STATE OF MAINE
Department of Environmental Protection

Paul R. LePage
GOVERNOR

Patricia W. Aho
COMMISSIONER

November 5, 2014

Ms. Annaleis Hafford
Olver Associates, Inc.
290 Main St., P.O. Box 679
Winterport, ME 04496

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0100391
Maine Waste Discharge License (WDL) Application #W002722-6C-K-R
Final Permit

Dear Ms. Hafford:

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 592-7161.

Sincerely,

Bill Hinkel

Bill Hinkel
Division of Water Quality Management
Bureau of Land and Water Quality
bill.hinkel@maine.gov
ph: 207.485.2281

Enc.
cc: Thomas Schultz, Director, Mechanic Falls Sanitary District
Matthew Hight, DEP/SMRO Sandy Mojica, EPA

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

IN THE MATTER OF

MECHANIC FALLS SANITARY DISTRICT	)	MAINE POLLUTANT DISCHARGE
MECHANIC FALLS, ANDROSCOGGIN CTY., MAINE	)	ELIMINATION SYSTEM PERMIT
PUBLICLY OWNED TREATMENT WORKS	)	AND
#ME0100391	)	WASTE DISCHARGE LICENSE
#W002722-6C-K-R **APPROVAL**	)	**RENEWAL**

In compliance with the applicable provisions of *Pollution Control*, 38 M.R.S.A. §§ 411 – 424-B, *Water Classification Program*, 38 M.R.S.A. §§ 464 – 470 and *Federal Water Pollution Control Act*, Title 33 U.S.C. § 1251, and applicable rules of the Maine Department of Environmental Protection (Department) has considered considered the application of the MECHANIC FALLS SANITARY DISTRICT (District), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

On November 8, 2012, the Department accepted as complete for processing, a renewal application for Waste Discharge License (WDL) #W002722-5L-H-R / Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0100391, which was issued on February 13, 2008, for a five year term. The 2/13/08 MEPDES permit authorized the District to discharge an unspecified quantity of secondary treated municipal wastewater from a publicly owned treatment works (POTW) and untreated wastewater from two combined sewer outfalls (CSOs) to the Little Androscoggin River, Class C, in Mechanic Falls, Maine.

The Department issued a minor permit revision on February 6, 2012 to revise the mercury monitoring frequency.

PERMIT SUMMARY

This permitting action is carrying forward all the terms and conditions of the previous permitting actions except that it is:

1. Revising the minimum monitoring frequency requirements for biochemical oxygen demand (BOD_5), total suspended solids (TSS), settleable solids, *Escherichia coli* bacteria, and pH based on the results of facility testing;

2. Eliminating the total and inorganic arsenic limits as well as the Toxicity Reduction Evaluation (TRE) and Schedule of Compliance associated with arsenic, due to U.S. Environmental Protection Agency (USEPA) approval of state human health ambient water quality criteria (AWQC) for arsenic;

PERMIT SUMMARY (cont'd)

3. Establishing two tiers of effluent limitations for toxics pollutants based on two waste load allocations associated with the variability of discharges into the Little Androscoggin River;

4. Establishing segment allocation-based monthly average and daily maximum mass limits and eliminating the daily maximum concentration limit for copper;

5. Establishing a segment allocation-based monthly average mass limit for lead and eliminating the monthly average concentration limit;

6. Eliminating the daily maximum chronic reporting limit of 2.3% for the water flea for both surveillance and screening level Whole Effluent Toxicity (WET) testing and revising the chronic water flea monitoring frequency based on the results of facility testing;

7. Revising the timing of the screening and surveillance level WET testing during permit cycle;

8. Incorporating the interim mercury limits established by the Department for this facility pursuant to *Certain deposits and discharges prohibited*, 38 M.R.S.A. § 420 and *Waste discharge licenses*, 38 M.R.S.A. § 413 and *Interim Effluent Limitations and Controls for the Discharge of Mercury*, 06-096 CMR 519 (last amended October 6, 2001); and

9. Revising the seasonal monthly average concentration limit for *E. coli* bacteria based on changes to Maine's water quality standards for Class C waters.

CONCLUSIONS

Based on the findings summarized in the attached Fact Sheet dated May 3, 2013, and subject to the special and standard conditions that follow, 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, *Classification of Maine waters*, 38 M.R.S.A. § 464(4)(F), will be met, in that:

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

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

CONCLUSIONS (cont'd)

(c) The standards of classification of the receiving water body are met or, where the standards of classification of the receiving water body are not met, the discharge will not cause or contribute to the failure of the water body to meet the standards of classification;

(d) Where the actual quality of any classified receiving water body exceeds the minimum standards of the next highest classification that higher water quality will be maintained and protected; and

(e) Where a discharge will result in lowering the existing water quality of any water body, the Department has made the finding, following opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.

4. The discharges will be subject to effluent limitations that require application of best practicable treatment as defined in 38 M.R.S.A. § 414-A(1)(D).

ACTION

Based on the findings and conclusions as stated above, the Department APPROVES the above noted application of the MECHANIC FALLS SANITARY DISTRICT to discharge an unspecified quantity[1] of secondary treated municipal wastewater from a POTW and an unspecified quantity of untreated wastewater from two CSOs to the Little Androscoggin River, Class C, in Mechanic Falls, Maine, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations including:

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

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

3. This permit 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)]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

DONE AND DATED AT AUGUSTA, MAINE, THIS 4th DAY OF November 2014.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Michael Kuhns
for PATRICIA W. AHO, Commissioner

Filed
NOV 04 2014
State of Maine
Board of Environmental Protection

Date filed with Board of Environmental Protection _____

Date of initial receipt of application: November 7, 2012
Date of application acceptance: November 8, 2012
This Order prepared by Cindy L. Dionne/Bill Hinkel, BUREAU OF LAND & WATER QUALITY

[1] For administrative purposes and calculation of effluent limitations, the Department will utilize an average flow of 0.49 MGD, which is consistent with the average design criterion for this facility.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. The permittee is authorized to discharge **secondary treated municipal wastewater from Outfall #001A** to the Little Androscoggin River in Mechanic Falls. Such discharges are limited and must be monitored by the permittee as specified below[(1)]:

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]*	Report MGD *[03]*	---	Report MGD *[03]*	---	---	---	Continuous *[99/99]*	Recorder *[RC]*
BOD_5 *[00310]*	122 lbs./day *[26]*	184 lbs./day *[26]*	Report lbs./day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	2/Month *[02/30]*	24-Hr. Composite *[24]*
BOD_5 % Removal [(2)] *[81010]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
TSS *[00545]*	122 lbs./day *[26]*	184 lbs./day *[26]*	Report lbs./day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	2/Month *[02/30]*	24-Hr. Composite *[24]*
TSS % Removal [(2)] *[81011]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
Settleable Solids *[00545]*	---	---	---	---	---	0.3 ml/L *[25]*	4/Week *[04/07]*	Grab *[GR]*
***E. coli* Bacteria** [(3)] *[31633]* **May 15 to September 30**	---	---	---	126/100 ml[(4)] *[13]*	---	949/100 ml *[13]*	2/Month *[02/30]*	Grab *[GR]*
Total Residual Chlorine [(5)] *[50060]*	---	---	---	0.1 mg/L *[19]*	---	0.3 mg/L *[19]*	1/Day *[01/01]*	Grab *[GR]*
pH *[00400]*	---	---	---	---	---	6.0-9.0 SU *[12]*	5/Week *[05/07]*	Grab *[GR]*

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

FOOTNOTES: See Pages 10 through 14 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

2. **Tier I** – When the river flow at the point of discharge is less than 68 cfs, the permittee is authorized to discharge **secondary treated municipal wastewater from Outfall #001A** to the Little Androscoggin River in Mechanic Falls. **Tier I** discharges are limited and must be monitored by the permittee as specified below[1]:

Tier I

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type
Copper (Total) *[01042]*	0.314 lbs./day *[26]*	---	0.167 lbs./day *[26]*	Report µg/L *[28]*	---	Report µg/L *[28]*	2/Year[6] *[02/YR]*	24-Hr. Composite *[24]*
Lead (Total) *[01051]*	0.055 lbs./day *[26]*	---	---	---	---	---	2/Year[6] *[02/YR]*	24-Hr. Composite *[24]*
Mercury (Total) [7] *[71900]*	---	---	---	5.6 ng/L *[3M]*	---	8.5 ng/L *[3M]*	1/Year *[01/YR]*	Grab *[GR]*

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

FOOTNOTES: See Pages 10 through 14 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

3. **Tier II** – When the river flow at the point of discharge is greater than or equal to 68 cfs, the permittee is authorized to discharge **secondary treated municipal wastewater from Outfall #001A** to the Little Androscoggin River in Mechanic Falls. **Tier II** discharges are limited and must be monitored by the permittee as specified below[1]:

Tier II

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type
Copper (Total) *[01042]*	0.101 lbs./day *[26]*	---	0.131 lbs./day *[26]*	Report µg/L *[28]*	---	Report µg/L *[28]*	2/Year[6] *[02/YR]*	24-Hr. Composite *[24]*
Lead (Total) *[01051]*	0.037 lbs./day *[26]*	---	---	---	---	---	2/Year[6] *[02/YR]*	24-Hr. Composite *[24]*
Mercury (Total) [7] *[71900]*	---	---	---	5.6 ng/L *[3M]*	---	8.5 ng/L *[3M]*	1/Year *[01/YR]*	Grab *[GR]*

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

FOOTNOTES: See Pages 10 through 14 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

4. ***SURVEILLANCE LEVEL*** - Beginning upon issuance and lasting through 24 months prior to permit expiration [1] (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).

Effluent Characteristic	Discharge Limitations				Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Whole Effluent Toxicity[8]						
Acute – ANOEL						
Ceriodaphnia dubia (Water flea) *[TDA3B]*	---	---	---	Report %*[23]*	1/2 Years *[01/2YR]*	Composite*[24]*
Salvelinus fontinalis (Brook trout) *[TDA6F]*	---	---	---	Report %*[23]*	1/2 Years *[01/2YR]*	Composite*[24]*
Chronic – CNOEL						
Ceriodaphnia dubia (Water flea) *[TBP3B]*	---	---	---	Report %*[23]*	1/2 Years *[01/2YR]*	Composite*[24]*
Salvelinus fontinalis (Brook trout) *[TBQ6F]*	---	---	---	Report %*[23]*	1/2 Years *[01/2YR]*	Composite*[24]*
Analytical Chemistry[9] *[51477]*	---	---	---	Report µg/L*[28]*	1/2Years *[01/2YR]*	Composite/Grab *[24]*

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

FOOTNOTES: See Pages 10 through 14 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

5. ***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.[1]

Effluent Characteristic	Discharge Limitations				Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Whole Effluent Toxicity[8]						
Acute – ANOEL						
Ceriodaphnia dubia (Water flea) *[TDA3B]*	---	---	---	Report %*[23]*	2/Year *[02/YR]*	Composite*[24]*
Salvelinus fontinalis (Brook trout) *[TDA6F]*	---	---	---	Report %*[23]*	2/Year *[02/YR]*	Composite*[24]*
Chronic – CNOEL						
Ceriodaphnia dubia (Water flea) *[TBP3B]*	---	---	---	Report %*[23]*	2/Year *[02/YR]*	Composite*[24]*
Salvelinus fontinalis (Brook trout) *[TBQ6F]*	---	---	---	Report %*[23*	2/Year *[02/YR]*	Composite*[24]*
Analytical Chemistry[9] *[51477]*	---	---	---	Report µg/L*[28]*	1/Quarter *[01/90]*	Composite/Grab [24]
Priority Pollutant[11] *[50008]*	---	---	---	Report µg/L*[28]*	1/Year *[01/YR]*	Composite/Grab [24]

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

FOOTNOTES: See Pages 10 through 14 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

FOOTNOTES

1. **Sampling** – The permittee must conduct sampling and analysis in accordance with; a) methods approved by 40 Code of Federal Regulations (CFR) Part 136, b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136, or c) as otherwise specified by the Department. Samples that are sent out for analysis must be analyzed by a laboratory certified by the State of Maine's Department of Health and Human Services. Samples that are sent to a POTW licensed pursuant to *Waste discharge licenses*, 38 M.R.S.A. § 413 are subject to the provisions and restrictions of *Maine Comprehensive and Limited Environmental Laboratory Certification Rules*, 10-144 CMR 263 (effective April 1, 2010). If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR part 136 or as specified in this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report.

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

2. **Percent Removal** – The permittee must achieve a minimum of 85 percent removal of both TSS and BOD_5 for all flows receiving secondary treatment. The percent removal is calculated based on influent and effluent concentration values. Pursuant to *Effluent Guidelines and Standards*, 06-096 CMR 525(3)(IV)(a) (effective January 12, 2001), the percent removal requirement is waived when the monthly average influent concentration is less than 200 mg/L. For instances when this occurs, the permittee must report "*NODI-9*" on the monthly Discharge Monitoring Report.

3. **Bacteria Limits** – *E. coli* bacteria limits and monitoring requirements are seasonal and apply between May 15 and September 30 of each year. The Department reserves the right to require year-round bacteria limits to protect the health, safety and welfare of the public.

4. **Bacteria Reporting** – The monthly average *E. coli* bacteria limitation is a geometric mean limitation and sample results must be reported as such.

5. **TRC Monitoring** – Limitations and monitoring requirements are in effect any time elemental chlorine or chlorine-based compounds are utilized to disinfect the discharge(s). The permittee must utilize a USEPA-approved test method capable of bracketing the TRC limitations specified in this permitting action. Monitoring for TRC is only required when elemental chlorine or

SPECIAL CONDITIONS

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

FOOTNOTES

chlorine-based compounds are in use for effluent disinfection. For instances when a facility has not disinfected with chlorine-based compounds for an entire reporting period, the facility must report "NODI-9" for this parameter on the monthly DMR or "N9" if the submittal is an electronic DMR.

6. **2/Year monitoring** – Monitoring must be conducted a total of twice per year (not 2/Year per Tier) in alternating calendar quarters. During one year, monitoring must occur in the 1st and 3rd calendar quarters. During the next year, monitoring must occur in the 2nd and 4th calendar quarters. This alternating monitoring sequence must continue through permit expiration.

7. **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 1631, *Determination of Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Fluorescence Spectrometry.* See **Attachment B** for a Department report form for mercury test results. Compliance with the monthly average limitation established in Special Condition A.2 of this permit will be based on the cumulative arithmetic mean of all mercury tests results that were conducted utilizing sampling Methods 1669 and analysis Method 1631E on file with the Department for this facility.

8. **Whole effluent toxicity (WET) testing** – Definitive WET testing is a multi-concentration testing event (a minimum of five dilutions bracketing the critical acute and chronic thresholds of 4.7% and 2.3% respectively), which provides an estimate of toxicity in terms of No Observed Effect Level, commonly referred to as NOEL or NOEC. A-NOEL is defined as the acute no observed effect level with survival as the end point. C-NOEL is defined as the chronic no observed effect level with survival, reproduction and growth as the end points. The critical acute and chronic thresholds were derived as the mathematical inverse of the applicable acute and chronic dilution factors of 21:1 and 44:1, respectively.

    a. **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), the permittee must initiate surveillance level acute and chronic WET testing at a minimum frequency of once every other year (1/2 Years) for both the *water flea (Ceriodaphnia dubia)* and the *brook trout (Salvelinus fontinalis).* Testing must be conducted in a different calendar quarter each sampling event.

SPECIAL CONDITIONS

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

FOOTNOTES

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 acute and chronic WET testing at a minimum frequency of twice per year (2/Year) for both species. Acute and chronic tests must be conducted on both the water flea and the brook trout. Testing must be conducted in a different calendar quarter each sampling event.

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 exceedences of the critical acute and chronic water quality thresholds of 4.7% and 2.3%, respectively.

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

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

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

Results of WET tests must be reported on the "Whole Effluent Toxicity Report – Fresh Waters" form included as **Attachment C** of this permit each time a WET test is performed. The permittee is required to analyze the effluent for the analytical chemistry parameters specified on the "WET and Chemical Specific Data Report Form" form included as Attachment A of this permit each time a WET test is performed.

9. **Analytical Chemistry** – Refers to those pollutants listed under "Analytical Chemistry" on the form included as **Attachment A** of this permit.

a. **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), the permittee must conduct analytical chemistry testing at a minimum frequency of once every two years (1/2

SPECIAL CONDITIONS

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

FOOTNOTES

Years). Tests are to be conducted in a different calendar quarter of each year.

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 (1/Quarter) in successive calendar quarters.

10. **Priority Pollutant** – Refers to those pollutants listed under "Priority Pollutants" on the form included as **Attachment A** of this permit.

a. **Screening level testing** - Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (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.

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 exceedences of the acute, chronic or human health AWQC as established in *Surface Water Quality Criteria for Toxic Pollutants*, 06-096 CMR 584 (effective October 9, 2005). For the purposes of DMR reporting, enter a "1" for yes, testing done this monitoring period or "NODI-9" monitoring not required this period.

B. NARRATIVE EFFLUENT LIMITATIONS

1. The permittee must not discharge effluent that contains 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 permittee must not discharge effluent that contains materials in concentrations or

SPECIAL CONDITIONS

B. NARRATIVE EFFLUENT LIMITATIONS (cont'd)

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 permittee must not discharge effluent that causes visible discoloration or turbidity in the receiving waters or that impairs the usages designated for the classification of the receiving waters.

4. 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 treatment facility must be operated by a person holding a minimum of a **Grade III** certificate (or Registered Maine Professional Engineer) pursuant to *Sewerage Treatment Operators*, 32 M.R.S.A. §§ 4171-4182 and *Regulations for Wastewater Operator Certification*, 06-096 CMR 531 (effective May 8, 2006). All proposed contracts for facility operation by any person must be approved by the Department before the permittee may engage the services of the contract operator.

D. AUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with: 1) the permittee's General Application accepted for processing on November 8, 2012; and 2) the terms and conditions of this permit; and 3) only from Outfall #001A (secondary treated wastewater) and the two CSO points identified in this permitting action (CSO 002 and 003). Discharges of wastewater from any other point source are not authorized under this permit, and must be reported in accordance with Standard Condition B(5), *Bypasses*, of this permit.

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 wastewater collection and treatment system from an indirect discharger in a primary industrial category discharging process wastewater; and

2. Any substantial change in the volume or character of pollutants being introduced into the wastewater collection and treatment system by a source introducing pollutants to the system at the time of permit issuance.

3. For the purposes of this section, notice regarding substantial change must include information on:

   (a) the quality and quantity of wastewater introduced to the wastewater collection and treatment system; and

SPECIAL CONDITIONS

F. LIMITATIONS FOR INDUSTRIAL USERS

(b) any anticipated impact caused by the change in the quantity or quality of the wastewater to be discharged from the treatment system.

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. 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).

G. 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 the Department's Regional Office such that the DMR's are received by the Department on or before the fifteenth (15th) day of the month** following the completed reporting period. A signed copy of the DMR and all other reports required herein must be submitted to the Department assigned inspector (unless otherwise specified by the Department) at the following address:

Department of Environmental Protection
Southern Maine Regional Office
Bureau of Land and Water Quality
Division of Water Quality Management
312 Canco Road
Portland, Maine 04103

Alternatively, if the permittee submits 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.

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

By December 31 of each calendar year, the permittee must provide the Department with a certification describing any of the following that have occurred since the effective date of this permit *[ICIS Code 96299]*. See **Attachment D** of the Fact Sheet for an acceptable certification form to satisfy

SPECIAL CONDITIONS

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

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;

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

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

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

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

I. OPERATIONS AND MAINTENANCE (O&M) PLAN

The permittee must maintain a current written comprehensive Operation & Maintenance (O&M) Plan for this facility. 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, or 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 wastewater 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 USEPA personnel upon request.

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

SPECIAL CONDITIONS

J. WET WEATHER MANAGEMENT PLAN

The permittee must maintain a Wet Weather Management Plan to direct the staff on how to operate the facility effectively during periods of high flow. The Department acknowledges that the existing collection system may deliver flows in excess of the monthly average design capacity of the treatment plant during periods of high infiltration and rainfall. A specific objective of the plan must be to maximize the volume of wastewater receiving secondary treatment under all operating conditions. The revised 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.

Once the Wet Weather Plan has been approved, the permittee must review their plan at least annually and record any necessary changes to keep the plan up to date. The Department may require review and update of the plan as it is determined to be necessary.

K. EFFLUENT LIMITATIONS AND CONDITIONS FOR CSOs

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

1. CSO Locations

Outfall #	Location	Receiving Water / Class
CSO 002	Water St.	Little Androscoggin River / Class C
CSO 003	Park St. / Lewiston St. area	Little Androscoggin River / Class C

2. Prohibited Discharges

   a) The discharge of dry weather flows is prohibited. All such discharges must be reported to the Department in accordance with Standard Condition D (1) of this permit.

   b) No discharge must occur as a result of mechanical failure, improper design or inadequate operation or maintenance.

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

3. Narrative Effluent Limitations

   a) The effluent must not contain a visible oil sheen, settled substances, foam, or floating solids at any time that impair the characteristics and designated uses ascribed to the classification of the receiving waters.

   b) The effluent must not contain materials in concentrations or combinations that are hazardous or toxic to aquatic life; or which would impair the usage designated by the classification of the receiving waters.

SPECIAL CONDITIONS

K. EFFLUENT LIMITATIONS AND CONDITIONS FOR CSOs (cont'd)

c) The discharge must not impart color, turbidity, toxicity, radioactivity or other properties that cause the receiving waters to be unsuitable for the designated uses and other characteristics ascribed to their class.

d) Notwithstanding specific conditions of this permit, the effluent by itself or in combination with other discharges 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.

4. CSO Master Plan [see 06-096 CMR 570(2) and 06-096 CMR 570(3)]

The permittee must implement CSO control projects in accordance with the most recently approved CSO Master Plan and abatement schedule. The CSO Master Plan entitled, *"Combined Sewer Overflow Plan for Mechanic Falls Sanitary District,"* dated April 1996, was updated in 2002 and on November 5, 2008, the Department approved the current update with abatement schedule titled "*Updated Sewer System Master Plan for CSO Abatement*" date May 2008 and revised on September 17, 2008.

The Mechanic Falls SD currently has two active CSOs (CSO 002 and 003) that were part of the 2008 permit application. CSO 001 located at Judson St./Lewiston St. area was permanently eliminated in April of 2013. The permittee reports that the CSOs are in use during high flow events which occur approximately 15-25 times per year. The 2012 application states that a treatment unit does not operate for stormwater flows from these CSOs, however they are working toward removing a portion of these stormwater flows by completing upcoming projects. The Mechanic Falls SD is requesting, and this permitting is granting, to permit the two CSO locations for use as needed until such time that it can ensure that further overflows will not occur at these locations. Accordingly,

On or before December 31, 2014 *[ICIS Code 06699]* the permittee must submit an updated CSO Master Plan with revised abatement schedule to the Department for review and approval.

On or before December 31, 2014 *[ICIS Code 04599]* the permittee must complete the project referred to as the Pine Street sewer separation project.

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

The permittee must implement and follow the Nine Minimum Control documentation as approved by EPA on May 29, 1997. Work performed on the Nine Minimum Controls during the year must be included in the annual *CSO Progress Report* (see below).

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

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

SPECIAL CONDITIONS

K. EFFLUENT LIMITATIONS AND CONDITIONS FOR CSOs (cont'd)

Results must be submitted annually as part of the annual *CSO Progress Report* (see below), and must include annual precipitation, CSO volumes (actual or estimated) and any block test data required. Any abnormalities during CSO monitoring must also be reported. The results must be reported on the Department form "CSO Activity and Volumes" (**Attachment D** of this permit) or similar format and submitted to the Department on diskette.

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

7. Additions of New Wastewater [see 06-096 CMR 570(8)] lists requirements relating to any proposed addition of wastewater to the combined sewer system. Documentation of the new wastewater additions to the system and associated mitigating measures must be included in the annual *CSO Progress Report* (see below). Reports must contain the volumes and characteristics of the wastewater added or authorized for addition and descriptions of the sewer system improvements and estimated effectiveness.

8. Annual CSO Progress Reports [see 06-096 CMR 570(7)]. **By March 1 of each year** *[ICIS Code 11099]*, the permittee must submit a *CSO Progress report* covering the previous calendar year (January 1 to December 31). The CSO Progress Report must include, but is not necessarily limited to, the following topics as further described in 06-096 CMR 570: CSO abatement projects, schedule comparison, progress on inflow sources, costs, flow monitoring results, CSO activity and volumes, nine minimum controls update, sewer extensions, and new commercial or industrial flows.

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

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

SPECIAL CONDITIONS

K. EFFLUENT LIMITATIONS AND CONDITIONS FOR CSOs (cont'd)

9. Signs

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

MECHANIC FALLS SANITARY DISTRICT
WET WEATHER
SEWAGE DISCHARGE
CSO # AND NAME

10. Definitions

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

a. Combined Sewer Overflow - a discharge of excess waste water from a municipal or quasi-municipal sewerage system that conveys both sanitary wastes and storm water in a single pipe system and that is in direct response to a storm event or snowmelt.

b. Dry Weather Flows - flow in a sewerage system that occurs as a result of non-storm events or are caused solely by ground water infiltration.

c. Wet Weather Flows - flow in a sewerage system that occurs as a direct result of a storm event, or snowmelt in combination with dry weather flows.

L. REOPENING OF PERMIT FOR MODIFICATION

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

M. SEVERABILITY

In the event that any provision, or part thereof, of this permit is declared to be unlawful by a reviewing court, the remainder of the permit must remain in full force and effect, and must 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

Printed 6/1/2012

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

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

Licensed Flow (MGD) _____ **Flow for Day (MGD)[1]** _____ **Flow Avg. for Month (MGD)[2]** _____
Acute dilution factor _____
Chronic dilution factor _____ **Date Sample Collected** _____ Date Sample Analyzed _____
Human health dilution factor _____
Criteria type: M(arine) or F(resh) _____

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

Last Revision - April 25, 2012

ERROR WARNING ! Essential facility information is missing. Please check required entries in bold above.

FRESH WATER VERSION

Please see the footnotes on the last page.

			Effluent Limits, %			Receiving Water or Ambient	**Effluent Concentration** (ug/L or as noted)		Possible Exceedence [7]		
	WHOLE EFFLUENT TOXICITY		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)					(8)					
	Total Organic Carbon (mg/L)					(8)					
	Total Solids (mg/L)										
	Total Suspended Solids (mg/L)										
	Alkalinity (mg/L)					(8)					
	Specific Conductance (umhos)										
	Total Hardness (mg/L)					(8)					
	Total Magnesium (mg/L)					(8)					
	Total Calcium (mg/L)					(8)					
	ANALYTICAL CHEMISTRY [3]										
	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[5]	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	5				(8)					
M	LEAD	3				(8)					
M	NICKEL	5				(8)					
M	SILVER	1				(8)					
M	ZINC	5				(8)					

Maine Department of Environmental Protection
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	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 Chemical Specific Data Report Form
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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									

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

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.

(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 B

Maine Department of Environmental Protection

Effluent Mercury Test Report

Name of Facility: _____ Federal Permit # ME _____

Pipe # _____

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

SAMPLE COLLECTION INFORMATION

Sampling Date: ___ ___ ___ (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 C

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
WHOLE EFFLUENT TOXICITY REPORT
FRESH WATERS

Facility Name _____ MEPDES Permit # _____

Facility Representative _____ Signature _____

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

Facility Telephone # _____ Date Collected _____ (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

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

Comments _____

Laboratory conducting test

Company Name _____ Company Rep. Name (Printed) _____

Mailing Address _____ Company Rep. Signature _____

City, State, ZIP _____ Company Telephone # _____

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

ATTACHMENT D

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
CSO ACTIVITY AND VOLUMES

MUNICIPALITY OR DISTRICT	MEPDES / NPDES PERMIT NO.
REPORTING YEAR	SIGNED BY:
YEARLY TOTAL PRECIPITATION INCHES	DATE:

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

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

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

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
MAINE WASTE DISCHARGE LICENSE

FACT SHEET

DATE: **MAY 3, 2013**

PERMIT NUMBER: **#ME0100391**

WASTE DISCHARGE LICENSE: **#W002722-6C-K-R**

APPLICANT INFORMATION: **MECHANIC FALLS SANITARY DISTRICT**
P.O. BOX 5
MECHANIC FALLS, MAINE 04256

NAME, ADDRESS, AND COUNTY WHERE DISCHARGE(S) OCCUR(S):

56 LEWISTON STREET
MECHANIC FALLS, MAINE 04256
ANDROSCOGGIN COUNTY

RECEIVING WATER CLASSIFICATION: **LITTLE ANDROSCOGGIN RIVER/CLASS C**

COGNIZANT OFFICIAL CONTACT INFORMATION:

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1. APPLICATION SUMMARY

Application: On November 8, 2012, the Department accepted as complete for processing, a renewal application for Waste Discharge License (WDL) #W002722-5L-H-R / Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0100391, which was issued on February 13, 2008, for a five year term. The 2/13/08 MEPDES permit authorized the District to discharge an unspecified quantity of secondary treated municipal wastewater from a publicly owned treatment works (POTW) and untreated wastewater from two combined sewer outfalls (CSOs) to the Little Androscoggin River, Class C, in Mechanic Falls, Maine.

The Department issued a minor permit revision on February 6, 2012 to revise the mercury monitoring frequency.

2. PERMIT SUMMARY

a. Terms and Conditions: This permitting action is carrying forward all the terms and conditions of the previous permitting actions except it is:

1. Revising the minimum monitoring frequency requirements for biochemical oxygen demand (BOD_5), total suspended solids (TSS), settleable solids, *Escherichia coli* bacteria, and pH based on the results of facility testing;

2. Eliminating the total and inorganic arsenic limits as well as the Toxicity Reduction Evaluation (TRE) and Schedule of Compliance associated with arsenic, due to U.S. Environmental Protection Agency (USEPA) approval of state human health ambient water quality criteria (AWQC) for arsenic;

3. Establishing two tiers of effluent limitations for toxics pollutants based on two waste load allocations associated with the variability of discharges into the Little Androscoggin River;

4. Establishing a Schedule of Compliance for total phosphorus;

5. Establishing segment allocation-based monthly average and daily maximum mass limits and eliminating the daily maximum concentration limit for copper;

6. Establishing a segment allocation-based monthly average mass limit for lead and eliminating the monthly average concentration limit;

7. Eliminating the monthly average mass and concentration limits for thallium based on the results of facility testing;

8. Eliminating the daily maximum chronic reporting limit of 2.3% for the water flea for both surveillance and screening level Whole Effluent Toxicity (WET) testing and revising the chronic water flea monitoring frequency based on the results of facility testing;

9. Revising the timing of the screening and surveillance level WET testing during permit cycle;

10. Incorporating the interim mercury limits established by the Department for this facility pursuant to *Certain deposits and discharges prohibited*, 38 M.R.S.A. § 420 and *Waste discharge licenses*, 38 M.R.S.A. § 413 and *Interim Effluent Limitations and Controls for the Discharge of Mercury*, 06-096 CMR 519 (last amended October 6, 2001);

11. Revising the seasonal monthly average concentration limit for *E. coli* bacteria based on changes to Maine's water quality standards for Class C waters; and

12. Establishing a Total phosphorus reporting requirement.

b. History: This section provides a summary of significant licensing/permitting actions and milestones that have been completed for the permittee's facility.

2. PERMIT SUMMARY (cont'd)

July 7, 1995 - The Department issued WDL #W-002722-59-C-R to the Mechanic Falls SD for the discharge of up to a monthly average of 0.49 MGD of secondary treated wastewater from the publicly owned treatment works and untreated storm water/sanitary wastewater from one combined sewer overflow. The WDL was issued for a five year term and superseded all prior WDLs back to the earliest the Department has on file, #W-002722-45-A-R, issued on March 23, 1984.

June 9, 1999 - The USEPA issued NPDES permit #ME0100391 to the Mechanic Falls SD for its discharge to the Little Androscoggin River for five year term, superseding the NPDES permit issued on July 30, 1992.

June 27, 2000 - Pursuant to 38 M.R.S.A. § 420 and § 413 and *Interim Effluent Limitations and Controls for the Discharge of Mercury*, 06-096 CMR 519 (last amended October 6, 2001), the Department modified WDL #W-002722-59-C-R, establishing interim effluent limits and monitoring requirements for mercury.

December 8, 2000 – The Department issued WDL #W-002722-5L-F-R to the Mechanic Falls SD for its discharge to the Little Androscoggin River for a five year term. Consistent with the most recent NPDES permit, the Department revised the previous 0.49 MGD discharge flow limit in recognition of the effects of wet weather related CSOs on the discharge, issuing the Maine WDL for an unspecified quantity of wastewater.

January 12, 2001 – The Department received authorization from the USEPA to administer the NPDES permitting program in Maine, excluding areas of special interest to Maine Indian Tribes. From this point forward, the program has been referred to as the Maine Pollutant Discharge Elimination System (MEPDES) program, and MEPDES permit #ME0101443 has been utilized for this facility. On March 26, 2011, the USEPA authorized the Department to administer the MEPDES program in Indian territories of the Penobscot Nation and Passamaquoddy Tribe.

October 3, 2002 – The Mechanic Falls SD submitted a letter to the Department authorizing the USEPA to retire the 6/9/99 NPDES permit (#ME0100391) upon issuance of its pending MEPDES permit.

October 22, 2002 – The Department issued WDL #W-002722-5L-G-M / MEPDES Permit #ME0100391 to the Mechanic Falls SD for the discharge of an unspecified quantity of secondary treated sanitary wastewater from a municipal treatment facility and untreated storm water and sanitary wastewaters from one CSO to the Little Androscoggin River. The Permit/WDL incorporated the terms and conditions of the MEPDES permit program and was issued for a five-year term.

April 10, 2006 – The Department issued a Modification of WDL #W-002722-5L-G-M / MEPDES Permit #ME0100391 to revise toxicity testing requirements for the Mechanic Falls SD facility pursuant to Department rule 06-096 CMR, Chapter 530, *Surface Water Toxics Control Program,* and Department rule 06-096 CMR Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants.*

February 12, 2008 – The Department issued WDL #W002722-5L-H-R / MEPDES permit #ME0100391 to the Mechanic Falls SD for a five-year term.

2. PERMIT SUMMARY (cont'd)

November 5, 2008 – The Department approved the Updated Sewer System Master Plan for CSO Abatement dated May, 2008 and revised September 17, 2008 which was prepared by Olver Associates, Inc. and contained a list of abatement projects dating out through 2021.

November 7, 2012 – The permittee submitted a timely and complete General Application to the Department for renewal of the February 12, 2008 MEPDES permit. The application was accepted for processing on November 8, 2012, and was assigned WDL #W002722-6C-K-R / MEPDES #ME0100391.

c. Source Description: The Mechanic Falls SD provides municipal wastewater collection and treatment services to approximately 820 residential and commercial sewer users in the downtown and immediately outlying areas of the community. Approximately eight miles of sanitary sewer lines collect wastewater from the sewer users and conveys it to the Mechanic Falls Treatment Facility off Lewiston Street. At the treatment plant, pollutants are removed and the influent wastewater is clarified and disinfected prior to its discharge to the Little Androscoggin River.

The wastewater treatment plant has a sustained design capacity of 0.49 MGD average daily flow and a peak hourly flow of 1.0 MGD. For brief periods, the plant is designed to accept peak hourly flows of up to 1.5 MGD. The plant also has a design capacity to treat up to 500 lbs./day of organic pollutant loading. Flow and organic loadings above these design levels reduce the plant's treatment effectiveness. A map showing the location of the treatment facility is included as Fact Sheet **Attachment A.**

d. Wastewater Treatment: The permittee provided the following description as a part of their application packet: The flow is delivered from the main pump station into the plant headworks. The flow enters the treatment plant headworks which consists of a grit chamber, comminutor and a screw grit removal system. From the headworks, the influent flows by gravity into the plant's oxidation ditch. Mechanic Falls operates an oxidation ditch with a volume of 0.367 MGD.

Following the oxidation ditch, the wastewater flows to the two final clarifiers. These clarifiers have a surface area of 615 ft^2 each. Settled sludge from both of these clarifiers is either returned to the process as return activated sludge or pumped to the sludge holding tank and aerated sludge storage tank. From the aerated sludge storage tank, the sludge is transferred to the sludge holding tank for storage prior to landspreading. The sludge storage tank has a capacity of 0.31 million gallons and the holding tank has a capacity of 7,500 gallons.

The plant operates a 12,600 gallon chlorine contact chamber where sodium hypochlorite and sodium bisulfate are added. After dechlorination, the final effluent flows through a 21" Ø outfall pipe. The outfall discharges into the Little Androscoggin River as an at bank discharge.

The collection system consists of interceptors, gravity sewers, the inverted siphon chamber on Water Street, and one submersible pumping station as the end of Pleasant Street. Wet weather peak flows in the sewerage collection system periodically exceed the 1.0 MGD design capacity of the treatment plant. When this occurs, the plant's operations staff allows as much water as can physically enter the plant to flow into the facility. The maximum hydraulic flow that can enter the plant is presently about 1.5 MGD. During these storm events, peak flows begin to back up in the interceptor sewer

2. PERMIT SUMMARY (cont'd)

system and surcharge the sewer's manholes. These hydraulic overloading conditions are associated with wet weather precipitation events and are the result of excess stormwater entering the sewer system. Because peak flows in the sewer system under surcharged conditions can create instantaneous flow peaks, excess flows must continue to be bypassed. The relief point, referred to as a combined sewer overflow (CSO), discharges raw sewerage to the Little Androscoggin River during peak wet weather events. Currently, the Mechanic Falls SD discharges through two CSOs. Each of these CSOs discharges to the Little Androscoggin River.

CSO 001 (off Lewiston Street near the Judson Street intersection) has been permanently eliminated. CSO 002 (inlet siphon box) has been historically active and is located off Water Street. CSO 003 had been previously discontinued but reactivated in 2007 due to the extreme high flows in the interceptor. This CSO is located off Lewiston Street near the intersection of Park Street. A process flow diagram submitted by the permittee is included as Fact Sheet **Attachment B.**

3. CONDITIONS OF PERMIT

Conditions of licenses, 38 M.R.S.A. § 414-A, requires that the effluent limitations prescribed for discharges, including, but not limited to, effluent toxicity, require application of best practicable treatment (BPT), be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System. In addition, 38 M.R.S.A. § 420 and 06-096 CMR 530 require the regulation of toxic substances not to exceed levels set forth in *Surface Water Quality Criteria for Toxic Pollutants*, 06-096 CMR 584 (last amended July 29, 2012), and that ensure safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected.

4. RECEIVING WATER QUALITY STANDARDS

Classification of major river basins, 38 M.R.S.A. § 467(1)(B)(1)(b) classifies the "Little Androscoggin River, main stem, from the Maine Central Railroad bridge in South Paris to its confluence with the Androscoggin River" which includes the river at the point of discharge, as Class C waters. *Standards for classification of fresh surface waters*, 38 M.R.S.A. § 465(3) describes the standards for Class C.

5. RECEIVING WATER QUALITY CONDITIONS

The State of Maine 2010 Integrated Water Quality Monitoring and Assessment Report (Report), prepared by the Department pursuant to Sections 303(d) and 305(b) of the Federal Water Pollution Control Act, lists the receiving water at Mechanic Falls as "Category 2: Rivers and Streams Attaining Some Designated Uses - Insufficient Information for Other Uses." The listing identifies a 24.49-mile segment of Class C water, but lists no further comments. The Report also lists the receiving water in Mechanic Falls as "Category 4-A: Rivers and Streams with Impaired Use Other Than Mercury, TMDL Completed." The report states that the waters are CSO affected and due to *E. coli* there are recreational use impairments. On September 28, 2009, the USEPA approved the Department's Maine Statewide Bacteria TMDL (Total Maximum Daily Loads), dated August 2009, for fresh, marine and estuarine waters impaired by bacteria.

5. RECEIVING WATER QUALITY CONDITIONS (cont'd)

The Report lists all of Maine's fresh waters as, "Category 4-A: Waters Impaired by Atmospheric Deposition of Mercury." Impairment in this context refers to a statewide fish consumption advisory due to elevated levels of mercury in some fish tissues. The Report states, "All freshwaters are listed in Category 4A (TMDL Completed) due to USEPA approval of a Regional Mercury TMDL. 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 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." Pursuant to 38 M.R.S.A. § 420(1-B)(B), "a facility is not in violation of the ambient criteria for mercury if the facility is in compliance with an interim discharge limit established by the Department pursuant to section 413 subsection 11." The Department has established interim monthly average and daily maximum mercury concentration limits and reporting requirements for this facility pursuant to 06-096 CMR 519.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

a. Flow: The previous permitting action established, and this permitting action is carrying forward, a monthly average and daily maximum reporting requirement based on Department best professional judgment (BPJ). The monthly average dry weather facility design flow of 0.49 MGD was used in calculation of effluent mass limits.

The Department reviewed 48 Discharge Monitoring Reports (DMRs) that were submitted for the period January 1, 2009 – December 31, 2012. A review of data indicates the following:

Flow

Value	Limit (MGD)	Range (MGD)	Mean (MGD)
Monthly Average	Report	0.17 – 0.90	0.4
Daily Maximum	Report	0.20 – 1.35	0.8

b. Dilution Factors: Dilution factors associated with the permitted discharge flow of 0.49 MGD from the facility and the 7Q10 and 1Q10 low flow values for the Little Androscoggin River, were derived in accordance with 06-096 CMR 530(4)(A) and were calculated as follows:

Modified Acute: 1Q10 = 15.3 cfs $\Rightarrow \frac{(15.3 \text{ cfs})(0.6464) + 0.49 \text{ MGD}}{0.49 \text{ MGD}} = 21:1$

Acute: 1Q10 = 30.6 cfs $\Rightarrow \frac{(30.6 \text{ cfs})(0.6464) + 0.49 \text{ MGD}}{0.49 \text{ MGD}} = 41:1$

Chronic: 7Q10 = 32.5 cfs $\Rightarrow \frac{(32.5 \text{ cfs})(0.6464) + 0.49 \text{ MGD}}{0.49 \text{ MGD}} = 44:1$

Harmonic Mean = 103.5 cfs $\Rightarrow \frac{(103.5 \text{ cfs})(0.6464) + 0.49 \text{ MGD}}{0.49 \text{ MGD}} = 138:1$

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

06-096 CMR 530(4)(B)(1) states that analyses using numeric acute criteria for aquatic life must be based on ¼ of the 1Q10 stream design flow to prevent substantial acute toxicity within any mixing zone. The regulation goes on to say that where it can be demonstrated that a discharge achieves rapid and complete mixing with the receiving water by way of an efficient diffuser or other effective method, analyses may use a greater proportion of the stream design, up to including all of it.

On September 10, 2002, during 1Q10 low flow conditions in the Little Androscoggin River, the Department and the permittee conducted an experiment by placing dye in the effluent and observing the mixing characteristics of the discharge with the receiving waters. Observations indicated that the discharge, though considered a bank outfall, immediately flowed out into the center of the receiving water and mixed with approximately 50% of the receiving waters after the first 15 minutes. Based on this, the Department is using 50% of the 1Q10 (30.6 cfs) to calculate the acute dilution factor, as was done in the previous permitting action.

c. Biochemical Oxygen Demand (BOD_5) and Total Suspended Solids (TSS): The previous permitting action established, and this permitting action is carrying forward, monthly average and weekly average technology-based concentration limits of 30 mg/L and 45 mg/L, respectively, for BOD_5 and TSS based on the secondary treatment requirements specified at *Effluent Guidelines and Standards*, 06-096 CMR 525(3)(III) (effective January 12, 2001), and a daily maximum concentration limit of 50 mg/L, which is based on a Department best professional judgment (BPJ) of best practicable treatment (BPT) for secondary treated wastewater. The technology-based monthly average and weekly average mass limits of 122 lbs./day and 184 lbs./day, respectively, established in the previous permitting action for BOD_5 and TSS are based on the monthly average flow design criterion of 0.49 MGD and the applicable concentration limits, and are also being carried forward in this permitting action. This permitting action is carrying forward a requirement for a minimum of 85% removal of BOD_5 & TSS pursuant to 06-096 CMR 525(3)(III)(a&b)(3) during dry weather. The percent removal requirement is waived for either or both BOD_5 or TSS when influent concentration is less than 200 mg/L during wet weather pursuant to 06-096 CMR 525(3)(IV)(a) as it has been determined that an attainable percent removal compliance level cannot be defined during wet weather due to the complexity of the Mechanic Falls wastewater conveyance system. Dry weather is defined as any calendar day on which there is less than 0.1 inch of rainfall and no snow melt.

The Department reviewed 48 DMRs that were submitted for the period January 1, 2009 – December 31, 2012. A review of data indicates the following:

BOD_5 mass

Value	Limit (lbs./day)	Range (lbs./day)	Mean (lbs./day)
Monthly Average	122	5 – 65	22
Weekly Average	184	6 – 177	37
Daily Maximum	Report	6 – 177	38

BOD_5 concentration

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	30	2 - 14	7
Weekly Average	45	3 - 23	10
Daily Maximum	50	3 - 23	10

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

The Department reviewed 48 DMRs that were submitted for the period January 1, 2009 – December 31, 2012. A review of data indicates the following:

TSS mass

Value	Limit (lbs./day)	Range (lbs./day)	Mean (lbs./day)
Monthly Average	122	9 – 66	28
Weekly Average	184	12 – 177	49
Daily Maximum	Report	12 – 177	51

TSS concentration

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	122	3 –21	9
Weekly Average	184	4 – 38	14
Daily Maximum	Report	4 – 38	14

On April 19, 1996, the USEPA issued a guidance document entitled, "*Interim Guidance for Performance Based Reductions of NPDES Permit Monitoring Frequencies*" (USEPA 1996) as the basis for determining reduced monitoring frequencies. The guidance document was issued to reduce unnecessary reporting while at the same time maintaining a high level of environmental protection for facilities that have a good compliance record and pollutant discharges at levels below permit requirements. Monitoring requirements are not considered effluent limitations under section 402(o) of the Clean Water Act and therefore, anti-backsliding prohibitions would not be triggered by reductions in monitoring frequencies.

The USEPA guidance indicates "*...the basic premise underlying a performance-based reduction approach is that maintaining a low average discharge relative to the permit limits results in a low probability of the occurrence of a violation for a wide range of sampling frequencies.*" The monitoring frequency reductions in USEPA's guidance were designed to maintain approximately the same level of reported violations as that experienced with the existing baseline sampling frequency in the permit. To establish baseline performance the long term average (LTA) discharge rate for each parameter is calculated using the most recent two-year data set of monthly average effluent data representative of current operating conditions. The LTA/permit limit ratio is calculated and then compared to the matrix in Table I of USEPA's guidance to determine the potential monitoring frequency reduction. It is noted Table I of USEPA's guidance was derived from a probability table that used an 80% effluent variability or coefficient of variation (cv). The permitting authority can take into consideration further reductions in the monitoring frequencies if the actual cv for the facility is significantly lower than the default 80% utilized by the USEPA in Table I.

In addition to the parameter-by-parameter performance history via the statistical evaluation cited above, the USEPA recommends the permitting authority take into consideration the facility enforcement history and the parameter-by-parameter compliance history and factors specific to the State or facility. If the facility has already been given monitoring reductions due to superior performance, the baseline may be a previous permit.

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

The USEPA's 1996 guidance recommends evaluation of the most current two-years of effluent data for a parameter. A review of the monitoring data for BOD_5 and TSS indicate the ratios (expressed in percent) of the long term effluent average to the monthly average limits can be calculated as follows:

BOD_5

Long term average = 22 lbs./day
Monthly average limit = 122 lbs./day
Current monitoring frequency = 1/Week

Ratio = $\frac{22 \text{ lbs./day}}{122 \text{ lbs./day}}$ = 18%

According to Table I of the USEPA guidance, a 1/Week monitoring requirement can be reduced to 1/2 Months. However, the Department has determined that a reduction to 2/Month testing for BOD_5 is consistent with our analysis of the data and BPJ. Therefore, the monitoring frequency for BOD_5 has been reduced to 2/Month in this permitting action.

TSS

Long term average = 28 lbs./day
Monthly average limit = 122 lbs./day
Current monitoring frequency = 1/Week

Ratio = $\frac{28 \text{ lbs./day}}{122 \text{ lbs./day}}$ = 23%

According to Table I of the EPA Guidance, a 1/Week monitoring requirement can be reduced to 1/2 Months. However, the Department has determined that a reduction to 2/Month testing for TSS is consistent with our analysis of the data and BPJ. Therefore, the monitoring frequency for TSS has been reduced to 2/Month in this permitting action.

d. Settleable Solids: The previous permitting action established, and this permitting action is carrying forward, a technology-based daily maximum concentration limit of 0.3 ml/L for settleable solids, which is considered a best practicable treatment limitation (BPT) for secondary treated wastewater.

The Department reviewed 48 DMRs that were submitted for the period January 1, 2009 – December 31, 2012. A review of data indicates the following:

Settleable solids concentration

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

A review of the monitoring data for settleable solids indicates the ratios (expressed in percent) of the long term effluent average to the monthly average limits can be calculated as follows:

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

Long term average = 0.1 ml/L
Daily maximum limit = 0.3 ml/L
Current monitoring frequency = 1/Day

Ratio = 0.1 ml/L = 33%
0.3 ml/L

According to Table I of the USEPA guidance, a 1/Day monitoring requirement can be reduced to 3/Week. However, the Department has determined that a reduction to 4/Week testing for settleable solids is consistent with our analysis of the data and BPJ. Therefore, the monitoring frequency for settleable solids has been reduced to 4/Week in this permitting action.

e. *E. coli* Bacteria: The pervious permitting action established seasonal (May 15 through September 30) monthly average and daily maximum concentration limits for *E. coli* bacteria of 142 colonies/100 ml (geometric mean) and 949 colonies/100 ml (instantaneous level), respectively, which were based on the State of Maine Water Classification Program criteria for Class C waters. In calendar year 2005, the Maine Legislature approved new geometric mean and instantaneous water quality standards of 126 colonies/100 ml and 236 colonies/100 ml, respectively, for Class C waters. This permitting action is reducing the monthly average limit from 142 colonies/100 ml to 126 colonies/100 ml. However, the Department has made the determination that after taking into consider the dilution associated with the discharge, the daily maximum BPT limit established in the previous permitting action is protective of the newer AWQC for bacteria.

Although *E. coli* bacteria limits are seasonal and apply between May 15 and September 30 of each year, the Department reserves the right to impose year-round bacteria limits if deemed necessary to protect the health, safety and welfare of the public.

The Department reviewed 20 DMRs that were submitted for the period May 15, 2009 – September 30, 2012. A review of data indicates the following:

***E. coli* Bacteria**

Value	Limit (col/100 ml)	Range (col/100 ml)	Mean (col/100 ml)
Monthly Average	126	3 – 80	27
Daily Maximum	949	7 -816	182

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 follows:

Long term average = 27 col/100 ml
Monthly average limit = 126 col/100 ml
Current monitoring frequency = 1/Week

Ratio = 27 col/100 ml = 21%
126 col/100 ml

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

According to Table I of the USEPA Guidance, a 1/Week monitoring requirement can be reduced to 1/2 Months. However, the Department has determined that a reduction to 2/Month testing for *E. coli* is consistent with our analysis of the data and BPJ. Therefore, the monitoring frequency for *E. coli* bacteria has been reduced to 2/Month during the monitoring period of May 15 – September 30 in this permitting action.

f. Total Residual Chlorine (TRC): The previous permitting action established technology-based monthly average and water quality-based daily maximum concentration limits of 0.1 mg/L and 0.2 mg/L, respectively, for TRC. Limitations on TRC are specified to ensure that ambient water quality standards are maintained and that BPT technology is being applied to the discharge. Department permitting actions impose the more stringent of either a water quality-based or BPT-based limit. With dilution factors as determined above, end-of-pipe (EOP) water quality-based concentration thresholds for TRC may be calculated as follows:

Acute (A) Criterion	Chronic (C) Criterion	A & C Dilution Factors	Calculated Acute Threshold	Chronic Threshold
0.019 mg/L	0.011 mg/L	21:1 (A) 44:1 (C)	0.40 mg/L	0.48 mg/L

The Department has established a daily maximum BPT limitation of 1.0 mg/L for facilities that disinfect their effluent with elemental chlorine or chlorine-based compounds. For facilities that need to dechlorinate the discharge in order to meet water quality-based thresholds, the Department has established daily maximum and monthly average BPT limits of 0.3 mg/L and 0.1 mg/L, respectively. The permittee dechlorinates the effluent prior to discharge in order to achieve compliance with the water quality-based thresholds. The calculated acute water quality-based threshold of 0.4 mg/L is less stringent than the daily maximum technology-based standard of 0.3 mg/L, therefore the daily maximum limit of 0.3 mg/L is being carried forward in this permitting action. The monthly average technology-based standard of 0.1 mg/L is more stringent than the calculated chronic water quality-based threshold of 0.48 mg/L and is therefore being carried forward in this permitting action.

The Department reviewed 20 DMRs that were submitted for the period January 1, 2009 – December 31, 2012. A review of data indicates the following:

Total residual chlorine

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	0.1	0.02 – 0.06	0.04
Daily Maximum	0.3	0.04 - 0.1	0.08

A review of the monitoring data for TRC indicates the ratios (expressed in percent) of the long term effluent average to the monthly average limits can be calculated as follows:

Long term average = 0.04 mg/L
Monthly Average limit = 0.1 mg/L
Current monitoring frequency = 1/Day

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

Ratio = $\frac{0.04 \text{ mg/L}}{0.1 \text{ mg/L}} = 40\%$

According to Table I of the EPA Guidance, a 1/Day monitoring requirement can be reduced to 3/Week. However the Department has determined that no reduction in monitoring frequency for TRC is consistent with our analysis of the data and BPJ. Therefore, the monitoring frequency for TRC remains at 1/Day.

g. pH: The previous permitting action established, and this permitting action is carrying forward, a technology-based pH limit of 6.0 – 9.0 standard units (SU), which is based on 06-096 CMR 525(3)(III).

The Department reviewed 48 DMRs that were submitted for the period January 1, 2009 – December 31, 2012. A review of data indicates the following:

pH

Value	Limit (SU)	Minimum (SU)	Maximum (SU)
Range	6.0 – 9.0	6.0	8.4

In consideration of compliance history with pH, this permitting action is revising the minimum monitoring frequency requirement for pH from once per day to five times per week.

h. Total Phosphorus: The facility has not been conducting total phosphorus testing to date. However, the Department has numerous total phosphorus data results for municipally owned treatment works throughout the State. The following calculation uses data from the Mechanic Falls facility as well as a documented upstream phosphorus concentration and a typical POTW phosphorus discharge concentration. Using the following calculation and criteria, the facility does exhibit a reasonable potential to exceed the draft ambient water quality criteria of 0.033 mg/L for phosphorus

Reasonable Potential Analysis

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

Qe = effluent flow i.e. facility design flow = 0.49 MGD
Ce = effluent pollutant concentration = 2.5 mg/L
Qs = 7Q10 flow of receiving water = 21 MGD
Cs = upstream concentration = 0.012 mg/L
Qr = receiving water flow (21 MGD + 0.49 MGD) = 21.49
Cr = receiving water concentration

$$Cr = \frac{(0.49 \text{ MGD} \times 2.5 \text{ mg/L}) + (21 \text{ MGD} \times 0.012 \text{ mg/L})}{21.49 \text{ MGD}}$$

Cr = 0.07 mg/L which is greater than 0.033 mg/L (state water quality criteria)

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

The Department's proposed rule for nutrient criteria provides a weight of evidence approach when making decisions on whether to establish limitations for total phosphorus in permits. Besides establishing numeric values for total phosphorus, the proposed rule establishes criteria for response indicators including secchi disk thresholds, thresholds for chlorophyll *a* levels in the water column, the presence of bacteria and fungi, dissolved oxygen standards by classification, pH and aquatic life standards by classification. The reasonable potential analysis calculation indicates the discharge has a reasonable potential to exceed the numeric values in the proposed rule, however, the Department has no information that any of the response indicators measured to date indicate the discharge from Mechanic Falls is causing or contributing to non-attainment of Class C water quality standards. The most recent macro-invertebrate sampling station downstream of the permittee's discharge indicates Class C aquatic life standards are being attained. Therefore, this permitting action is establishing a compliance schedule to ensure that the applicable water quality criteria re not being exceeded and to gather the applicable environmental indicator data as evidence to support whether or not Mechanic Falls discharge is causing or contributing to non- attainment of Class C water quality standards.

The Schedule of Compliance consists of a two year seasonal monitoring period in which Mechanic Falls is required to examine biological indicators in the area of their discharge. They will also be required to submit a progress report that will summarize all findings for each monitoring period. Due to the finding that there is reasonable potential to exceed the draft numeric water quality criteria for total phosphorus, beginning on June 1, 2016, a water quality based monthly average mass limit of 0.14 lbs./day will go into effect.

i. Mercury: Pursuant to *Certain deposits and discharges prohibited*, 38 M.R.S.A. § 420 and *Waste discharge licenses*, 38 M.R.S.A. § 413 and *Interim Effluent Limitations and Controls for the Discharge of Mercury*, 06-096 CMR 519 (last amended October 6, 2001), the Department issued a *Notice of Interim Limits for the Discharge of Mercury* to the permittee thereby administratively modifying MEPDES permit #ME0100391 by establishing interim monthly average and daily maximum effluent concentration limits of 5.6 parts per trillion (ppt.) and 8.5 ppt., respectively, and a minimum monitoring frequency requirement of four (4) tests per year. On February 6, 2012, the Department issued a minor revision to the February 12, 2008 permit thereby revising the minimum monitoring frequency requirement from once per quarter to once per year pursuant to 38 M.R.S.A. § 420(1-B)(F).

It is noted the limitations have been incorporated into Special Condition A, Effluent Limitations And Monitoring Requirements, of this permit. 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 February 5, 2004 through the present indicates the following:

Mercury

Value	Limit (ng/L)	Range (ng/L)	Mean (ng/L)
Monthly Average	5.6	1.1 – 19.0	3.7
Daily Maximum	8.5		

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

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.

Whole Effluent Toxicity (WET), Priority Pollutant, and Analytical Chemistry Testing

38 M.R.S.A. § 414-A and 38 M.R.S.A. § 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 sets forth effluent monitoring requirements and procedures to establish safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected and narrative and numeric water quality criteria are met. 06-096 CMR 584 sets 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, is included in this permit in order to characterize the effluent. 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 the invertebrate water flea (*Ceriodaphnia dubia*) and vertebrate brook trout (*Salvelinus fontinalis*). Chemical-specific monitoring is required to assess the levels of individual toxic pollutants in the discharge, comparing each pollutant to acute, chronic, and human health water quality criteria. Priority pollutants refers to those pollutants listed under "Priority Pollutants" on the form included as **Attachment A** of the permit. Analytical chemistry refers to those pollutants listed under "Analytical Chemistry" on the form included as **Attachment A** of the permit.

06-096 CMR 530(2)(A) specifies the dischargers subject to the rule as:

> All licensed dischargers of industrial process wastewater or domestic wastes discharging to surface waters of the State must meet the testing requirements of this section. Dischargers of other types of wastewater are subject to this subsection when and if the Department determines that toxicity of effluents may have reasonable potential to cause or contribute to exceedences of narrative or numerical water quality criteria.

The permittee discharges domestic (sanitary) to surface waters and is therefore subject to the testing requirements of the toxics rule.

This permit 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.

06-096 CMR 530(2)(B) categorizes dischargers subject to the toxics rule into one of four levels (Levels I through IV). Level II dischargers are those dischargers having a chronic dilution factor of greater than or equal to 20 to 1. The chronic dilution factor associated with the discharge from the permittee is 44:1; therefore, this facility is considered a Level II facility for purposes of toxics testing.

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

06-096 CMR 530(2)(D) specifies **default** WET, priority pollutant, and analytical chemistry test schedules for Level II dischargers as follows:

Default Surveillance level testing – Beginning upon issuance of this permit modification and lasting through 24 months prior to permit expiration (years 1-3 of the permit) and commencing again 12 months prior to permit expiration (year 5 of the permit). Level II facilities must conduct two WET tests and one Analytical chemistry test during surveillance level testing.

Default 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 II facilities must conduct two WET tests, four Analytical chemistry tests and one Priority pollutant during surveillance level testing.

06-096 530(2)(D)(3)(c) states, in part, "Dischargers in Level II may reduce surveillance testing to one WET or specific chemical series ever other year provided that testing in the preceding 60 months does not indicate any reasonable potential for exceedence as calculated pursuant to section 3E."

j. Whole Effluent Toxicity (WET) Evaluation: 06-096 CMR 530(3)(E) states:

> For effluent monitoring data and the variability of the pollutant in the effluent, the Department shall apply the statistical approach in Section 3.3.2 and Table 3-2 of USEPA's "Technical Support Document for Water Quality-Based Toxics Control" (USEPA Publication 505/2-90-001, March, 1991, EPA, Office of Water, Washington, D.C.) to data to 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.

On January 25, 2013, the Department conducted a statistical evaluation on the most recent 60 months of WET test results on file with the Department for the permittee in accordance with the statistical approach outlined above. **The 1/25/13 statistical evaluation indicates the discharge from the Mechanic Falls SD has not exceeded or demonstrated a reasonable potential to exceed the critical acute or chronic ambient water quality thresholds for the brook trout or water flea.** See **Attachment C** of this Fact Sheet for a summary of the WET test results.

Therefore, this permitting action is eliminating the numeric C-NOEL limit of 2.3% for the water flea and establishing reduced surveillance level testing for the water flea as well.

06-096 CMR 530(2)(D)(4) states:

> All dischargers having waived or reduced testing must file statements with the Department on or before December 31 of each year describing the following.

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

(a) Changes in the number or types of non-domestic wastes contributed directly or indirectly to the wastewater treatment works that may increase the toxicity of the discharge;

(b) Changes in the operation of the treatment works that may increase the toxicity of the discharge; and

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

Special Condition L of the previous permit established, *Surface Waters Toxics Control Program Statement For Reduced Toxics Testing*, pursuant to 06-096 CMR 530(2)(D)(4). The annual certification statement requirement is being carried forward in this permitting action (as Special Condition H). This permit provides for reconsideration of testing requirements, including the imposition of certain testing, in consideration of the nature of the wastewater discharged, existing wastewater treatment, receiving water characteristics, and results of testing.

Analytical Chemistry & Priority Pollutant Testing 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 Little Androscoggin 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.

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

On July 24, 2012, the Department conducted statistical evaluations based on 15% of the ambient water quality criteria reserve being withheld (Report ID 457) and 0% of the reserve of the criteria being withheld (Report ID 458) to determine if the unallocated assimilative capacity would avoid an exceedance or avoid a reasonable potential to exceed applicable ambient water quality criteria for toxic pollutants. Report ID 458 indicates Mechanic Falls no longer has a reasonable potential to exceed the chronic ambient water quality criteria for aluminum or zinc and North Jay no longer had a reasonable potential to exceed the chronic ambient water quality criteria for lead. Therefore, the Department is utilizing the full 15% of the unallocated assimilative capacity in the statistical evaluation when establishing limits for toxic pollutants in waste discharge licenses for facilities in the Androscoggin River watershed.

06-096 CMR 530(3)(E) states, "Where it is determined through [the statistical approach referred to in USEPA's Technical Support Document for Water Quality-Based Toxics Control] 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)(D) states, "Where the need for effluent limits has been determined, limits derived from acute water quality criteria must be expressed as daily maximum values. Limits derived from chronic or human health criteria must be expressed as monthly average values."

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.

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

> 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.

On April 1, 2013, the Department conducted a statistical evaluation of the most recent 60 months of chemical-specific test results on file with the Department (Report ID 560). **The evaluation indicates that the discharge: demonstrated a reasonable potential (RP) to exceed the chronic AWQC threshold for ammonia, copper, and lead; exhibited RP to exceed the acute AWQC threshold for copper; and exceeded the chronic AWQC for lead.** The discharge does not exceed or demonstrate a reasonable potential to exceed the critical AWQC for any other parameters tested. See **Attachment D** of this Fact Sheet for a summary of detectable test results.

The 4/1/13 evaluation reported a RP to exceed the chronic AWQC for ammonia using a river temperature of 25 °C. Based on the date of the sample (October 19), a river temperature of 20°C would be applicable. Calculations based on the colder river temperature show that the discharge does not demonstrate a reasonable potential to exceed the acute or chronic AWQC. Therefore, this permitting action is not establishing a limit for ammonia.

The Department has prepared guidance that establishes protocols for establishing waste load allocations. See **Attachment E** of this Fact Sheet. The guidance states that the most protective of water quality becomes the facility's allocation. According to the 4/1/13 statistical evaluation, copper and lead are to be limited based on the segment allocation method.

Due to the variability of discharges into the Little Androscoggin River, two tiers of effluent limitations for the toxic pollutants listed above have been established in this permit. Tier I limits are calculated for when the river flow is less than 68 cfs at the point of discharge in Mechanic Falls. This correlates to a river flow of less than 20 cfs at the South Paris United States Geological Survey (USGS) gauging station (USGS 01057000). When the river flow is less than 68 cfs at Mechanic Falls, the Town of Norway POTW is not discharging. (A river flow of less than 20 cfs at the South Paris gauging station translates to a flow of less than 31 cfs at Norway.) The intent of the Tier I limits is to allow Mechanic Falls to be evaluated under 7Q10 conditions while Norway is not discharging, therefore, it allows Mechanic Falls to have a larger allocation and increased limits for those parameters listed in the permit at that time.

Tier II limits are calculated for when the river flow is equal to or greater than 68 cfs at the point of discharge in Mechanic Falls. At this flow, the Town of Norway POTW is authorized to discharge (they are equal to or greater than 31 cfs at the point of discharge and the South Paris gauging station is greater than or equal to 20 cfs) and the allocation for Mechanic Falls is reduced to allow for multiple dischargers to discharge to the Little Androscoggin River in accordance with permit conditions. The following parameter calculations are separated by their respective Tier(s). Special Condition A, Table 2 and Table 3 reflect the calculations based on different river flows.

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

Segment allocation methodology

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

Tier I Limits

The following assumptions are made as related to Tier I limits:

1. The Town of Norway POTW is not discharging;
2. Since Norway is not discharging, their allocation is available for use by Mechanic Falls;
3. Calculations use the 7Q10 at Mechanic Falls (7Q10 = 32.5 cfs or 21.01 MGD); and
4. Paris Utility District (PUD) allocation must be removed from the assimilative capacity.

k. Copper

Chronic: The chronic assimilative capacity at Mechanic Falls was calculated based on 90% of the applicable AWQC (Chronic AWQC = 2.36 µg/L), taking into consideration the 10% reduction to account for background, and the critical low flow (7Q10 = 32.5 cfs). The Department has calculated a chronic assimilative capacity (AC) at Mechanic Falls of 0.372 lbs./day for copper as illustrated in the following calculations.

$$\text{Chronic AC @ Mechanic Falls} = \frac{(21.01\ \text{MGD})(8.34\ \text{lbs./gal})(2.36\ \mu\text{g/L})(0.90)}{1000\ \mu\text{g./mg.}} = 0.372\ \text{lbs./day}$$

Chronic AC for Copper – PUD allocation = Mechanic Falls SD allocation

Monthly average mass limit: 0.372 lbs./day – 0.0585 lbs./day = **0.314 lbs./day**

Acute: The acute assimilative capacity at Mechanic Falls was calculated using the same methodology as above except the applicable acute AWQC (3.07 µg/L) and 1Q10 (15.3 cfs or 9.89 MGD) figures are used. The Department has calculated an acute assimilative capacity (AC) at Mechanic Falls of 0.228 lbs./day for copper as illustrated in the following calculations.

$$\text{Acute AC @ Mechanic Falls} = \frac{(9.89\ \text{MGD})(8.34\ \text{lbs./gal})(3.07\ \mu\text{g/L})(0.90)}{1000\ \mu\text{g./mg.}} = 0.228\ \text{lbs./day}$$

Acute AC for Copper – PUD allocation = Mechanic Falls SD allocation

Daily maximum mass limit: 0.228 lbs./day – 0.0613 lbs./day = **0.167 lbs./day**

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

l. Lead: The chronic assimilative capacity at Mechanic Falls was calculated based on 90% of the applicable AWQC (Chronic AWQC = 0.41 µg/L), taking into consideration the 10% reduction to account for background, and the critical low flow (7Q10 = 32.5 cfs). The Department has calculated a chronic assimilative capacity (AC) at Mechanic Falls of 0.0646 lbs./day for lead as illustrated in the following calculations.

$$\text{Chronic AC @ Mechanic Falls} = \frac{(21.01\ \text{MGD})(8.34\ \text{lbs./gal})(0.41\ \mu\text{g/L})(0.90)}{1000\ \mu\text{g./mg.}} = 0.0647\ \text{lbs./day}$$

Chronic AC for Lead – PUD allocation = Mechanic Falls SD allocation

Monthly average mass limit: 0.0647 lbs./day –0.0102 lbs./day = **0.055 lbs./day**

Based on the timing, severity, and frequency of occurrences of the reasonable potential to exceed applicable critical water quality thresholds, this permitting action is carrying forward the minimum monitoring frequency requirement of twice per year (2/Year) for copper and lead that was established in the previous permit.

Tier II Limits

The following assumptions are made as related to Tier II limits:

1. The Town of Norway POTW is discharging;
2. All chemical parameters are allocated segmentally using DeTox Report ID #560 percentages;
3. Calculations use 68 cfs (which is equal to 31 cfs at Norway, the minimum flow required before Norway is authorized to discharge to the river);

m. Copper

Chronic: The chronic assimilative capacity at Mechanic Falls was calculated based on 90% of the applicable AWQC (Chronic AWQC = 2.36 µg/L), taking into consideration the 10% reduction to account for background, and the minimum discharge limit at Norway (31 cfs which equals 68 cfs at Mechanic Falls, 68 cfs = 43.95 MGD). The Department has calculated a chronic assimilative capacity (AC) at Mechanic Falls of 0.779 lbs./day for copper as illustrated in the following calculations.

$$\text{Chronic AC @ Mechanic Falls} = \frac{(43.95\ \text{MGD})(8.34\ \text{lbs./gal})(2.36\ \mu\text{g/L})(0.90)}{1000\ \mu\text{g./mg.}} = 0.779\ \text{lbs./day}$$

DeTox Report ID 560 indicates the chronic unadjusted segment percentage of copper discharged by the permittee is 12.9438% of the copper discharged by all facilities on the Little Androscoggin River. Therefore,

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

Monthly average mass limit: 0.779 lbs./day x 12.9438% = **0.101 lbs./day**

Acute: The acute assimilative capacity at Mechanic Falls was calculated using the same methodology as above except the applicable acute AWQC (3.07 µg/L) was used. The Department has calculated an acute assimilative capacity (AC) at Mechanic Falls of 1.013 lbs./day for copper as illustrated in the following calculations.

$$\text{Acute AC @ Mechanic Falls} = \frac{(43.95\ \text{MGD})(8.34\ \text{lbs./gal})(3.07\ \mu\text{g/L})(0.90)}{1000\ \mu\text{g./mg.}} = 1.013\ \text{lbs./day}$$

DeTox Report ID 560 indicates the acute unadjusted segment percentage of copper discharged by the permittee is 12.9438% of the copper discharged by all facilities on the Little Androscoggin River. Therefore,

Daily maximum mass limit: 1.013 lbs./day x 12.9438% = **0.131 lbs./day**

n. Lead: The chronic assimilative capacity at Mechanic Falls was calculated based on 90% of the applicable AWQC (Chronic AWQC = 0.41 µg/L), taking into consideration the 10% reduction to account for background, and the minimum discharge limit at Norway (31 cfs which equals 68 cfs at Mechanic Falls, 68 cfs = 43.95 MGD). The Department has calculated a chronic assimilative capacity (AC) at Mechanic Falls of 0.135 lbs./day for lead as illustrated in the following calculations.

$$\text{Chronic AC @ Mechanic Falls} = \frac{(43.95\ \text{MGD})(8.34\ \text{lbs./gal})(0.41\ \mu\text{g/L})(0.90)}{1000\ \mu\text{g./mg.}} = 0.135\ \text{lbs./day}$$

DeTox Report ID 560 indicates the chronic unadjusted segment percentage of lead discharged by the permittee is 27.0446% of the lead discharged by all facilities on the Little Androscoggin River. Therefore,

Monthly average mass limit: 0.135 lbs./day x 27.0446% = **0.037 lbs./day**

Based on the timing, severity, and frequency of occurrences of the reasonable potential to exceed applicable critical water quality thresholds, this permitting action is carrying forward the minimum monitoring frequency requirement of twice per year (2/Year) for copper and lead that was established in the previous permit.

7. COMBINED SEWER OVERFLOWS

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

Outfall No./Name	Receiving Water and Class
002 Water St.	Little Androscoggin River, Class C
003 Park St. / Lewiston St. Area	Little Androscoggin River, Class C

7. COMBINED SEWER OVERFLOWS (cont'd)

Combined Sewer Overflow Abatement, 06-096 CMR 570 (last amended February 8, 1978) states that for discharges from overflows from combined municipal storm and sanitary sewer systems, the requirement of "best practicable treatment" specified in 38 M.R.S.A. § 414-A(1)(D) may be met by agreement with the discharger, as a condition of its permit, through development of a plan within a time period specified by the Department. The permittee updated its CSO Master Plan in May, 2008.

The permittee has been implementing the recommendations of the Department-approved CSO Master Plan and, to date, has significantly reduced the volume of untreated combined sewer overflows to the receiving water. Special Condition P, *Effluent Limitations and Conditions For CSOs*, of the permit contains a schedule of compliance for items in the most current up-to-date abatement plan which must be completed.

The Department acknowledges that the elimination of the three remaining CSOs in the collection system is a costly, long-term project. As the Mechanic Falls sewer collection system is upgraded and maintained according to the CSO Master Plan and Nine Minimum Controls, there should be reductions in the frequency and volume of CSO activities, and, over time, improvement in the quality of the wastewater discharged to the receiving waters.

8. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

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

9. PUBLIC COMMENTS

Public notice of this application was made in the *Lewiston Sun Journal* newspaper on or about October 31, 2012. 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).

10. RESPONSE TO COMMENTS

During the period of May 3, 2014 through the effective date of this final agency action, the Department solicited comments on the draft permit to be issued to the District. During the draft comment period and concluding with a summary electronic mail to the Department on October 8, 2014, the District submitted new phosphorous results to the Department for consideration in its analysis for the need to establish effluent limitations and monitoring requirements in the permit. The comment and Department response are summarized below. It is noted that minor typographical and grammatical errors identified in comments were not included in this section, but were corrected, where necessary, in the final permit.

10. RESPONSE TO COMMENTS (cont'd)

Comment #1: The District submitted a summary of total phosphorous effluent test results as follows.

DATE	FLOW mgd	RESULTS mg/l	RESULTS lbs
3/10/2014	0.182	0.22	0.33
6/1/2014	0.464	0.15	0.58
6/22/2014	0.262	0.14	0.31
7/10/2014	0.290	0.17	0.41
7/23/2014	0.347	0.22	0.64
8/5/2014	0.404	0.22	0.74
8/12/2014	0.319	0.29	0.77
8/21/2014	0.390	0.35	1.14
9/10/2014	0.204	0.15	0.26
9/23/2014	0.162	0.27	0.36
Mean	**0.302**	**0.22**	**0.55**

Response #1: As discussed in Section 6.h of this fact sheet, the draft permit proposed a compliance schedule to establish a water quality-based monthly average mass limit of 0.14 lbs./day for total phosphorous based on its reasonable potential analysis for the effluent to violate water quality standards. The reasonable potential analysis conducted for the draft permit was completed using an assumed effluent value of 2.5 mg/L. Based on the analytical results from effluent monitoring conducted in calendar year 2014, as summarized above, the Department has conducted an updated reasonable potential analysis as follows.

Reasonable Potential Analysis

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

Qe = effluent flow *i.e.*, facility design flow = 0.49 MGD
Ce = effluent pollutant concentration = 0.22 mg/L
Qs = 7Q10 flow of receiving water = 21 MGD
Cs = upstream concentration = 0.012 mg/L
Qr = receiving water flow (21 MGD + 0.49 MGD) = 21.49
Cr = receiving water concentration

$$Cr = \frac{(0.49\ MGD \times 0.22\ mg/L) + (21\ MGD \times 0.012\ mg/L)}{21.49\ MGD}$$

Cr = 0.017 mg/L

10. RESPONSE TO COMMENTS (cont'd)

The receiving water concentration of 0.017 mg/L is less than the draft ambient water quality criterion of 0.033 mg/L for phosphorus. Therefore, the Department concludes that the effluent concentration of phosphorous from the District's facility does not exhibit a reasonable potential to exceed water quality standards.

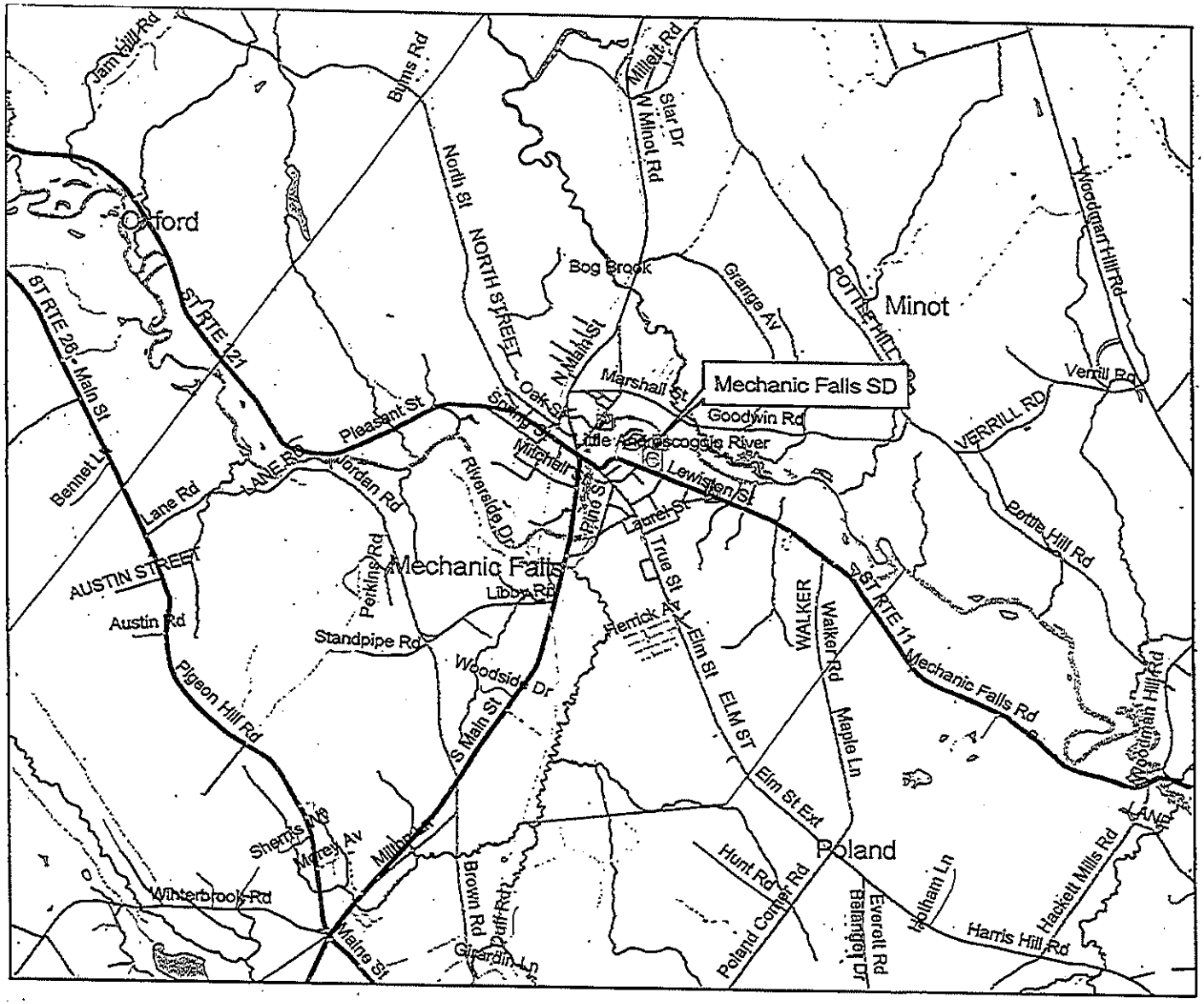
All conditions pertaining to phosphorous proposed in the draft permit have been eliminated in the final agency action.

11. DEPARTMENT CONTACTS

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

Bill Hinkel
Division of Water Quality Management
Bureau of Land & Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Telephone: (207) 485-2281 Fax: (207) 287-3435
e-mail: bill.hinkel@maine.gov

ATTACHMENT A



Legend

Rivers
- AA
- A
- B
- C

Streams
- AA
- A
- B
- C
- Ponds and Lakes
- Wastewater_Facilities
- Wastewater_Outfalls

Roads
JURISDICTION
- Town Road
- Town Road - Summer
- Town Road - Winter
- State-aided Highway
- State Highway
- Toll Highway
- Private Road
- Reservation Road
- Seasonal Parkway

N

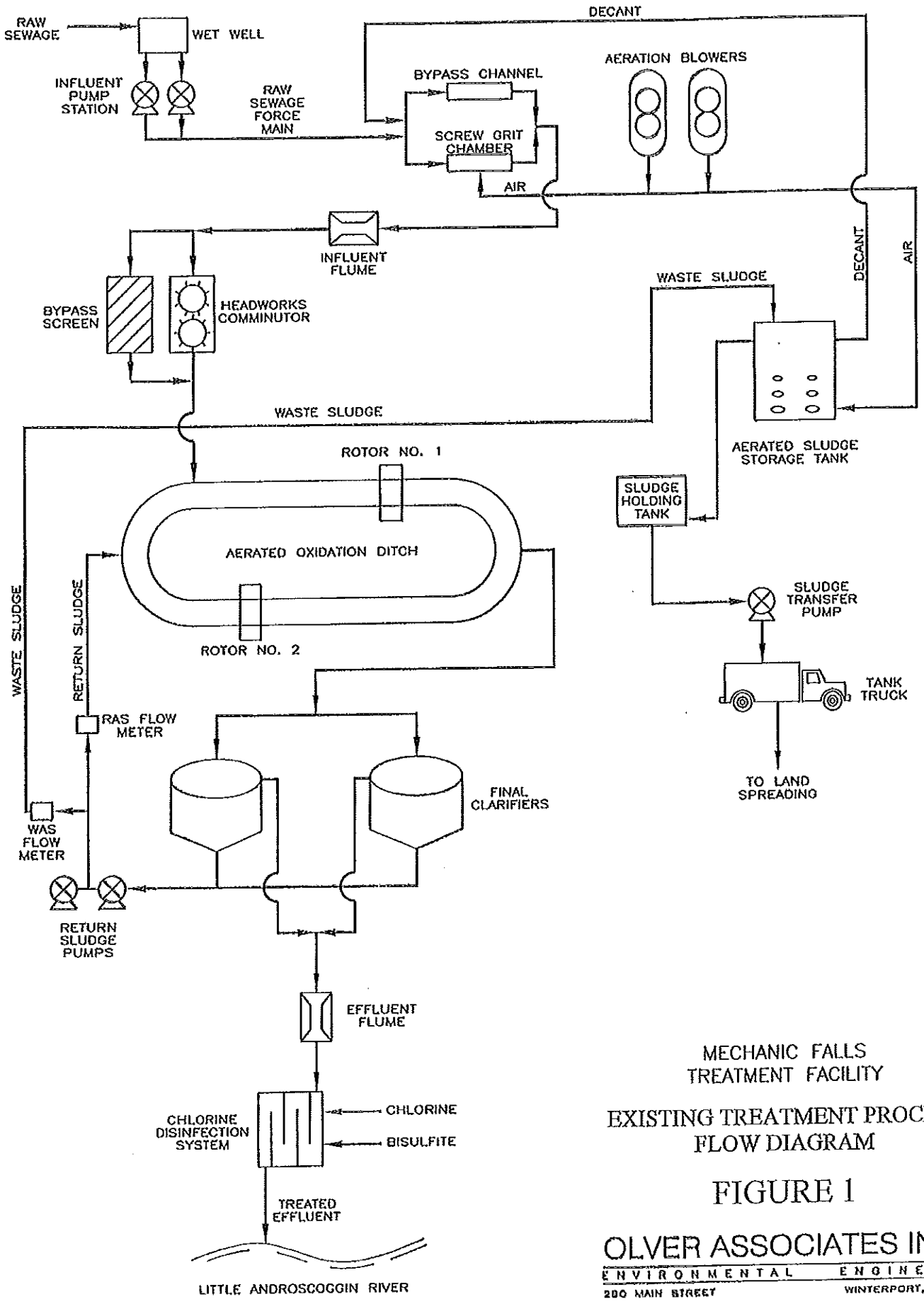
0 0.2 0.4 0.8 1.2 1.6 Miles

Mechanic Falls Sanitary District
Mechanic Falls, Maine

Map created by:
Bob Stratton
Division of Water Quality Management
Maine Department of Environmental Protection

DEPARTMENT OF ENVIRONMENTAL PROTECTION
STATE OF MAINE

ATTACHMENT B



MECHANIC FALLS
TREATMENT FACILITY

EXISTING TREATMENT PROCESS
FLOW DIAGRAM

FIGURE 1

OLVER ASSOCIATES INC.
ENVIRONMENTAL ENGINEERS
280 MAIN STREET WINTERPORT, MAINE

ATTACHMENT C

WET TEST REPORT

Data for tests conducted for the period

02/May/2008 - 02/May/2013

MECHANIC FALLS NPDES= ME0100391 Effluent Limit: Acute (%) = 4.721 Chronic (%) = 2.279

Species	Test	Percent	Sample date	Critical %	Exception	RP
TROUT	A_NOEL	100	05/31/2009	4.721		
TROUT	A_NOEL	100	09/18/2011	4.721		
TROUT	A_NOEL	100	06/17/2012	4.721		
TROUT	A_NOEL	100	10/14/2012	4.721		
TROUT	C_NOEL	100	05/31/2009	2.279		
TROUT	C_NOEL	100	09/18/2011	2.279		
TROUT	C_NOEL	100	06/17/2012	2.279		
TROUT	C_NOEL	100	10/14/2012	2.279		
WATER FLEA	A_NOEL	100	10/19/2008	4.721		
WATER FLEA	A_NOEL	100	05/31/2009	4.721		
WATER FLEA	A_NOEL	100	02/21/2010	4.721		
WATER FLEA	A_NOEL	25	09/18/2011	4.721		
WATER FLEA	A_NOEL	100	06/17/2012	4.721		
WATER FLEA	A_NOEL	100	10/14/2012	4.721		
WATER FLEA	C_NOEL	100	10/19/2008	2.279		
WATER FLEA	C_NOEL	100	05/31/2009	2.279		
WATER FLEA	C_NOEL	100	02/21/2010	2.279		
WATER FLEA	C_NOEL	25	09/18/2011	2.279		
WATER FLEA	C_NOEL	100	06/17/2012	2.279		
WATER FLEA	C_NOEL	100	10/14/2012	2.279		

ATTACHMENT D

FACILITY PRIORITY POLLUTANT DATA REPORT

Data Date Range: 02/May/2008 - 02/May/2013

Showing only those values not reported as a less than result

Facility name: **MECHANIC FALLS** Permit Number: **ME0100391**

Parameter:	ALUMINUM	**Test date**	**Result (ug/l)**	**Lsthan**
		10/19/2008	113.000	N
		05/31/2009	98.000	N
		02/21/2010	79.000	N
		09/18/2011	61.000	N
		05/03/2012	94.000	N
		06/17/2012	20.000	N
		10/14/2012	70.000	N
		12/13/2012	63.000	N
Parameter:	AMMONIA	**Test date**	**Result (ug/l)**	**Lsthan**
		10/19/2008	6100.000	N
		02/21/2010	3400.000	N
		09/18/2011	1200.000	N
		06/17/2012	300.000	N
		10/14/2012	100.000	N
		12/13/2012	200.000	N
Parameter:	ARSENIC	**Test date**	**Result (ug/l)**	**Lsthan**
		05/31/2009	3.000	N
		02/21/2010	4.000	N
		11/04/2010	4.000	N
		02/17/2011	3.000	N
		08/04/2011	4.000	N
		09/18/2011	5.000	N
		05/03/2012	3.000	N
		06/17/2012	3.000	N
		10/14/2012	5.000	N
Parameter:	CADMIUM	**Test date**	**Result (ug/l)**	**Lsthan**
		10/19/2008	0.300	N
		05/31/2009	0.200	N
		05/03/2012	1.300	N
Parameter:	CALCIUM	**Test date**	**Result (ug/l)**	**Lsthan**
		10/19/2008	21900.000	N
		05/31/2009	21000.000	N
		02/21/2010	18300.000	N
		09/18/2011	20600.000	N
		06/17/2012	19300.000	N
		10/14/2012	18400.000	N
Parameter:	CHROMIUM	**Test date**	**Result (ug/l)**	**Lsthan**
		10/14/2012	2.000	N
Parameter:	COPPER	**Test date**	**Result (ug/l)**	**Lsthan**
		05/29/2008	5.000	N
		10/19/2008	7.000	N
		11/06/2008	8.000	N
		05/31/2009	15.000	N

	08/13/2009	5.000	N
	02/21/2010	7.000	N
	11/04/2010	5.000	N
	02/17/2011	7.000	N
	08/04/2011	17.000	N
	09/18/2011	7.000	N
	05/03/2012	4.000	N
	10/14/2012	6.000	N
Parameter: CYANIDE	**Test date**	**Result (ug/l)**	**Lsthan**
	10/19/2008	3.000	N
Parameter: LEAD	**Test date**	**Result (ug/l)**	**Lsthan**
	05/29/2008	2.000	N
	10/19/2008	3.000	N
	11/06/2008	3.000	N
	05/31/2009	5.000	N
	08/13/2009	1.000	N
	02/21/2010	2.000	N
	02/17/2011	1.000	N
	09/18/2011	3.000	N
	06/17/2012	8.000	N
	10/14/2012	2.000	N
	12/13/2012	2.000	N
Parameter: MAGNESIUM	**Test date**	**Result (ug/l)**	**Lsthan**
	10/19/2008	3200.000	N
	05/31/2009	3100.000	N
	02/21/2010	3000.000	N
	09/18/2011	3400.000	N
	06/17/2012	3000.000	N
	10/14/2012	3400.000	N
Parameter: MERCURY	**Test date**	**Result (ug/l)**	**Lsthan**
	08/28/2008	0.011	N
	11/06/2008	0.010	N
	02/05/2009	0.003	N
	05/28/2009	0.005	N
	08/03/2009	0.004	N
	12/07/2009	0.005	N
	02/18/2010	0.003	N
	05/05/2010	0.003	N
	08/16/2010	0.001	N
	11/04/2010	0.019	N
	01/25/2011	0.001	N
	08/04/2011	0.004	N
	12/19/2011	0.001	N
Parameter: NICKEL	**Test date**	**Result (ug/l)**	**Lsthan**
	10/19/2008	2.000	N
	02/21/2010	2.000	N
	10/14/2012	2.000	N
	12/13/2012	2.000	N
Parameter: SILVER	**Test date**	**Result (ug/l)**	**Lsthan**
	05/03/2012	1.000	N

Parameter: TOC	**Test date**	**Result (ug/l)**	**Lsthan**
	09/18/2011	6900.000	N
	06/17/2012	3600.000	N
	10/14/2012	5300.000	N
Parameter: TSS	**Test date**	**Result (ug/l)**	**Lsthan**
	10/14/2012	5000.000	N
Parameter: ZINC	**Test date**	**Result (ug/l)**	**Lsthan**
	10/19/2008	26.000	N
	05/31/2009	54.000	N
	02/21/2010	29.000	N
	09/18/2011	42.000	N
	05/03/2012	29.000	N
	06/17/2012	20.000	N
	10/14/2012	22.000	N
	12/13/2012	21.000	N

ATTACHMENT E

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

MEMORANDUM

DATE: October 2008

TO: Interested Parties

FROM: Dennis Merrill, DEP

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

****

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

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

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

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

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

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

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

Maine Department of Environmental Protection

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

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

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

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

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

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

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

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

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

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

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

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

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

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

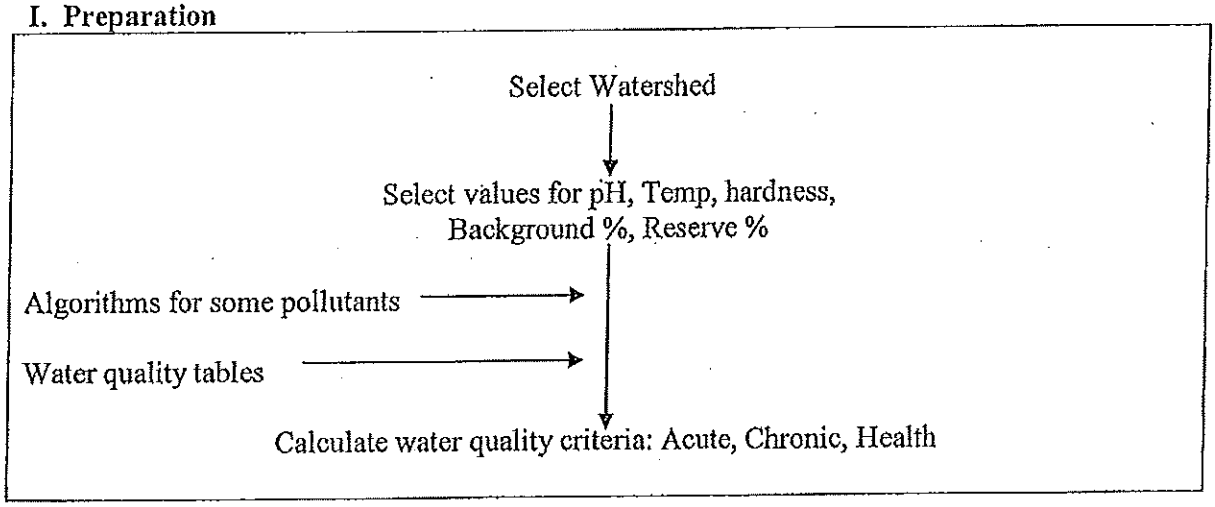
Segment allocation. One of three ways of developing an *allocation.* The amount is set by multiplying a facility's *historical discharge percentage* for a specific pollutant by the *assimilative capacity* for that pollutant and criterion. A facility will have different allocation percentages for each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

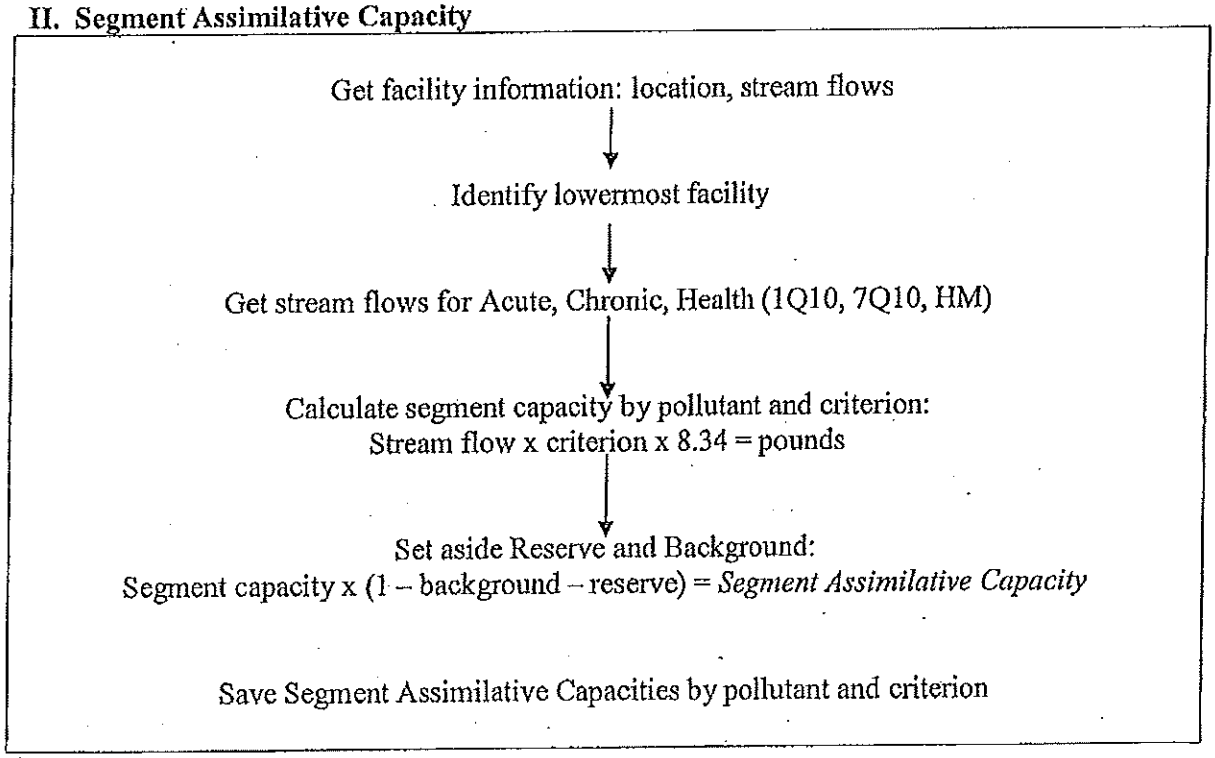
Water quality criteria. Standards for acceptable in-stream or ambient levels of pollutants. These are established in the Department's Chapter 584 and are expressed as concentrations in ug/L. There may be separate standards for acute and chronic protection aquatic life and/or human health. Each criterion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

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

I. Preparation

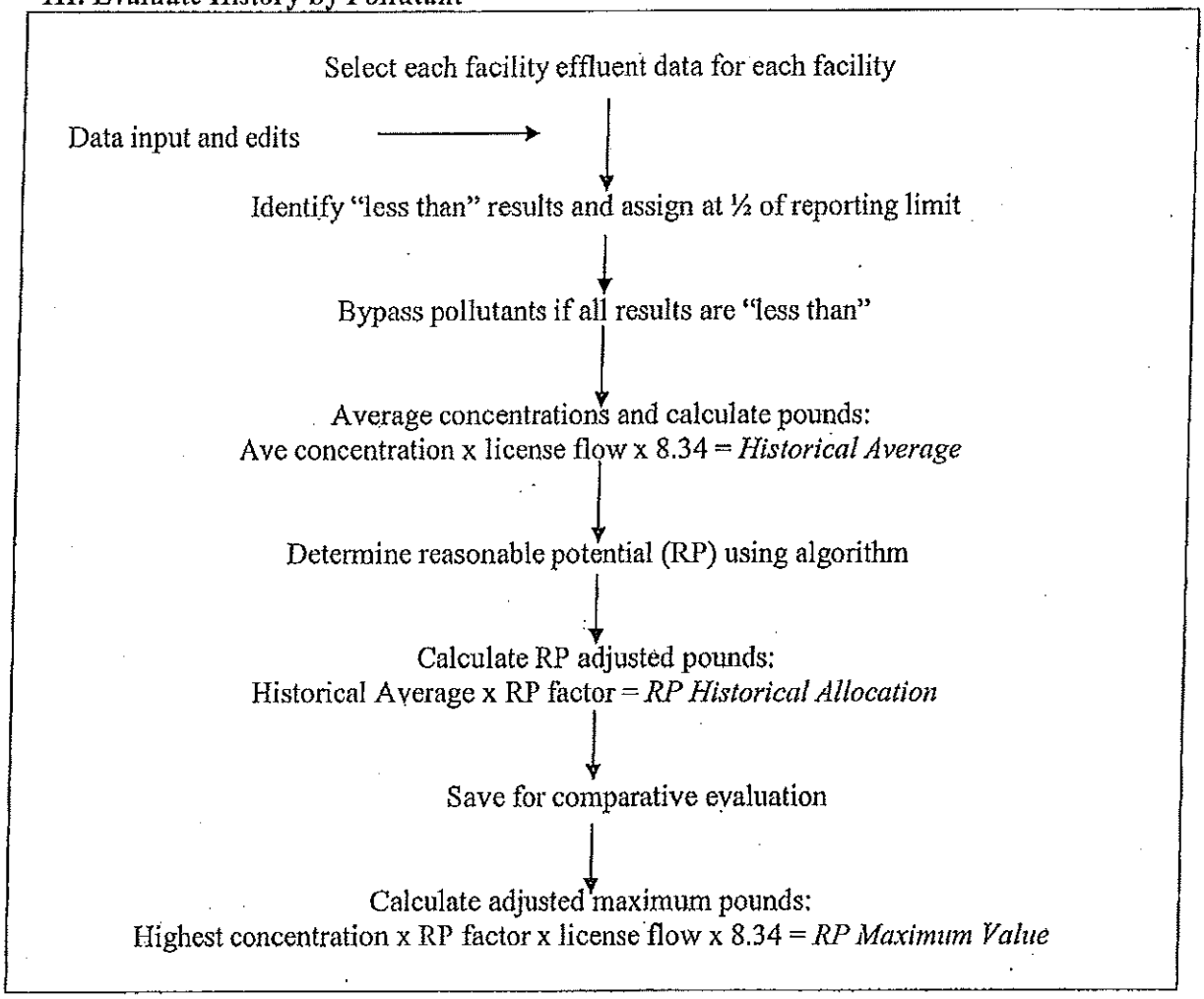


II. Segment Assimilative Capacity

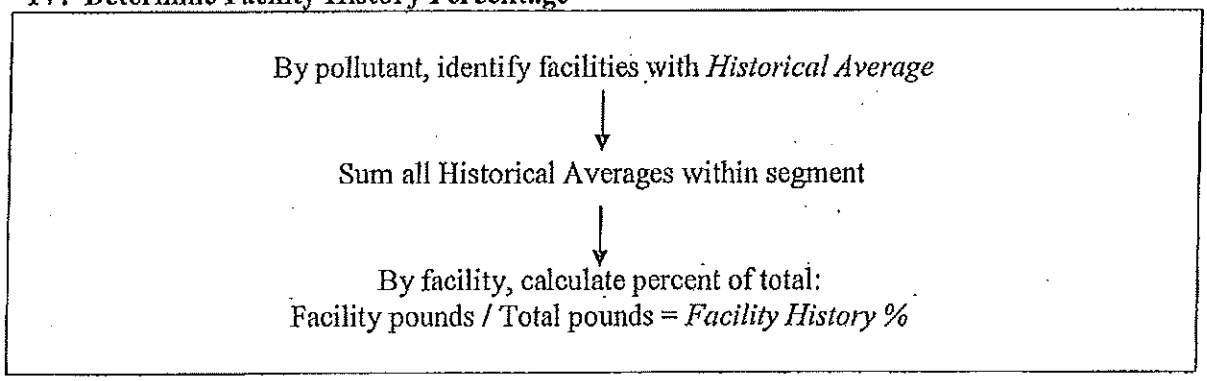


Maine Department of Environmental Protection
General Processing Steps in "DeTox"

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

ATTACHMENT F

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

CHAPTER 530.2(D)(4) CERTIFICATION

PAUL R. LEPAGE
GOVERNOR

PATRICIA W. AHO
Commissioner

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.

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769-2094
(207) 764-0477 FAX: (207)760-3143

web site: www.maine.gov/dep

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

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A. GENERAL PROVISIONS

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

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

(a) They are not

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

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

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

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

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

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

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

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.

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.