saved for the duration of the WET test. In the event of questions about the receiving water's possible effect on the WET results, chemistry tests should then be conducted.

(9) pH and Total Residual Chlorine must be conducted at the time of sample collection. Tests for Total Residual Chlorine need be conducted only when an effluent has been chlorinated or residual chlorine is believed to be present for any other reason.

Comments:



# 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				DATE:							
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											
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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.

Doc Num: DEPLW0462

Csoflows.xls (rev. 12/12/01)

# **ATTACHMENT F**

## RE-ASSESSMENT OF TECHNICALLY BASED INDUSTRIAL DISCHARGE LIMITS

Pursuant to federal regulation 40 CFR Part 122.21(j)(4) and *Pretreatment Program*, 06-096 CMR 528, all Publicly Owned Treatment Works (POTWs) with approved Industrial Pretreatment Programs (IPPs) shall provide the Department with a written evaluation of the need to revise local industrial discharge limits under federal regulation 40 CFR Part 403.5(c)(1) and Department rule 06-096 CMR Chapter 528(6).

Below is a form designed by the U.S. Environmental Protection Agency (EPA - New England) to assist POTWs with approved IPPs in evaluating whether their existing Technically Based Local Limits (TBLLs) need to be recalculated. The form allows the permittee and Department to evaluate and compare pertinent information used in previous TBLLs calculations against present conditions at the POTW. **Please read the directions below before filling out the attached form.**

### ITEM I.

- \* In Column (1), list what your POTW's influent flow rate was when your existing TBLLs were calculated. In Column (2), list your POTW's present influent flow rate. Your current flow rate should be calculated using the POTW's average daily flow rate from the previous 12 months.
- \* In Column (1) list what your POTW's SIU flow rate was when your existing TBLLs were calculated. In Column (2), list your POTW's present SIU flow rate.
- \* In Column (1), list what dilution ratio and/or 7Q10 value was used in your previous MEPDES permit. In Column (2), list what dilution ratio and/or 7Q10 value is presently being used in your reissued MEPDES permit.

The 7Q10 value is the lowest seven day average flow rate, in the river, over a ten-year period. The 7Q10 value and/or dilution ratio used by the Department in your MEPDES permit can be found in your MEPDES permit "Fact Sheet."

- \* In Column (1), list the safety factor, if any, that was used when your existing TBLLs were calculated.
- \* In Column (1), note how your bio-solids were managed when your existing TBLLs were calculated. In Column (2), note how your POTW is presently disposing of its biosolids and how your POTW will be disposing of its biosolids in the future.

### ITEM II.

- \* List what your existing TBLLs are - as they appear in your current Sewer Use Ordinance (SUO).

## RE-ASSESSMENT OF TECHNICALLY BASED INDUSTRIAL DISCHARGE LIMITS

### ITEM III.

- \* Identify how your existing TBLLs are allocated out to your industrial community. Some pollutants may be allocated differently than others, if so please explain.

### ITEM IV.

- \* Since your existing TBLLs were calculated, identify the following in detail:
  - (1) if your POTW has experienced any upsets, inhibition, interference or pass-through as a result of an industrial discharge.
  - (2) if your POTW is presently violating any of its current MEPDES permit limitations - include toxicity.

### ITEM V.

- \* Using current sampling data, list in Column (1) the average and maximum amount of pollutants (in pounds per day) received in the POTW's influent. Current sampling data is defined as data obtained over the last 24 month period.

All influent data collected and analyzed must be in accordance with federal regulation 40 CFR Part 136. Sampling data collected should be analyzed using the lowest possible detection method(s), e.g. graphite furnace, or other approved method.

Based on your existing TBLLs, as presented in Item II., list in Column (2) each Maximum Allowable Industrial Headworks Loading (MAIHL) value corresponding to each of the local limits derived from an applicable environmental criteria or standard, e.g. water quality, sludge, MEPDES permit, inhibition, etc. For each pollutant, the MAIHL equals the calculated Maximum Allowable Headwork Loading (MAHL) minus the POTW's domestic loading source(s). For more information, please see, Local Limits Development Guidance (July 2004).

### ITEM VI.

- \* Using current sampling data, list in Column (1) the average and maximum amount of pollutants (in micrograms per liter) present your POTW's effluent. Current sampling data is defined as data obtained during the last 24 month period.

All effluent data collected and analyzed must be in accordance with federal regulation 40 CFR Part 136. Sampling data collected should be analyzed using the lowest possible detection method(s), e.g. graphite furnace, or other approved method.

## RE-ASSESSMENT OF TECHNICALLY BASED INDUSTRIAL DISCHARGE LIMITS

- \* List in Column (2A) what the Ambient Water Quality Criteria (AWQC) (found in Department rule Chapter 584 –*Surface Water Quality Criteria For Toxic Pollutants, Appendix A*, October 2005) were (in micrograms per liter) when your TBLLs were calculated. Please note what hardness value was used at that time. Hardness should be expressed in milligrams per liter of Calcium Carbonate. In the absence of a specific AWQC, control(s) adequate to protect the narrative water quality standards for the receiving water may be applied.

List in Column (2B) the current AWQC values for each pollutant multiplied by the dilution ratio used in your reissued MEPDES permit. For example, with a dilution ratio of 25:1 at a hardness of 20 mg/l - Calcium Carbonate (copper's chronic freshwater AWQC equals 2.36 ug/l) the chronic MEPDES permit limit for copper would equal 45 ug/l. Example calculation:

$$\text{EOP concentration} = [\text{Dilution factor} \times 0.75 \times \text{AWQC}] + [0.25 \times \text{AWQC}]$$
$$\text{Chronic AWQC} = 2.36 \text{ ug/L}$$

$$\text{Chronic EOP} = [25 \times 0.75^{(1)} \times 2.36 \text{ ug/L}] + [0.25 \times 2.36 \text{ ug/L}] = 45 \text{ ug/L}$$

- (1) Department rule Chapter 530, *Surface Water Toxics Control Program*, October 2005) requires that 10% of the AWQC be set aside for background that may be present in the receiving water and 15% of the AWQC be set aside as a reserve capacity for new dischargers or expansion of existing discharges.

### ITEM VII.

- \* In Column (1), list all pollutants (in micrograms per liter) limited in your reissued MEPDES permit. In Column (2), list all pollutants limited in your previous MEPDES permit.

### ITEM VIII.

- \* Using current sampling data, list in Column (1) the average and maximum amount of pollutants in your POTW's biosolids. Current data is defined as data obtained during the last 24-month period. Results are to be expressed as total dry weight.

All biosolids data collected and analyzed must be in accordance with federal 40 CFR Part 136.

In Column (2A), list current State and/or Federal sludge standards that your facility's biosolids must comply with. Also note how your POTW currently manages the disposal of its biosolids. If your POTW is planning on managing its biosolids differently, list in Column (2B) what your new biosolids criteria will be and method of disposal.

If you have any questions, please contact the State Pretreatment Coordinator at the Maine Department of Environmental Protection, Bureau of Land & Water Quality, Division of Water Quality Management, State House Station #17, Augusta, ME. 04333. The telephone number is (207) 287-8898, and the email address is james.r.crowley@maine.gov.

**REASSESSMENT OF TECHNICALLY BASED LOCAL LIMITS  
(TBLLs)**

POTW Name & Address : \_\_\_\_\_

MEDES Permit # : \_\_\_\_\_

Date EPA approved current TBLLs : \_\_\_\_\_

Date EPA approved current Sewer Use Ordinance : \_\_\_\_\_

**ITEM I.**

In Column (1) list the conditions that existed when your current TBLLs were calculated. In Column (2), list current conditions or expected conditions at your POTW.

	<b>Column (1)</b>	<b>Column (2)</b>
	<u>EXISTING TBLLs</u>	<u>PRESENT CONDITIONS</u>
POTW Flow (MGD)	_____	_____
SIU Flow (MGD)	_____	_____
Dilution Ratio or 7Q10 from the MEPDES Permit)	_____	_____
Safety Factor	_____	<u>N/A</u>
Biosolids Disposal Method(s)	_____	_____

**REASSESSMENT OF TECHNICALLY BASED LOCAL LIMITS  
(TBLLs)**

**ITEM II.**

EXISTING TBLLs

<u>POLLUTANT</u>	<u>NUMERICAL LIMIT</u> (mg/l) or (lb/day)	<u>POLLUTANT</u>	<u>NUMERICAL LIMIT</u> (mg/l) or (lb/day)
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

**ITEM III.**

Note how your existing TBLLs, listed in Item II., are allocated to your Significant Industrial Users (SIUs), i.e. uniform concentration, contributory flow, mass proportioning, other. Please specify by circling.

**ITEM IV.**

Has your POTW experienced any upsets, inhibition, interference or pass-through from industrial sources since your existing TBLLs were calculated?

If yes, explain. \_\_\_\_\_  
\_\_\_\_\_

Has your POTW violated any of its MEPDES permit limits and/or toxicity test requirements?

If yes, explain. \_\_\_\_\_  
\_\_\_\_\_



# **REASSESSMENT OF TECHNICALLY BASED LOCAL LIMITS (TBLLs)**

## **ITEM V.**

Using current POTW influent sampling data fill in Column (1). In Column (2), list your Maximum Allowable Industrial Headwork Loading (MAIHL) values used to derive your TBLLs listed in Item II. In addition, please note the environmental criteria for which each MAIHL value was established, *i.e.* water quality, sludge, MEPDES, etc.

<u>Pollutant</u>	<u>Column (1)</u> <u>Influent Data Analyses</u>		<u>Column (2)</u> <u>MAIHL Values</u>	<u>Criteria</u>
	<u>Maximum</u> (lb/day)	<u>Average</u> (lb/day)	(lb/day)	
Arsenic	_____	_____	_____	_____
Cadmium	_____	_____	_____	_____
Chromium	_____	_____	_____	_____
Copper	_____	_____	_____	_____
Cyanide	_____	_____	_____	_____
Lead	_____	_____	_____	_____
Mercury	_____	_____	_____	_____
Nickel	_____	_____	_____	_____
Silver	_____	_____	_____	_____
Zinc	_____	_____	_____	_____
Other (List)	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

# **REASSESSMENT OF TECHNICALLY BASED LOCAL LIMITS (TBLLs)**

## **ITEM VI.**

Using current POTW effluent sampling data, fill in Column (1). In Column (2A) list what the Ambient Water Quality Criteria (AWQC) were at the time your existing TBLLs were developed. List in Column (2B) current AWQC values multiplied by the dilution ratio used in your reissued MEPDES permit.

	<b>Column (1)</b>		<b>Columns</b>	
	<b>Effluent Data Analyses</b>		<b>(2A)</b>	<b>(2B)</b>
<b>Pollutant</b>	<u>Maximum</u>	<u>Average</u>	<u>Water Quality Criteria (AWQC)</u>	<u>Water Quality Criteria (AWQC)</u>
	<u>(ug/l)</u>	<u>(ug/l)</u>	<u>From TBLLs</u>	<u>Today</u>
			<u>(ug/l)</u>	<u>(ug/l)</u>
Arsenic	_____	_____	_____	_____
Cadmium*	_____	_____	_____	_____
Chromium*	_____	_____	_____	_____
Copper*	_____	_____	_____	_____
Cyanide	_____	_____	_____	_____
Lead*	_____	_____	_____	_____
Mercury	_____	_____	_____	_____
Nickel*	_____	_____	_____	_____
Silver	_____	_____	_____	_____
Zinc*	_____	_____	_____	_____
Other (List)	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

\*Hardness Dependent (mg/l - CaCO3)

# **RE-ASSESSMENT OF TECHNICALLY BASED LOCAL LIMITS (TBLLs)**

## **ITEM VII.**

In Column (1), identify all pollutants limited in your reissued MEPDES permit. In Column (2), identify all pollutants that were limited in your previous MEPDES permit.

<b>Column (1)</b>		<b>Column (2)</b>	
<b>REISSUED PERMIT</b>		<b>PREVIOUS PERMIT</b>	
<u>Pollutants</u>	<u>Limitations</u> (ug/l)	<u>Pollutants</u>	<u>Limitations</u> (ug/l)
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

## **ITEM VIII.**

Using current POTW biosolids data, fill in Column (1). In Column (2A), list the biosolids criteria that were used at the time your existing TBLLs were calculated. If your POTW is planning on managing its biosolids differently, list in Column (2B) what your new biosolids criteria would be and method of disposal.

	<b>Column (1)</b>	<b>Columns</b>	
	<b>Biosolids Data Analyses</b>	<b>(2A)</b>	<b>(2B)</b>
<b>Pollutant</b>	<u>Average</u> (mg/kg)	<b>Biosolids Criteria</b> From TBLLs (mg/kg)	<b>New</b> (mg/kg)
Arsenic	_____	_____	_____
Cadmium	_____	_____	_____
Chromium	_____	_____	_____
Copper	_____	_____	_____
Cyanide	_____	_____	_____
Lead	_____	_____	_____
Mercury	_____	_____	_____
Nickel	_____	_____	_____
Silver	_____	_____	_____
Zinc	_____	_____	_____
Molybdenum	_____	_____	_____
Selenium	_____	_____	_____
Other (List)	_____	_____	_____

## ATTACHMENT G

**MEPDES PERMIT REQUIREMENTS  
FOR  
INDUSTRIAL PRETREATMENT ANNUAL REPORT**

The information described below shall be included in the pretreatment program annual reports:

1. An updated list of all industrial users by category, as set forth in federal regulation 40 CFR Part 403.8 and Department rule 06-096 CMR Chapter 528(9) indicating compliance or noncompliance with the following:
  - baseline monitoring reporting requirements for newly promulgated industries
  - compliance status reporting requirements for newly promulgated industries
  - periodic (semi-annual) monitoring reporting requirements,
  - categorical standards, and
  - local limit.
2. A summary of compliance and enforcement activities during the preceding year, including the number of:
  - significant industrial users inspected by POTW (include inspection dates for each industrial user);
  - significant industrial users sampled by POTW (include sampling dates for each industrial user);
  - compliance schedules issued (include list of subject users);
  - written notices of violations issued (include list of subject users);
  - administrative orders issued (include list of subject users),
  - criminal or civil suits filed (include list of subject users); and
  - penalties obtained (include list of subject users and penalty amounts).
3. A list of significantly violating industries required to be published in a local newspaper in accordance with federal regulation 40 CFR Part 403.8(f)(2)(viii) and Department rule 06-096 CMR Chapter 528(9)(f)(2)(vii).
4. A narrative description of program effectiveness including present and proposed changes to the program, such as funding, staffing, ordinances, regulations, rules and/or statutory authority.
5. A summary of all pollutant analytical results for influent, effluent, sludge and any toxicity or bioassay data from the wastewater treatment facility. The summary shall include a comparison of influent sampling results versus threshold inhibitory concentrations for the POTW and effluent sampling results versus water quality standards. Such a comparison shall be based on the sampling program described in the paragraph below or any similar sampling program described in this permit.

**MEPDES PERMIT REQUIREMENTS  
FOR  
INDUSTRIAL PRETREATMENT ANNUAL REPORT**

At a minimum, annual sampling and analysis of the influent and effluent of the POTW shall be conducted for the following pollutants:

- |                    |                   |
|--------------------|-------------------|
| a.) Total Cadmium  | f.) Total Nickel  |
| b.) Total Chromium | g.) Total Silver  |
| c.) Total Copper   | h.) Total Zinc    |
| d.) Total Lead     | i.) Total Cyanide |
| e.) Total Mercury  | j.) Total Arsenic |

The sampling program shall consist of one 24-hour, flow-proportioned, composite and at least one grab sample that is representative of the flows received by the POTW. The composite shall consist of hourly, flow-proportioned grab samples taken over a 24-hour period if the sample is collected manually, or shall consist of a minimum of 48 samples collected at 30-minute intervals if an automated sampler is used. Cyanide shall be taken as a grab sample during the same period as the composite sample. Sampling and preservation shall be consistent with federal regulation 40 CFR Part 136.

6. A detailed description of all interference and pass-through that occurred during the past year.
7. A thorough description of all investigations into interference and pass-through during the past year.
8. A description of monitoring, sewer inspections and evaluations which were done during the past year to detect interference and pass-through, specifying parameters and frequencies.
9. A description of actions being taken to reduce the incidence of significant violations by significant industrial users.
10. The date of the latest adoption of local limits and an indication as to whether or not the City is under a State or Federal compliance schedule that includes steps to be taken to revise local limits.

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

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MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

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**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

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**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

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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

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- (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

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**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

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**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

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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

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- (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

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**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

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**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

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**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.

**MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT**

**AND**

**MAINE WASTE DISCHARGE LICENSE**

**FACT SHEET**

**DATE: August 26, 2015**

**MEPDES PERMIT NUMBER: ME0100854**  
**WASTE DISCHARGE LICENSE: W000687-5M-J-R**

**NAME AND ADDRESS OF APPLICANT:**

**KENNEBEC SANITARY TREATMENT DISTRICT**  
**401 Water Street**  
**Waterville, Maine 04901-6354**

**COUNTY: Kennebec County**

**NAME AND ADDRESS WHERE DISCHARGE OCCURS:**

**401 Water Street**  
**Waterville, Maine 04901-6354**

**RECEIVING WATER / CLASSIFICATION: Kennebec River / CLASS B**

**COGNIZANT OFFICIAL AND TELEPHONE NUMBER: Mr. Timothy LeVasseur**  
**(207) 873-0611 Ext. 102**  
**e-mail: [tl@kstd.com](mailto:tl@kstd.com)**

**1. APPLICATION SUMMARY**

- a. Application: The Kennebec Sanitary Treatment District (KSTD/permittee hereinafter) has submitted a timely and complete application to the Department for the renewal of Waste Discharge License (WDL) #W000687-5M-H-R / Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0100854 (permit hereinafter), which was issued by the Department on October 16, 2009, for a five-year term. The permit authorized the monthly average discharge of up to 12.7 million gallons per day (MGD) of secondary treated sanitary wastewaters and an unspecified quantity of excess combined sanitary and storm water from three (3) combined sewer overflow (CSO) outfalls to the Kennebec River, Class B, in Waterville, Maine.

## 1. APPLICATION SUMMARY (cont'd)

- b. Source Description: The KSTD is a quasi-municipal wastewater treatment facility located on the western shore of the Kennebec River in Waterville, Maine. A map showing the location of the facility and approximate outfall location is included as **Attachment A** of this fact sheet. The District was established in 1971 by the Towns of Waterville, Winslow, Benton and Fairfield. Construction of the treatment plant was completed in 1976 and the plant now serves a population of approximately 35,000 people with five significant industrial users, Huhtamaki Food Service, Inc. (formerly The Chinett Company) being the largest contributor. Huhtamaki manufactures approximately 150 tons/day of molded pulp products using recycled and virgin pulp fibers and conveys approximately 1.6 MGD of process wastewater to the KSTD facility. Other significant sources of wastes vary from year to year but have included and introduced into the treatment process include leachates from a State-owned landfill located in Vassalboro, Maine; holding tank wastes generated by maintenance garages and snowmelt collection systems operated by the Maine Department of Transportation and the Maine Turnpike Authority; various examples of other types of wastewater generated by Wal-Mart Stores, Inc. located in Oxford, Maine; and wastewater generated by Liberty Graphics, a graphics printing company located in Liberty, Maine, Hawk Ridge compost facility, Unity Maine and others. All acceptances of trucked-in waste are reviewed by the District and audited by the State's Pretreatment Program.

The KSTD sewer collection system is approximately 11.5 miles in length and is constructed of Grade IV reinforced concrete pipe. The KSTD currently maintains 3 pump stations: 1) the Main pump station located on Water Street in Waterville; 2) the Fairfield pump station located on Water Street in Fairfield; and 3) the Benton pump station located on Bridge Street in Benton. KSTD also provides Operations and Maintenance services to the Town of Winslow, Chaffee Brook pump station and the Town of Benton, 2 smaller pump stations.

All three pump stations currently have on-site back-up power supplies. The KSTD also maintains two meter pits known as the Savage pit located on Savage Street in Fairfield and another pit located on the Fairfield/Waterville town line behind the Huhtamaki building. These two meter pits are used to measure the wastewater flow being conveyed from the Town of Fairfield to the treatment facility. There are currently three (3) remaining combined sewer overflow (CSO) points associated with the collection system which are identified in Special Condition J of permit, *Conditions For Combined Sewer Overflows (CSOs)*. CSO #002, which is located adjacent to the Kennebec River just north of the KSTD facility, is designed as an overflow containment structure that discharges untreated combined storm and wastewater when flow to the treatment facility exceeds capacity. CSO 003 and 005 are CSO at the Main pump station and Fairfield pump station. At Fairfield, there is a large pump station which works only when there is a CSO event which must pump CSO overflow into the Kennebec River.

On April 16, 2008, the Department issued a minor permit revision (WDL #W000687-5M-G-M) to the KSTD to increase the allowable septage receiving rate from 50,000 gallons per day as specified in WDL #W000687-5M-F-R to 127,000 gallons per day. The KSTD's request to increase the septage receiving rate is consistent with the 1% of the treatment system's average daily design flow criterion established in *Standards for the Addition of Transported Wastes to Waste Water Treatment Facilities*, 06-096 CMR 555 (last amended February 5, 2009).

## 1. APPLICATION SUMMARY (cont'd)

- c. Wastewater Treatment: The KSTD provides a secondary level of wastewater treatment via an activated sludge system and secondary clarification. A flow are conveyed to an influent distribution structure via a single 54-inch diameter interceptor pipe and is distributed into three (3) 36-inch diameter pipes that are connected to three screen channels in the basement of the control building. Screen channels No. 1 and No. 3 are equipped with mechanical climber screens, and screen channel No. 2 is equipped with a manually-cleaned bar rack. Only one of the three screen channels is utilized during dry weather conditions and all three can be utilized during wet weather events. After passing through the bar screens, wastewater is metered in the Parshall flumes installed in each screen channel and conveyed to two (2) 160-foot long by 50-foot wide by 8-foot deep (64,000-cubic feet) primary settling basins. Primary and secondary skimming's are returned to two (2) approximately 15,000-gallon thickened activated waste sludge holding tanks before ultimately being composted or land applied as a means of final disposal. Primary grit is conveyed to a grit hopper then to two (2) gravity thickeners and then mixed into the dewatered sludge. Wastewater flow from the primary settling basins is conveyed via a 48-inch diameter pipe to two (2) 210-foot long by 70 foot wide by 15-foot deep (combined total volume of 441,000 cubic feet) rectangular aeration basins. One of the basins utilizes diffused aeration while the other utilizes mechanical surface aerators. Following aeration, the mixed liquor flows over adjustable effluent weirs to four (4) 85-foot diameter, 14-foot deep (total combined volume of 341,000 cubic feet) circular secondary clarifiers.

Secondary effluent from all four clarifier basins mixes together in the effluent structure of clarifier No. 4 and flows to two (2) baffled, 50-foot long by 85-foot wide by 10.5-foot deep (total combined volume of 89,775 cubic feet) rectangular chlorine contact chambers. Seasonal effluent disinfection is accomplished by continuously feeding chlorine solution (HOCl) into a chlorine dosing manhole where the solution is diffused into the treated wastewater. De-chlorination is utilized in conjunction with flow pacing and trimmed with hypo-chloride feed rate. Sodium bisulfate is injected into the effluent flow of the contact tanks.

The treated wastewater is collected in a 48-inch diameter reinforced concrete pipe and continues approximately 177 feet to the edge of the Kennebec River. Beyond this point, the outfall pipe is fitted with a steel reducer, which steps the pipe diameter down to 42 inches. The end of the pipe is located approximately 77 feet into the river channel from the western shore of the river, and the end of pipe is situated approximately six (6) feet below the water surface during mean low water. The pipe rests approximately 12 inches below the river substrate and is protected with irregular-sized angular stone. The pipe is fitted with a 90-degree elbow oriented to discharge in the down-stream direction, and is not fitted with diffusers or other mechanisms which would assist in complete and rapid mixing of the effluent with the receiving waters. During normal river flow conditions, the effluent is conveyed to the river by gravity. During river flood conditions, a large pump station is activated to lift the effluent into the river.

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

## 2. PERMIT SUMMARY

- a. Terms and Conditions – This permit is carrying forward all the terms and conditions of the previous permit except that this permit is:
1. Reducing the monitoring frequencies for biochemical oxygen demand (BOD), total suspended solids (TSS), settleable solids, *E. coli* bacteria and total residual chlorine from 5/week or 1/Day to 3/Week based on a statistical evaluation of test results for said parameters submitted to the Department during the term of the pervious permit.
  2. Establishing monthly average and or daily maximum water quality based mass limitation for total aluminum as a statistical evaluation of test results submitted to the Department for the previous 60 months indicates the discharge has a reasonable potential to exceed applicable AWQC for said parameter.
  3. Establishes a 1/month monitoring and reporting requirement for *E coli* bacteria for the period October 2015 – April 2016 to assist the Maine Department of Marine Resources in its efforts to assess the impact of non-disinfected waste water being discharged from municipal waste water treatment facilities on shellfish harvesting areas at the mouth of the Kennebec River.
  4. Incorporating the average and maximum numeric concentration limitations for total mercury into the permit. The limits were originally established in a permit modification dated May 23, 2000 but were never incorporated into the effluent limitations page of the permit due to the uncertainty of modifying the limitations. That uncertainty is no longer a factor.
- b. History: This section provides a summary of recent, relevant licensing/permitting actions that have been completed for the KSTD facility.

August 23, 1984 – The U.S. Environmental Protection Agency (USEPA) approved the Pretreatment Program for KSTD.

October 9, 1996 – The USEPA approved revised technically based Local Limits superseding previous approvals on April 8, 1994, and December 3, 1991.

August 21, 1998 – The USEPA issued National Pollutant Discharge Elimination System (NPDES) permit #ME0100854 to the KSTD for the discharge of an unspecified quantity of secondary treated sanitary wastewater to the Kennebec River in Waterville, Maine, which superseded previous permits issued on September 22, 1995, and September 28, 1990.

January 12, 2001 – The Department received authorization from the USEPA to administer the NPDES permit program in Maine, excluding areas of special interest to Maine Indian Tribes. From that point forward, the program has been referred to as the MEPDES program, and MEPDES permit #ME0100854 has been utilized as the primary reference number for the KSTD facility.

## 2. PERMIT SUMMARY (cont'd)

May 23, 2000 – Pursuant to *Certain deposits and discharges prohibited*, 38 M.R.S.A. § 420 and *Waste discharge licenses*, 38 M.R.S.A. § 413 and *Interim Effluent Limitations and Controls for the Discharge of Mercury*, 06-096 CMR 519 (last amended October 6, 2001), the Department issued a *Notice of Interim Limits for the Discharge of Mercury* to the permittee thereby administratively modifying WDL #W000687-47-E-R by establishing interim monthly average and daily maximum effluent concentration limits of 11.7 parts per trillion (ppt) and 17.6 ppt, respectively, and a minimum monitoring frequency requirement of four (4) tests per year for mercury. It is noted the limitations have not been incorporated into Special Condition A, *Effluent Limitations And Monitoring Requirements*, of this permit as limitations and monitoring frequencies are regulated separately through 38 M.R.S.A. § 413 and 06-096 CMR 519. However, the interim limitations remain in effect and enforceable and any modifications to the limits and or monitoring requirements will be formalized outside of this permitting document.

May 6, 2004 – The Department issued WDL #W000687-5M-F-R / MEPDES Permit #ME0100854 to the KSTD for a five-year term. The 5/6/04 permit superseded the previous WDL #W000687-47-E-R issued on April 8, 1998, and subsequent modifications of the permit.

April 10, 2006 - The Department amended the 5/6/04 permit by incorporating the whole effluent toxicity (WET), analytical chemistry and priority pollutant testing requirements of *Surface Water Toxics Control Program*, 06-096 CMR 530 (effective October 9, 2005).

April 16, 2008 - The Department issued WDL #W000687-5M-G-M, a minor permit revision, to the KSTD to increase the authorized septage receiving limitation from 50,000 gallons per day to 127,000 gallons per day.

October 16, 2009 - The Department issued WDL #W000687-5M-H-R/MEPDES permit #ME0100854 for a five-year term.

February 6, 2013 – The Department issued permit modification WDL #W000687-5M-I-M/ MEPDES permit #ME0100854 that reduced the monitoring frequency for mercury from 4/Year to 1/Year.

August 14, 2014 – The KSTD submitted a timely and complete application to the Department to renew the October 16, 2009, WDL/MEPDES permit.

## 3. CONDITIONS OF PERMITS

*Conditions of licenses*, 38 M.R.S.A. § 414-A, requires that the effluent limitations prescribed for discharges, including, but not limited to, effluent toxicity, require application of best practicable treatment (BPT), be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System. In addition, 38 M.R.S.A., § 420 and 06-096 CMR 530 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

Maine law, 38 M.R.S.A. § 467(4)(A)(10-A) classifies the Kennebec River, from the Shawmut Dam to its confluence with Messalonskee Stream, excluding all impoundments, as Class B waters. *Standards for classification of fresh surface waters*, 38 M.R.S.A. § 465(3) describes the standards for 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 2012 Integrated Water Quality Monitoring and Assessment Report, (Report prepared by the Department pursuant to Sections 303(d) and 305(b) of the Federal Water Pollution Control Act, lists a 17.7-mile segment of the Kennebec River from the confluence with the Sebasticook River to the Calumet Bridge in Augusta (ADB Assessment Unit ID ME0103000312\_339R\_01) that contains the discharge from the KSTD as “Category 4-B: Rivers and Streams Impaired by Pollutants - Pollution Control Requirements Reasonably Expected to Result in Attainment.” Impairment in this context refers to a fish consumption advisory due to the presence of dioxin (including 2,3,7,8-TCDD). The 2012 Report states that dioxin sources have been removed and the river is expected to attain its ascribed standards.

The 2012 Report also lists Maine’s fresh waters as “Category 4-A: Waters Impaired By Atmospheric Deposition of Mercury” due to US EPA approval of a Regional Mercury TMDL. Impairment in this context refers to a statewide fish consumption advisory due to elevated levels of mercury in some fish tissues. The Report states, “Impairment caused by atmospheric deposition of mercury; a regional scale TMDL has been approved. Maine has a fish consumption advisory for fish taken from all freshwaters due to mercury. Many waters, and many fish from any given water, do not exceed the action level for mercury. However, because it is impossible for someone consuming a



## 5. RECEIVING WATER QUALITY CONDITIONS

*fish to know whether the mercury level exceeds the action level, the Maine Department of Human Services decided to establish a statewide advisory for all freshwater fish that recommends limits on consumption. Maine has already instituted statewide programs for removal and reduction of mercury sources."*

This permit incorporates technology based concentration limits for total mercury that were established in a permit decision issued on May 23, 2000. Pursuant to 38 M.R.S.A. § 420(1-B)(B), "a facility is not in violation of the ambient criteria for mercury if the facility is in compliance with an interim discharge limit established by the Department pursuant to section 413 subsection 11." See section 6(i) of this Fact Sheet for a summary of the mercury test results for the most current 60-months.

## 6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

- a. Flow: The previous permitting action established, and this permitting action is carrying forward, a monthly average discharge flow limitation of 12.7 MGD for Outfall #001A based on the average dry weather design criterion and a daily maximum discharge flow reporting requirement to assist in compliance evaluations.

A summary of the discharge flow data as reported on the Discharge Monitoring Reports (DMRs) submitted to the Department for Outfall #001A for the period January 2012 through March 2015 is as follows:

### Flow (DMRs=39)

Value	Limit (MGD)	Range (MGD)	Mean (MGD)
Monthly average	12.7	4.9 – 14.4	6.8
Daily maximum	Report	5.2 – 30.4	13.5

- b. Dilution Factors: Dilution factors associated with the average design flow of 12.7 MGD were derived in accordance with 06-096 CMR 530(4)(A) and were calculated as follows:

$$\text{Mod. Acute: } \frac{1}{4} Q_{10} = 512 \text{ cfs} \Rightarrow \frac{(512 \text{ cfs})(0.6464) + 12.7 \text{ MGD}}{12.7 \text{ MGD}} = 27:1$$

$$\text{Acute: } 1Q_{10} = 2,048 \text{ cfs} \Rightarrow \frac{(2,048 \text{ cfs})(0.6464) + 12.7 \text{ MGD}}{12.7 \text{ MGD}} = 105:1$$

$$\text{Chronic: } 7Q_{10} = 2,503 \text{ cfs} \Rightarrow \frac{(2,503 \text{ cfs})(0.6464) + 12.7 \text{ MGD}}{12.7 \text{ MGD}} = 128:1$$

$$\text{Harmonic Mean} = 4,324 \text{ cfs} \Rightarrow \frac{(4,324 \text{ cfs})(0.6464) + 12.7 \text{ MGD}}{12.7 \text{ MGD}} = 221:1$$

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

06-096 CMR 530(4)(B)(1) states, *Analyses using numerical acute criteria for aquatic life must be based on 1/4 of the 1Q10 stream design flow to prevent substantial acute toxicity within any mixing zone and to ensure a zone of passage of at least 3/4 of the cross-sectional area of any stream as required by Chapter 581. 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 flow, up to and including all of it, as long as the required zone of passage is maintained.*

The KSTD's outfall pipe is not fitted with diffusers or other mechanisms to assist in complete and rapid mixing of the effluent with the receiving waters. Further, the KSTD has not provided the Department with information as to the mixing characteristics of the discharge. Therefore, the Department is utilizing the default stream flow of 1/4 of the 1Q10 in acute evaluations pursuant to 06-096 CMR 530.

- c. Biochemical Oxygen Demand (BOD<sub>5</sub>) and Total Suspended Solids (TSS): The previous permitting action established, and this permitting action is carrying forward, monthly average and weekly average technology-based concentration limits of 30 mg/L and 45 mg/L, respectively, for BOD<sub>5</sub> and TSS based on the secondary treatment requirements specified at *Effluent Guidelines and Standards*, 06-096 CMR 525(3)(III) (effective January 12, 2001), and a daily maximum concentration limit of 50 mg/L, which is based on a Department best professional judgment of best practicable treatment for secondary treated municipal wastewater. The technology-based monthly average and weekly average mass limits of 3,179 lbs./day and 4,769 lbs./day, respectively, established in the previous permitting action for BOD<sub>5</sub> and TSS and that are based on the monthly average flow limit of 12.7 MGD and the applicable concentration limits are also being carried forward in this permitting action. To encourage the treatment facility to maximize use of its secondary treatment process during wet weather events, this permitting action is carrying forward a report only requirement for the daily maximum BOD<sub>5</sub> and TSS mass values that are calculated as follows:

Monthly average:  $(12.7 \text{ MGD})(8.34)(30 \text{ mg/L}) = 3,179 \text{ lbs/day}$

Weekly average:  $(12.7 \text{ MGD})(8.34)(45 \text{ mg/L}) = 4,769 \text{ lbs/day}$

Daily maximum: Report lbs/day

A summary of the effluent BOD<sub>5</sub> and TSS data as reported on the DMRs submitted to the Department for the period January 2012 through March 2015 is as follows:

### BOD Mass (DMRs=39)

Value	Limit (lbs/day)	Range (lbs/day)	Average (lbs/day)
Monthly Average	3,179	261 – 1,436	578
Daily Maximum	Report	557 – 4,257	1,504

### BOD Concentration (DMRs=39)

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	30	5 - 24	10
Daily Maximum	50	10 - 72	23

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

**TSS mass (DMRs=39)**

Value	Limit (lbs/day)	Range (lbs/day)	Average (lbs/day)
Monthly Average	3,179	173 – 995	392
Daily Maximum	Report	363 – 4,326	1,480

**TSS concentration (DMRs=39)**

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	30	4 - 13	7
Daily Maximum	50	6 - 151	21

This permitting action carries forward the requirement for 85% removal for BOD and TSS pursuant to Department rule Chapter 525(3)(III)(a&b)(3).

A review of the monthly DMR data for the period January 2012 – March 2015 indicates the permittee has reported values as follows:

**BOD % Removal (DMRs=39)**

Value	Limit (%)	Range (%)	Average (%)
Monthly Average	85	86 - 97	93

**TSS % Removal (DMRs=39)**

Value	Limit (%)	Range (%)	Average (%)
Monthly Average	85	91 – 99	97

The previous permit established monitoring frequencies for BOD and TSS at 5/Week are based on Department policy for facilities with a monthly average flow limitation greater than 5.0 MGD.

Minimum monitoring frequency requirements in MEPDES permits are prescribed by 06-096 CMR Chapter 523§5(i). The USEPA has published guidance entitled, *Interim Guidance for Performance Based Reductions of NPDES Permit Monitoring Frequencies* (USEPA Guidance April 1996). In addition, the Department has supplemented the EPA guidance with its own guidance entitled, *Performance Based Reduction of Monitoring Frequencies - Modification of EPA Guidance Released April 1996* (Maine DEP May 22, 2014). Both documents are being utilized to evaluate the compliance history for each parameter regulated by the previous permit to determine if a reduction in the monitoring frequencies is justified.

Although EPA's 1996 Guidance recommends evaluation of the most current two-years of effluent data for a parameter, the Department is considering 39 months of data (January 2012 – March 2015). A review of the monitoring data for BOD & TSS indicates the ratios (expressed in percent) of the long term effluent average to the monthly average mass limits can be calculated as 18% and 12% respectively. According to Table I of the EPA Guidance and Department Guidance a 5/Week monitoring requirement can be reduced to 3/Week. Therefore, this permitting action is reducing the monitoring frequency for BOD and TSS to 3/Week.

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

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

A review of the monthly DMR data for the period January 2012 – March 2015 indicates the permittee has reported values as follows:

### Settleable solids (DMRs=38)

Value	Limit (ml/L)	Range (ml/L)	Average (ml/L)
Daily Maximum	0.3	0.1 - 0.3	0.12

EPA's 1996 Guidance recommends evaluation of the most current two-years of effluent data for a parameter, the Department is considering 39 months of data (January 2012 – March 2015). A review of the monitoring data for settleable solids indicates the ratio (expressed in percent) of the long term effluent average to the daily maximum limit can be calculated as 40%. According to Table I of the EPA Guidance and Department Guidance a 1/Day monitoring requirement can be reduced to 3/Week. Therefore, this permitting action is reducing the monitoring frequency for settleable solids to 3/Week.

- e. *Escherichia coli* bacteria: The previous permitting action established seasonal (May 15-September 30 of each year) monthly average and daily maximum *E. coli* bacteria concentration limits of 64 colonies/100 ml and 427 colonies/100 ml, respectively, based on the State's Water Classification Program criteria for Class B waters. The permit established a monitoring frequency of 5/Week.

A summary of the *E. coli* bacteria data as reported on the DMRs submitted to the Department for Outfall #001A for calendar years 2012 - 2014 (applicable disinfection period only) is as follows:

### *E. coli* coliform bacteria (DMRs=15)

Value	Limit (col/100 ml)	Range (col/100 ml)	Mean (col/100 ml)
Monthly Average	64	2 - 8	4
Daily Maximum	427	7 - 517	87

EPA's 1996 Guidance recommends evaluation of the most current two-years of effluent data for a parameter, the Department is considering 15 months of data (May 2012 – September 2014). A review of the monitoring data for *E. coli* bacteria indicates the ratio (expressed in percent) of the long term effluent average to the monthly average limit can be calculated as 6%. According to Table I of the EPA Guidance and Department Guidance a 5/Week monitoring requirement can be reduced to 3/Week. Therefore, this permitting action is reducing the monitoring frequency for *E. coli* bacteria to 3/Week.

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

The Department of Marine Resources (DMR) in collaboration with the Department of Environmental Protection is establishing *E. coli* bacteria testing at a frequency of 1/Month during the non-summer months for one year beginning in the fall of 2015 at waste water treatment plant (WWTP) outfalls in the upper Kennebec and Androscoggin Rivers. This monitoring is being established in an effort to eliminate these point sources of pollution as the cause of a public health risk to shellfish harvest in the lower river.

In 2001, the USDA investigation of the Kennebec River Estuary concluded that high river flow due to rain events negatively impacts water quality (increased fecal coliform) in the lower river. Because of this, DMR was required to manage shellfish harvest based on a river flow management plan. There is significant soft-shell clam resource in the lower Kennebec River; in the most recent years this area supports eighty seven commercial shellfish licenses and contributes over \$867,000 dollars to the Maine economy. This plan was implemented in 2009 by DMR and required that the river close to shellfish harvest for a minimum of fourteen days when flow exceeded 30,000 cubic feet per second (cfs). After implementation, closures based on the new plan resulted in an almost 50% reduction in shellfish harvest. In 2010 efforts began by the DMR in partnership with local, regional and state collaborators to collect additional data in the lower river after high flow events to make adjustments to the river flow management plan. Data collected from this effort significantly increased shellfish harvest; actual closures and the duration of closures times were both reduced. However, no change was made to the plan since 2009 during the fall and early winter months because of the persistent high levels of fecal pollution during high flow events greater than 30,000 cfs.

These data collected in the lower river suggest that the major impacts associated with the water quality degradation are attributed to upriver pollution sources. There is a significant presence of both point and non-point pollution sources in the Kennebec and Androscoggin Rivers' watersheds, with the majority of the largest sources located north of Merrymeeting Bay. These pollution sources include eight municipal WWTPs and six with combined sewer overflows. It is unclear whether or not WWTP's that do not chlorinate year round and specifically in the fall season, contribute to the elevated and persistent high fecal scores in the lower river. Our request to sample for one year at each of the WWTP will allow us to assess the impacts and contributions of each WWTP and make recommendations for additional chlorination if it is necessary.

- f. Total Residual Chlorine (TRC): The previous permitting action established monthly average and daily maximum technology based concentration limits of 0.1 mg/L and 0.3 mg/L respectively along with a 1/Day monitoring requirement. Limits on total residual chlorine (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:

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

With modified acute ( $\frac{1}{4}$  1Q10) and chronic dilution factors associated with the discharge water quality-based concentration thresholds the discharge may be calculated as follows:

Acute (A) Criterion	Chronic (C) Criterion	Mod. A & C Dilution Factors	Calculated	
			Acute Threshold	Chronic Threshold
0.019 mg/L	0.011 mg/L	27:1 (Mod. A) 128:1 (C)	0.5 mg/L	1.4 mg/L

The Department has established a daily maximum BPT-based limitation of 1.0 mg/L for facilities that disinfect their effluent with elemental chlorine or chlorine-based compounds. For facilities that need to dechlorinate the discharge to meet water quality based thresholds, the Department has established daily maximum and monthly average BPT limits of 0.3 mg/L and 0.1 mg/L, respectively. The Department has identified that the KSTD must dechlorinate the effluent prior to discharge in order to consistently achieve compliance with both the bacteria limits and the water quality-based thresholds calculated above. The daily maximum BPT-based limit of 0.3 mg/L is more stringent than the water quality-based threshold of 0.5 mg/L calculated above and is therefore being carried forward in this permitting action. The BPT-based effluent threshold of 0.1 mg/L is more stringent than the water quality-based threshold of 1.4 mg/L calculated above and is therefore being carried forward in this permitting action.

A review of the monthly DMR data for the period May 2012 – September 2014 indicates values have been reported as follows:

### Total residual chlorine (DMRs=15)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	0.1	0.03 – 0.07	0.05
Daily Maximum	0.3	0.13	0.19

EPA's 1996 Guidance recommends evaluation of the most current two-years of effluent data for a parameter, the Department is considering 15 months of data (May 2012 – September 2014). A review of the monitoring data for total residual chlorine indicates the ratio (expressed in percent) of the long term effluent average to the monthly average limit can be calculated as 50%. According to Table I of the EPA Guidance and Department Guidance a 1/Day monitoring requirement can be reduced to 3/Week. Therefore, this permitting action is reducing the monitoring frequency for total residual chlorine to 3/Week.

- g. pH: The previous permitting action established, and this permitting action is carrying forward, a technology-based pH limit of 6.0 – 9.0 standard units, which is based on 06-096 CMR 525(3)(III), and a minimum monitoring frequency requirement of once per day based on best professional judgment. A review of the monthly DMR data for the period January 2012 – March 2015 indicates the permittee has been in compliance with said limit(s) 100% of the time with values ranging from 6.1 – 7.4 su.

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

- h. Total Phosphorus – *Waste Discharge License Conditions*, 06-096 CMR 523 specifies that water quality based limits are necessary when it has been determined that a discharge has a reasonable potential to cause or contribute to an excursion above any State water quality standard including State narrative criteria.<sup>1</sup> In addition, 06-096 CMR 523 specifies that water quality based limits may be based upon criterion derived from a proposed State criterion, or an explicit State policy or regulation interpreting its narrative water quality criterion, supplemented with other relevant information which may include: EPA's Water Quality Standards Handbook, October 1983, risk assessment data, exposure data, information about the pollutant from the Food and Drug Administration, and current EPA criteria documents.<sup>2</sup>

USEPA's Quality Criteria for Water 1986 (Gold Book) puts forth an in-stream phosphorus concentration goal of less than 0.100 mg/L in streams or other flowing waters not discharging directly to lakes or impoundments, to prevent nuisance algal growth. The use of the 0.100 mg/L Gold Book goal is consistent with the requirements of 06-096 CMR 523 noted above for use in a reasonable potential (RP) calculation.

Based on the above rationale, the Department has chosen to utilize the Gold Book goal of 0.100 mg/L. It is the Department's intent to continue to make determinations of actual attainment or impairment based upon environmental response indicators from specific water bodies. The use of the Gold Book goal of 0.100 mg/L for use in the RP calculation will enable the Department to establish water quality based limits in a manner that is reasonable and that appropriately establishes the potential for impairment, while providing an opportunity to acquire environmental response indicator data, numeric nutrient indicator data, and facility data as needed to refine the establishment of site-specific water quality-based limits for phosphorus. Therefore, this permit may be reopened during the term of the permit to modify any reasonable potential calculation, phosphorus limits, or monitoring requirements based on site-specific data.

For the background concentration in the Kennebec River just upstream of the KSTD discharge, the Department collected three test results during summer of 2014 and the highest result was 0.012 mg/L which is being utilized in reasonable potential calculations in this Fact Sheet. To get more current values of the total phosphorus being discharged from the KSTD facility, the Department requested KSTD and other major dischargers on the Kennebec River to conduct effluent testing during the summer of 2014. The KSTD submitted 13 test results ranging from 0.44 mg/L – 1.44 mg/L with an arithmetic mean of 0.82 mg/L which is being utilized in reasonable potential calculations in this Fact Sheet.

To be conservative, the Department is utilizing the maximum background concentration in determining whether the discharge has a reasonable potential to exceed the AWQ goal of 0.100 mg/L.

<sup>1</sup> *Waste Discharge License Conditions*, 06-096 CMR 523(5)(d)(1)(i) (effective date January 12, 2001)

<sup>2</sup> 06-096 CMR 523(5)(d)(1)(vi)(A)

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

Using the following calculation and criteria, the KSTD facility does not have a reasonable potential to exceed the EPA's Gold Book goal of 0.100 mg/L for phosphorus or a reasonable potential to exceed the Department's 06-096 CMR Chapter 583 draft criteria of 0.030 mg/L. The calculations are as follows:

$$Cr = \frac{QeCe + QsCs}{Qr}$$

Qe = effluent flow i.e. facility design flow	=	12.7 MGD
Ce = effluent pollutant concentration	=	0.82 mg/L
Qs = 7Q10 flow of receiving water	=	1,618 MGD
Cs = upstream concentration	=	0.012 mg/L
Qr = receiving water flow	=	1,661 MGD
Cr = receiving water concentration	=	?

$$Cr = \frac{(12.7 \text{ MGD} \times 0.82 \text{ mg/L}) + (1,618 \text{ MGD} \times 0.012 \text{ mg/L})}{1,661 \text{ MGD}} = 0.018 \text{ mg/L}$$

$$Cr = 0.018 \text{ mg/L} < 0.1 \text{ mg/L} \Rightarrow \text{No Reasonable Potential}$$

$$Cr = 0.018 \text{ mg/L} < 0.030 \text{ mg/L} \Rightarrow \text{No Reasonable Potential}$$

Therefore, no end-of-pipe limitations or monitoring requirements for total phosphorus are being established in this permit.

- h. Whole Effluent Toxicity (WET) & Chemical-Specific Testing: Maine law, 38 M.R.S.A., Sections 414-A and 420, prohibit the discharge of effluents containing substances in amounts that would cause the surface waters of the State to contain toxic substances above levels set forth in Federal Water Quality Criteria as established by the USEPA. Department Rules, 06-096 CMR Chapter 530, *Surface Water Toxics Control Program*, and Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants* 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 Chapter 530, is 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 is required to assess the levels of individual toxic pollutants in the discharge, comparing each pollutant to acute, chronic, and human health water quality criteria as established in Chapter 584.



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

Chapter 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

Department rule Chapter 530 (2)(D) specifies the criteria to be used in determining the minimum monitoring frequency requirements for WET, priority pollutant and analytical chemistry testing. Based on the Chapter 530 criteria, the KSTD facility falls into the Level III frequency category as the facility has a chronic dilution factor  $\geq 100:1$  but  $<500:1$  and  $Q \geq 1.0$  MGD. Chapter 530(2)(D)(1) specifies that routine surveillance and screening level testing requirements are as follows:

### Screening level testing

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

### Surveillance level testing

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

Department rule Chapter 530(D)(3)(b) states dischargers in Levels III and IV may be waived from conducting surveillance testing for individual WET species or chemicals provided that testing in the preceding 60 months does not indicate any reasonable potential for exceedences.

A review of the data on file with the Department for the District indicates that to date, they have fulfilled the WET and chemical-specific testing requirements of Chapter 530. See **Attachment C** of this Fact Sheet for a summary of the WET test results and **Attachment D** of this Fact Sheet of the analytical chemistry and priority pollutant test dates and numeric results for parameters of concern.

### WET Evaluation

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*

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

*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.*

The October 6, 2009, permit did not establish A-NOEL or C-NOEL limitations for the water flea or the brook trout as a statistical evaluation conducted at that time indicated the test results submitted to the Department in the previous 60 months indicated there were no WET results that exceeded or had a reasonable potential to exceed critical A-NOEL or C-NOEL thresholds.

On August 23, 2015, the Department conducted a statistical evaluation on the most recent 60 months of WET test results on file with the Department for the KSTD in accordance with the statistical approach outlined above. The 8/23/15 statistical evaluation indicates the discharge from the KSTD has not demonstrated a reasonable potential to exceed the critical acute or chronic ambient water quality thresholds of 3.7% and 0.8% respectively, for the water flea or the brook trout.

06-096 CMR 530(2)(D)(3)(c) 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).*" Based on the provisions of 06-096 CMR 530, surveillance level WET testing is being waived. This permitting action is carrying forward the routine screening level WET testing requirements as specified in the table above and 06-096 CMR 530(2)(D).

06-096 CMR 530(2)(D)(4) states, "*All dischargers having waived or reduced testing must file statements with the Department on or before December 31 of each year describing the following.*

- (a) 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;*
- (b) Changes in the operation of the treatment works that may increase the toxicity of the discharge; and*
- (c) Changes in industrial manufacturing processes contributing wastewater to the treatment works that may increase the toxicity of the discharge."*

This permitting action is carrying forward the notification requirement in this permitting action as Special Condition H, pursuant to 06-096 CMR 530(2)(D)(4). This permit provides for reconsideration of testing requirements, including the imposition of certain testing, in consideration of the nature of the wastewater discharged, existing wastewater treatment, receiving water characteristics, and results of testing.

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

### Chemical specific evaluation

See **Attachment D** of this Fact Sheet for a summary of chemical-specific test dates and results for the pollutants of concern that exceed or have a reasonable potential to exceed applicable AWQC.

Chapter 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."*

Chapter 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 very limited information on the background levels of metals in the water column of the Kennebec River. Therefore, a default background concentration of 10% of the applicable water quality criteria is being used in the calculations of this permitting action.

Chapter 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"*.

Chapter 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."*

Chapter 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."*

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

*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.*

*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.*

The Kennebec River as multiple dischargers that are subject to the Department's Chapter 530 testing requirements above and below the KSTD facility. The Richmond facility is the most downstream discharger in the watershed that is dominated by fresh water flow.

On August 25, 2015, the Department conducted statistical evaluations based on 15% of the ambient water quality criteria reserve being withheld (Report ID 782) and 0% of the reserve of the criteria being withheld (Report ID 800) to determine if the unallocated assimilative capacity would avoid an exceedance or avoid a reasonable potential to exceed applicable ambient water quality criteria for toxic pollutants. Report ID 800 indicates the KSTD facility would no longer has a reasonable potential to exceed the chronic ambient water quality criteria for copper. Therefore, the Department is utilizing the full 15% of the unallocated assimilative capacity in the statistical evaluation when establishing limits for toxic pollutants in waste discharge permits for facilities in the Kennebec River watershed.

The 8/25/15 statistical evaluation indicates the discharge from the KSTD waste water treatment facility has test results that have a reasonable potential to exceed the chronic AWQC for aluminum established in 06-096 Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants*.

The Department's guidance that establishes protocols for establishing waste load allocations can be found in **Attachment E** of this Fact Sheet. The guidance states that the most protective of water quality becomes the facility's allocation. According to the 8/25/15 statistical evaluation, the chronic aluminum is based on the segment allocation method.

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

Chapter 530 §(3)(D)(1) states *"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 May 2012, Maine law 38 M.R.S.A. §464, ¶¶ K was enacted which reads as follows, *"Unless otherwise required by an applicable effluent limitation guideline adopted by the department, any limitations for metals in a waste discharge license may be expressed only as mass-based limits."* There are no applicable effluent limitation guidelines adopted by the Department or the USEPA for metals from a publicly owned treatment works.

### 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. For the KSTD facility, the historical average for aluminum was calculated as follows:

#### Aluminum (chronic)

Mean concentration = 150 ug/L or 0.150 mg/L

Permit flow limit = 12.7 MGD

Historical average mass = (0.150 mg/L)(8.34)(12.7 MGD) = 15.9 lbs/day

The 8/26/15 statistical evaluation indicates the historical average mass of aluminum discharged by KSTD is 3.34% of the aluminum discharged by all facilities on the main stem of the Kennebec River. Therefore, KSTD's segment allocation for aluminum is calculated as 3.34% of the chronic assimilative capacity of the river at Richmond, the most downstream discharger on the main stem of the Kennebec River. The assimilative capacity at Richmond is calculated as follows:

7Q10 @Richmond = 2,560 cfs (0.6464) = 1,655 MGD

With a chronic ambient water quality criteria (AWQC) of 0.087 mg/L for total aluminum and withholding 10% for background, the assimilative capacity for aluminum for the Kennebec River watershed at Richmond can be calculated as follows:

(1,655 MGD)(8.34 lbs/gal)(0.087 mg/L)(0.90) = 1,081 lbs/day

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

Given there are three major tributaries of the Kennebec River that have waste water treatment plants, an assimilative capacity for each of the tributaries must be allocated and subtracted from the assimilative capacity at Richmond. They are the Sebasticook River, Sandy River and Wilson Stream. The 7Q10 low flows for each tributary are as follows:

Sebasticook River at Clinton = 65 cfs or 42 MGD

Sandy River at Farmington = 27 cfs or 17 MGD

Wilson Stream at Wilton = 7.5 cfs or 4.8 MGD

### Segment allocation methodology

The assimilative capacities for aluminum for each tributary can be calculated as follows:

Seabasticook River:  $(42 \text{ MGD})(8.34 \text{ lbs/day})(0.087 \text{ mg/l})(0.90) = 27 \text{ lbs/day}$

Sandy River:  $(17 \text{ MGD})(8.34 \text{ lbs/day})(0.087 \text{ mg/l})(0.90) = 11 \text{ lbs/day}$

Wilson Stream:  $(4.8 \text{ MGD})(8.34 \text{ lbs/day})(0.087 \text{ mg/l})(0.90) = 3 \text{ lbs/day}$

Therefore, the adjusted assimilative capacity for aluminum for the main stem of the Kennebec River can be calculated as follows:

$1,081 \text{ lbs/day} - 27 \text{ lbs/day} - 11 \text{ lbs/day} - 3 \text{ lbs/day} = 1,040 \text{ lbs/day}$

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

Monthly average:  $(\text{Chronic assimilative capacity mass})(\% \text{ of total aluminum discharged})$   
 $(1,040 \text{ lbs/day})(0.0334) = 35 \text{ lbs/day}$

- i. Mercury: Pursuant to Maine law, 38 M.R.S.A. §420 and Department rule, 06-096 CMR Chapter 519, *Interim Effluent Limitations and Controls for the Discharge of Mercury*, the Department issued a *Notice of Interim Limits for the Discharge of Mercury* to the permittee thereby administratively modifying WDL # W-000687 by establishing interim monthly average and daily maximum effluent concentration limits of 11.7 parts per trillion (ppt) and 17.6 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 met the data requirement and on February 6, 2012, the Department issued a permit modification revising the minimum mercury monitoring frequency from 4/Year to 1/Year.

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

Maine law 38 M.R.S.A., §420 1-B,(B)(1) states that a facility is not in violation of the AWQC for mercury if the facility is in compliance with an interim discharge limit established by the Department pursuant to section 413, subsection 11. A review of the Department's database for the previous 60-month period indicates mercury test results reported have ranged from 1.4 ppt to 8.5 ppt with an arithmetic mean (n=15) of 3.5 ppt.

## 7. COMBINED SEWER OVERFLOWS

This permit does not contain effluent limitations for the individual CSO outfalls listed in the table below.

<u>CSO Outfall #</u>	<u>Outfall Location</u>	<u>Receiving Water and Class</u>
002	Abraham Brook Interceptor, Waterville	Kennebec River, Class B
003	Main Pump Station, Waterville	Kennebec River, Class B
005	Fairfield Pump Station, Fairfield	Kennebec River, Class B

*Combined Sewer Overflow Abatement* 06-096 CMR 570 (last amended February 5, 2000) states that a discharge from a combined overflow point within a sewerage system is permitted only when the discharge meets the following criteria.

- a. Discharge in excess of design capacity. The discharge consists of wastewater in excess of design capacity of a municipal or quasi-municipal sewerage system, including pumps or treatment facilities, that conveys both sanitary wastes and stormwater in a single pipe system and that is in direct response to a storm event or snow melt;
- b. Discharge not due to mechanical failure. The discharge is not the result of mechanical failure, improper design or inadequate operation or maintenance, and;
- c. CSO Master Plan. The licensee is actively developing or implementing a CSO Master Plan in accordance with this chapter, and as approved by the department; or the licensee has implemented the CSO Master Plan and a discharge occurs that is caused by conditions exceeding those upon which the Plan is based.

The KSTD submitted a CSO Master Plan entitled, *2009 Revised CSO Master Plan for the Kennebec Sanitary Treatment District*, to the Department which was approved by the Department on February 24, 2012.

The KSTD 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 requirement for the submission of an updated CSO Master Plan to the Department on or before December 31, 2015.

## 7. COMBINED SEWER OVERFLOWS

According to Maine Combined Sewer Overflow 2013 Status Report (Department Document No.: DEPLQ0972G-2015), the KSTD experienced zero (0) CSO discharge events in calendar year 2013, one (1) in 2012, (135,444 gallons), and zero (0) in years 2011, 2010 and 2009. During the period of 1987 through 1997, the KSTD experienced 15 CSO discharge events annually. Thus, the overall CSO discharge activity associated with the KSTD has been significantly reduced.

## 8. PRETREATMENT

The permittee is required to administer a pretreatment program based on the authority granted under Federal regulations 40 CFR Part 122.44(j), 40 CFR Part 403, section 307 of the Federal Water Pollution Control Act (Clean Water Act), and *Pretreatment Program*, 06-096 CMR 528 (effective January 12, 2001). The permittee's pretreatment program received USEPA approval on August 23, 1984, and as a result, appropriate pretreatment program requirements were incorporated into the previous National Pollutant Discharge Elimination System (NPDES) permit that were consistent with that approval and federal pretreatment regulations in effect when the permit was issued. The State of Maine has been authorized by the USEPA to administer the federal pretreatment program as part of receiving authorization to administer the NPDES program.

Upon issuance of this permit, the permittee is obligated to modify (if applicable) its pretreatment program to be consistent with current federal regulations and State rules. Those activities that the permittee must address include, but are not limited to, the following: (1) develop and enforce Department-approved specific effluent limits (technically-based local limits - last approved by the USEPA on December 1, 1995); (2) revise the local sewer-use ordinance or regulation, as appropriate, to be consistent with federal regulations and State rules; (3) develop an enforcement response plan; (4) implement a slug control evaluation program; (5) track significant non-compliance for industrial users; and (6) establish a definition of and track significant industrial users. These requirements are necessary to ensure continued compliance with the POTWs MEPDES permit and its sludge use or disposal practices.

In addition to the requirements described above, this permit requires that **within 180 days prior to the expiration date of this permit**, the permittee shall submit to the Department in writing, a description of proposed changes to permittee's pretreatment program deemed necessary to assure conformity with current federal and State pretreatment regulations and rules, respectively. These requirements are included in the permit to ensure that the pretreatment program is consistent and up-to-date with all pretreatment requirements in effect. **By September 1<sup>st</sup> of each calendar year**, the permittee shall submit a pretreatment annual report detailing the activities of the program for the twelve-month period ending 60 days prior to the due date.



## **9. DISPOSAL OF TRANSPORTED WASTES INTO A WASTEWATER TREATMENT FACILITY**

The previous permitting action authorized the permittee to receive and introduce up to 127,000 gpd and of transported wastes into the wastewater treatment process or solids handling stream.

Department rule Chapter 555, *Standards For The Addition of Transported Wastes to Wastewater Treatment Facilities*, limits the quantity of transported wastes received at a facility to 1% of the design capacity of the treatment facility if the facility utilizes a side stream or storage method of introduction into the influent flow, or 0.5% of the design capacity of the facility if the facility does not utilize the side stream or storage method of introduction into the influent flow. A facility may receive more than 1% of the design capacity on a case-by-case basis. The permittee has requested the Department carry forward the daily quantity of 127,000 gpd of transported wastes that it is authorized to receive and treat as it utilizes the side stream/storage method of metering transported wastes into the facility's influent flow. With a design capacity of 12.7 MGD, 127,000 gpd represents 1.0% of said capacity.

The Department has determined that under normal operating conditions, the receipt and treatment of 127,000 gpd of transported wastes to the facility will not cause or contribute to upset conditions of the treatment process.

## **10. DISCHARGE IMPACT ON RECEIVING WATER QUALITY**

The Department acknowledges that the elimination of the CSOs in the KSTD's collection system is a costly long-term project. As the KSTD facility and sewer collection systems are upgraded and maintained in accordance with the CSO Master Plan and Nine Minimum Controls, there should be reductions in the frequency and volume of CSO activities and in the waste water receiving primary treatment only at the treatment plant over time. The Department expects these reductions to show an improvement in the ambient water quality of the receiving waters impacted by CSO discharges.

Based on information to date, the Department has determined the existing water uses will be maintained and protected provided the permittee complies with the terms and condition established herein.

## **11. PUBLIC COMMENTS**

Public notice of this application was made in the *Morning Sentinel* newspaper on or about July 5, 2014. The Department receives public comments on an application until the date a final agency action is taken on the application. Those persons receiving copies of draft permits shall have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to *Application Processing Procedures for Waste Discharge Licenses*, 06-096 CMR 522 (effective January 12, 2001).

## 12. DEPARTMENT CONTACTS

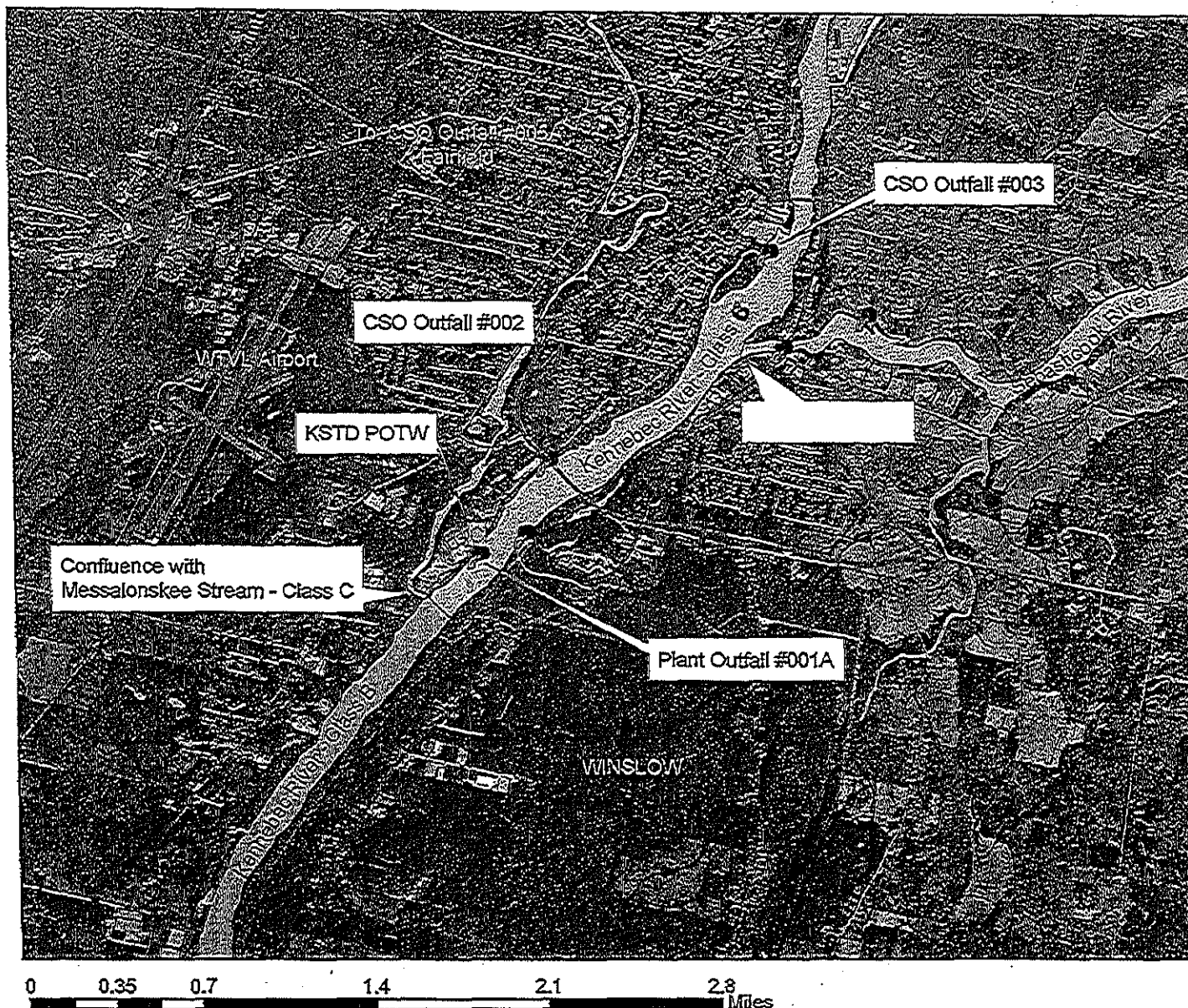
Additional information concerning this permitting action may be obtained from, and written comments sent to:

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

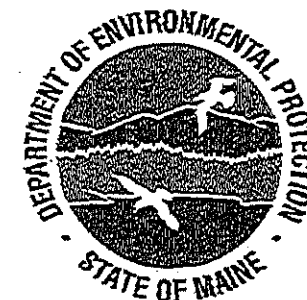
## 13. RESPONSE TO COMMENTS

During the period of August 26, 2015, 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 KSTD 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**



- Legend**
- Wastewater\_Facilities
  - Wastewater\_Outfalls
  - Ponds\_and\_Lakes
  - Streams
- River Class**
- AA
  - A
  - B
  - C
- Major Roads**
- State aided
  - State hwy
  - Toll highway



# Waterville/Winslow, Maine

Map created by:  
William Hinkel  
Division of Water Resource Regulation  
Maine Department of Environmental Protection  
April 16, 2004

## **ATTACHMENT B**

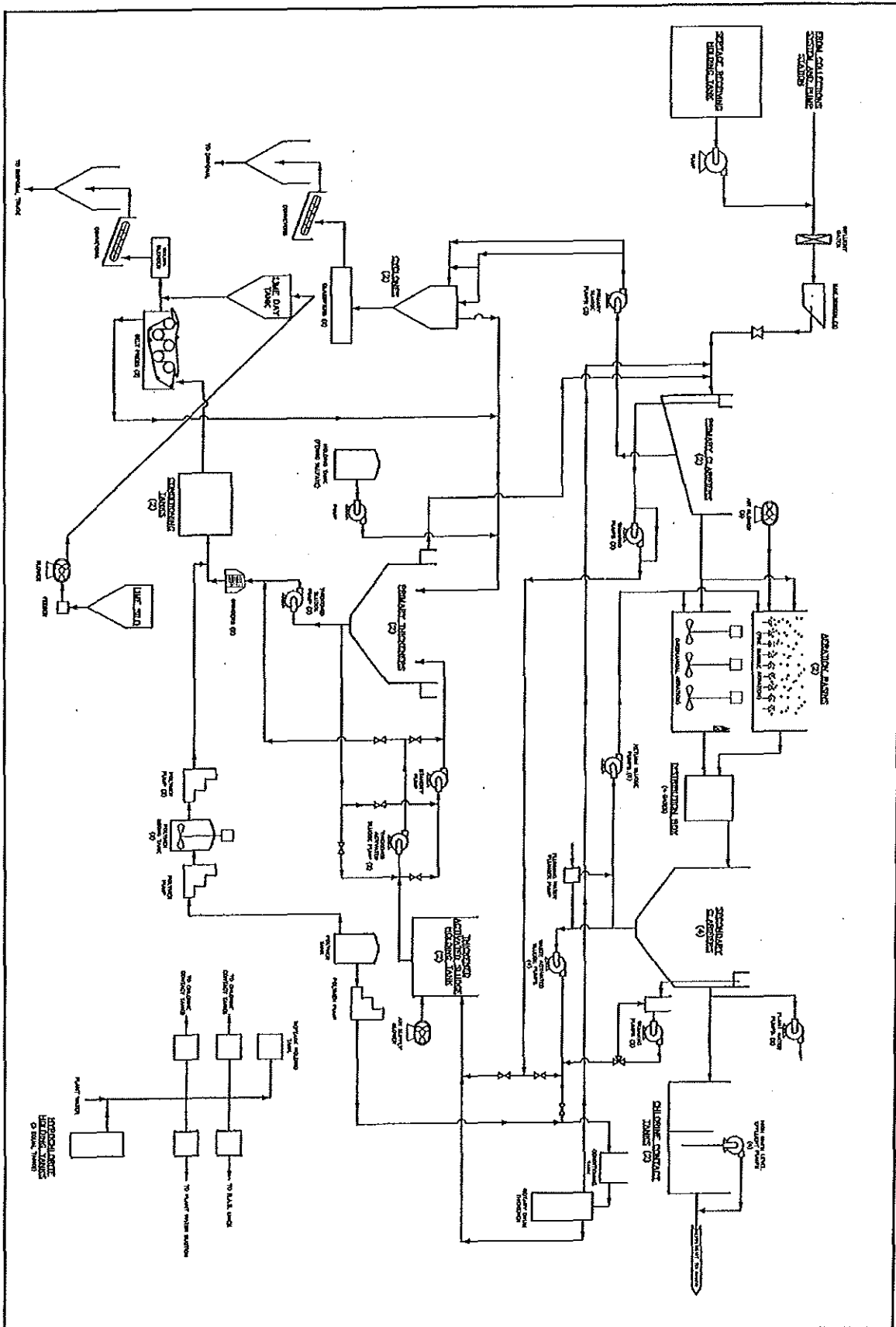


FIGURE 1

KENNEBEC SANITARY TREATMENT DISTRICT  
WATERVILLE, MAINE

# PROCESS FLOW DIAGRAM

DESIGNED BY:  
DRAWN BY:

CHECKED BY:  
20315703-PD-93.dwg

**WOODARD & CURRAN**  
Engineering • Science • Operations  
PORTLAND, MAINE 800-426-4262

## **ATTACHMENT C**

7/6/2015

WET TEST REPORT

Data for tests conducted for the period

06/Jul/2010 -06/Jul/2015



KSTD NPDES= ME010085 Effluent Limit: Acute (%) = 0.950 Chronic (%) = 0.779

Species	Test	Percent	Sample date	Critical %	Exception	RP
TROUT	A_NOEL	100	09/17/2014	0.950		
TROUT	C_NOEL	100	09/17/2014	0.779		
WATER FLEA	A_NOEL	100	09/17/2014	0.950		
WATER FLEA	C_NOEL	100	09/17/2014	0.779		



## **ATTACHMENT D**

8/23/2015

## PRIORITY POLLUTANT DATA SUMMARY

Date Range: 23/Aug/2010 - 23/Aug/2015



Facility Name: KSTD

NPDES: ME0100854

Test Date	Monthly (Flow MGD)	Daily	Total Test Number	Test # By Group						Clean	Hg
				M	V	BN	P	O	A		
03/15/2011	12.12	13.26	13	13	0	0	0	0	0	F	0
<hr/>											
Test Date	Monthly (Flow MGD)	Daily	Total Test Number	Test # By Group						Clean	Hg
				M	V	BN	P	O	A		
09/21/2011	5.94	5.42	19	14	0	0	0	5	0	F	0
<hr/>											
Test Date	Monthly (Flow MGD)	Daily	Total Test Number	Test # By Group						Clean	Hg
				M	V	BN	P	O	A		
07/13/2012	5.47	5.33	19	14	0	0	0	5	0	F	0
<hr/>											
Test Date	Monthly (Flow MGD)	Daily	Total Test Number	Test # By Group						Clean	Hg
				M	V	BN	P	O	A		
06/20/2013	7.07	6.27	15	12	0	0	0	3	0	F	0
<hr/>											
Test Date	Monthly (Flow MGD)	Daily	Total Test Number	Test # By Group						Clean	Hg
				M	V	BN	P	O	A		
11/05/2013	5.64	5.37	19	15	0	0	0	4	0	F	0
<hr/>											
Test Date	Monthly (Flow MGD)	Daily	Total Test Number	Test # By Group						Clean	Hg
				M	V	BN	P	O	A		
03/05/2014	6.40	4.93	17	14	0	0	0	3	0	F	0
<hr/>											
Test Date	Monthly (Flow MGD)	Daily	Total Test Number	Test # By Group						Clean	Hg
				M	V	BN	P	O	A		
06/26/2014	7.40	7.19	130	14	28	46	25	6	11	F	0
<hr/>											
Test Date	Monthly (Flow MGD)	Daily	Total Test Number	Test # By Group						Clean	Hg
				M	V	BN	P	O	A		
07/15/2014	7.68	7.20	21	10	0	0	0	11	0	F	0
<hr/>											
Test Date	Monthly (Flow MGD)	Daily	Total Test Number	Test # By Group						Clean	Hg
				M	V	BN	P	O	A		
09/18/2014	5.37	4.94	18	14	0	0	0	4	0	F	0
<hr/>											
Test Date	Monthly (Flow MGD)	Daily	Total Test Number	Test # By Group						Clean	Hg
				M	V	BN	P	O	A		
11/05/2014	6.13	6.60	18	14	0	0	0	4	0	F	0
<hr/>											
Test Date	Monthly (Flow MGD)	Daily	Total Test Number	Test # By Group						Clean	Hg
				M	V	BN	P	O	A		
03/03/2015	6.01	4.74	17	14	0	0	0	3	0	F	0
<hr/>											
Test Date	Monthly (Flow MGD)	Daily	Total Test Number	Test # By Group						Clean	Hg
				M	V	BN	P	O	A		
06/17/2015	6.45	5.75	19	14	0	0	0	5	0	F	0

## Key:

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

8/23/2015

## FACILITY PRIORITY POLLUTANT DATA REPORT

Data Date Range: 23/Aug/2010-23/Aug/2015



Facility name: KSTD

Permit Number: ME0100854

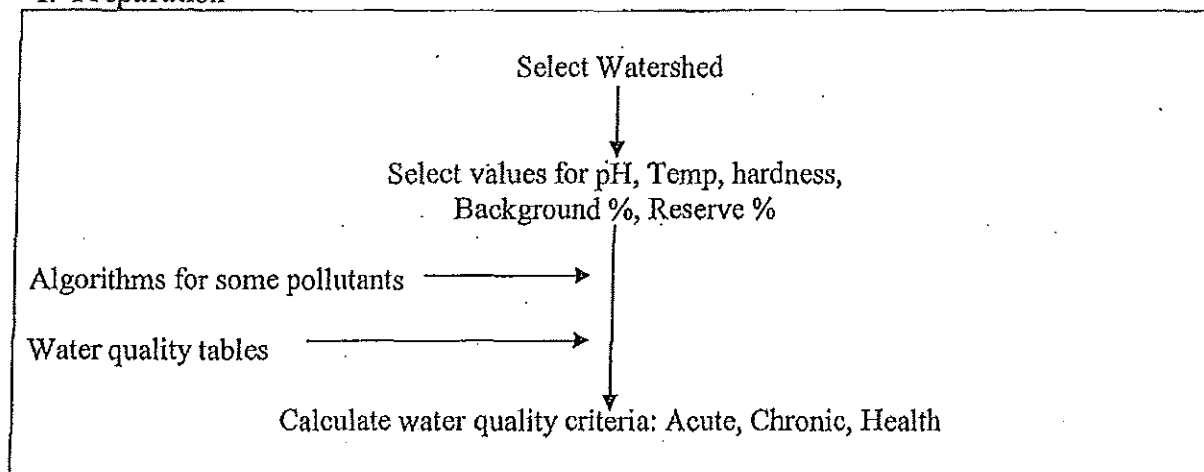
Parameter: ALUMINUM

Test date	Result (ug/l)	Lsthan
09/21/2011	67.000	N
07/13/2012	52.000	N
06/20/2013	53.000	N
11/05/2013	90.000	N
03/05/2014	69.000	N
06/26/2014	1108.000	N
07/15/2014	60.000	Y
09/18/2014	22.000	N
11/05/2014	67.000	N
03/03/2015	29.000	N
06/17/2015	46.000	N

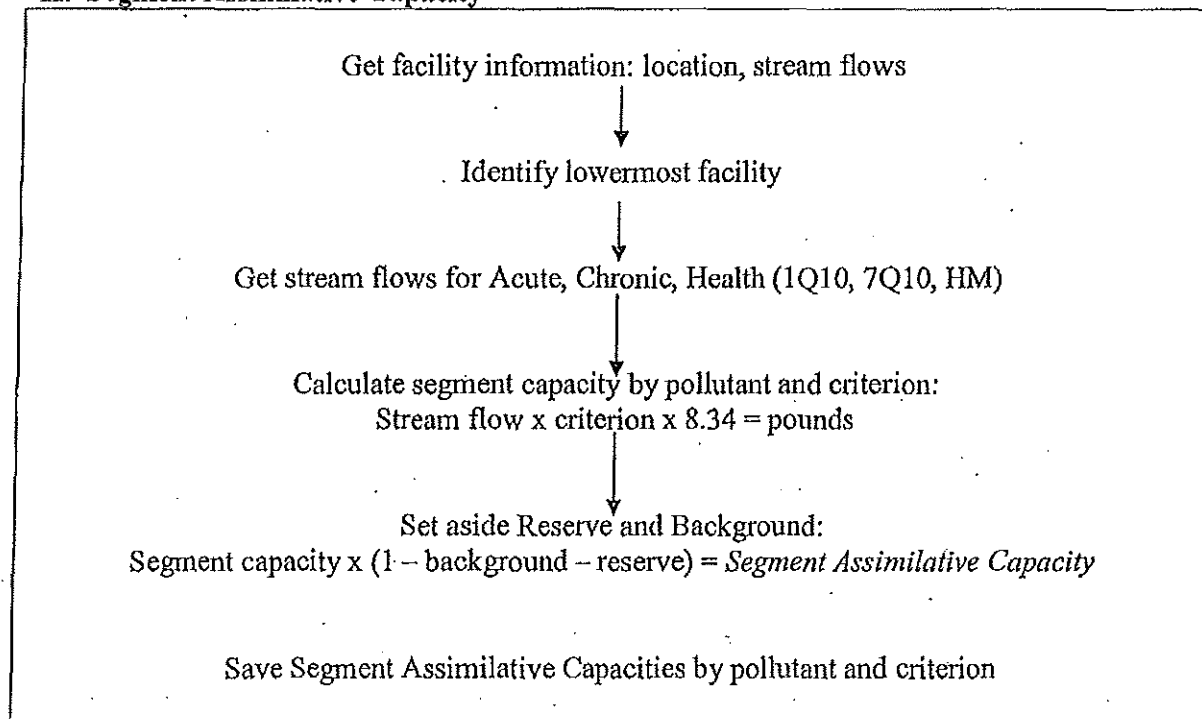
# **ATTACHMENT E**

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

**I. Preparation**

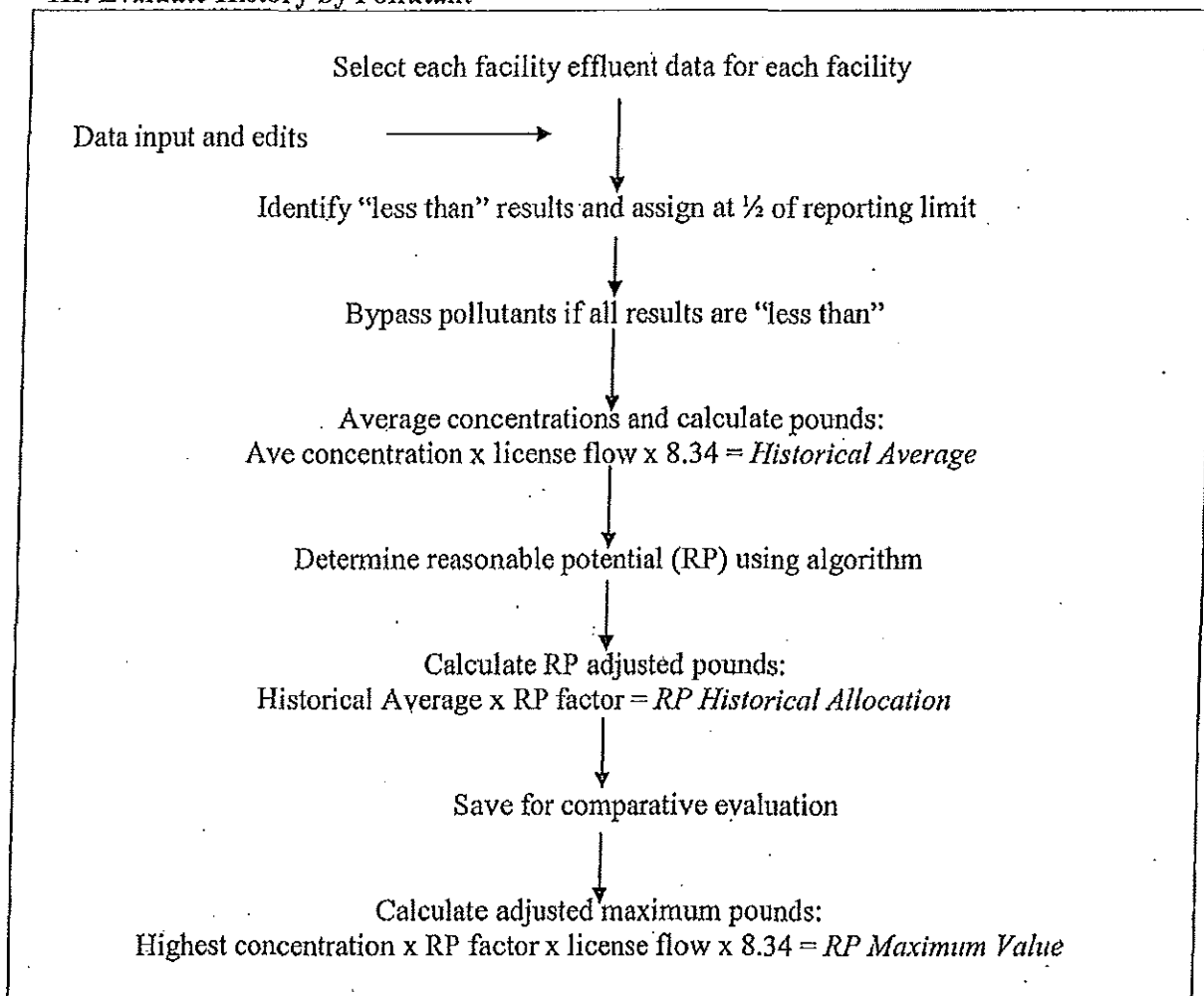


**II. Segment Assimilative Capacity**

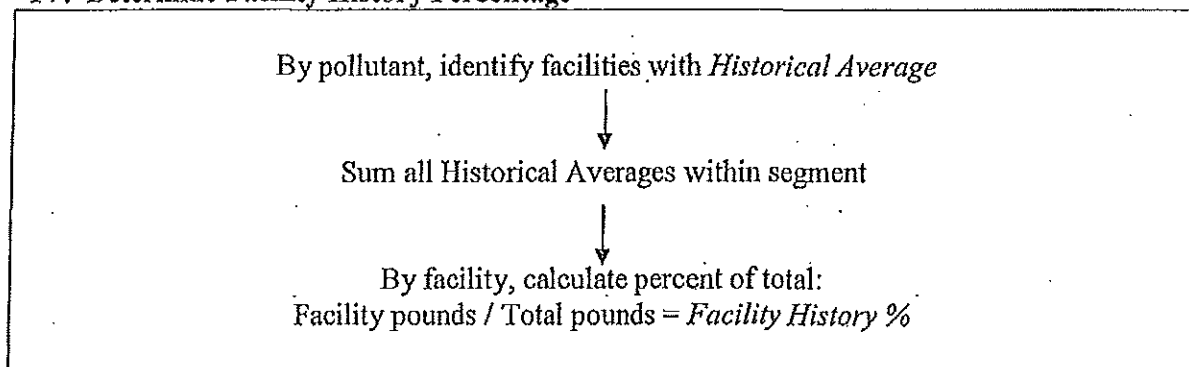


Maine Department of Environmental Protection  
General Processing Steps in "DeTox"

III. Evaluate History by Pollutant

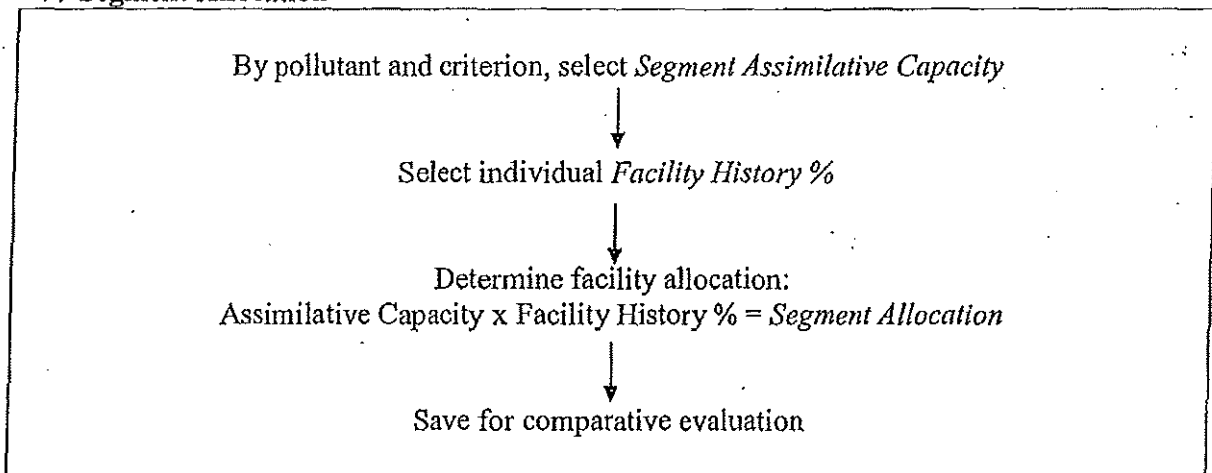


IV. Determine Facility History Percentage

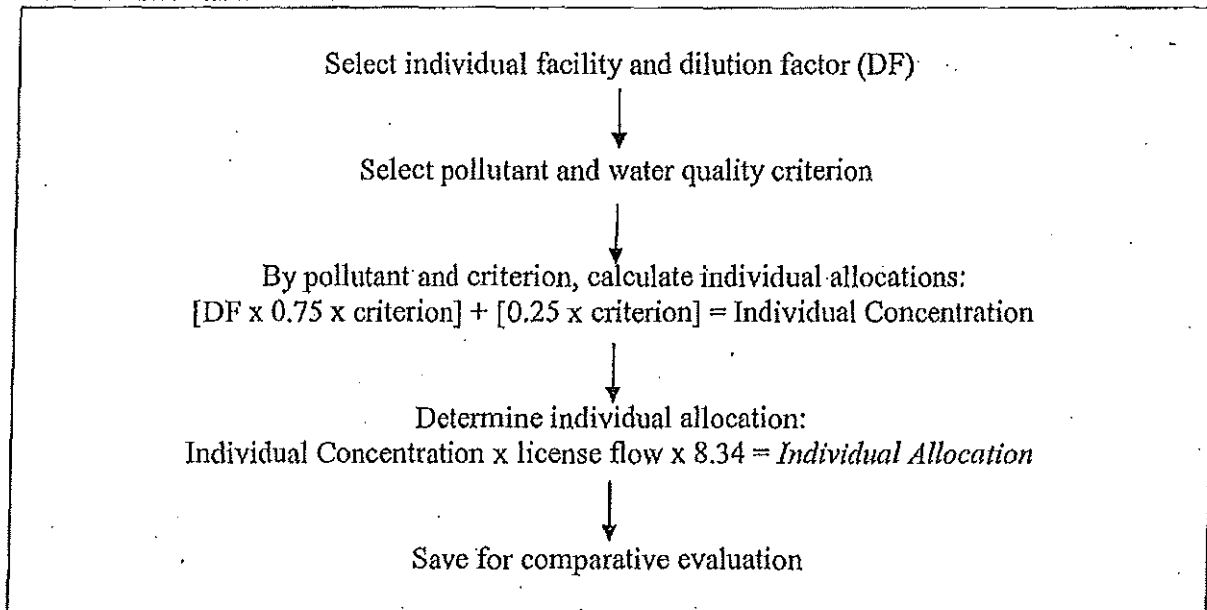


Maine Department of Environmental Protection  
General Processing Steps in "DeTox"

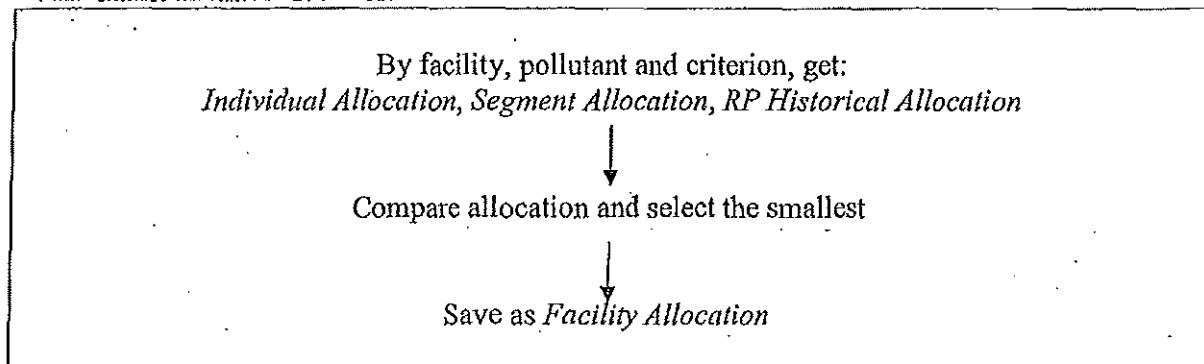
V. Segment Allocation



VI. Individual Allocation

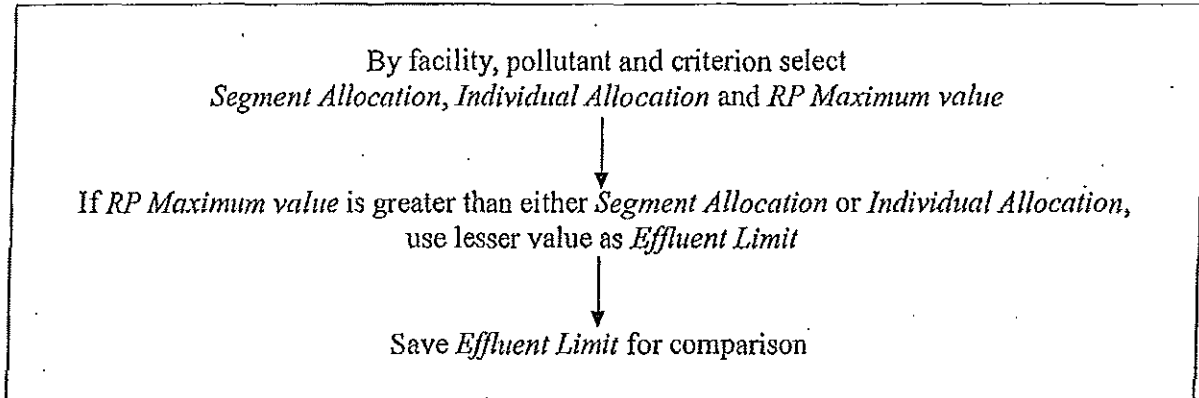


VII. Make Initial Allocation

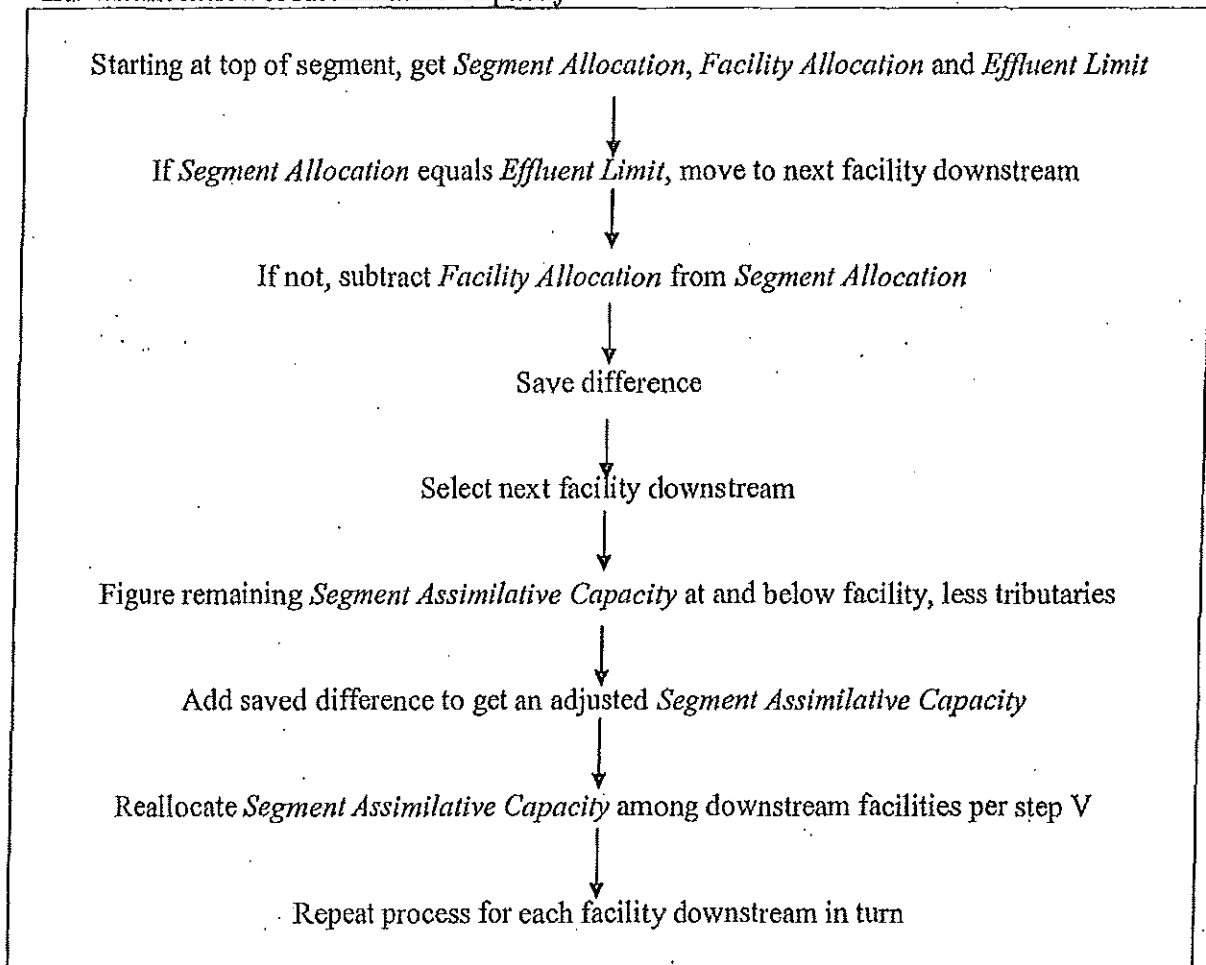


Maine Department of Environmental Protection  
General Processing Steps in "DeTox"

VIII. Evaluate Need for Effluent Limits



IX. Reallocation of Assimilative Capacity





MAINE 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](mailto: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.



# 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.

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**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.**

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