STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

PAUL MERCER
COMMISSIONER

April 4, 2016

Mr. Darold Wooley
Superintendent
Lincoln Sanitary District
P.O. Box 56
Lincoln, Maine 04457
lincolnsanitarydistrict@myfairpoint.net

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0101796
Maine Waste Discharge License (WDL) Application #W001479-6D-G-R
Final Permit/License

Dear Mr. Wooley:

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: Michael Longlin, DEP/EMRO Lori Mitchell, DEP/CMRO
Sandy Mojica, USEPA Marelyn Vega, USEPA Olga Vergara, USEPA

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

IN THE MATTER OF

LINCOLN SANITARY DISTRICT	)	MAINE POLLUTANT DISCHARGE
LINCOLN, PENOBSCOT COUNTY, MAINE	)	ELIMINATION SYSTEM PERMIT
PUBLICLY OWNED TREATMENT WORKS	)	AND
ME0101796	)	WASTE DISCHARGE LICENSE
W001479-6D-G-R **APPROVAL**	)	**RENEWAL**

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

APPLICATION SUMMARY

The LSD has submitted a timely and complete application to the Department for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0101796/Maine Waste Discharge License (WDL) #W001479-6D-E-R (permit hereinafter) which was issued by the Department on May 25, 2011, for a five-year term. The 5/25/11 permit authorized the discharge of up to a monthly average flow of 1.07 million gallons per day (MGD) of secondary treated sanitary waste waters and allowed the use of a bypass of secondary treatment when the influent to the waste water treatment facility exceeded a peak hourly flow rate of 1,944 gallons per minute (2.8 MGD). The discharge from the LSD facility is to the Penobscot River, Class B, in Lincoln, Maine.

PERMIT SUMMARY

This permitting action is carrying forward all the terms and conditions of the previous permit except that this permit is;

1. Establishing daily maximum technology based biochemical oxygen demand (BOD) and total suspended solids (TSS) limits for the blended effluent (Outfall #003).

2. Reducing the monitoring frequencies for BOD, TSS and *E. coli* bacteria from 2/Week to 1/Week and reducing the monitoring frequency for settleable from 5/Week to 3/Week based on a statistical evaluation conducted on the most current three years of monitoring data in accordance with the U.S. Environmental Protection Agency (EPA) and Department guidance.

3. Incorporating the numeric average and maximum concentration limits for total mercury that were originally established for the LSD facility in a May 23, 2000, permit modification.

PERMIT SUMMARY

4. Eliminating the requirements to report BOD and TSS percent removal rates and surface loading rates for Outfall #002A (Bypass of secondary treatment) as the Department has determined the data collected to date has little value in assessing the operation of primary treated waste water during a bypass event.

5. Eliminating the numeric daily maximum technology based limitations for total residual chlorine and *E. coli* bacteria for Outfall 002A as limiting an internal waste stream is not necessary given compliance with limitations in the permit is determined after the primary treated and secondary treated waste streams are blended.

6. Eliminating the monthly average and daily maximum water quality based mass and concentration limits for total copper as the most current 60 months of chemical specific data submitted to the Department indicates the LSD discharge no longer has a reasonable potential to exceed the acute or chronic ambient water quality criteria for total copper.

7. Establishing a tiered flow regime for the trigger flows at which time the facility is allowed to bypass secondary treatment.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated February 18, 2016, and subject to the Conditions listed below, the Department makes the following CONCLUSIONS:

1. The discharge, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification.

2. The discharge, either by itself or in combination with other discharges, will not lower the quality of any unclassified body of water below the classification which the Department expects to adopt in accordance with state law.

3. The provisions of the State's antidegradation policy, 38 MRSA Section 464(4)(F), will be met, in that:

   a. Existing in-stream water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected;

   b. Where high quality waters of the State constitute an outstanding national resource, that water quality will be maintained and protected;

CONCLUSIONS (cont'd)

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 quality of any water body, the Department has made the finding, following opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.

4. The discharge(s) will be subject to effluent limitations and terms and conditions that require application of best practicable treatment.

ACTION

THEREFORE, the Department APPROVES the application of the LINCOLN SANITARY DISTRICT to discharge up to a monthly average flow of 1.07 million gallons per day (MGD) of secondary treated sanitary waste waters and allowed the use of a bypass of secondary treatment when the influent to the waste water treatment facility exceeds 1) 1,944 gallons per minute (2.8 MGD) as an instantaneous flow rate, 2) 1,666 gallons per minute (2.4 MGD) for a sustained flow rate for one hour, or 3) 1,250 gallons per minute (1.8 MGD) for a sustained flow rate for eight hours, from a municipal waste water treatment facility to the Penobscot River, Class B, in Lincoln, Maine. The discharges shall be subject to the attached conditions and all applicable standards and regulations:

1. "*Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable To All Permits*," revised July 1, 2002, copy attached.

2. The attached Special Conditions, including any effluent limitations and monitoring requirements.

3. This permit and the authorization to discharge become effective upon the date of signature below and expire at midnight five (5) years from the effective date. If a renewal application is timely submitted and accepted as complete for processing prior to the expiration of this permit, the authorization to discharge and the terms and conditions of this permit and all modifications and minor revisions thereto remain in effect until a final Department decision on the renewal application becomes effective. [*Maine Administrative Procedure Act*, 5 M.R.S.A. § 10002 and *Rules Concerning the Processing of Applications and Other Administrative Matters*, 06-096 CMR 2(21)(A) (amended August 25, 2013)].

ACTION (cont'd)

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

DONE AND DATED AT AUGUSTA, MAINE, THIS 5th DAY OF April 2016.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Michael Kuhns
for Paul Mercer, Commissioner

Date of initial receipt of application: February 12, 2016

Date of application acceptance: February 18, 2016

Filed
APR 05 2016
State of Maine
Board of Environmental Protection

Date filed with Board of Environmental Protection _____

This Order prepared by Gregg Wood, BUREAU OF WATER QUALITY

ME0101796 2016 3/21/16

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. The permittee is authorized to discharge secondary treated waste waters to the Penobscot River. Such treated waste water discharges shall be limited and monitored by the permittee as specified below.

SECONDARY TREATED WASTE WATERS - OUTFALL #001A

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow *[50050]*	1.07 MGD *[03]*	---	Report MGD *[03]*	---	---	---	Continuous *[99/99]*	Recorder *[RC]*
Biochemical Oxygen Demand (BOD_5) *[00310]*	268 lbs/Day *[26]*	402 lbs/Day *[26]*	Report lbs/Day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L (1a) *[19]*	1/Week *[01/07]*	Composite *[24]*
BOD_5 *[00310]* ***(When bypass is active)***	268 lbs/Day *[26]*	402 lbs/Day *[26]*	Report lbs/Day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	Report mg/L (1a) *[19]*	1/Week *[01/07]*	Composite *[24]*
BOD5 % Removal (1b) *[81010]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
Total Suspended Solids (TSS) *[00530]*	268 lbs/Day *[26]*	402 lbs/Day *[26]*	Report lbs/Day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L (1a) *[19]*	1/Week *[01/07]*	Composite *[24]*
TSS *[00530]* ***(When bypass is active)***	268 lbs/Day *[26]*	402 lbs/Day *[26]*	Report lbs/Day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	Report mg/L (1a) *[19]*	1/Week *[01/07]*	Composite *[24]*
TSS % Removal (1b) *[81011]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
Settleable Solids *[00545]*	---	---	---	---	---	0.3 ml/L *[25]*	3/Week *[05/07]*	Grab *[GR]*
E. coli Bacteria (2) *[31633]* *(May 15 – September 30)*	---	---	---	64/100 ml (3) *[13]*	---	427/100 ml *[13]*	1/Week *[01/07]*	Grab *[GR]*
Total Residual Chlorine (4) *[50060]*	---	---	---	---	---	1.0 mg/L *[19]*	1/Day *[01/01]*	Grab *[GR]*

Footnotes: See pages 8 – 12 of this permit for applicable footnotes.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd) – OUTFALL #001A

SECONDARY TREATED WASTE WATERS - OUTFALL #001A

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type
Mercury (Total)[5] *[71900]*				17.3 ng/L *[3M]*		26.0 ng/L *[3M]*	1/Year *[01/YR]*	Grab *[GR]*
pH (Std. Units) *[00400]*	---	---	---	---	---	6.0-9.0 *[12]*	5/Week *[05/07]*	Grab *[GR]*

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.

Effluent Characteristic	Discharge Limitations				Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Whole Effluent Toxicity[6]						
Acute – NOEL						
Ceriodaphnia dubia (Water flea) *[TDA3B]*	---	---	---	Report % *[23]*	1/Year *[01/YR]*	Composite *[24]*
Salvelinus fontinalis (Brook trout) *[TDA6F]*	---	---	---	Report % *[23]*	1/Year *[01/YR]*	Composite *[24]*
Chronic – NOEL						
Ceriodaphnia dubia (Water flea) *[TBP3B]*	---	---	---	Report % *[23]*	1/Year *[01/YR]*	Composite *[24]*
Salvelinus fontinalis (Brook trout) *[TBQ6F]*	---	---	---	Report % *[23]*	1/Year *[01YR]*	Composite *[24]*
Analytical chemistry[7,9] *[51477]*	---	---	---	Report ug/L *[28]*	1/Quarter *[01/90]*	Composite/Grab *[24]*
Priority Pollutant [8,9] *[50008]*	---	---	---	Report ug/L *[28]*	1/Year *[01/YR]*	Composite/Grab *[24]*

Footnotes: See pages 8 – 12 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

2. Consistent with CSO bypass regulations, the permittee is allowed to bypass secondary treatment and provide primary treatment only **Outfall #002A (administrative outfall)** prior to combining with secondary treated waste water. Bypassing secondary treatment is allowed when the influent to the headworks of the treatment facility exceeds 1) 1,944 gallons per minute (2.8 MGD) as an instantaneous flow rate, 2) 1,666 gallons per minute (2.4 MGD) for a sustained flow rate for one hour, or 3) 1,250 gallons per minute (1.8 MGD) for a sustained flow rate for eight hours. Allowance to bypass secondary treatment will be reviewed and may be modified or terminated pursuant to Special Condition M, *Reopening of Permit for Modification,* if there is substantial change in the volume or character of pollutants in the collection/treatment system. Also see supplemental report form, *DEP-49-CSO Form For Use With Dedicated CSO Primary Clarifier*, **Attachment E** of this permit. **Outfall 002A** must be monitored as follows:

PRIMARY TREATED WASTE WATERS - OUTFALL #002A (Secondary Treatment Bypass)

Effluent Characteristic	Discharge Limitations				Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Influent Flow Rate Minimum *[00058]*	---	Report (gpm) [10] *[78]*	---	---	Instantaneous *[01/99]*	Recorder *[RC]*
Flow, MGD *[50050]*	Report (Total MGD) *[03]*	Report (MGD) *[03]*	---	---	Continuous *[99/99]*	Recorder *[RC]*
Overflow Use, Occurrences[11] *[74062]*	---	---	Report (# of days) *[93]*	---	When Discharging *[01/DH]*	Record Total *[RT]*
BOD_5 *[00310]*	---	Report lbs/day *[26]*	---	Report mg/L *[19]*	1/Week[12] *[01/07]*	Composite *[CP]*
TSS *[00530]*	---	Report lbs/day *[26]*	---	Report mg/L *[19]*	1/Week[12] *[01/07]*	Composite *[CP]*
E. coli Bacteria[2] *[31633]* (May 15 – September 30)	---	---	---	Report col/100mL *[13]*	1/Week[12] *[01/07]*	Grab *[GR]*
Total Residual Chlorine[4] *[50060]*	---	---	---	Report mg/L *[19]*	1/Week[12] *[01/07]*	Grab *[GR]*

Footnotes: See pages 8 – 12 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

3. Consistent with CSO bypass regulations, the permittee is allowed to discharge primary and secondary treated waste water **(blended effluent)** from **Outfall #003A** (administrative outfall) to the Penobscot River. These limitations and monitoring requirements apply after blending when the instantaneous flow rate at the overflow structure of the treatment facility exceeds 1) 1,944 gallons per minute (2.8 MGD) as an instantaneous flow rate, 2) 1,666 gallons per minute (2.4 MGD) for a sustained flow rate for one hour, or 3) 1,250 gallons per minute (1.8 MGD) for a sustained flow rate for eight hours.. Allowance to bypass secondary treatment will be reviewed and may be modified or terminated pursuant to Special Condition M, *Reopening of Permit for Modification,* if there is substantial change in the volume or character of pollutants in the collection/treatment system.

BLENDED EFFLUENT (OUTFALL #003A)

Effluent Characteristic	Discharge Limitations				Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow, MGD *[50050]*	---	Report (MGD) *[03]*	---	---	When Discharging *[01/DH]*	Calculate *[CA]*
BOD5[13] *[00310]*	---	1,795 lbs/day[13] *[26]*	---	Report mg/L *[19]*	1/Week[12] *[01/07]*	Calculate *[CA]*
TSS[13] *[00530]*	---	1,105 lbs/day[13] *[26]*	---	Report mg/L *[19]*	1/Week[12] *[01/07]*	Calculate *[CA]*
E. coli Bacteria [2] *[31633]* *(May 15 – September 30)*	---	---	---	427 col/100 ml *[13]*	1/Week[12] *[01/07]*	Calculate *[CA]*
Total Residual Chlorine[4] *[50060]*	---	---	--	1.0 mg/L *[19]*	1/Week[12] *[01/07]*	Calculate *[CA]*

Footnotes: See pages 8 – 12 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

Footnotes:

Sampling Locations:

Influent sampling for BOD_5 and TSS must be sampled (composite) at a point between the flow control structure at the headworks and the bar rack.

Effluent receiving secondary treatment (Outfall #001A) must be sampled (composite and grab) for all parameters specified in Special Condition A(1) after the chlorine contact chamber on a year-round basis. Sampling of the secondary effluent shall be conducted prior to combining with the primary treated effluent during a bypass event.

Effluent receiving primary treatment (Outfall #002A) must be sampled (composite and grab samples) for all parameters specified in Special Condition A(2) after primary clarification but before combining with the secondary treated effluent.

Any change in sampling location(s) must be reviewed and approved by the Department in writing.

Sampling and analysis must be conducted in accordance with; a) methods approved in 40 Code of Federal Regulations (CFR) Part 136, b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136, or c) as otherwise specified by the Department. Samples that are sent out for analysis shall be analyzed by a laboratory certified by the State of Maine's Department of Human Services for waste water testing. Samples that are sent to another POTW licensed pursuant to *Waste discharge licenses*, 38 M.R.S.A. § 413 or laboratory facilities that analyze compliance samples in-house are subject to the provisions and restrictions of *Maine Comprehensive and Limited Environmental Laboratory Certification Rules*, 10-144 CMR 263 (last amended 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.

Outfall #001A – Secondary Treated Effluent

1. **BOD & TSS**

   a. Limitations for Outfall #001A remain in effect at all times with the exception of daily maximum concentration limits of 50 mg/L for BOD and TSS on any day when the bypass of secondary treatment is active. Any sample results obtained on these days are not to be included in calculations to determine compliance with monthly or weekly average limitations.

SPECIAL CONDITIONS

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

Footnotes:

Outfall #001A – Secondary Treated Effluent

1. **BOD & TSS**

   b. **Percent removal** - The treatment facility must maintain a minimum of 85 percent removal of both BOD_5 and TSS for all waste waters receiving a secondary level of treatment. The percent removal must be based on a monthly average calculation using influent and effluent concentrations. The percent removal shall be waived when the monthly average influent concentration is less than 200 mg/L. For instances when this occurs, the facility may report "*N9*" on the monthly Discharge Monitoring Report.

2. ***E. coli* bacteria** - Limits are seasonal and apply between May 15 and September 30 of each calendar year. The Department reserves the right to require disinfection on a year-round basis to protect the health and welfare of the public.

3. ***E. coli* bacteria** – The monthly average limitation is a geometric mean limitation and results shall be calculated and reported as such.

4. **Total residual chlorine (TRC)** – Limitations and monitoring requirements are in effect anytime elemental chlorine or chlorine based compounds are utilized to disinfect the discharge(s). The permittee must utilize an EPA-approved test method capable of bracketing the TRC limitations specified in this permitting action.

5. **Mercury** – The permittee must conduct all mercury sampling required by this permit or required to determine compliance with interim limitations established pursuant to 06-096 CMR 519 in accordance with the USEPA's "clean sampling techniques" found in USEPA Method 1669, *Sampling Ambient Water For Trace Metals At EPA Water Quality Criteria Levels*. All mercury analysis must be conducted in accordance with USEPA Method 1631E, *Determination of Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Fluorescence Spectrometry*. See **Attachment A** for a Department report form for 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.

SPECIAL CONDITIONS

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

Footnotes:

Outfall #001A – Secondary Treated Effluent

6. **Whole effluent toxicity (WET) testing** - Definitive WET testing is a multi-concentration testing event (a minimum of five dilutions bracketing the critical acute and chronic dilutions of 0.24% and 0.06% respectively), which provides a point estimate of toxicity in terms of No Observed Effect Level, commonly referred to as NOEL or NOEC. A-NOEL is defined as the acute no observed effect level with survival as the end point. C-NOEL is defined as the chronic no observed effect level with survival, reproduction and growth as the end points.

   a. **Surveillance level testing** - Waived pursuant to 06-096 CMR Chapter 530(2)(D)(3)(b).

   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 must initiate screening level WET tests at a frequency of once per year (any calendar quarter). Testing must be conducted on 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 must evaluate test results being submitted and identify to the Department possible exceedances of the critical acute and chronic water quality thresholds of 0.24% and 0.06%, respectively. See **Attachment B** of this permit for WET reporting forms. The permittee is also required to analyze the effluent for the parameters specified in the WET chemistry section and the parameters specified in the analytical chemistry section in **Attachment C** of this permit each time a WET test is performed.

SPECIAL CONDITIONS

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

Outfall #001A – Secondary Treated Effluent

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 D** of this permit for the Department protocol.

a. U.S. Environmental Protection Agency. 2002. *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, 5th ed. USEPA 821-R-02-012. U.S. Environmental Protection Agency, Office of Water, Washington, D.C., October 2002 (the acute method manual).

b. U.S. Environmental Protection Agency. 2002. *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, 4th ed. USEPA 821-R-02-013. U.S. Environmental Protection Agency, Office of Water, Washington, D.C., October 2002 (the freshwater chronic method manual).

7. **Analytical chemistry** –Refers to a suite of chemicals in **Attachment C** of the permit.

   a. **Surveillance level testing** - Waived pursuant to 06-096 CMR Chapter 530(2)(D)(3)(b).
   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 must conduct screening level analytical chemistry testing at a minimum frequency of four times per year (4/Year) in successive calendar quarters.

8. **Priority pollutant testing** – Refers to a suite of chemicals in **Attachment C** of the permit.

   a. **Surveillance level testing** is not required pursuant to 06-096 CMR 530.

   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 must conduct screening level priority pollutant testing at a minimum frequency of once per year (1/Year) in any calendar quarter provided the sample is representative of the discharge and any seasonal or other variations in effluent quality.

SPECIAL CONDITIONS

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

Footnotes:

Outfall #001A – Secondary Treated Effluent

9. **Analytical chemistry & Priority Pollutants** - Priority pollutant and analytical chemistry testing must 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 must 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 must evaluate test results being submitted and identify to the Department, possible exceedances 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 "N9" monitoring not required this period.

Outfall #002A – Primary treated only waste stream

10. **Minimum instantaneous influent flow** – The permittee must report the minimum instantaneous influent flow rate entering the headworks of the plant for each month during which there was a CSO-related bypass of secondary treatment.

11. **Overflow occurrence** – An overflow occurrence is defined as the period of time between initiation and cessation of flow from the storm flow chlorine contact tank. Overflow occurrences are reported in discharge days. Multiple intermittent overflow occurrences in one discharge day are reported as one overflow occurrence.

12. **1/Week sampling** – Sampling for BOD, TSS, *E. coli* bacteria and total residual chlorine are only required if a continuous overflow occurrence is greater than 60 minutes in duration or intermittent occurrences totaling 120 minutes during a 24-hour period. Multiple intermittent overflow occurrences in one discharge day are reported as one overflow occurrence and are sampled according to the measurement frequency specified. One composite sample for BOD5 and TSS and one grab sample for *E. coli* bacteria and total residual chlorine each must be collected per overflow occurrence that meets the timeframes specified above. Sampling of an overflow occurrence is only required if the overflow occurrence coincides with the regularly scheduled sampling days (1/Week) of the secondary treated waste stream. Composite samples must be flow proportioned from all intermittent overflows during that 24-hour period.

SPECIAL CONDITIONS

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

Footnotes:

OUTFALL #003A – Blended effluent

13. **BOD & TSS** – For reporting compliance with the daily maximum mass limitation for BOD and TSS when the secondary bypass has been activated, the permittee must mathematically add the monthly average mass of BOD and TSS of the secondary treated waste water (Outfall #001A) to each of the daily BOD and TSS mass values of the primary treated waste water when the bypass is active and report the highest combined mass of BOD and TSS values for each month. Example calculation is as follows:

    BOD mass (monthly average for secondary) + BOD mass (highest for bypass)

    =BOD mass (blended effluent)

B. NARRATIVE EFFLUENT LIMITATIONS

1. The effluent must not contain a visible oil sheen, foam or floating solids at any time which would impair the usages designated for the classification of the receiving waters.

2. The effluent must not contain materials in concentrations or combinations which are hazardous or toxic to aquatic life, or which would impair the usages designated for the classification of the receiving waters.

3. The discharges must not cause visible discoloration or turbidity in the receiving waters which would impair the usages designated for the classification of the receiving waters.

4. Notwithstanding specific conditions of this license 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 and exercises operational oversight over the treatment facility must hold a minimum of a Maine **Grade III** certificate (or higher) or must be a Maine Registered Professional Engineer pursuant to *Sewerage Treatment Operators*, Title 32 M.R.S.A., Sections 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. 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).

E. NOTIFICATION REQUIREMENT

In accordance with Standard Condition D, the permittee must 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 into the system at the time of permit issuance. For the purposes of this section, notice regarding substantial change must 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 caused by the change in the quantity or quality of the waste water to be discharged from the treatment system.

F. AUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with: 1) the permittee's General Application for Waste Discharge Permit, accepted for processing on February 18, 2016; 2) the terms and conditions of this permit; and 3) only from Outfalls #001A. Discharges of waste water from any other point source are not authorized under this permit, and must be reported in accordance with Standard Condition D(1)(f), *Twenty-four hour reporting*, of this permit.

SPECIAL CONDITIONS

G. 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 **3,600 gallons per day** of transported wastes, subject to the following terms and conditions:

1. "Transported wastes" means any liquid non-hazardous waste delivered to a wastewater treatment facility by a truck or other similar conveyance that has different chemical constituents or a greater strength than the influent described on the facility's application for a waste discharge license. Such wastes may include, but are not limited to septage, industrial wastes or other wastes to which chemicals in quantities potentially harmful to the treatment facility or receiving water have been added.

2. The character and handling of all transported wastes received must be consistent with the information and management plans provided in application materials submitted to the Department.

3. At no time shall the addition of transported wastes cause or contribute to effluent quality violations. Transported wastes may not cause an upset of or pass through the treatment process or have any adverse impact on the sludge disposal practices of the wastewater treatment facility. Wastes that contain heavy metals, toxic chemicals, extreme pH, flammable or corrosive materials in concentrations harmful to the treatment operation must be refused. Odors and traffic from the handling of transported wastes may not result in adverse impacts to the surrounding community. If any adverse effects exist, the receipt or introduction of transported wastes into the treatment process or solids handling stream must be suspended until there is no further risk of adverse effects.

4. The permittee must maintain records for each load of transported wastes in a daily log which must include at a minimum the following:

   (a) The date;
   (b) The volume of transported wastes received;
   (c) The source of the transported wastes;
   (d) The person transporting the transported wastes;
   (e) The results of inspections or testing conducted;
   (f) The volumes of transported wastes added to each treatment stream; and
   (g) The information in (a) through (d) for any transported wastes refused for acceptance.

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

SPECIAL CONDITIONS

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

5. The addition of transported wastes into the treatment process or solids handling stream must 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 must be reduced or terminated in order to eliminate the overload condition.

6. Holding tank wastewater from domestic sources to which no chemicals in quantities potentially harmful to the treatment process have been added shall not be recorded as transported wastes but should be reported in the treatment facility's influent flow.

7. During wet weather events, transported wastes may be added to the treatment process or solids handling facilities only in accordance with a current Wet Weather Flow Management Plan approved by the Department that provides for full treatment of transported wastes without adverse impacts.

8. In consultation with the Department, chemical analysis is required prior to receiving transported wastes from new sources that are not of the same nature as wastes previously received. The analysis must be specific to the type of source and designed to identify concentrations of pollutants that may pass through, upset or otherwise interfere with the facility's operation.

9. Access to transported waste receiving facilities may be permitted only during the times specified in the application materials and under the control and supervision of the person responsible for the wastewater treatment facility or his/her designated representative.

10. The authorization in 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 Wastewater Treatment Facilities*, 06-095 CMR 555 (effective March 9, 2009) and the terms and conditions of this permit.

H. WET WEATHER FLOW MANAGEMENT PLAN

The permittee must maintain a current written 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. The plan must include operating procedures for a range of intensities, address solids handling procedures (including septic waste and other high strength wastes if applicable) and provide written operating and maintenance procedures during the events. **The permittee must review their plan annually** and record any necessary changes to keep the plan up to date.

SPECIAL CONDITIONS

I. PUMP STATION BYPASSES

Discharges from emergency bypass structures in pump stations are not authorized by this permit. The permittee must make provisions to monitor the pump station listed below to determine the frequency and quantity (via measurement or estimation) of waste water discharged from the bypass structure.

Outfall Number	Outfall Location	Receiving Water and Class
003	Creamery Court	Mattanawcook Str., Class C

Discharges from the pump station must be reported in accordance with Standard Condition D(1)(f), *Twenty-four hour reporting*, of this permit.

J. OPERATION & MAINTENANCE (O&M) PLAN

This facility must have a current written comprehensive Operation & Maintenance (O&M) Plan. The plan must provide a systematic approach by which the permittee must 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, and within 90 days of any process changes or minor equipment upgrades, the permittee must 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 must be kept on-site at all times and made available to Department and EPA personnel upon request.

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

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

By December 31 of each calendar year *[ICIS Code 75305]*, the permittee must provide the Department with a certification describing any of the following that have occurred since the effective date of this permit. See **Attachment F** of the Fact Sheet for an acceptable certification form to satisfy this Special Condition.

(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

SPECIAL CONDITIONS

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

(c) Changes in industrial manufacturing processes contributing wastewater to the treatment works that may increase the toxicity of the discharge.

(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 reserves the right to establish routine surveillance level testing or other toxicity testing if new information becomes available that indicates the discharge may cause or have a reasonable potential to cause exceedences of ambient water quality criteria/thresholds.

L. MONITORING AND REPORTING

Monitoring results obtained during the previous month must be summarized for each month and reported on separate Discharge Monitoring Report (DMR) forms provided by the Department and postmarked on or before the thirteenth (13th) day of the month or hand-delivered to a Department Regional Office such that the DMR's are received by the Department on or before the fifteenth (15th) day of the month following the completed reporting period.

A signed copy of the DMR and all other reports required herein must be submitted to the following address:

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

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

SPECIAL CONDITIONS

L. MONITORING AND REPORTING

Additional monthly reporting requires submitting an electronic version of, *"DEP-49-CSO Form For Use With Dedicated CSO Primary Clarifiers"* (**Attachment E** of this permit) to the Department inspector at the address above and to the CSO Coordinator at the address below:

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

M. REOPENING OF PERMIT FOR MODIFICATIONS

Upon evaluation of the tests results or monitoring requirements specified in Special Conditions of this permitting action, new site specific information, or any other pertinent test results or information obtained during the term of this permit, the Department may, at anytime and with notice to the permittee, modify this permit to; 1) include effluent limits necessary to control specific pollutants or whole effluent toxicity where there is a reasonable potential that the effluent may cause water quality criteria to be exceeded, (2) require additional effluent and or ambient water quality monitoring if results on file are inconclusive; or (3) change monitoring requirements or limitations based on new information.

N. 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 _____

Pipe # _____

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

SAMPLE COLLECTION INFORMATION

Sampling Date: ___ ___ _____ (mm dd yy) Sampling time: _____ AM/PM

Sampling Location:

Weather Conditions: _____

Please describe any unusual conditions with the influent or at the facility during or preceding the time of sample collection:

Optional test - not required but recommended where possible to allow for the most meaningful evaluation of mercury results:

Suspended Solids _____ mg/L Sample type: _____ Grab (recommended) or _____ Composite

ANALYTICAL RESULT FOR EFFLUENT MERCURY

Name of Laboratory: _____

Date of analysis: _____ **Result:** _____ **ng/L (PPT)**

Please Enter Effluent Limits for your facility

Effluent Limits: **Average =** _____ ng/L **Maximum =** _____ ng/L

Please attach any remarks or comments from the laboratory that may have a bearing on the results or their interpretation. If duplicate samples were taken at the same time please report the average.

CERTIFICATION

I certifiy 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

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 _____ (mm/dd/yy) Date Tested _____ (mm/dd/yy)

Chlorinated? _____ Dechlorinated? _____

Results **% effluent**

	water flea	trout
A-NOEL		
C-NOEL		

Effluent Limitations

A-NOEL	
C-NOEL	

Data summary

	water flea			trout		
	% survival		no. young	% survival		final weight (mg)
QC standard	**A>90**	**C>80**	**>15/female**	**A>90**	**C>80**	**> 2% increase**
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 C

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 # _____ Pipe # _____ Facility Representative Signature _____
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)[1] _____ Flow Avg. for Month (MGD)[2] _____

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.

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

Maine Department of Environmental Protection
WET and Chem
This form is for reporting laboratory data and facility information. Official compliance reviews will be done by DEP.

	PRIORITY POLLUTANTS [4]	Effluent Limits					Reporting Limit Check	Possible Exceedence [7]		
		Reporting Limit	Acute[6]	Chronic[6]	Health[6]			Acute	Chronic	Health
M	ANTIMONY	5								
M	BERYLLIUM	2								
M	MERCURY (5)	0.2								
M	SELENIUM	5								
M	THALLIUM	4								
A	2,4,6-TRICHLOROPHENOL	5								
A	2,4-DICHLOROPHENOL	5								
A	2,4-DIMETHYLPHENOL	5								
A	2,4-DINITROPHENOL	45								
A	2-CHLOROPHENOL	5								
A	2-NITROPHENOL	5								
A	4,6 DINITRO-O-CRESOL (2-Methyl-4,6-dinitrophenol)	25								
A	4-NITROPHENOL	20								
A	P-CHLORO-M-CRESOL (3-methyl-4-chlorophenol)+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.

BN	FLUORENE	5									
BN	HEXACHLOROBENZENE	5									
BN	HEXACHLOROBUTADIENE	5									
BN	HEXACHLOROCYCLOPENTADIENE	10									
BN	HEXACHLOROETHANE	5									
BN	INDENO(1,2,3-CD)PYRENE	5									
BN	ISOPHORONE	5									
BN	N-NITROSODI-N-PROPYLAMINE	10									
BN	N-NITROSODIMETHYLAMINE	5									
BN	N-NITROSODIPHENYLAMINE	5									
BN	NAPHTHALENE	5									
BN	NITROBENZENE	5									
BN	PHENANTHRENE	5									
BN	PYRENE	5									
P	4,4'-DDD	0.05									
P	4,4'-DDE	0.05									
P	4,4'-DDT	0.05									
P	A-BHC	0.2									
P	A-ENDOSULFAN	0.05									
P	ALDRIN	0.15									
P	B-BHC	0.05									
P	B-ENDOSULFAN	0.05									
P	CHLORDANE	0.1									
P	D-BHC	0.05									
P	DIELDRIN	0.05									
P	ENDOSULFAN SULFATE	0.1									
P	ENDRIN	0.05									
P	ENDRIN ALDEHYDE	0.05									
P	G-BHC	0.15									
P	HEPTACHLOR	0.15									
P	HEPTACHLOR EPOXIDE	0.1									
P	PCB-1016	0.3									
P	PCB-1221	0.3									
P	PCB-1232	0.3									
P	PCB-1242	0.3									
P	PCB-1248	0.3									
P	PCB-1254	0.3									
P	PCB-1260	0.2									
P	TOXAPHENE	1									
V	1,1,1-TRICHLOROETHANE	5									
V	1,1,2,2-TETRACHLOROETHANE	7									
V	1,1,2-TRICHLOROETHANE	5									
V	1,1-DICHLOROETHANE	5									
V	1,1-DICHLOROETHYLENE (1,1-dichloroethene)	3									
V	1,2-DICHLOROETHANE	3									
V	1,2-DICHLOROPROPANE	6									
V	1,2-TRANS-DICHLOROETHYLENE (1,2-trans-dichloroethene)	5									
V	1,3-DICHLOROPROPYLENE (1,3-dichloropropene)	5									
V	2-CHLOROETHYLVINYL ETHER	20									
V	ACROLEIN	NA									
V	ACRYLONITRILE	NA									
V	BENZENE	5									

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									
V	TETRACHLOROETHYLENE (Perchloroethylene or Tetrachloroethene)	5									
V	TOLUENE	5									
V	TRICHLOROETHYLENE (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 D

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° ± 1°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 E

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP-49-CSO FORM FOR USE WITH DEDICATED CSO PRIMARY CLARIFIERS

Doc Num: DEPLW0463

WET WEATHER BYPASS OPERATIONS REPORT FOR _____ State License No. _____ MEPDES/NPDES Permit No. _____ SIGNED BY: _____ DATE: _____ DEP-49-CSO-Dedicated.xls (rev. 12/12/01)

DATE	SECONDARY BYPASS FLOW DATA							CI RESIDUALS				BACTERIA						pH	BOD5					TSS					WEATHER				COMMENTS
MONTH ____ YEAR ____	TREATED PRIMARY FLOW BYPASSING SECONDARY	SECONDARY BYPASS CLARIFIER SURFACE AREA	BYPASS DURATION	BYPASS CLARIFIER SURFACE LOADING RATE	SECONDARY FLOW TREATED	TRUE CSO BYPASS AROUND PRIMARY	MAX CHLORINE DOSE	CALCULATED RESIDUAL IN PRIMARY EFFLUENT	CALCULATED RESIDUAL IN SECONDARY EFFLUENT	CALCULATED BLENDED EFFLUENT	E.COLI/FECAL IN PRIMARY EFFLUENT	E.COLI/FECAL IN PRIMARY EFFLUENT	E.COLI/FECAL IN PRIMARY EFFLUENT	E.COLI/FECAL IN PRIMARY EFFLUENT	E.COLI/FECAL IN SECONDARY EFFLUENT	CALCULATED BLENDED EFFLUENT		SETTLEABLE SOLIDS IN PRIMARY EFFLUENT	PRIMARY INFLUENT	PRIMARY EFFLUENT	PERCENT REMOVAL	SECONDARY EFFLUENT	CALCULATED BLENDED EFFLUENT	PRIMARY EFFLUENT	PRIMARY EFFLUENT	PERCENT REMOVAL	SECONDARY EFFLUENT	CALCULATED BLENDED EFFLUENT	CONDITIONS	TEMPERATURE	PRECIPITATION	STORM DURATION	
	MG	SF	hrs	Gpd/SF	MG	MG	mg/L	mg/L	mg/L	mg/L	#/100	#/100	#/100	#/100	#/100			ml/L	mg/L	mg/L	%	mg/L	mg/L	mg/L	mg/L	%	mg/L	mg/L		F	In	Hrs	
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Number of discharge days

Avr

Max

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

CONTENTS

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).

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 if 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 MAINTENACE 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

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.

(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.

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.

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

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).

(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.

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 contaminates 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.

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.

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

February 18, 2016

PERMIT NUMBER: **ME01010796**
LICENSE NUMBER: **W001479-6D-G-R**

NAME AND ADDRESS OF APPLICANT:

LINCOLN SANITARY DISTRICT
P.O. Box 56
Lincoln, Maine 04457

COUNTY: **Penobscot County**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

56 Haynes Street
Lincoln, Maine 04457

RECEIVING WATER/CLASSIFICATION: **Penobscot River/Class B**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **Mr. Darold Wooley, Supt.**
(207) 794-8244
lincolnsanitarydistrict@myfairpoint.net

1. APPLICATION SUMMARY

a. Application: The Lincoln Sanitary District (LSD/District/permittee) has submitted a timely and complete application to the Department for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0101796/Maine Waste Discharge License (WDL) #W001479-5L-E-R (permit hereinafter) which was issued by the Department on May 25, 2011, for a five-year term. The 5/25/11 permit authorized the discharge of up to a monthly average flow of 1.07 million gallons per day (MGD) of secondary treated sanitary waste waters and allowed the use of a bypass of secondary treatment when the influent to the waste water treatment facility exceeded a peak hourly flow rate of 1,944 gallons per minute (2.8 MGD). The discharge from the LSD facility is to the Penobscot River, Class B, in Lincoln, Maine. See **Attachment A** of this Fact Sheet for a location map.

1. APPLICATION SUMMARY (cont'd)

b. Source Description: The waste water treatment facility receives sanitary waste water flows from a population of approximately 4,200 residential and commercial users within the District's boundaries in the Town of Lincoln. The waste water treatment facility is currently licensed to accept up to 3,600 gpd of septage. The LSD has an up-to-date septage management plan for the facility required by *Standards for the Addition of Transported Wastes to Wastewater Treatment* Facilities, 06-096 CMR 555 (effective March 9, 2009), that has been reviewed and approved by the Department.

The LSD owns and maintains a sewer collection system that is approximately 17.4 miles in length and is approximately 5% combined and 95% separated. The collection system has nine (9) pump stations, 8 of the 9 pump stations have emergency power provisions and have radio SCADA communication to the waste water treatment facility. Six (6) of the nine pump stations are hard-wired to the waste water treatment facility. There are no CSOs associated with the collection system but the Creamery Court pump station has an emergency bypass port and must be monitored for bypass occurrences by this permitting action. See Special Condition I, *Pump Station Bypasses*, of this permit.

c. Waste Water Treatment: The LSD waste water treatment facility commenced operations in April of 1982 and provides a secondary level of treatment via a mechanical bar rack, two aerated grit chambers, two primary clarifiers, each measuring 40 feet in diameter and 10 feet deep, four mechanical driven rotating biological contactors (RBCs) with coarse bubble diffused aeration and a total media surface area of 488,000 square feet and two circular final clarifiers each measuring 40 feet in diameter and 10 feet deep. The effluent is seasonally disinfected with sodium hypochlorite in a chlorine contact chamber measuring 55 feet by 10 feet providing approximately 44 minutes of detention at 1.07 MGD. Flow is measured by an ultrasonic flow meter prior to being discharged to the east bank of the Penobscot River via Outfall #001A through an iron pipe measuring 18 inches in diameter and at a depth of 8.5 feet below mean low water. The waste water treatment facility is designed to provide secondary treatment for an average daily flow of 1.07 MGD and a peak hourly capacity of 2.80 MGD.

During wet weather events (greater than the design flows cited above) an overflow structure at the headworks of the facility diverts the excess flow to a treatment train where the waste water receives treatment via a bar rack, a vortex de-gritter, a primary clarifier and disinfection with sodium hypochlorite if necessary, prior to combining with the secondary treated waste water for discharge to the Penobscot River via Outfall #001A. This treatment process was constructed in response to EPA's 12/16/98 Administrative Order and completed in February 2000. The LSD maintains a current written Wet Weather Flow Management Plan which has reviewed and approved by the Department. See **Attachment B** of this Fact Sheet for a schematic of the waste water treatment process.

1. APPLICATION SUMMARY (cont'd)

Bio-solids generated at the facility are dewatered via a two screw presses and composted on-site on a year-round basis. On average, the facility generates approximately 8 dry tons of bio-solids per month.

2. PERMIT SUMMARY

a. Terms & conditions: This permitting action is carrying forward all the terms and conditions of with the 5/25/11 permit except that this permit is:

1. Establishing daily maximum technology based biochemical oxygen demand (BOD) and total suspended solids (TSS) limits for the blended effluent.

2. Reducing the monitoring frequencies for BOD, TSS and *E. coli* bacteria from 2/Week to 1/Week and reducing the monitoring frequency for settleable from 5/Week to 3/Week based on a statistical evaluation conducted on the most current three years of monitoring data in accordance with the U.S. Environmental Protection Agency (EPA) and Department guidance.

3. Incorporating the numeric average and maximum concentration limits for total mercury that were originally established for the LSD facility in a permit modification issued on May 23, 2000.

4. Eliminating the requirements to report BOD and TSS percent removal rates and surface loading rates for Outfall #002A (Bypass of secondary treatment) as the Department has determined the data collected to date has little value in assessing the operation of primary treated waste water during a bypass event.

5. Eliminating the numeric daily maximum technology based limitations for total residual chlorine and *E. coli* bacteria for Outfall 002A as limiting an internal waste stream is not necessary given compliance with limitations in the permit is determined after the primary treated and secondary treated waste streams are blended.

6. Eliminating the monthly average and daily maximum water quality based mass and concentration limits for total copper as the most current 60 months of chemical specific data submitted to the Department indicates the LSD discharge no longer has a reasonable potential to exceed the acute or chronic ambient water quality criteria for total copper.

7. Establishing a tiered flow regime for the trigger flows at which time the facility is allowed to bypass secondary treatment.

2. PERMIT SUMMARY (cont'd)

b. History: The most current relevant regulatory actions for the LSD include the following:

April 30, 1997 – The Department issued WDL #W001479-46-B-R for a five-year term.

December 16, 1998 – The EPA and Department approved the District's December 11, 1998, CSO Abatement Implementation Schedule and CSO Abatement Plan.

December 17, 1998 – The EPA issued an Administrative Compliance Order (Docket No. 99-02) to Lincoln Sanitary District. The Administrative Order (AO) required the District to implement improvements/upgrades at the waste water treatment facility and CSO discharge elimination measures in accordance with the Master Plan and implementation schedule, both of which were approved by the EPA and the Department on 12/16/98.

March 31, 2000 – The EPA issued NPDES permit #ME0101796 for a five-year term. It is noted the NPDES permit contained reporting requirements for an internal wet weather waste stream that receives only primary treatment and disinfection, if necessary, before being combined with secondary treated and disinfected waste waters and discharge to the Penobscot River.

May 23, 2000 – The Department administratively modified the 4/30/97 WDL for the LSD facility by establishing interim monthly average and daily maximum concentration limits for mercury.

January 12, 2001 – The EPA granted the State of Maine authorization to administer the NPDES permitting program except for discharges on the main stem of the Penobscot River north of Indian Island in Old Town, Maine.

May 22, 2002 – The Department administratively modified the 4/30/97 WDL by waiving surveillance level (annual) whole effluent toxicity (WET) and chemical specific testing as the facility met the criteria established for the waiver pursuant to Department regulation Chapter 530.5 and associated program protocols.

March 31, 2003 - The Department issued WDL #W001479-5L-C-R for a five-year term.

October 31, 2003 - The State of Maine received authorization from the US EPA to administer the NPDES permitting program on the main stem of the Penobscot River north of Indian Island in Old Town, Maine.

December 16, 2003 – The Department modified the 3/31/03 WDL by incorporating the terms and conditions of the MEPDES permit program. The permit was issued for a five-year term.

April 20, 2006 - The Department issued a modification of the 12/16/03 MEPDES permit by incorporating WET and chemical specific testing requirements pursuant to 06-096 CMR 530.

2. PERMIT SUMMARY (cont'd)

May 25, 2011 – The Department issued combination MEPDES permit #ME0101796/WDL #W001479-5L-E-R for a five-year term.

February 6, 2012 – The Department issued a minor revision of the 5/25/11 permit for reduction of mercury testing frequency from 4/Year to 1/Year based on Certain deposits and discharges prohibited, 38 M.R.S.A., § 420 sub-§1-B(F).

February 12, 2016 – The LSD submitted a timely and complete application to the Department for renewal of the MEPDES permit.

3. CONDITIONS OF PERMITS

Conditions of Licenses, 38 M.R.S.A. Section 414-A, requires that the effluent limitations prescribed for discharges, including, but not limited to effluent toxicity, require application of best practicable treatment (BPT), be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System. In addition, *Certain Deposits and Discharges Prohibited,* 38 M.R.S.A. Section 420 and *Surface Water Toxics Control Program*, 06-096 CMR 530, require the regulation of toxic substances not to exceed levels set forth in *Surface Water Quality Criteria for Toxic Pollutants*, 06-096 CMR 584, 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 STANDARDS

Maine law, 38 M.R.S.A., Section 467(7)(A)(3) indicates the Penobscot River main stem, from the confluence of Cambolasse Stream to the West Enfield Dam, is classified as a Class B waterway. Maine law, 38 M.R.S.A., Section 465(3) describes standards for classification of Class B waters as follows:

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

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

5. RECEIVING WATER CONDITIONS (cont'd)

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.

The State *of Maine 2012 Integrated Water Quality Monitoring and Assessment Report*, prepared by the Department pursuant to Sections 303(d) and 305(b) of the Federal Water Pollution Control Act, lists a 19.08-mile of the main stem of the Penobscot River from Cambolasse Stream to the Piscataquis River as (ADB Assessment Unit ID #ME0102000502_231R). This assessment unit is listed in the following categories of the 305(b) report.

"*Category 4A: Rivers and Streams With Impaired Use, TMDL Completed,* Waters Impaired by Atmospheric Deposition of Mercury. The report states "All freshwaters formerly listed in Category 5-C were moved to Category 4-A in the 2008 cycle due to US EPA approval of a Regional Mercury TMDL in December 2007. 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 fish to know whether the mercury level exceeds the action level, the Maine Department of Health and 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."

In addition, pursuant to Maine law, 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."* The Department has established interim monthly average and daily maximum mercury concentration limits for this facility. See the discussion on compliance in section 6(i) of this Fact Sheet.

Category 4-B: Rivers and Streams Impaired by Pollutants – Pollution Control Requirements Reasonably Expected To Result in Attainment. The report indicates Assessment Unit ID #ME0102000502_231R, dissolved oxygen and aquatic life use impairments are due to nutrients/eutrophication. In the summers of 1997, 2001 and 2007, the Department conducted ambient water quality sampling on a103-mile segment of the Penobscot River from Millinocket to Bucksport. Reports entitled, *Penobscot River Modeling Report, Final, June 2000, Penobscot River Data Report May 2002*, and *Penobscot River Modeling Report Draft, March 2003*, prepared by the Department, indicate there are sections of non-attainment of dissolved oxygen standards as a result of algal blooms in portions of the Class B sections of the river. In addition, the Department has issued a report entitled, *Penobscot River Phosphorus Waste Load Allocation, May 2011* stating seasonal mass based limitations are necessary for the four industrial dischargers on the river and monitoring for total phosphorus for five municipal waste water treatment facilities. The LSD facility was not required to monitor for phosphorus as the Department made a best professional judgment at that time that the LSD facility was an insignificant contributor of nutrient loading to the river.

5. RECEIVING WATER CONDITIONS (cont'd)

Since issuance of the May 25, 2011 permit for LSD, all four industrial facilities have ceased production of pulp and or paper drastically reducing the nutrient loading to the river. Ambient water quality monitoring conducted by the Department during the summers of 2011 – 2015 indicate Assessment Unit ID #ME0102000502_231R is now in attainment with Class B water quality standards.

Assessment Unit ID #ME0102000502_231R is also listed in Category 4-B as being impaired by dioxin and is expected to attain water quality standards in 2020. However, monitoring in 2003 and 2055 shows no difference in dioxin levels above and below the former Lincoln Paper & Tissue facility.

Assessment Unit ID #ME0102000502_231R is listed in *Category 5-D: Rivers and Streams Impaired by Legacy Pollutants*. The impairment is the presence of legacy polychlorinated bi-phenols (PCBs). The Department is not aware of any information nor does it suspect the LSD facility is discharging PCBS and is not causing or contributing this impairment.

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

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

OUTFALL #001 - Secondary Treated Effluent:

a. Flow: The monthly average flow limitation of 1.07 MGD in the previous permitting action is being carried forward in this permitting action and is representative of the monthly average design flow for the waste water treatment facility. This permitting action is carrying forward a "Report" only requirement for the daily maximum flow in order to monitor flows associated with wet weather events.

A summary of the monthly Discharge Monitoring Report (DMR) data for the period January 2013 – October 2015 (n=34) indicates the facility has discharged effluent flows as follows:

Flow (n=34)

Value	Limit (MGD)	Range (MGD)	Mean (MGD)
Monthly Average	1.07	0.23 – 1.09	0.56
Daily Maximum	Report	0.51 – 1.68	1.1

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

OUTFALL #001 - Secondary Treated Effluent:

b. Dilution Factors - The Department established applicable dilution factors for the discharge in accordance with freshwater protocols established in *Surface Water Toxics Control Program*, 06-096 CMR 530 (effective October 9, 2005). With a permitted flow limit of 1.07 MGD the dilution factors are as follows:

Modified Acute[(1)] = 676 cfs $\Rightarrow \frac{(676 \text{ cfs})(0.6464^{(2)}) + (1.07 \text{ MGD})}{(1.07 \text{ MGD})} = 408{:}1$

Acute: 1Q10 = 2,703 cfs $\Rightarrow \frac{(2{,}703 \text{ cfs})(0.6464) + (1.07 \text{ MGD})}{(1.07 \text{ MGD})} = 1{,}634{:}1$

Chronic: 7Q10 =2,822 cfs $\Rightarrow \frac{(2{,}882 \text{ cfs})(0.6464) + (1.07 \text{ MGD})}{(1.07 \text{ MGD})} = 1{,}703{:}1$

Harmonic Mean: = 5,678 cfs $\Rightarrow \frac{(5{,}678 \text{ cfs})(0.6464) + (1.07 \text{ MGD})}{(1.07 \text{ MGD})} = 3{,}431{:}1$

Footnotes:

(1) 06-096 CMR 530 (4)(B)(1) states that analyses using numeric 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. The 1Q10 is the lowest one day flow over a ten-year recurrence interval. The regulation goes on to say that where it can be demonstrated that a discharge achieves rapid and complete mixing with the receiving water by way of an efficient diffuser or other effective method, analyses may use a greater proportion of the stream design, up to including all of it. The Department has made the determination that the discharge does not receive rapid and complete mixing with the receiving water, therefore the default stream flow of ¼ of the 1Q10 is applicable in acute statistical evaluations pursuant to 06-096 CMR 530.

(2) Conversion factor, cubic feet per second to million gallons per day.

c. Biochemical Oxygen Demand (BOD5) & Total Suspended Solids (TSS): The previous permit contained monthly and weekly average BOD5 and TSS best practicable treatment (BPT) concentration limits of 30 mg/L and 45 mg/L respectively, which were based on secondary treatment requirements in 06-096 CMR 525(3)(III). The maximum daily BOD5 and TSS concentration limits of 50 mg/L were based on a long standing Department best professional judgment of BPT. All three concentration limits are being carried forward in this permitting action.

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

OUTFALL #001 - Secondary Treated Effluent:

As for mass limitations, the previous permitting action contained monthly average and weekly average limitations based on a monthly average limit of 1.07 MGD that are being carried forward in this permitting action. The limitations were calculated as follows:

Monthly average: (1.07 MGD)(8.34)(30 mg/L) = 268 lbs/day
Weekly average: (1.07 MGD)(8.34)(45 mg/L) = 402 lbs/day

No daily maximum mass limitations (report only) for BOD5 or TSS were established in the previous permit as doing so may discourage the LSD from treating as much waste water through the secondary treatment system during wet weather events.

The review of the DMRs submitted to the Department for the period January 2013 – October 2015 indicates values have been reported as follows:

BOD_5 mass (n=34)

Value	Limit (lbs./day)	Range (lbs./day)	Mean (lbs./day)
Monthly Average	268	6 - 122	32
Weekly Average	402	7 - 179	58
Daily Maximum	Report	8 - 250	91

BOD_5 concentration (n=34)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	30	3 - 13	6
Weekly Average	45	3 – 17	8
Daily Maximum	50	4 - 38	11

TSS mass (n=34)

Value	Limit (lbs./day)	Range (lbs./day)	Mean (lbs./day)
Monthly Average	268	6 - 99	31
Weekly Average	402	13 - 184	52
Daily Maximum	Report	15 - 247	89

TSS concentration (n=34)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	30	3 - 10	6
Weekly Average	45	4 - 14	8
Daily Maximum	50	16 - 33	11

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

OUTFALL #001 – Secondary treated waste water

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 34 months of data (January 2013 – October 2015). A review of the mass monitoring data for BOD & TSS indicates the ratios (expressed in percent) of the long term effluent average to the monthly average limits can be calculated as 11% for both BOD and TSS. According to Table I of the EPA Guidance and Department Guidance, a 2/Week monitoring requirement can be reduced to 1/Week. Therefore, this permitting action is reducing the monitoring frequencies for BOD and TSS from 2/Week to 1/Week.

Should the facility experience operational problems resulting in significant non-compliance, or subsequent enforcement, then the Department reserves the right to reopen the permit and revoke any or all of the testing reductions that have been granted.

This permitting action is carrying forward a monthly average percent removal requirement of 85 percent for BOD_5 and TSS as required pursuant to 06-096 CMR 525(3)(III)(a&b)(3) for all flows receiving secondary treatment. A requirement to achieve 85% removal at all times at facilities with combined sewers is not attainable due to the complexity of the sewer systems and the highly variable influent concentration. The Department is carrying forward a waiver on the percent removal requirement when the monthly average influent strength is less than 200 mg/L.

A reviewed of the monthly DMRs data for the period January 2013 – October 2015 indicates values have been reported as follows:

BOD % Removal (DMRs=29)

Value	Limit (%)	Range (%)	Average (%)
Monthly Average	85	88 - 99	95

TSS % Removal (DMRs=32)

Value	Limit (%)	Range (%)	Average (%)
Monthly Average	85	85 - 98	95

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

OUTFALL #001 - Secondary Treated Effluent:

d. Settleable Solids: The previous permitting action contained a daily maximum concentration limit of 0.3 mL/L for settleable solids and is considered by the Department to be a best professional judgment of BPT for secondary treated waste waters.

A reviewed of the monthly DMRs data for the period January 2013 – October 2015 indicates values have been reported as follows:

Settleable solids concentration

Value	Limit (ml/L)	Range (ml/L)	Average (ml/L)
Daily Maximum	0.3	<0.10 – 0.30	0.11

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 limits can be calculated as 37% for settleable solids. 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 settleable solids to 3/Week.

e. *E. coli* bacteria: The previous permitting action contained seasonal (May 15 – September 30) monthly average and daily maximum *E. coli* bacterial limits of 64 colonies/100 mL and 427 colonies/100 mL, respectively along with a 2/week monitoring requirement. The limits were based on the State of Maine Water Classification Program as established in Maine law, 38 M.R.S.A, §465(2) for Class B waterbodies. However, the Department has developed an alternative approach to calculating daily maximum limits that considers the dilution of the receiving water for freshwater dischargers. Based on this approach, the Department has determined that any facility in Class B waters with a dilution of at least 1.1:1 would carry forward their existing end-of-pipe daily maximum *E. coli* limitation of 427 colonies/100mL. This permitting action is carrying forward monthly average and daily maximum BPT limits of 64 colonies/100 mL and 427 colonies/100 mL, respectively.

A review of the DMR data for the period May 2013 – September 2015 indicates the monthly average and daily maximum values have been reported as follows:

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

Value	Limit (#col/100 mL)	Range (#col/100 ml)	Arith. Mean (#col/100 mL)
Monthly Average	64	2 - 13	5
Daily Maximum	427	4 - 265	36

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

OUTFALL #001 - Secondary Treated Effluent:

A review of the monitoring data for *E. coli* bacteria indicates the ratios (expressed in percent) of the long term effluent average to the monthly average limits can be calculated as 8%. According to Table I of the EPA Guidance and Department Guidance, a 2/Week monitoring requirement can be reduced to 1/Week. Therefore, this permitting action is reducing the monitoring frequency for E. coli bacteria to 1/Week.

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

Parameter	Acute Criteria	Chronic Criteria	Acute Dilution	Chronic Dilution	Acute Limit	Chronic Limit
Chlorine	19 ug/L	11 ug/L	408:1	1,703:1	7.8 mg/L	19 mg/L

Example calculation, Acute: 0.019 mg/L (408) = 7.8 mg/L

In the case of the LSD facility, the calculated acute water quality based threshold is higher than 1.0 mg/l; therefore, the BPT limit of 1.0 mg/L is imposed as a daily maximum limit.

A review of the DMR data for the period May 2013 – September 2015 indicates the daily maximum concentration values have been reported as follows:

Total Residual Chlorine

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Daily Maximum	1.0	0.4 – 1.0	0.7

A review of the monitoring data for total residual chlorine indicates the ratios (expressed in percent) of the long term effluent average to the monthly average limits can be calculated as 70%. According to Table I of the EPA Guidance and Department Guidance, a 1/Day monitoring requirement cannot be reduced. Therefore, this permitting action is carrying forward the monitoring frequency of 1/Day for total residual chlorine.

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

OUTFALL #001 - Secondary Treated Effluent:

g. pH Range: This permitting action is carrying forward the BPT-based pH daily maximum

A review of the DMR data for the period January 2013 – October 2015 indicates the daily pH values have been reported as follows:

pH (n=34)

Value	Limit (SU)	Minimum (SU)	Maximum (SU)
Range	6.0 – 9.0	6.14	7.25

h. Whole Effluent Toxicity (WET) and Chemical Specific Testing: 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. 06-096 CMR 530 and 06-096 CMR 584 set forth ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters. WET, priority pollutant and analytical chemistry testing as required by 06-096 CMR 530 are included in this permit in order to fully characterize the effluent. This permit also provides for reconsideration of effluent limits and monitoring schedules after evaluation of toxicity testing results. The monitoring schedule includes consideration of results currently on file, the nature of the wastewater, existing treatment and receiving water characteristics.

WET monitoring is required to assess and protect against impacts upon water quality and designated uses caused by the aggregate effect of the discharge on specific aquatic organisms. Acute and chronic WET tests are performed on invertebrate and vertebrate species. Priority pollutant and analytical chemistry testing are required to assess the levels of individual toxic pollutants in the discharge, comparing each pollutant to acute, chronic, and human health AWQC as established in 06-096 CMR 584.

06-096 CMR 530 establishes four categories of testing requirements based predominately on the chronic dilution factor. The categories are as follows:

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

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

OUTFALL #001 - Secondary Treated Effluent:

h. Whole Effluent Toxicity (WET) and Chemical Specific Testing (cont'd):

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

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

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

Surveillance level testing – Beginning upon permit issuance and lasting through 24 months prior to permit expiration (Years 1, 2 & 3 of the term of the permit) and commencing again 12 months prior to permit expiration (Year 5 of the term of the permit).

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

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

06-096 CMR 530 (3)(b) states in part, *Dischargers in Levels III and IV may be waived from conducting surveillance testing for individual WET species or chemicals provided that testing in the preceding 60 months does not indicate any reasonable potential for exceedence as calculated pursuant to section 3(E).*

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

OUTFALL #001 - Secondary Treated Effluent:

h. Whole Effluent Toxicity (WET) and Chemical Specific Testing (cont'd):

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

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

WET evaluation

On 2/18/16, the Department conducted a statistical evaluation on the most recent 60 months of WET data that indicates the discharge does not have a reasonable potential (RP) to exceed the acute or chronic critical ambient water quality criteria (AWQC) thresholds of 0.24% and 0.06%, respectively (mathematical inverses of the modified acute dilution factor of 408:1 and the chronic dilution factor of 1,706:1). As a result, this permit is not establishing WET limitations.

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

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

OUTFALL #001 - Secondary Treated Effluent:

h. Whole Effluent Toxicity (WET) and Chemical Specific Testing (cont'd):

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

Chemical evaluation

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

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

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

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

OUUTFALL #001 - Secondary Treated Effluent:

h. Whole Effluent Toxicity (WET) and Chemical Specific Testing (cont'd):

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

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

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."

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

OUUTFALL #001 - Secondary Treated Effluent:

h. Whole Effluent Toxicity (WET) and Chemical Specific Testing (cont'd):

See **Attachment E** of this Fact Sheet for Department guidance that establishes protocols for establishing waste load allocations. The guidance states that the most protective of water quality becomes the facility's allocation. According to the 12/7/15 statistical evaluation (Report ID #813), there are no test results for any parameter that exceed or have a reasonable potential to exceed applicable acute, chronic or human health AWQC. Therefore, this permitting action is carrying forward the waiver for surveillance level reporting and monitoring frequency for analytical chemistry and priority pollutant testing.

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 default screening level analytical chemistry testing at 1/Quarter and priority pollutant testing of 1/Year.

As with reduced WET testing, the permittee must file an annual certification with the Department pursuant to Special Condition K, *06-096 CMR 530 (2)(D)(4) Statement For Reduced/Waived Toxics Testing.*

i. Mercury: On May 23, 2000, pursuant to *Certain deposits and discharges prohibited*, 38 M.R.S.A. § 420, *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 #W001479-5L-D-M by establishing interim monthly average and daily maximum effluent concentration limits of 17.3 parts per trillion (ppt) and 26.0 ppt, respectively, and a minimum monitoring frequency requirement of four (4) tests per year for mercury. It is noted the limitations were not incorporated into Special Condition A, *Effluent Limitations And Monitoring Requirements*, of the previous permit as limitations and monitoring frequencies were regulated separately through 38 M.R.S.A.§ 413 and 06-096 CMR 519. However, the interim limitations were in effect and enforceable and any modifications to the limits and or monitoring requirements were to be formalized outside of the permit. The limits are being incorporated into this permitting action.

38 M.R.S.A. § 420(1-B)(B)(1) provides 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. A review of the Department's data base for the period January 2011 through March 2015 indicates the permittee has been in compliance with the interim limits for mercury as results have been reported as follows:

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

OUTFALL #001 - Secondary Treated Effluent:

Mercury (n=10)

Value	Limit (ng/L)	Range (ng/L)	Mean (ng/L)
Average	17.3	1.30 – 2.80	2.1
Daily Maximum	26.0		

Pursuant to 38 M.R.S.A. §420(1-B)(F), the Department issued a minor revision on February 6, 2012, revising the minimum monitoring frequency requirement from four times per year to once per year given the permittee has maintained at least 5 years of mercury testing data. In fact, the permittee has been monitoring mercury since June 2000 or 11 years. Pursuant to 38 M.R.S.A. §420(1-B)(F), this permitting action is carrying forward the 1/Year monitoring frequency established in the February 6, 2012, permit modification.

j. 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.[1] 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.[2]

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

[1] *Waste Discharge License Conditions,* 06-096 CMR 523(5)(d)(1)(i) (effective date January 12, 2001)
[2] 06-096 CMR 523(5)(d)(1)(vi)(A)

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

OUTFALL #001 - Secondary Treated Effluent:

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 Penobscot River just upstream of the LSD discharge, the Department utilized a background concentration of 0.017 mg/L. This value was determined to be representative of background conditions in reported entitled, Penobscot River Waste Load Allocation, May 2011, issued by the Department. In the absence of any new data since issuance of the report, this Fact Sheet is carrying forward 0.017 mg/L as a background value in reasonable potential calculations.

As for effluent concentration sampling this Fact Sheet is utilizing a mean effluent concentration of 2.4 mg/L based on data collected in 2007 as part of a comprehensive 103-mile water quality survey ranging from Millinocket to Bucksport.

Using the following calculation and criteria, the LSD facility does not have a reasonable potential to exceed the EPA's Gold Book value of 0.100 mg/L for phosphorus or a reasonable potential to exceed the Department's 06-096 CMR Chapter 583 draft criteria of 0.033 mg/L for Class C waters. The calculations are as follows:

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

Qe = effluent flow i.e. facility design flow	=	1.07 MGD
Ce = effluent pollutant concentration	=	2.4 mg/L
Qs = 7Q10 flow of receiving water	=	1,824 MGD (2,822 cfs)
Cs = upstream concentration	=	0.017 mg/L
Qr = receiving water flow	=	1,826 MGD
Cr = receiving water concentration	=	?

$$Cr = \frac{(1.07\ MGD \times 2.4\ mg/L) + (1{,}824\ MGD \times 0.017\ mg/L)}{1{,}826\ MGD} = 0.018\ mg/L$$

Cr = 0.018 mg/L < 0.100 mg/L⇒ **No Reasonable Potential**
Cr = 0.018 mg/L < 0.033 mg/L⇒ **No Reasonable Potential**

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

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

OUTFALL #001 - Secondary Treated Effluent:

j. Transported Wastes: The previous permitting action authorized the permittee to accept and treat up to 3,600 gpd of transported wastes. *Standards For The Addition of Transported Wastes to Wastewater Treatment Facilities*, 06-096 CMR 555 (effective March 9, 2009), 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. With a design capacity of 1.07 MGD, 3,600 gpd only represents 0.3% of said capacity. The Department has reviewed and approved the permittee's most current Septage Management Plan and determined that under normal operating conditions, the addition of 3,600 gpd of transported waste to the facility will not cause or contribute to upset conditions of the treatment process.

CSO Related Bypass of Secondary Treatment

OUTFALL #002A (Internal waste stream)

During wet weather events, flows up to 1,944 gpm (2.8 MGD) pass through the secondary treatment train of the treatment facility. When the instantaneous flow rate at the overflow structure (prior to any treatment) exceeds 2.8 MGD the excess flow is conveyed to a vortex degritter for preliminary treatment, then to a dedicated primary clarifier for primary treatment and then to a dedicated storm flow chlorine contact chamber for disinfection. After disinfection, the primary treated flow (Outfall #002A) is combined with the secondary treated flow (from the secondary treatment disinfection chamber) and this –blended flow- (Outfall #003A) discharges to the river via the physical Outfall #001A.

A summary of the DMR results for Outfall #002A for the period January 2013 – September 2015, are as follows:

k. Flow: This permitting action is carrying forward the monthly total and daily maximum flow reporting requirements.

Flow (DMRs = 13)

Value	Limit	Range (MGD)	Average (MGD)
Monthly Total	Report	0.002 – 11.84	1.54
Daily Maximum	Report	0.002 – 2.491	0.59

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

CSO Related Bypass of Secondary Treatment

OUTFALL #002A (Internal waste stream)

l. Surface Loading Rate: This permitting action is not carrying forward the daily maximum surface loading rate reporting requirements as the data collected to date for all facilities allowed to bypass secondary treatment has not provided useful information on the performance of clarifiers. However, the results for LSD for the period January 2013 – September 2015 are as follows:

Surface Loading Rate (n=12)

Value	Limit (gpd/sf)	Range (gpd/sf)	Average (gpd/sf)
Daily Maximum	Report	213 – 25,925	3,562

m. Overflow Use, Occurrences: This permitting action is carrying forward the monthly average overflow use occurrences reporting requirements. Results for LSD for the period January 2013 – September 2015 are as follows:

Overflow occurrences (DMRs = 14)

Value	Range (# of days)	Total (# of days)
2013	1 - 1	4
2014	1 – 11	22
2015	1 - 1	4

n. BOD5 and TSS: This permitting action is carrying forward the monthly average BOD5 and TSS reporting requirements. Results for LSD for the period January 2013 – September 2015 are as follows:

BOD5 (DMRs)

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Daily Maximum	Report	12 - 94	45

TSS (DMRs)

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Daily Maximum	Report	15 - 611	86

o. BOD & TSS removal: This permitting action is not carrying forward the daily maximum percent removal reporting requirements as the data collected to date for all facilities allowed to bypass secondary treatment has not provided useful information on the performance of primary clarifiers.

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

CSO Related Bypass of Secondary Treatment

OUTFALL #002A (Internal waste stream)

p. *E. coli*: The previous permitting action contained a daily maximum water quality based *E. coli* limit of 427 colonies/100 mL based on a Department best professional judgment of BPT for this type of waste stream and treatment process and to be consistent with water quality standards for Class B waters. However, the limitation is not necessary as compliance with the permit is determined after the two waste streams are blended. Therefore, the limitation is not being carried forward in this permit but the monitoring and reporting requirements are being carried forward. Results for LSD for the period January 2013 – September 2015 are as follows:

***E. coli.* bacteria (DMRs=3)**

Value	Limit (col/100 ml)	Range (col/100 ml)	Mean (col/100 ml)
Daily Maximum	427	14 - 248	158

q. Total residual chlorine: The previous permitting action contained a daily maximum technology based limit of 1.0 mg/L based on a Department best professional judgment of BPT for this type of waste stream and treatment process and is being carried forward in this permitting action. As with *E. coli* bacteria the limitation is not necessary as compliance with the permit is determined after the two waste streams are blended. Therefore, the limitation is not being carried forward in this permit however the monitoring and reporting requirements are being carried forward. Results for LSD for the period January 2013 – September 2015 are as follows:

Total Residual Chlorine (DMRs=5)

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Daily Maximum	1.0	0.36 – 0.92	0.7

The permittee maintains a combined sewer system from which wet weather overflows occur. Section 402(q)(1) of the Clean Water Act requires that "each permit, order or decree issued pursuant to this chapter after December 21, 2000 for a discharge from a municipal combined storm and sanitary sewer shall conform to the Combined Sewer Overflow Control Policy signed by the Administrator on April 11, 1994 ….." 33 U.S.C. § 1342(q)(1). The Combined Sewer Overflow Control Policy (CSO Policy, 59 Fed. Reg. 18688-98), states that under USEPA's regulations the intentional diversion of waste streams from any portion of a treatment facility, including secondary treatment, is a bypass and that 40 CFR 122.41(m), allows for a facility to bypass some or all the flow from its treatment process under specified limited circumstances. Under the regulation,

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

CSO Related Bypass of Secondary Treatment

OUTFALL #002A (Internal waste stream)

the permittee must show that the bypass was unavoidable to prevent loss of life, personal injury or severe property damage, that there was no feasible alternative to the bypass and that the permittee submitted the required notices. The CSO Policy also provides that, for some CSO-related permits, the study of feasible alternatives in the control plan may provide sufficient support for the permit record and for approval of a CSO-related bypass to be included in an NPDES permit.[3] Such approvals will be re-evaluated upon the reissuance of the permit, or when new information becomes available that would represent cause for modifying the permit.

The CSO Policy indicates that the feasible alternative threshold may be met if, among other things, "... the record shows the secondary treatment system is properly operated and maintained, that the system has been designed to meet secondary limits for flows greater than peak dry weather flow, plus an appropriate quantity of wet weather flow, and that it is either technically or financially infeasible to provide secondary treatment at the existing facilities for greater amounts of wet weather flow."[4]

USEPA's CSO Control Policy and CWA section 402(q)(1) provide that the CSO-related bypass provision in the permit should make it clear that all wet weather flows passing through the headworks of the POTW will receive at least primary clarification and solids and floatables removal and disposal, and disinfection, where necessary, and any other treatment that can reasonably be provided.[5] Under section 402(q)(1) of the CWA and as stated in the CSO Policy, in any case, the discharge must not violate applicable water quality standards.[6] The Department will evaluate and establish on a case-by-case basis effluent limitations for discharges that receive only a primary level of clarification prior to discharge and those bypasses that are blended with secondary treated effluent prior to discharge to ensure applicable water quality standards will be met.

This permitting action allows a CSO-related bypass of secondary treatment at the permittees facility based on an evaluation of feasible alternatives, which indicates it is technically and financially infeasible at this time to provide secondary treatment at the existing facilities as summarized in the original CSO Master Plan. The permittee has been upgrading and rehabilitating pump stations and is targeting future inflow and infiltration (I&I) projects to reduce the number of CSO related bypasses at the waste water treatment facility. Due to the closure of the Lincoln Paper & Tissue mill in calendar year 2015, revenue for the District has been reduced and a number of the projects are not economically feasible until the financial situation at the District improves.

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3 59 Fed. Reg. 18,688, at 18,693 and 40 CFR Part 122.41(m)(4) (April 19, 1994).

4 59 Fed. Reg. at 18,694.

5 59 Fed. Reg. at 18,693.

6 59 Fed. Reg. at 18694, col 1 (April 19, 1994).

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

CSO Related Bypass of Secondary Treatment

OUTFALL #002A (Internal waste stream)

During wet weather events when flows to the treatment facility have exceeded an instantaneous flow rate of 1,944 gpm (2.8 MGD), secondary treatment of all wet weather flows is not practicable and a portion of the primary effluent is allowed to be bypassed around the rotating biological contactors (RBCs) and secondary clarifiers. The bypassed flow is disinfected and recombined with the disinfected secondary clarifier effluent and then discharged to the river via the physical outfall designated as Outfall #001A. This permitting action is establishing end-of-pipe limitations to comply with USEPA's CSO Control Policy and Clean Water Act section 402(q)(1).

The CSO Control Policy does not define specific design criteria or performance criteria for primary clarification. The Department and USEPA agree that existing primary treatment infrastructure was constructed to provide primary clarification. Therefore, the effluent quality from a properly designed, operated and maintained existing primary treatment system satisfies the requirements for primary clarification and solids removal.

For facilities that blend primary and secondary effluent prior to discharge, such as the permittee's facility, compliance must be evaluated at the point of discharge, unless impractical or infeasible.[7] Monitoring to assess compliance with limits based on secondary treatment and other applicable limits is to be conducted following recombination of flows at the point of discharge or, where not feasible, by mathematically combining analytical results for the two waste streams. Where a CSO-related bypass is directly discharged after primary settling and chlorination, monitoring will be at end of pipe if possible.

Due to the variability of CSO-related bypass treatment systems and wet weather related influent quality and quantity, a single technology-based standard cannot be developed for all of Maine's CSO-related bypass facilities[8]. To standardize how the Department will regulate these facilities to ensure compliance with the CSO Control Policy and Clean Water Act [9], the Department has determined that effluent limitations for the discharge of CSO-related bypass effluent that is combined with effluent from the secondary treatment system should be based on the more stringent of either the past demonstrated performance of the properly operated and maintained treatment system(s) or site-specific water quality-based limits derived from computer modeling or best professional judgment of Department water quality engineers of assimilative capacity of the receiving water.

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[7] 40 CFR 122.45(h).

[8] Maine currently has 16 permitted facilities with a CSO-related bypass.

[9] In other words, that any other treatment that can reasonably be provided is, in fact, provided.

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

CSO Related Bypass of Secondary Treatment

OUTFALL #002A (Internal waste stream)

The federal secondary treatment regulation does not contain daily maximum effluent limitations for BOD_5 and TSS. The Department has established a daily maximum concentration limit of 50 mg/L for secondary treated wastewater as best professional judgment of best practicable treatment. This standard was developed by the Department prior to NPDES delegation and promulgation of secondary treatment regulations into State rule that are consistent with the Clean Water Act. Following consultation with USEPA, the Department has chosen to waive the requirement to comply with numeric daily maximum concentration limitations for BOD_5 and TSS for days with CSO-related bypass events. This permitting action is eliminating the reporting requirements for primary clarifier BOD_5 and TSS percent removal and surface loading rate based on best professional judgment that these technology-based metrics have not been particularly useful in assessing primary treatment system performance and are not necessary to ensure water quality standards are met.

During CSO-related bypasses, secondary treated wastewater is combined with wastewater from the primary treatment system which is designed to provide primary clarification and solids and floatables removal and disposal, and disinfection. The permittee is not able to consistently achieve compliance with technology based effluent limits (TBELs) derived from the secondary treatment regulation during CSO-related bypasses. As part of its consideration of possible adverse effects resulting from the bypass, the Department must ensure that the bypass will not cause exceedance of water quality standards. CSO Control Policy at 59 Fed. Reg. 18694.

Blended effluent discharged to the Penobscot River

OUTFALL #003 (Blended Effluent)

For the discharge of blended effluent to the Penobscot River via the main outfall (#001), the Department is establishing daily maximum technology-based effluent limitations for BOD_5 and TSS. For data management purposes, this permitting action is designating an outfall identifier of Outfall #003A for discharges of blended wastewater when the influent flow rate at the overflow structure of the treatment facility has exceeded 1) 1,944 gallons per minute (2.8 MGD) as an instantaneous flow rate, 2) 1,666 gallons per minute (2.4 MGD) for a sustained flow rate for one hour, or 3) 1,250 gallons per minute (1.8 MGD) for a sustained flow rate for eight hours. Discharges of blended effluent to the Penobscot River are only allowed under the flow regimes cited above.

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

Blended effluent discharged to the Penobscot River

OUTFALL #003 (Blended Effluent)

s. Flow, BOD_5 and TSS: Given the configuration of the treatment plant, the permittee has measured flow, BOD_5 and TSS for Outfall #002. To be conservative, the Department has chosen the highest pollutant loading discharged from Outfall #002 for the most current thirty (30) overflow occurrences between January 2013 – September 2015. For the purposes of evaluating the potential impact to the Penobscot River during the wet weather events when blended effluent is being discharge the values being utilized in calculations are as follows:

Flow: 1.838 MGD (September 30, 2015)
BOD_5: 1,349 lbs./day, 88 mg/L (September 30, 2015)
TSS: 659 lbs./day, 43 mg/L (September 30, 2015)

For secondary treated effluent, the Department is utilizing the design flow of 1.07 MGD and a daily maximum concentration of 50 mg/L that yields a mass of 446 lbs/day for both BOD and TSS. The calculation is as follows:

(1.07 MGD)(8.34 lbs/gal)(50 mg/L) = 446 lbs/day

To determine if water quality standards (dissolved oxygen) are maintained during times when discharging blended effluent, one must calculate the increase in the BOD and TSS concentration in the receiving water when the facility is discharging blended effluent. The only remaining unknown variable is what flow does one use for the Penobscot River when discharging blended effluent?

The Department evaluated the flows of the Penobscot River recorded at the USGS gauging station at West Enfield Station #01034500 (approximately 11 miles below the LSD discharge) on September 30, 2015, in which there was a bypass of secondary treatment. The Department chose the average river flow during the 24-hour period for September 30, 2015 which was 3,980 cfs to calculate the increase in BOD and TSS concentrations in the Penobscot River. The calculations are as follows:

What are the BOD and TSS concentrations discharged from the facility when the blended effluent is discharged?

$$\text{BOD} = \frac{(1.07\ \text{MGD})(50\ \text{mg/L}) + (1.838\ \text{MGD})(88\ \text{mg/L})}{2.908\ \text{MGD}} = 74\ \text{mg/L}$$

$$\text{TSS} = \frac{(1.07\ \text{MGD})(50\ \text{mg/L}) + (1.838\ \text{MGD})(43\ \text{mg/L})}{2.908\ \text{MGD}} = 45\ \text{mg/L}$$

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

Blended effluent discharged to the Penobscot River

OUTFALL #003 (Blended Effluent)

What is the increase in the concentrations in the Penobscot River after rapid and complete mixing?

Dilution factor: $\frac{(3{,}980 \text{ cfs})(0.6464) + (2.908 \text{ MGD})}{(2.908 \text{ MGD})} = 885{:}1$

BOD: $\frac{74 \text{ mg/L}}{885} = 0.08 \text{ mg/L}$ (not measurable)

TSS: $\frac{45 \text{ mg/L}}{885} = 0.05 \text{ mg/L}$ (not measurable)

Mass loadings of the blended effluent are as follows:

BOD: 446 lbs/day + 1,349 lbs/day = 1,795 lbs/day
(2°) (1°)

TSS: 446 lbs/day + 659 lbs/day = 1,105 lbs/day
(2°) (1°)

Based on the combined BOD_5 and TSS values (blended effluent) cited, the Department has made a best professional judgment, maximum effluent discharge limitations of 1,795 lbs./day for BOD_5 and 1,105 lbs/day for TSS established in this permit provides reasonable assurance that the discharge will not cause or contribute to a violation of an applicable water quality standard in the Penobscot River and complies with the State's anti-degradation policy at 38 M.R.S.A. § 464(4)(F).

These limitations are based on new information concerning treatment system performance data as well as a revised and corrected methodology for regulating CSO-related bypasses in Maine. As such, the Department concludes that the new daily maximum effluent limitations of 1,795 lbs./day for BOD_5 and 1,105 lbs/day for TSS for the discharge of primary and secondary blended effluents when the influent flow rate at the overflow structure of the treatment facility has exceeded 1) 1,944 gallons per minute (2.8 MGD) as an instantaneous flow rate, 2) 1,666 gallons per minute (2.4 MGD) for a sustained flow rate for one hour, or 3) 1,250 gallons per minute (1.8 MGD) for a sustained flow rate for eight hours complies with the exceptions to anti-backsliding at Section 402(o)(2)(B)(i) of the Clean Water Act.

7. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

The Department has made a best professional judgment determination that as permitted, the discharge will not cause or contribute the failure of the receiving water to meet the standards of its ascribed classification and the designated uses of the river will continue to be maintained and protected.

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

8. PUBLIC COMMENTS

Public notice of this application was made in the *Lincoln News* newspaper on or about February 11, 2016. 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).

9. DEPARTMENT CONTACTS

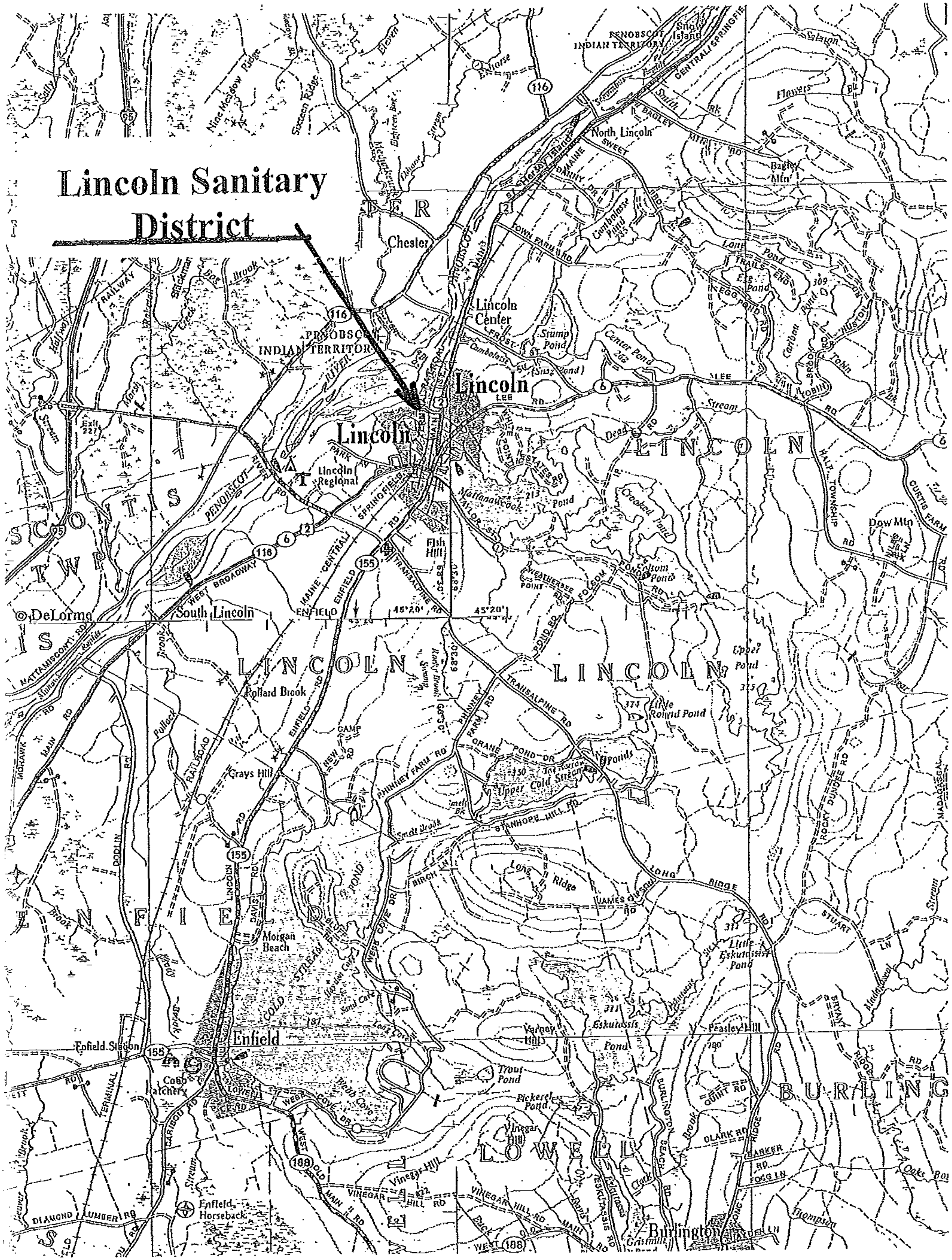
Additional information concerning this permitting action may be obtained from and written comments should be sent to:

Gregg Wood
Division of Water Quality Management
Bureau of 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

10. RESPONSE TO COMMENTS

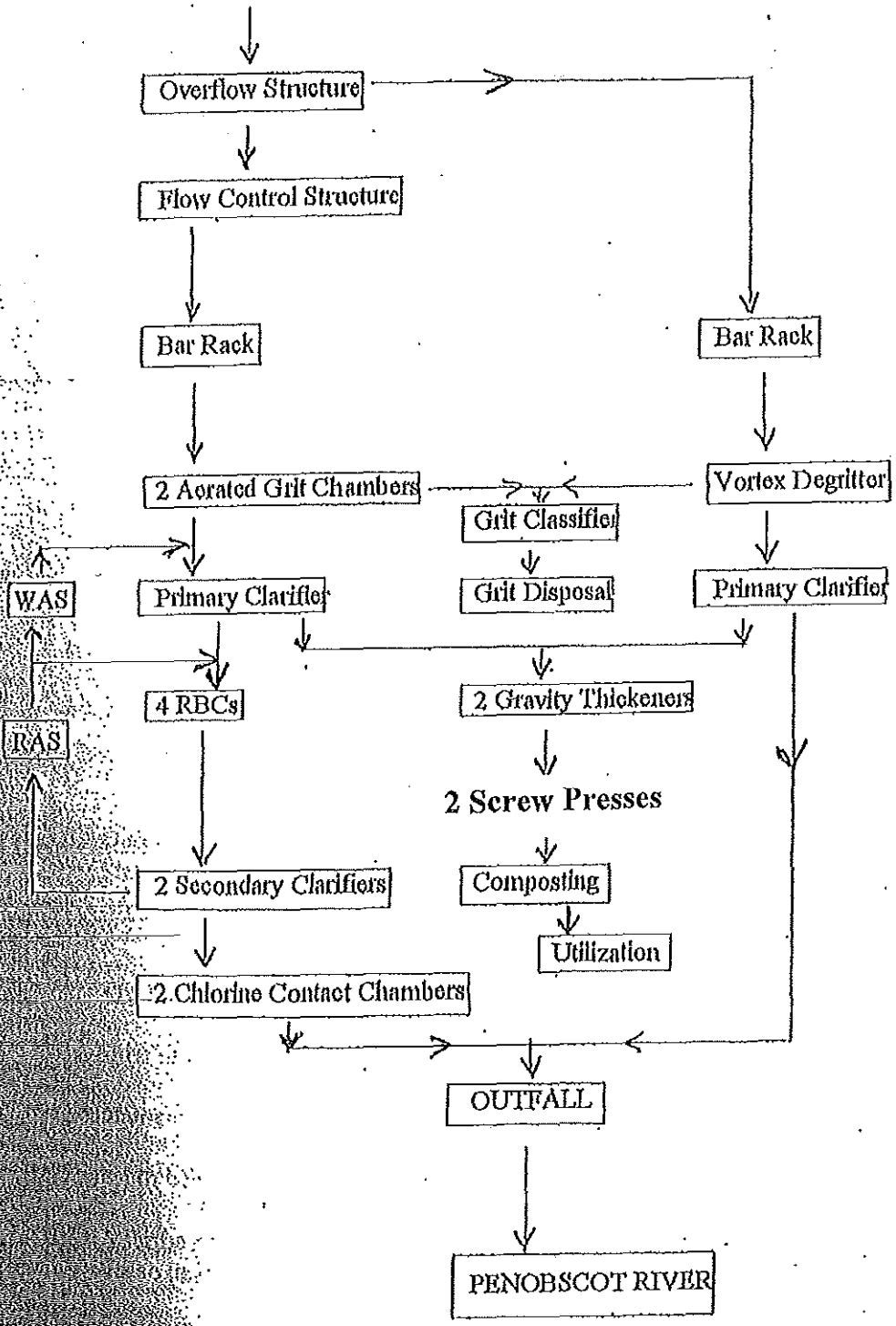
During the period of February 18, 2016, through the issuance date of the permit/license, the Department solicited comments on the proposed draft permit/license to be issued for the discharge(s) from the permittee's facility. The Department did not receive comments from the permittee, state or federal agencies or interested parties that resulted in any substantive change(s) in the terms and conditions of the permit. Therefore, the Department has not prepared a Response to Comments.

ATTACHMENT A


Lincoln Sanitary District
Lincoln
Lincoln
Lincoln Center
Chester
North Lincoln
South Lincoln
Lincoln Regional
PENOBSCOT INDIAN TERRITORY
Snow Island
Bagley Mtn
Long Pond
Egg Pond
Center Pond
Stump Pond
Mattanawcook Pond
Crooked Pond
Folsom Pond
Fish Hill
Dow Mtn
Upper Pond
Little Round Pond
Upper Cold Stream
Long Ridge
Little Eskutassis Pond
Eskutassis Pond
Peasley Hill
Varney Hill
Trout Pond
Pickerel Pond
Vinegar Hill
Enfield
Enfield Station
Cobb's Hatchery
Morgan Beach
Grays Hill
Pollard Brook
Enfield Horseback
Burlington
LINCOLN
LINCOLN
LINCOLN
ENFIELD
LOWELL
BURLING
MATTAMISCONTIS TWP
WEST BROADWAY
TRANSALPINE RD
STANHOPE MILL RD
PHINNEY FARM RD
WEBB COVE DR
COLD STREAM
45°20'
68°30'
© DeLorme

ATTACHMENT B

LINCOLN SANITARY DISTRICT WWTP FLOW
LINE DIAGRAM



ATTACHMENT C

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
WHOLE EFFLUENT TOXICITY REPORT
FRESH WATERS

Facility Name: Lincoln Sanitary District | MEPDES Permit #: ME0101796 | Pipe #: 1

Facility Representative: Mr. Darold Wooley | Signature: Darold Wooley

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

Facility Telephone #: 207-794-8244 | Date Collected: 12/1-2/2015 mm/dd/yy | Date Tested: 12/3/2015 mm/dd/yy

Chlorinated? No | Dechlorinated? No

Results % effluent

	water flea	trout
A-NOEL	100%	100%
C-NOEL	100%	100%

Effluent Limitations

A-NOEL	0.24%
C-NOEL	0.06%

Data summary

	water flea			trout		
	% survival		no. young	% survival		final weight (mg)
	A>90	C>80	>15/female	A>90	C>80	> 2% increase
QC standard						
lab control	100%	100%	42.7	100%	100%	55.8 (13.4% inc/day)
receiving water control	100%	100%	40.9	100%	100%	58.0 (14.3% inc/day)
conc. 1 (0.06%)	100%	100%	41.0	100%	100%	57.2
conc. 2 (10%)	100%	100%	39.1	100%	100%	60.5
conc. 3 (25%)	100%	100%	39.2	100%	100%	62.1
conc. 4 (50%)	100%	100%	40.5	100%	100%	58.3
conc. 5 (100%)	100%	100%	40.9	100%	100%	60.3
conc. 6 (%)						
stat test used	Zero mortality @ 100%	Zero mortality @ 100%	Dunnett's Test	Zero mortality @ 100%	Zero mortality @ 100%	Bonferroni T-Test

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	NaCl / 11-28-2015	NaCl / 7-16-2015	SDS / 11-20-2015	SDS / 10-30-2015
limits (mg/L)	312 - 1875 mg/L	156 - 1250 mg/L	5 - 40 mg/L	5 - 20 mg/L
results (mg/L)	1250 mg/L	625 mg/L	20 mg/L	5 mg/L

Comments: Lab Control = East Branch Sebasticook River
Receiving Water Control = Penobscot River

Laboratory conducting test

Company Name: ClearWater Laboratory | Company Rep. Name (Printed): Mr. Nicholas B. Josselyn

Mailing Address: 153 Main St., Suite A | Company Rep. Signature:

City, State, ZIP: Newport, ME 04953 | Company Telephone #: (207) 368-5700

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

ATTACHMENT D

PRIORITY POLLUTANT DATA SUMMARY

Date Range: 20/Jan/2011 - 20/Jan/2016

Facility Name: **LINCOLN** NPDES: **ME0101796**

Test Date	Monthly (Flow MGD)	Daily (Flow MGD)	Total Test Number	Test # By Group M	V	BN	P	O	A	Clean	Hg
07/05/2011	0.34	0.40	1	1	0	0	0	0	0	F	0
03/15/2012	0.69	0.64	1	1	0	0	0	0	0	F	0
03/05/2013	0.76	0.74	1	1	0	0	0	0	0	F	0
04/01/2014	1.25	0.64	1	1	0	0	0	0	0	F	0
03/11/2015	0.35	0.37	1	1	0	0	0	0	0	F	0
05/26/2015	0.54	0.44	125	14	28	46	25	1	11	F	0
07/28/2015	0.36	0.32	11	10	0	0	0	1	0	F	0

Key:

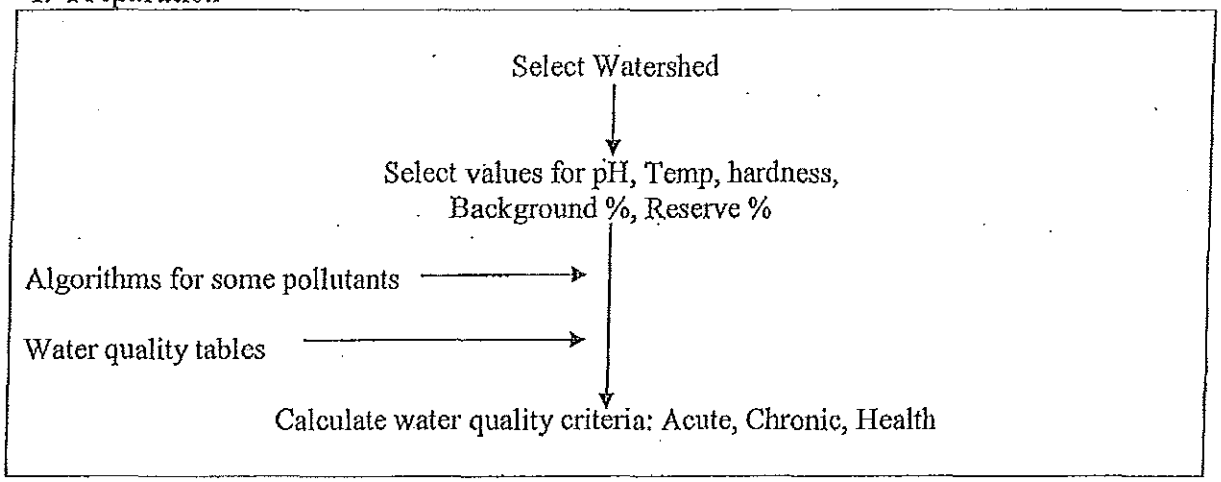
A = Acid O = Others P = Pesticides

BN = Base Neutral M = Metals V = Volatiles

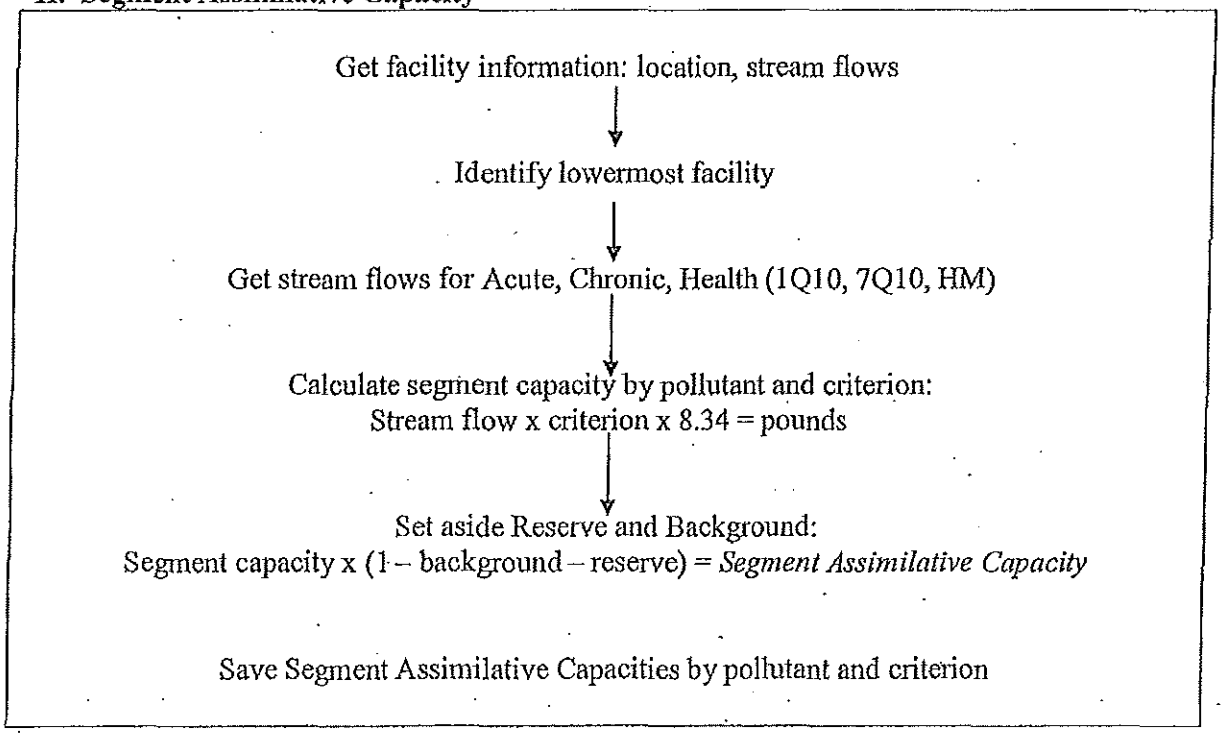
ATTACHMENT E

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

I. Preparation

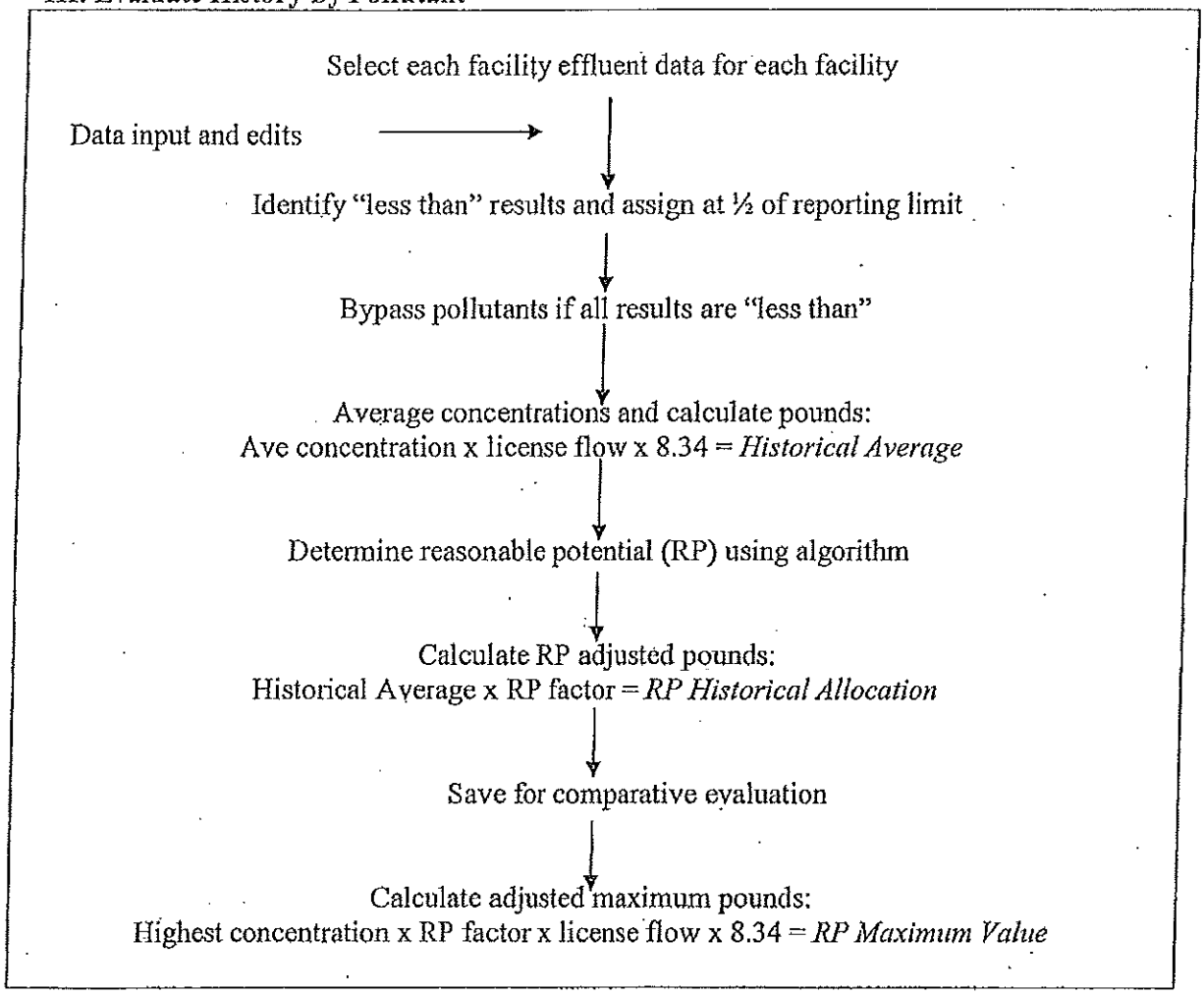


II. Segment Assimilative Capacity

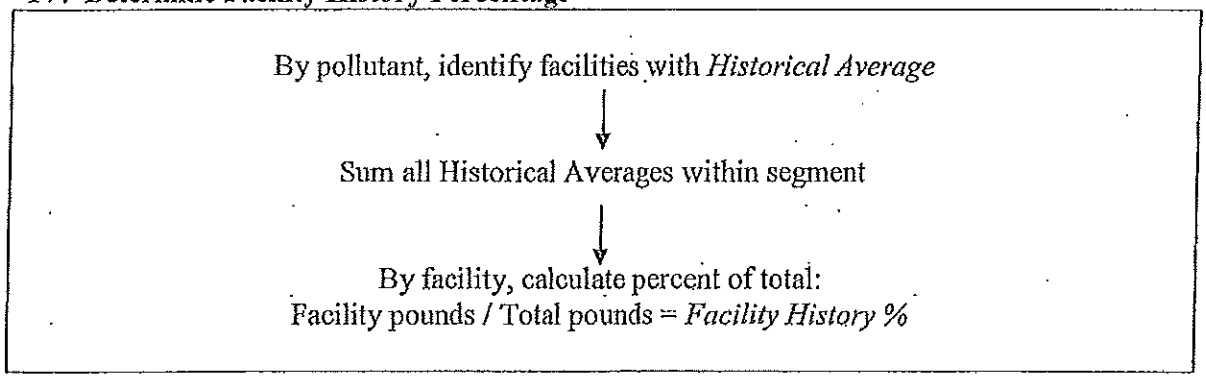


Maine Department of Environmental Protection
General Processing Steps in "DeTox"

III. Evaluate History by Pollutant



IV. Determine Facility History Percentage



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

V. Segment Allocation

By pollutant and criterion, select *Segment Assimilative Capacity*

↓

Select individual *Facility History %*

↓

Determine facility allocation:
Assimilative Capacity x Facility History % = *Segment Allocation*

↓

Save for comparative evaluation

VI. Individual Allocation

Select individual facility and dilution factor (DF)

↓

Select pollutant and water quality criterion

↓

By pollutant and criterion, calculate individual allocations:
[DF x 0.75 x criterion] + [0.25 x criterion] = Individual Concentration

↓

Determine individual allocation:
Individual Concentration x license flow x 8.34 = *Individual Allocation*

↓

Save for comparative evaluation

VII. Make Initial Allocation

By facility, pollutant and criterion, get:
Individual Allocation, Segment Allocation, RP Historical Allocation

↓

Compare allocation and select the smallest

↓

Save as *Facility Allocation*

VIII. Evaluate Need for Effluent Limits

By facility, pollutant and criterion select
Segment Allocation, *Individual Allocation* and *RP Maximum value*

↓

If *RP Maximum value* is greater than either *Segment Allocation* or *Individual Allocation*, use lesser value as *Effluent Limit*

↓

Save *Effluent Limit* for comparison

IX. Reallocation of Assimilative Capacity

Starting at top of segment, get *Segment Allocation*, *Facility Allocation* and *Effluent Limit*

↓

If *Segment Allocation* equals *Effluent Limit*, move to next facility downstream

↓

If not, subtract *Facility Allocation* from *Segment Allocation*

↓

Save difference

↓

Select next facility downstream

↓

Figure remaining *Segment Assimilative Capacity* at and below facility, less tributaries

↓

Add saved difference to get an adjusted *Segment Assimilative Capacity*

↓

Reallocate *Segment Assimilative Capacity* among downstream facilities per step V

↓

Repeat process for each facility downstream in turn

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

MEMORANDUM

DATE: October 2008

TO: Interested Parties

FROM: Dennis Merrill, DEP

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

****

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

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

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

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

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

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

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

Maine Department of Environmental Protection

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ATTACHMENT F

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

CHAPTER 530.2(D)(4) CERTIFICATION

MEPDES#_____Facility Name_____

Since the effective date of your permit, have there been;		NO	YES Describe in comments section
1	Increases in the number, types, and flows of industrial, commercial, or domestic discharges to the facility that in the judgment of the Department may cause the receiving water to become toxic?	☐	☐
2	Changes in the condition or operations of the facility that may increase the toxicity of the discharge?	☐	☐
3	Changes in storm water collection or inflow/infiltration affecting the facility that may increase the toxicity of the discharge?	☐	☐
4	Increases in the type or volume of hauled wastes accepted by the facility?	☐	☐

COMMENTS:

Name (printed): _____

Signature:_____Date: _____

This document must be signed by the permittee or their legal representative.

This form may be used to meet the requirements of Chapter 530.2(D)(4). This Chapter requires all dischargers having waived or reduced toxic testing to file a statement with the Department describing changes to the waste being contributed to their system as outlined above. As an alternative, the discharger may submit a signed letter containing the same information.

Scheduled Toxicity Testing for the next calendar year

Test Conducted	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
WET Testing	☐	☐	☐	☐
Priority Pollutant Testing	☐	☐	☐	☐
Analytical Chemistry	☐	☐	☐	☐
Other toxic parameters [1]	☐	☐	☐	☐

Please place an "X" in each of the boxes that apply to when you will be conducting any one of the three test types during the next calendar year.

[1] This only applies to parameters where testing is required at a rate less frequently than quarterly.

DEP INFORMATION SHEET

Appealing a Department Licensing Decision

Dated: March 2012 **Contact: (207) 287-2811**

SUMMARY

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

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

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

I. ADMINISTRATIVE APPEALS TO THE BOARD

LEGAL REFERENCES

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

HOW LONG YOU HAVE TO SUBMIT AN APPEAL TO THE BOARD

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

HOW TO SUBMIT AN APPEAL TO THE BOARD

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

WHAT YOUR APPEAL PAPERWORK MUST CONTAIN

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

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

Other Considerations in Appealing a Decision to the Board

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

What to Expect Once You File a Timely Appeal with the Board

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

II. JUDICIAL APPEALS

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

An appeal to court of a license decision regarding an expedited wind energy development, a general permit for an offshore wind energy demonstration project, or a general permit for a tidal energy demonstration project may only be taken directly to the Maine Supreme Judicial Court. See 38 M.R.S.A. § 346(4).

Maine's Administrative Procedure Act, DEP statutes governing a particular matter, and the Maine Rules of Civil Procedure must be consulted for the substantive and procedural details applicable to judicial appeals.

ADDITIONAL INFORMATION

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

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