STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

AVERY T. DAY
ACTING COMMISSIONER

December 4, 2015

Ms. Phyllis Rand
Greater Augusta Utility District
12 Williams Street
Augusta, ME. 04330
e-mail: prand@greateraugustautilitydistrict.org

RE: Maine Pollutant Discharge Elimination System Permit (MEPDES) ME0100013
Maine Waste Discharge License (WDL) Application W002695-5M-N-R
Final Permit

Dear Ms. Rand:

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 the permit/license and its attached conditions carefully. You must follow the conditions in the order to satisfy the requirements of law. Any discharge not receiving adequate treatment is in violation of State law and is subject to enforcement action.

Any interested person aggrieved by a Department determination made pursuant to applicable regulations, may appeal the decision following the procedures described in the attached DEP FACT SHEET entitled "*Appealing a Commissioner's Licensing Decision.*"

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

Sincerely,

Gregg Wood
Division of Water Quality Management
Bureau of Water Quality

Enc.

cc: Denise Behr, DEP/CMRO
Sandy Mojica, USEPA
Olga Vergara, USEPA
Marelyn Vega, USEPA

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826

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
(207) 764-0477 FAX: (207) 760-3143

website: www.maine.gov/dep

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

DEPARTMENT ORDER

IN THE MATTER OF

GREATER AUGUSTA UTILITY DISTRICT		)	MAINE POLLUTANT DISCHARGE
PUBLICLY OWNED TREATMENT WORKS		)	ELIMINATION SYSTEM PERMIT
AUGUSTA, KENNEBEC COUNTY, MAINE		)	AND
ME0100013		)	WASTE DISCHARGE LICENSE
W002695-5M-N-R	**APPROVAL**	)	**RENEWAL**

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

APPLICATION SUMMARY

The GAUD has submitted a timely and complete application to the Department for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0100013 / Maine Waste Discharge License (WDL) #W002695-5M-I-R (permit hereinafter) issued by the Department on September 18, 2008, for a five-year term. The permit authorized the discharge of up to a monthly average flow of 8.0 million gallons per day (MGD) of secondary treated sanitary wastewater from a municipal wastewater treatment facility to the Kennebec River, Class B, in Augusta, Maine. The permit also allowed the discharge of blended effluent, an unspecified quantity of excess combined sanitary wastewater and stormwater receiving primary treatment and blended with the secondary treated waste water to be discharged to the Kennebec River. The permit also authorized the discharge of untreated combined sanitary wastewater and stormwater from twenty-four (24) combined sewer overflow (CSO) outfalls to the Kennebec River and its tributaries, Class B, in Augusta.

PERMIT SUMMARY

This permitting action is carrying forward all the terms and conditions of the September 18, 2008, permit except that this permit is:

1. Pursuant to 06-096 CMR Chapter 530(2)(D)(3)(b), surveillance level testing is being waived.

2. Incorporating the minimum and maximum technology based concentration limits for total mercury.

3. Eliminating Special Condition C, *Disinfection*, from the permit as the Department has reconsidered the value of said condition.

4. Eliminating the water quality based limitations and monitoring requirement for total arsenic and inorganic arsenic given a revision to the ambient water quality criteria for inorganic arsenic.

5. Changing biochemical oxygen demand (BOD_5) to carbonaceous biochemical oxygen demand ($CBOD_5$) for Outfall #001B to be consistent with the parameters monitored for Outfall #001A

6. Requiring *E. coli* bacteria monitoring between October 1, 2015 – April 31, 2016.

7. Reducing the minimum monitoring frequencies for CBOD, TSS, settleable solids, *E. coli* bacteria and total residual chlorine for Outfall #001A.

8. Eliminating combined sewer overflow (CSO) outfalls #011, #014, #015, #016 and #023 as the outfalls have been eliminated since issuance of the previous permit.

9. Establishing Outfall #001C (blended effluent) that contains daily maximum technology based mass limits for $CBOD_5$ and TSS.

10. Eliminating the monitoring requirement for total phosphorus as results on file at the Department indicate the discharge does not have a reasonable potential to exceed EPA's AWQ goal of 0.100 mg/L or the Department's draft criteria of 0.030 mg/L.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated October 23, 2015 , and subject to the Conditions listed below, the Department makes the following CONCLUSIONS:

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

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

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

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

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

   c. Where the standards of classification of the receiving water body are not met, the discharge will not cause or contribute to the failure of the water body to meet the standards of classification;

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

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

4. The discharges (including the 19 CSOs) will be subject to effluent limitations that require application of best practicable treatment.

ACTION

THEREFORE, the Department APPROVES the application of the GREATER AUGUSTA UTILITY DISTRICT, to discharge up to a monthly average flow of 8.0 MGD of secondary treated sanitary wastewater and an unspecified quantity of excess combined sanitary wastewater and stormwater receiving primary treatment only from a municipal wastewater treatment facility as well as untreated combined sanitary wastewater and stormwater from nineteen (19) combined sewer overflow (CSO) outfalls to the Kennebec River and its tributaries, Class B, in Augusta, Maine, SUBJECT TO THE FOLLOWING CONDITIONS, and all applicable standards and regulations including:

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

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

3. This permit becomes effective upon the date of signature below and expires at midnight five (5) years after that date. If a renewal application is timely submitted and accepted as complete for processing prior to the expiration of this permit, the terms and conditions of this permit and all subsequent modifications and minor revisions thereto remain in effect until a final Department decision on the renewal application becomes effective. [*Maine Administrative Procedure Act*, 5 M.R.S.A. § 10002 and *Rules Concerning the Processing of Applications and Other Administrative Matters*, 06-096 CMR 2(21)(A) (effective April 1, 2003)].

DONE AND DATED AT AUGUSTA, MAINE, THIS 4th DAY OF December, 2015.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Michael Kuhns
For Avery T. Day, Acting Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application July 11, 2013.

Date of application acceptance July 16, 2013.

Filed
DEC 04 2015
State of Maine
Board of Environmental Protection

Date filed with Board of Environmental Protection

This Order prepared by Gregg Wood, BUREAU OF WATER QUALITY
ME0100013 2015 11/2/15

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQIREMENTS

1. The permittee is authorized to discharge **secondary treated sanitary wastewater** from **Outfall #001A** to the Kennebec River. **These limitations and monitoring requirements apply to all flows conveyed through the secondary treatment system at all times except as otherwise noted in the associated footnotes** (1). The italicized numeric values bracketed in the tables below and in the text on subsequent pages are code numbers that Department personnel utilize to code the monthly Discharge Monitoring Reports (DMRs).

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]*	8.0 MGD *[03]*	---	Report MGD	---	---	---	Continuous *[99/99]*	Recorder *[RC]*
Carbonaceous Biochemical Oxygen Demand ($CBOD_5$) *[80082]*	1,668 lbs / Day *[26]*	2,668 lbs / Day *[26]*	Report lbs / Day *[26]*	25 mg/L *[19]*	40 mg/L *[19]*	45 mg/L (2) *[19]*	3/Week *[03/07]*	Composite *[24]*
$CBOD_5$ *[80082]* ***(When bypass is active)***	---	---	---	---	---	Report mg/L *[19]*	3/Week *[03/07]*	Composite *[24]*
$CBOD_5$ % Removal (3) *[81383]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
Total Suspended Solids (TSS) *[00530]*	2,002 lbs / Day *[26]*	3,002 lbs / Day *[26]*	Report lbs / Day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L (2) *[19]*	3/Week *[03/07]*	Composite *[24]*
TSS *[00530]* ***(When bypass is active)***	---	---	---	---	---	Report mg/L *[19]*	3/Week *[03/07]*	Composite *[24]*
TSS % Removal (3) *[81010]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
Settleable Solids *[00545]*	---	---	---	---	---	0.3 ml/L *[25]*	3/Week *[03/07]*	Grab *[GR]*

SPECIAL CONDITIONS

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

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type
E. coli Bacteria[4] *[31633]* *(May 15 – September 30)*	---	---	---	64/100 ml[5] *[13]*	---	427/100 ml *[13]*	2/Week *[02/07]*	Grab *[GR]*
E. coli Bacteria [6] *[31633]* *(Oct. 1, 2015 – April 31, 2016)*	---	---	---	---	---	Report col/100 ml *[13]*	1/Month *[01/30]*	Grab *[GR]*
Total Residual Chlorine[7] *[50060]*	---	---	---	---	---	0.82 mg/L *[19]*	1/Day *[01/01]*	Grab *[GR]*
pH (Std. Units) *[00400]*	---	---	---	---	---	6.0-9.0 *[12]*	1/Day *[01/01]*	Grab *[GR]*
Mercury (Total)[8] *[71900]*	---	---	---	15.7 ng/L *[3M]*	---	23.6 ng/L *[3M]*	1/Year *[01/YR]*	Grab *[GR]*

SPECIAL CONDITIONS

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

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

Effluent Characteristic	Discharge Limitations				Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Whole Effluent Toxicity(9)						
Acute – NOEL	---	---	---	Report %[23]	1/Year[01/YR]	Composite [24]
Ceriodaphnia dubia (Water flea) [TDA3B]	---	---	---	Report %[23]	1/Year[01/YR]	Composite [24]
Salvelinus fontinalis (Brook trout) [TDA6F]						
Chronic – NOEL	---	---	---	Report %[23]	1/Year[01/YR]	Composite [24]
Ceriodaphnia dubia (Water flea) [TBP3B]	---	---	---	Report %[23]	1/Year[01/YR]	Composite [24]
Salvelinus fontinalis (Brook trout) [TBQ6F]						
Analytical Chemistry (10,12) [54177]	---	---	---	Report ug/L [28]	1/Quarter [01/90]	Composite/Grab [24]
Priority Pollutant (11,12) [50008]	---	---	---	Report ug/L [28]	1/Year [01/YR]	Composite/Grab [24]

SPECIAL CONDITIONS

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

3. Consistent with CSO bypass regulations, the permittee is allowed to bypass secondary treatment only from **Outfall #001B (administrative outfall)** prior to combining with secondary treated waste water. Bypassing secondary treatment is allowed when the secondary influent flow has exceeded an instantaneous flow rate of 8,333 gallons per minute (12.0 MGD). Allowance to bypass secondary treatment will be reviewed and may be modified or terminated pursuant to Special Condition Q, *Reopening of Permit for Modification,* if there is substantial change in the volume or character of pollutants in the collection/treatment system. Also see supplemental report form, *DEP-49-CSO Form For Use With Dedicated CSO Primary Clarifier*, **Attachment A** of this permit.

Effluent Characteristic	Discharge Limitations				Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Influent Flow Rate Minimum *[00058]*		Report (gpm) *[78]*			Instantaneous *[91/99]*	Recorder *[RC]*
Flow, MGD *[50050]*	Report Total MGD *[03]*	Report MGD *[03]*	---	---	Continuous *[99/99]*	Recorder *[RC]*
$CBOD_5$ *[80082]*	Report lbs / Day *[26]*	Report lbs/Day *[26]*	Report mg/L *[19]*	Report mg/L *[19]*	1/Discharge Day(14) *[01/DS]*	Composite *[24]*
TSS *[00530]*	Report lbs/Day *[26]*	Report lbs/Day *[26]*	Report mg/L *[19]*	Report mg/L *[19]*	1/Discharge Day(14) *[01/DS]*	Composite *[24]*
Surface Loading Rate(13) *[50997]*	---	Report gpd/sf *[8L]*	---	---	1/Discharge Day(14) *[01/DS]*	Calculate *[CA]*
Overflow Use, Occurrences(15) *[74062]*	---	---	Report # of days *[93]*	---	1/Discharge Day(14) *[01/DS]*	Record Total *[RT]*
E. coli Bacteria (2) *[31633]*	---	---	---	Report col/100 ml *[13]*	1/Discharge Day(14) *[01/DS]*	Grab *[GR]*
Total Residual Chlorine(5) *[50060]*	---	---	---	Report mg/L *[19]*	1/Discharge Day(14) *[01/DS]*	Grab *[GR]*

SPECIAL CONDITIONS

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

3. Consistent with CSO bypass regulations, the permittee is allowed to discharge primary and secondary treated waste water (**blended effluent**) from **Outfall #001C** (administrative outfall) to the Kennebec River. These limitations and monitoring requirements apply after blending when the flow to the treatment facility is more than the instantaneous flow rate of 8,333 gallons per minute (12.0 MGD).
Allowance to bypass secondary treatment will be reviewed and may be modified or terminated pursuant to Special Condition Q, *Reopening of Permit for Modification,* if there is substantial change in the volume or character of pollutants in the collection/treatment system. Also see supplemental report form, *DEP-49-CSO Form For Use With Dedicated CSO Primary Clarifier*, **Attachment A** of this permit.

Effluent Characteristic	Discharge Limitations				Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow, MGD *[50050]*	Report Total MGD *[03]*	Report MGD *[03]*	---	---	Continuous *[99/99]*	Recorder *[RC]*
$CBOD_5$ *[80082]*	Report lbs / Day *[26]*	9,478 lbs/Day *[26]*	Report mg/L *[19]*	Report mg/L *[19]*	1/Discharge Day(14) *[01/DS]*	Calculate *[CA]*
TSS *[00530]*	Report lbs/Day *[*	23,687 lbs/Day *[*	Report mg/L *[19]*	Report mg/L *[19]*	1/Discharge Day(14) *[01/DS]*	Calculate *[CA]*
E. coli Bacteria (2) *[31633]*	---	---	---	427/100 ml *[13]*	1/Discharge Day(14) *[01/DS]*	Calculate *[CA]*
Total Residual Chlorine(5) *[50060]*	---	---	---	1.0 mg/L *[19]*	1/Discharge Day(14) *[01/DS]*	Calculate *[CA]*

SPECIAL CONDITIONS

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

Footnotes:

1. **Sampling Locations/Sampling: Influent sampling** for $CBOD_5$ and TSS for calculating percent removal for secondary treated wastewaters shall be sampled just prior to the influent parshall flume. **Effluent receiving secondary treatment** (Outfall #001A) shall be sampled on a year-round basis at the end of the chlorine contact chamber but prior to the weir for all parameters except *E. coli* bacteria and total residual chlorine, which may be sampled after the weir. **Effluent receiving primary treatment** (Outfall #001B) shall be sampled for all parameters at the end of the CSO disinfection/dechlorination chamber and prior to combining with the secondary treated effluent being discharged via Outfall #001A. Any change in sampling location(s) must be reviewed and approved by the Department in writing.

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

2. **Outfall #001A** – Limitations for Outfall #001A remain in effect at all times with the exception of daily maximum concentration limits of 45 mg/L for CBOD and 50 mg/L for TSS when the bypass of secondary treatment is active and any sample results obtained during this time frame are not to be included in calculations to determine compliance with monthly or weekly average limitations.

3. **Percent removal** - The treatment facility must maintain a minimum of 85 percent removal of both $CBOD_5$ and TSS for all wastewaters receiving a secondary level of treatment. The percent removal must be based on a monthly average calculation using influent and effluent concentrations. The percent removal limit shall be waived when the monthly average influent concentration is less than 200 mg/L. For instances when this occurs, the facility shall report "N9" on the monthly Discharge Monitoring Report.

SPECIAL CONDITIONS

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

Footnotes:

4. ***E. coli* bacteria** – *E. coli* bacteria limits and monitoring requirements are seasonal and apply between May 15th and September 30th of each year. The Department reserves the right to require disinfection on a year-round basis to protect the health and welfare of the public.

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

6. ***E. coli* bacteria** – The permittee must sample the effluent on a 1/Month basis with at least one wet weather event during the fall (December - February) and one wet weather event in the spring (March – April). For the purposes of this permit, wet weather event being defined as an instantaneous influent flow rate of greater than or equal to 4,167 gpd or 6.0 MGD.

7. **Total residual chlorine (TRC)** – TRC limits and monitoring requirements are applicable whenever elemental chlorine or chlorine based compounds are being used to disinfect the discharge. The permittee shall utilize approved test methods that are capable of bracketing the limitations in this permit.

8. **Mercury** – All mercury sampling (1/Year) required to determine compliance with interim limitations established pursuant to *Interim Effluent Limitations and Controls for the Discharge of Mercury*, 06-096 CMR 519 (last amended October 6, 2001) shall be conducted in accordance with EPA's "clean sampling techniques" found in EPA Method 1669, Sampling Ambient Water For Trace Metals At EPA Water Quality Criteria Levels. All mercury analyses shall be conducted in accordance with EPA Method 1631E, Determination of Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Fluorescence Spectrometry. See **Attachment A,** *Effluent Mercury Test Report*, of this permit for the Department's form for reporting mercury test results. . Compliance with the monthly average limitation established in this permit will be based on the cumulative arithmetic mean of all mercury tests results that were conducted utilizing sampling Methods 1669 and analysis Method 1631E on file with the Department for this facility.

SPECIAL CONDITIONS

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

Footnotes:

9. **Whole Effluent Toxicity (WET)** - Definitive WET testing is a multi-concentration testing event (a minimum of five dilutions bracketing the acute and chronic critical thresholds of 2.3% and 0.48% respectively), which provides a point estimate of toxicity in terms of No Observed Effect Level, commonly referred to as NOEL or NOEC. A-NOEL is defined as the acute no observed effect level with survival as the end point. C-NOEL is defined as the chronic no observed effect level with survival, reproduction and growth as the end points. The critical acute and chronic thresholds were derived as the mathematic inverse of the applicable acute and chronic dilution factors of 43.0:1 and 206.1:1 respectively.

   a. **Surveillance level testing** – Pursuant to 06-096 CMR Chapter 530(2)(D)(3)(b), surveillance level testing is being waived.

   b. **Screening level testing** -Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement, the permittee shall conduct screening level WET testing at a minimum frequency of once per year (1/Year). Acute and chronic tests shall be conducted on the water flea (*Ceriodaphnia dubia*) and the brook trout (*Salvelinus fontinalis).*

   WET test results must be submitted to the Department not later than the next Discharge Monitoring Report (DMR) required by the permit provided, however, that the permittee may review the toxicity reports for up to 10 business days of their availability before submitting them. The permittee must evaluate test results being submitted and identify to the Department possible exceedences of the critical acute and chronic water quality thresholds of 2.3% and 0.48% respectively. Toxicity tests must be conducted by an experienced laboratory approved by the Department. The laboratory must follow procedures as described in the following U.S.E.P.A. methods manuals as modified by Department protocol for the salmonids. See **Attachment A** of this permit for the Department protocol.

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

   b. Methods for Measuring the Acute Toxicity of Effluent and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, October 2002, EPA-821-R-02-012.

SPECIAL CONDITIONS

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

Footnotes:

Each time a WET test is performed, the permittee shall sample and analyze for the parameters in the WET Chemistry and the Analytical Chemistry sections of the Department form entitled, *Maine Department of Environmental Protection, WET and Chemical Specific Data Report Form*. See **Attachment C** of this permit.

10. **Analytical chemistry** – Refers to a suite of chemicals in the "Analytical chemistry" section in **Attachment D** of this permit.

    a. **Surveillance level testing** – Pursuant to 06-096 CMR Chapter 530(2)(D)(3)(b), surveillance level testing is being waived.

    b. **Screening level testing** -Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement,, the permittee shall conduct analytical chemistry testing at a minimum frequency of once per calendar quarter (1/Quarter) for four consecutive calendar quarters

11. **Priority pollutant testing** – Refers to a suite of chemicals in the "Priority pollutant" section in **Attachment D** of this permit.

    a. **Surveillance level testing** – Pursuant to 06-096 CMR Chapter 530(2)(D)(3)(b), surveillance level testing is being waived.

    b. **Screening level testing** -Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement, the permittee shall conduct screening level priority pollutant testing at a minimum frequency of once per year (1/Year).

12. **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. See **Attachment D** of this permit for a list of the Department's reporting levels (RLs) of detection. Test results must be submitted to the Department not later than the next DMR required by the permit

SPECIAL CONDITIONS

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

Footnotes:

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 Department rule Chapter 584. For the purposes of Discharge Monitoring Report (DMR) reporting, enter a "1" for yes, testing done this monitoring period or "0" monitoring not required this period.

13. **Surface Overflow Rate** – For the purposes of this permitting action, surface overflow rate is the average hourly rate per overflow occurrence in a discharge day. The permittee should provide this information to establish data on the effectiveness of peak flows receiving primary treatment only.

14. **Discharge Day** - A discharge day is defined as a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling.

15. **Overflow occurrence** – An overflow occurrence is defined as the period of time between initiation of flow from the secondary bypass/high rate disinfection tank (HRDT) and ceasing discharge from the secondary bypass. Overflow occurrences are reported in discharge days.

    Multiple intermittent overflow occurrences in one discharge day are reported as one overflow occurrence and are sampled according to the measurement frequency specified. One composite sample for $CBOD_5$ and total suspended solids shall be collected per discharge day if a continuous overflow occurrence is greater than 60 minutes in duration or intermittent occurrences totaling 120 minutes during a 24-hour period. Composite samples shall be flow proportioned from all intermittent overflows during that 24-hour period. Only one grab sample for *E. coli* bacteria and total residual chlorine is required to be collected per discharge day if a continuous overflow occurrence is greater than 60 minutes in duration or intermittent occurrences totaling 120 minutes during a 24-hour period and are only required if the event(s) when the plant is staffed.

    For overflow occurrences exceeding one day in duration, sampling must be performed each day of the event according to the measurement frequency specified. For example, if an overflow occurs for all or part of three discharge days, the permittee must take three composite samples for $CBOD_5$ and TSS, initiating samples at the start of the overflow and each subsequent discharge day thereafter and terminating samples at the end of the discharge day or the end of the overflow occurrence. Samples must be flow proportioned.

SPECIAL CONDITIONS

B. NARRATIVE EFFLUENT LIMITATIONS

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

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

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

4. Notwithstanding specific conditions of this permit the effluent must not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.

C. TREATMENT PLANT OPERATOR

The person in responsible charge of the wastewater treatment facility must hold a minimum of a Maine **Grade V** waste water treatment operator certification (or Registered Maine Professional Engineer) pursuant to *Sewerage Treatment Operators*, Title 32 M.R.S.A., Sections 4171-4182 and *Regulations for Wastewater Operator Certification*, 06-096 CMR 531 (effective May 8, 2006). All proposed contracts for facility operation by any person must be approved by the Department before the permittee may engage the services of the contract operator.

D. LIMITATIONS FOR INDUSTRIAL USERS

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

SPECIAL CONDITIONS

E. AUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with: 1) the permittee's General Application for Waste Discharge Permit, accepted for processing on July 16, 2013; 2) the terms and conditions of this permit; and 3) from Outfall #001A and nineteen (19) combined sewer overflow outfalls listed in Special Condition J, *Combined Sewer Overflows*, of this permit. Discharges of wastewater from any other point source are not authorized under this permit, and must be reported in accordance with Standard Condition D(1)(f), *Twenty four hour reporting*, of this permit.

F. 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.

2. Any substantial change in the volume or character of pollutants being introduced into the wastewater collection and treatment system.

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

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

G. WET WEATHER FLOW MANAGEMENT PLAN

The treatment facility staff must maintain a current written Wet Weather Flow Management Plan to direct the staff on how to operate the facility effectively during periods of high flow. The Department acknowledges that the existing collection system may deliver flows in excess of the monthly average design capacity of the treatment plant during periods of high infiltration and rainfall. The plan must include operating procedures for a range of intensities, address solids handling procedures (including septic waste and other high strength wastes if applicable) and provide written operating and maintenance procedures to be adhered to during the events.

The permittee must review their plan annually and record any necessary changes to keep the plan up-to-date.

SPECIAL CONDITIONS

H. OPERATION & MAINTENANCE (O&M) PLAN

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

By December 31 of each year, 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 EPA 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.

I. DISPOSAL OF TRANSPORTED WASTES IN WASTEWATER TREATMENT FACILITY

During the effective period of this permit, the permittee is authorized to receive and introduce into the treatment process or solids handling stream up to **a daily maximum of 20,000 gallons per day** of transported wastes, subject to the following terms and conditions.

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

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

SPECIAL CONDITIONS

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

3. At no time shall the addition of transported wastes cause or contribute to effluent quality violations. Transported wastes may not cause an upset of or pass through the treatment process or have any adverse impact on the sludge disposal practices of the wastewater treatment facility.

   Wastes that contain heavy metals, toxic chemicals, extreme pH, flammable or corrosive materials in concentrations harmful to the treatment operation must be refused. Odors and traffic from the handling of transported wastes may not result in adverse impacts to the surrounding community. If any adverse effects exist, the receipt or introduction of transported wastes into the treatment process or solids handling stream shall be suspended until there is no further risk of adverse effects.

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

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

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

5. The addition of transported wastes into the treatment process or solids handling stream must not cause the treatment facility's design capacity to be exceeded. If, for any reason, the treatment process or solids handling facilities become overloaded, introduction of transported wastes into the treatment process or solids handling stream must be reduced or terminated in order to eliminate the overload condition.

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

SPECIAL CONDITIONS

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

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

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

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

10. The authorization is subject to annual review and, with notice to the permittee and other interested parties of record, may be suspended or reduced by the Department as necessary to ensure full compliance with Chapter 555 of the Department's rules and the terms and conditions of this permit.

J. COMBINED SEWER OVERFLOWS (CSOs)

Pursuant to Chapter 570 of Department Rules, *Combined Sewer Overflow Abatement,* 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
003	Jackson Avenue	Kennedy Brook, Class B
005	Gage & Valley Streets	Kennebec River, Class B
006	Parking Lot - Ryan Hill	Kennebec River, Class B
007	RR Station - Depot Parking Lot	Kennebec River, Class B
008	Front Street Pump Station #3	Kennebec River, Class B
012	Northern Ave. & Washington St.	Kennebec River, Class B
017	North Belfast Avenue	Whitney Brook, Class B

SPECIAL CONDITIONS

J. COMBINED SEWER OVERFLOWS (CSOs) (cont'd)

019	Maple Street	Kennebec River, Class B
020	Willow St.- O'Connor's Yard	Kennebec River, Class B
021	Cony Street	Kennebec River, Class B
022	Howard Street, Pump Station #4	Kennebec River, Class B
024	East Interceptor – AMHI	Kennebec River, Class B
026	Willow Street - Cottle's	Kennebec River, Class B
027	Laundry – AMHI/Riverview	Kennebec River, Class B
029	Sewall St./Capitol St. Storm Drain	Kennebec River, Class B
031	Corner Winthrop & Commercial St.	Kennebec River, Class B
032	75 Stone Street	Kennebec River, Class B
040	West Side Consolidation Conduit	Kennebec River, Class B
041	Hallowell – Hinkely Road	Kennebec River, Class B

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 shall occur as a result of mechanical failure, improper design or inadequate operation or maintenance.

   c) No discharges shall occur at flow rates below the applicable 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 use designated by the classification of the receiving waters.

   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.

SPECIAL CONDITIONS

J. COMBINED SEWER OVERFLOWS (CSOs) (cont'd)

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 Long Term Control / Master Plan (see Sections 2 & 3 of Chapter 570 Department Rules)

The permittee must implement CSO control projects in accordance with the most recently approved CSO Master Plan entitled, "*2015 Long Term Control Plan Update Greater Augusta Utility District*". The permittee must:

On or before April 30, 2018, the permittee must identify and begin construction of those projects identified as part of the North Branch CSO's for mitigation purposes.

On or before March 31, 2019, *[EFIS Code 75305]* the permittee must complete the design of the East Side Consolidation Conduit.

On or before December 31, 2020, *[EFIS Code 81699]* the permittee must submit to the Department for review and approval a Long Term Control Plan (Master Plan) 5-year update analyzing the effectiveness of the abatement projects to date and the permittee must show that the bypass of secondary treatment is unavoidable to prevent loss of life, personal injury or severe property damage and that there are no feasible alternatives to the bypass.

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

5. Nine Minimum Controls (NMC) (see Section 5 Chapter 570 of Department Rules).

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

SPECIAL CONDITIONS

J. COMBINED SEWER OVERFLOWS (CSOs) (cont'd)

6. CSO Compliance Monitoring Program (see Section 6 Chapter 570 of Department Rules)

   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).

   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 shall be reported on the Department form *"CSO Activity and Volumes"* (**Attachment E** of this permit) or similar format and submitted electronically to the Department's CSO Coordinator at the address in Special Condition O, *Monitoring and Reporting,* of this permit.

   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 Section 8 Chapter 570 of Department Rules)

   Chapter 570 Section 8 lists requirements relating to any proposed addition of wastewater to the combined sewer system. Documentation of the new wastewater additions to the system and associated mitigating measures shall be included in the annual *CSO Progress Report* (see below). Reports must contain the volumes and characteristics of the wastewater added or authorized for addition and descriptions of the sewer system improvements and estimated effectiveness. Any sewer extensions upstream of a CSO must be reviewed and approved by the Department prior to their connection to the collection system. A Sewer Extension/Addition Reporting Form (which can be supplied by the Department) must be completed and submitted to the Department along with plans and specifications of the proposed extension/addition.

SPECIAL CONDITIONS

J. COMBINED SEWER OVERFLOWS (CSOs) (cont'd)

8. Annual CSO Progress Reports (see Section 7 of Chapter 570 of Department Rules)

By March 1 of each year ***(ICIS CSO10)*** the permittee must submit *CSO Progress Reports* covering the previous calendar year (January 1 to December 31). The CSO Progress Report shall include, but is not necessarily limited to, the following topics as further described in Chapter 570: CSO abatement projects, schedule comparison, progress on inflow sources, costs, flow monitoring results, CSO activity and volumes, nine minimum controls update, sewer extensions, and new commercial or industrial flows.

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

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 shall be a minimum of 12" x 18" in size with white lettering against a green background and shall contain the following information:

GREATER AUGUSTA UTILITY DISTRICT
(or AUGUSTA 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 wastewater 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.

SPECIAL CONDITIONS

J. COMBINED SEWER OVERFLOWS (CSOs) (cont'd)

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

K. INDUSTRIAL PRETREATMENT PROGRAM

1. Pollutants introduced into POTWs by a non-domestic source (user) must not pass-through the publicly owned treatment works (POTW) or interfere with the operation or performance of the works.

   a. The permittee must develop and enforce specific effluent limits (local limits) for Industrial User(s), and all other users, as appropriate, which together with appropriate changes in the POTW facilities or operation, are necessary to ensure continued compliance with the POTWs MEPDES permit or sludge use or disposal practices. Specific local limits must not be developed and enforced without individual notice to persons or groups who have requested such notice and an opportunity to respond.

   Within 180 days of the effective date of this permit, *[ICIS code 53199]* the permittee must prepare and submit a written technical evaluation to the Department analyzing the need to revise local limits. As part of this evaluation, the permittee must assess how the POTW performs with respect to influent and effluent of pollutants, water quality concerns, sludge quality, sludge processing concerns/inhibition, biomonitoring results, activated sludge inhibition, worker health and safety and collection system concerns. In preparing this evaluation, the permittee must complete the "Re-Assessment of Technically Based Local Limits" form included as Attachment A of this permit with the technical evaluation to assist in determining whether existing local limits need to be revised. Justifications and conclusions should be based on actual plant data if available and should be included in the report. Should the evaluation reveal the need to revise local limits, the permittee must complete the revisions within 120 days of notification by the Department and submit the revisions to the Department for approval. The permittee must carry out the local limits revisions in accordance with EPA's document entitled, *Local Limits Development Guidance (July 2004).*

SPECIAL CONDITIONS

K. INDUSTRIAL PRETREATMENT PROGRAM (cont'd)

2. The permittee must implement the Industrial Pretreatment Program in accordance with the legal authorities, policies, procedures, and financial provisions described in the permittee's approved Pretreatment Program, and the General Pretreatment Regulations, found at 40 CFR 403 and Pretreatment Program, Department rule 06-096 CMR 528 (effective January 12, 2001). At a minimum, the permittee must perform the following duties to properly implement the Industrial Pretreatment Program (IPP):

   a. Carry out inspection, surveillance, and monitoring procedures which will determine, independent of information supplied by the industrial user, whether the industrial user is in compliance with the Pretreatment Standards. At a minimum, all significant industrial users must be sampled and inspected at the frequency established in the approved IPP but in no case less than once per year and maintain adequate records.

   b. Issue or renew all necessary industrial user control mechanisms within 90 days of their expiration date or within 180 days after the industry has been determined to be a significant industrial user.

   c. Obtain appropriate remedies for noncompliance by an industrial user with any pretreatment standard and/or requirement.

   d. Maintain an adequate revenue structure for continued implementation of the Pretreatment Program.

   e. The permittee must provide the Department with an annual report describing the permittee's pretreatment program activities for the twelve-month period ending 60 days prior to the due date in accordance with federal regulation found at 40 CFR 403.12(i) and 06-096 CMR 528(12)(i). **The annual report** *[ICIS code 53199]* **must be consistent with the format described in the "Industrial Pretreatment Annual Report" form included as Attachment B of this permit and must be submitted no later than July 1 of each calendar year.**

   f. The permittee must obtain approval from the Department prior to making any significant changes to the industrial pretreatment program in accordance with federal regulation found at 40 CFR 403.18(c) and 06-096 CMR 528(18).

   g. The permittee must assure that applicable National Categorical Pretreatment Standards are met by all categorical industrial users of the POTW. These standards are published in the federal regulations found at 40 CFR Parts 405 through 471.

SPECIAL CONDITIONS

K. INDUSTRIAL PRETREATMENT PROGRAM (cont'd)

h. The permittee must modify its pretreatment program to conform to all changes in the federal regulations and State rules that pertain to the implementation and enforcement of the industrial pretreatment program. **Within 180 days of the effective date of this permit,** *[ICIS code 53199]* the permittee must provide the Department in writing, proposed changes to the permittee's pretreatment program deemed necessary to assure conformity with current federal regulations and State rules. At a minimum, the permittee must address in its written submission the following areas: (1) Enforcement response plan; (2) revised sewer use ordinances; and (3) slug control evaluations. The permittee will implement these proposed changes pending the Department's approval under federal regulation 40 CFR 403.18 and 06-096 CMR 528(18). This submission is separate and distinct from any local limits analysis submission described in section 1(a) above.

L. 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 75305]*: See **Attachment F** of the Fact Sheet of this permit for an acceptable certification form to satisfy this Special Condition.

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

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

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

d Changes in storm water collection or inflow/infiltration affecting the facility that may increase the toxicity of the discharge.

e. Increases in the type or volume of hauled wastes accepted by the facility.

The Department may require that annual surveillance level WET, analytical chemistry or priority pollutant testing be reinstituted if it determines that there have been changes in the character of the discharge or if annual certifications described above are not submitted.

SPECIAL CONDITIONS

M. ASSET MANAGEMENT PROGRAM (AMP)

The permittee must maintain a current written AMP in accordance with Department guidance entitled, *Maine Department of Environmental Protection, Clean Water State Revolving Fund (CWSRF) Guidance for Minimum Requirements for an Asset Management Program and Reserve Account In Order to Qualify for CWSRF Principal Forgiveness*, DEPLW1190C-2014. The AMP shall be reviewed and updated as necessary at least annually. The AMP shall be kept on-site at the permittee's office and made available to Department staff for review during normal business hours.

N. REPAIR AND REPLACEMENT RESERVE ACCOUNT

Beginning August 19, 2016, and lasting through August 19, 2017, the permittee must fund a Repair and Replacement Reserve Account in the amount recommended in the permittee's Asset Management Plan or at a minimum of 2% of the permittee's total yearly waste water operation and maintenance budget.

On or before August 19, 2016, and every year thereafter through August 19, 2017 ***(EFIS Code 75305)*** the permittee must submit a certification to the Department indicating a Repair and Replacement Reserve Account has been fully funded as required above. See **Attachment F** of this permit for a copy of the certification form. The permittee shall attach copies of yearly audit reports to the annual certification forms showing funds in the reserve account for each year and, if funds were expended, what the funds were used for.

O. 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 (13^{th}) day of the month or hand-delivered to a Department Regional Office such that the DMRs are received by the Department on or before the fifteenth (15^{th}) 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 compliance inspector (unless otherwise specified) at the following address:

Maine Department of Environmental Protection
Central Maine Regional Office
Bureau of Water Quality
Division of Water Quality Management
17 State House Station
Augusta, Maine 04333

SPECIAL CONDITIONS

O. MONITORING AND REPORTING (cont'd)

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

Electronic versions of the "*CSO Progress Report*" and "*CSO Activity and Volumes*" form must be submitted to the Department's CSO Coordinator at the address below:

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

P. REOPENING OF PERMIT FOR MODIFICATIONS

Upon evaluation of the tests results or monitoring requirements specified in Special Conditions of this permitting action, new site specific information, or any other pertinent test results or information obtained during the term of this permit, the Department may, at any time, and with notice to the permittee, modify this permit to: (1) include effluent limits necessary to control specific pollutants or whole effluent toxicity where there is a reasonable potential that the effluent may cause water quality criteria to be exceeded; (2) require additional effluent or ambient water quality monitoring if results on file are inconclusive; or (3) change monitoring requirements or limitations based on new information including, but not limited to, new information from ambient water quality studies of the receiving waters.

Q. SEVERABILITY

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

ATTACHMENT A

Maine Department of Environmental Protection

Effluent Mercury Test Report

Name of Facility: _____ Federal Permit # ME _____

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

SAMPLE COLLECTION INFORMATION

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

Sampling Location:

Weather Conditions: _____

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

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

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

ANALYTICAL RESULT FOR EFFLUENT MERCURY

Name of Laboratory: _____

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

Please Enter Effluent Limits for your facility

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

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

CERTIFICATION

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

By: _____ Date: _____

Title: _____

PLEASE MAIL THIS FORM TO YOUR ASSIGNED INSPECTOR

ATTACHMENT B

Salmonid Survival and Growth Test

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

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

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

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

Loading Rate - < 0.5 g/l/day

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

Temperature - 12° ± 1°C

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

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

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

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

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

ATTACHMENT 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

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

Comments _____

Laboratory conducting test

Company Name _____ Company Rep. Name (Printed) _____

Mailing Address _____ Company Rep. Signature _____

City, State, ZIP _____ Company Telephone # _____

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

ATTACHMENT D

Maine Department of Environmental Protection

WET and Chem

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

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

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

Flow for Day (MGD)[1] _____ **Flow Avg. for Month (MGD)**[2] _____

Date Sample Collected _____ **Date Sample Analyzed** _____

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

Last Revision - July 1, 2015

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

FRESH WATER VERSION

Please see the footnotes on the last page.

	WHOLE EFFLUENT TOXICITY		Effluent Limits, %			Receiving Water or Ambient	Effluent Concentration (ug/L or as noted)		Possible Exceedence [7]		
			Acute	Chronic			WET Result, % Do not enter % sign	Reporting Limit Check	Acute	Chronic	
	Trout - Acute										
	Trout - Chronic										
	Water Flea - Acute										
	Water Flea - Chronic										
	WET CHEMISTRY										
	pH (S.U.) (9)										
	Total Organic Carbon (mg/L)					(8)					
	Total Solids (mg/L)										
	Total Suspended Solids (mg/L)										
	Alkalinity (mg/L)					(8)					
	Specific Conductance (umhos)										
	Total Hardness (mg/L)					(8)					
	Total Magnesium (mg/L)					(8)					
	Total Calcium (mg/L)					(8)					

	ANALYTICAL CHEMISTRY [3] Also do these tests on the effluent with WET. Testing on the receiving water is optional	Reporting Limit	Effluent Limits, ug/L Acute[6]	Chronic[6]	Health[6]			Reporting Limit Check	Possible Exceedence [7] Acute	Chronic	Health
	TOTAL RESIDUAL CHLORINE (mg/L) (9)	0.05				NA					
	AMMONIA	NA				(8)					
M	ALUMINUM	NA				(8)					
M	ARSENIC	5				(8)					
M	CADMIUM	1				(8)					
M	CHROMIUM	10				(8)					
M	COPPER	3				(8)					
M	CYANIDE, TOTAL	5				(8)					
	CYANIDE, AVAILABLE [3a]	5				(8)					
M	LEAD	3				(8)					
M	NICKEL	5				(8)					
M	SILVER	1				(8)					
M	ZINC	5				(8)					

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

	PRIORITY POLLUTANTS [4]		Effluent Limits					Reporting Limit Check	Possible Exceedence [7]		
		Reporting Limit	Acute[6]	Chronic[6]	Health[6]				Acute	Chronic	Health
M	ANTIMONY	5									
M	BERYLLIUM	2									
M	MERCURY (5)	0.2									
M	SELENIUM	5									
M	THALLIUM	4									
A	2,4,6-TRICHLOROPHENOL	5									
A	2,4-DICHLOROPHENOL	5									
A	2,4-DIMETHYLPHENOL	5									
A	2,4-DINITROPHENOL	45									
A	2-CHLOROPHENOL	5									
A	2-NITROPHENOL	5									
A	4,6 DINITRO-O-CRESOL (2-Methyl-4,6-dinitrophenol)	25									
A	4-NITROPHENOL	20									
A	P-CHLORO-M-CRESOL (3-methyl-4-chlorophenol)+B80	5									
A	PENTACHLOROPHENOL	20									
A	PHENOL	5									
BN	1,2,4-TRICHLOROBENZENE	5									
BN	1,2-(O)DICHLOROBENZENE	5									
BN	1,2-DIPHENYLHYDRAZINE	20									
BN	1,3-(M)DICHLOROBENZENE	5									
BN	1,4-(P)DICHLOROBENZENE	5									
BN	2,4-DINITROTOLUENE	6									
BN	2,6-DINITROTOLUENE	5									
BN	2-CHLORONAPHTHALENE	5									
BN	3,3'-DICHLOROBENZIDINE	16.5									
BN	3,4-BENZO(B)FLUORANTHENE	5									
BN	4-BROMOPHENYLPHENYL ETHER	5									
BN	4-CHLOROPHENYL PHENYL ETHER	5									
BN	ACENAPHTHENE	5									
BN	ACENAPHTHYLENE	5									
BN	ANTHRACENE	5									
BN	BENZIDINE	45									
BN	BENZO(A)ANTHRACENE	8									
BN	BENZO(A)PYRENE	5									
BN	BENZO(G,H,I)PERYLENE	5									
BN	BENZO(K)FLUORANTHENE	5									
BN	BIS(2-CHLOROETHOXY)METHANE	5									
BN	BIS(2-CHLOROETHYL)ETHER	6									
BN	BIS(2-CHLOROISOPROPYL)ETHER	6									
BN	BIS(2-ETHYLHEXYL)PHTHALATE	10									
BN	BUTYLBENZYL PHTHALATE	5									
BN	CHRYSENE	5									
BN	DI-N-BUTYL PHTHALATE	5									
BN	DI-N-OCTYL PHTHALATE	5									
BN	DIBENZO(A,H)ANTHRACENE	5									
BN	DIETHYL PHTHALATE	5									
BN	DIMETHYL PHTHALATE	5									
BN	FLUORANTHENE	5									

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

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

Notes:

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

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

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

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

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

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

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

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

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

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

Comments:

ATTACHMENT E

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
CSO ACTIVITY AND VOLUMES

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

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

CONTENTS

A. GENERAL PROVISIONS

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

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

(a) They are not

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

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

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

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

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

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

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

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

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

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

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

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

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

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

B. OPERATION AND MAINTENACE OF FACILITIES

1. General facility requirements.

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

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

(b) The permittee shall at all times maintain in good working order and operate at maximum efficiency all waste water collection, treatment and/or control facilities.

(c) All necessary waste treatment facilities will be installed and operational prior to the discharge of any wastewaters.

(d) Final plans and specifications must be submitted to the Department for review prior to the construction or modification of any treatment facilities.

(e) The permittee shall install flow measuring facilities of a design approved by the Department.

(f) The permittee must provide an outfall of a design approved by the Department which is placed in the receiving waters in such a manner that the maximum mixing and dispersion of the wastewaters will be achieved as rapidly as possible.

2. Proper operation and maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

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

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

5. Bypasses.

(a) Definitions.

(i) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.

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

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

(c) Notice.

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

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

(d) Prohibition of bypass.

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

(A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
(B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
(C) The permittee submitted notices as required under paragraph (c) of this section.

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

6. Upsets.

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

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

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

(i) An upset occurred and that the permittee can identify the cause(s) of the upset;
(ii) The permitted facility was at the time being properly operated; and
(iii) The permittee submitted notice of the upset as required in paragraph D(1)(f) , below. (24 hour notice).
(iv) The permittee complied with any remedial measures required under paragraph B(4).

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

C. MONITORING AND RECORDS

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

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

3. Monitoring and records.

(a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(b) Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years, the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.

(c) Records of monitoring information shall include:

(i) The date, exact place, and time of sampling or measurements;
(ii) The individual(s) who performed the sampling or measurements;
(iii) The date(s) analyses were performed;
(iv) The individual(s) who performed the analyses;
(v) The analytical techniques or methods used; and
(vi) The results of such analyses.

(d) Monitoring results must be conducted according to test procedures approved under 40 CFR part 136, unless other test procedures have been specified in the permit.

(e) State law provides that any person who tampers with or renders inaccurate any monitoring devices or method required by any provision of law, or any order, rule license, permit approval or decision is subject to the penalties set forth in 38 MRSA, §349.

D. REPORTING REQUIREMENTS

1. Reporting requirements.

(a) Planned changes. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

(i) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or

(ii) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under Section D(4).

(iii) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;

(b) Anticipated noncompliance. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

(c) Transfers. This permit is not transferable to any person except upon application to and approval of the Department pursuant to 38 MRSA, § 344 and Chapters 2 and 522.

(d) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(i) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Department for reporting results of monitoring of sludge use or disposal practices.

(ii) If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR part 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Department.

(iii) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Department in the permit.

(e) Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

(f) Twenty-four hour reporting.

(i) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance

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

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

(A) Any unanticipated bypass which exceeds any effluent limitation in the permit.
(B) Any upset which exceeds any effluent limitation in the permit.
(C) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit to be reported within 24 hours.

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

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

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

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

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

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

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

(i) One hundred micrograms per liter (100 ug/l);
(ii) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
(iii) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with Chapter 521 Section 4(g)(7); or
(iv) The level established by the Department in accordance with Chapter 523 Section 5(f).

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

(i) Five hundred micrograms per liter (500 ug/l);
(ii) One milligram per liter (1 mg/l) for antimony;
(iii) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with Chapter 521 Section 4(g)(7); or
(iv) The level established by the Department in accordance with Chapter 523 Section 5(f).

5. Publicly owned treatment works.

(a) All POTWs must provide adequate notice to the Department of the following:

(i) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of CWA or Chapter 528 if it were directly discharging those pollutants.
(ii) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
(iii) For purposes of this paragraph, adequate notice shall include information on (A) the quality and quantity of effluent introduced into the POTW, and (B) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

(b) When the effluent discharged by a POTW for a period of three consecutive months exceeds 80 percent of the permitted flow, the permittee shall submit to the Department a projection of loadings up to the time when the design capacity of the treatment facility will be reached, and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans.

E. OTHER REQUIREMENTS

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

(a) For municipal sources. During power failure, all wastewaters which are normally treated shall receive a minimum of primary treatment and disinfection. Unless otherwise approved, alternate power supplies shall be provided for pumping stations and treatment facilities. Alternate power supplies shall be on-site generating units or an outside power source which is separate and independent from sources used for normal operation of the wastewater facilities.

(b) For industrial and commercial sources. The permittee shall either maintain an alternative power source sufficient to operate the wastewater pumping and treatment facilities or halt, reduce or otherwise control production and or all discharges upon reduction or loss of power to the wastewater pumping or treatment facilities.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Maximum daily discharge limitation means the highest allowable daily discharge.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

AND

MAINE WASTE DISCHARGE LICENSE

FACT SHEET

Date: **October 23, 2015**

MEPDES PERMIT NUMBER: **ME0100013**
MAINE WDL NUMBER: **W-002695-5M-N-R**

NAME AND ADDRESS OF APPLICANT:

GREATER AUGUSTA UTILITY DISTRICT (GAUD)
12 Williams Street
Augusta, Maine 04330

COUNTY: **Kennebec**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

33 Jackson Avenue
Augusta, Maine 04330

RECEIVING WATER/CLASSIFICATION: **Kennebec River and tributaries / Class B**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **Mr. Brian Tarbuck**
General Mgr.
(207) 622-3701
e-mail: btarbuck@greateraugustautilitydistrict.org

1. APPLICATION SUMMARY

a. Application: The GAUD has submitted a timely and complete application to the Department for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0100013 / Maine Waste Discharge License (WDL) #W002695-5M-I-R (permit hereinafter) issued by the Department on September 18, 2008, for a five-year term. The permit authorized the discharge of up to a monthly average flow of 8.0 million gallons per day (MGD) of secondary treated sanitary wastewater from a municipal wastewater treatment facility to the Kennebec River, Class B, in Augusta, Maine. The permit also allowed the discharge of blended effluent, an unspecified quantity of excess combined sanitary wastewater and stormwater receiving primary treatment and blended with the secondary treated waste water to be discharged to the Kennebec River. The permit also authorized the discharge of untreated combined sanitary wastewater and stormwater from twenty four (24) combined sewer overflow (CSO) outfalls to the Kennebec River and its tributaries, Class B, in Augusta.

1. APPLICATION SUMMARY (cont'd)

b. Source Description: - The Augusta Sanitary District was created in 1955 and reformed into the Greater Augusta Utility District in 2008. The wastewater treatment facility receives sanitary wastewater flows from approximately 6,600 residential, commercial and industrial users in the City of Augusta and the towns of Hallowell, Manchester, Winthrop and Monmouth. There are three major commercial/industrial users of the system that generate wastewaters that include landfill leachate, septage processing, and a manufacturing facility.

The District 's sewer collection system is approximately 105 miles in length. It has 13 intown pump stations, 2 intown grinders, 4 trunkline pump stations, 7 trunkline grinders, and is approximately 40% combined and 60% separated. On-site back-up power is provided at 3 intown and 5 trunkline pump stations. There are nineteen (19) remaining permitted CSOs associated with the collection system, which are listed in Special Condition J, *Combined Sewer Overflows (CSO),* of this permitting action. The District is authorized to receive and introduce into the treatment process or solids handling stream up to a maximum of 20,000 GPD of septage, pursuant to Permit Special Condition J.

c. Wastewater Treatment: The District completed a major upgrade of the wastewater treatment facility in 1999. The primary purpose of the upgrade was to abate discharges bypassing the wastewater treatment facility by improving preliminary and primary treatment along with maximizing flow receiving secondary treatment and improving sludge handling and dewatering processes.

Secondary Treatment

With the upgrades completed in 1999, the District is capable of providing a secondary level of treatment of flows of up to a monthly average of 8.0 MGD, a daily maximum of 12.0 MGD, and a peak instantaneous flow of 16.7 MGD. Flows are conveyed into the wastewater treatment facility via two 42-inch diameter interceptor pipes, capable of delivering up to 29 MGD to the treatment facility. During dry weather flows, a secondary level of treatment is provided via two mechanical screens, two aerated grit chambers, three primary settling tanks (two 55-foot diameter and one 80-foot diameter), one aeration tanks (high purity oxygen reactor tank), three 80-foot diameter secondary clarifiers and two chlorine contact chambers where sodium hypochlorite is utilized as a disinfectant. Flows are measured via two 36-inch parshall flumes, one located after the grit chamber but before the flow distribution structure and another located just prior to the chlorine contact chamber.

1. APPLICATION SUMMARY (cont'd)

Treated effluent is discharged to the Kennebec River via a 36-inch diameter ductile iron pipe. The pipe, which does not have a diffuser, extends approximately 100 feet out into the main river channel to a depth of approximately 7½ feet over the crown of the pipe at mean low water. It is noted that though the Kennebec River is tidal at the point of discharge, it is dominated by freshwater from upstream. See **Attachment B** of this Fact Sheet for a schematic of the treatment facility.

Wet Weather Flows (Primary Treatment – Phase I)

During wet weather events, flows up to 36 MGD (29 MGD from the two 42-inch interceptor pipes plus up to 7.0 MGD from the West Side Consolidation Conduit (WSCC) pass through the preliminary and primary treatment component of the plant (screening, grit removal, primary clarification). At flow distribution structure #2, flows of up to at least 12 MGD are conveyed to the secondary treatment process and the balance of the flow up to 24 MGD is conveyed to a dedicated high-rate disinfection system with dechlorination capabilities. After disinfection, the primary treated flow is combined with the secondary treated flow (after the secondary treatment disinfection chamber) prior to discharge to the river via Outfall #001A. Flows receiving primary treatment are measured by way of a flow meter located after the disinfection chamber.

Wet Weather Flows (Phase II)

In January 2003, District completed construction of the WSCC, a precast structure measuring 3,700-feet long, 10-feet wide and 6-feet high with a volume of 1.5 million gallons. The WSCC serves to intercept, capture and transport peak flows of up to a flow rate of 46,527 gallons per minute (67 MGD) and has been designed to accept up to an additional flow rate of 13,890 to 22,200 gallons per minute (20 to 32 MGD) projected from future phases in the Combined Sewer Overflow Facilities Plan. The WSCC provides both in-line and off-line treatment/storage capabilities through maximizing the storage volume of the existing West Side Interceptor. The WSCC has a wet-weather overflow structure that discharges screened combined sewage during wet-weather events that exceed the WSCC design capacity. This structure is being regulated in this permitting action as Outfall #040 in Special Condition J, *Combined Sewer Overflows (CSOs)*.

1. APPLICATION SUMMARY (cont'd)

Wet Weather Flows (Phase III)

The Phase III Abatement Program included the construction of a series of consolidation sewers to eliminate overflows to Bond Brook. These flows are now conveyed to the one million gallon Mill Park storage facility. This facility consists of a double-barrel storage system consisting of twin 670 feet long, 10 feet by 10 feet conduits buried 20 feet under Mill Park that captures the CSO flows for later pumping to the waste water treatment facility. Phase III also included a number of needed waste water infrastructure improvement components in the Bond Brook subarea and a SCADA-controlled slide gate on the West Side Interceptor. The gate optimizes the capture of the West Side subarea CSO flows while protecting the waste water treatment facility from flows exceeding its peak design capacity of 36 MGD.

2. PERMIT SUMMARY

b. Terms and Conditions: This permitting action is carrying forward all the terms and conditions of the September 18, 2008, permit except that this permit is:

1. Pursuant to 06-096 CMR Chapter 530(2)(D)(3)(b), surveillance level testing is being waived.

2. Incorporating the minimum and maximum technology based concentration limits for total mercury.

3. Eliminating Special Condition C, *Disinfection*, from the permit as the Department has reconsidered the value of said condition.

4. Eliminating the water quality based limitations and monitoring requirement for total arsenic and inorganic arsenic given a revision to the ambient water quality criteria for inorganic arsenic.

5. Changing biochemical oxygen demand (BOD_5) to carbonaceous biochemical oxygen demand ($CBOD_5$) for Outfall #001B to be consistent with the parameters monitored for Outfall #001A

6. Requiring *E. coli* bacteria monitoring between October 1, 2015 – April 31, 2016.

7. Reducing the minimum monitoring frequencies for CBOD, TSS, settleable solids, *E. coli* bacteria and total residual chlorine for Outfall #001A.

8. Eliminating combined sewer overflow (CSO) outfalls #011, #014, #015, #016 and #023 as the outfalls have been eliminated since issuance of the previous permit.

2. PERMIT SUMMARY (cont'd)

9. Establishing Outfall #001C (blended effluent) that contains daily maximum technology based mass limits for $CBOD_5$ and TSS.

10. Eliminating the monitoring requirement for total phosphorus as results on file at the Department indicate the discharge does not have a reasonable potential to exceed EPA's AWQ goal of 0.100 mg/L or the Department's draft criteria of 0.030 mg/L.

c. History: The most recent relevant regulatory actions include the following:

January 27, 1998 – The Department issued WDL renewal #W-002695-47-E-R to the Augusta Sanitary District (ASD) for the discharge of sanitary wastewater, excess storm flows, and CSO flows to the Kennebec River and tributaries, Classes C and B. The WDL was issued for a five-year term and superseded all previous WDLs back to the oldest in Department files, which was issued on September 26, 1979.

September 28, 1998 – The Department issued water quality certification #W-002695-68-F-N certifying that the discharge proposed in a pending NPDES permit was in compliance with applicable sections of the Federal Water Pollution Control Act and State law.

September 29, 1998 - The USEPA issued a renewal of the NPDES Permit #ME0100013. The NPDES Permit authorized the discharge of a monthly average flow of 8.0 MGD until upgrade of the Augusta POTW and 12.0 MGD from upgrade of the facility through expiration of the permit on March 31, 2003. The 1998 NPDES Permit superseded previous NPDES permits issued on October 1, 1990 and March 29, 1985.

April 5, 1999 – The Department issued WDL modification #W-002695-5M-G-M to the ASD, increasing mass limitations for $CBOD_5$ and TSS following upgrade of the facility to provide primary treatment for storm event flows in excess of design flows of the secondary treatment portion of the plant.

December 1999 – The Augusta Sanitary District completed a major upgrade of their wastewater treatment facility to improve preliminary and primary wastewater treatment processes, maximize flow receiving secondary treatment, and improve sludge handling and dewatering processes.

May 23, 2000 - Pursuant to State law, 38 M.R.S.A. §420 and §413 and Department rule, *Interim Effluent Limitations and Controls for the Discharge of Mercury*, 06-096 CMR 519 (last amended October 6, 2001), the Department modified WDL #W-002695-5M-G-M, by establishing interim effluent limits and monitoring requirements for mercury.

2. PERMIT SUMMARY (cont'd)

June 6, 2003 - The Department issued WDL #W-002695-5M-H-R / MEPDES Permit #ME0100031 for the discharge of up to a monthly average of 8.0 MGD of secondary treated sanitary wastewater and an unspecified quantity of excess combined primary treated sanitary wastewater and stormwater from the Augusta POTW and an unspecified quantity of untreated storm water and sanitary wastewaters from twenty-four (24) CSOs to the Kennebec River and tributaries, Classes C and B. The Permit/WDL incorporated the terms and conditions of the MEPDES permit program and was issued for a five-year term.

June 23, 2003 – The Department issued WDL #W-007532-5T-C-R / MEPDES Permit #ME0101010 to the Hallowell Water District for the discharge of an unspecified quantity of untreated storm water and sanitary wastewater from one (1) CSO to the Kennebec River, Class C. The Permit/WDL incorporated the terms and conditions of the MEPDES permit program, was issued for a five-year term, and superseded previous WDLs #W-007532-58-B-R issued January 13, 1997 and #W-007532-45-A-N issued on October 7, 1987.

April 10, 2006 – The Department issued a Modification of WDL #W-002695-5M-H-R / MEPDES Permit #ME0100031 to revise toxicity testing requirements for the ASD 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.

January 1, 2008 – The District officially assumed operation for the Augusta Sanitary District, Augusta Water District and the sewer system of Hallowell Water District pursuant to approval by the voters of the cities of Augusta and Hallowell on November 6, 2007, and SP 621 and LD 1754, *An Act to Incorporate the Greater Augusta Utility District*, approved by Governor John E. Baldacci on June 22, 2007.

September 28, 2008 – The Department issued MEPDES permit #ME0100013/WDL#W002695-5M-I-R for a five-year term.

March 9, 2011 – The Department issued minor revision MEPDES permit #ME0100013/WDL #W002695-5M-J-M that extended the compliance date for a CSO project.

Septembr 6, 2011 – The Department issued modification MEPDES permit #ME0100013/WDL #W002695-5M-K-M that incorporated a Special Condition to comply with the 2010 Clean Water Act State Revolving Fund requirement regarding Asset Management Principal Forgiveness.

2. PERMIT SUMMARY (cont'd)

March 29, 2012 – The Department issued minor revision MEPDES permit #ME0100013/WDL #W002695-5M-L-M that modified a date for the submission of a final report containg findings of an energy audit for the permittee's waste water treatment facility.

February 6, 2012 - The Department issued minor revision MEPDES permit #ME0100013/WDL #W002695-5M-M-M that reduced the monitoring frequency for total mercury from 4/Year to 1/Year.

July 11, 2013 – The permittee submitted a timely and complete application to the Department to renew the MEPDS permit/WDL for the waste water treatment facility.The application was issued WDL#W002695-5M-N-R.

September 9, 2013 - The Department issued modification MEPDES permit #ME0100013/WDL #W002695-5M-O-M that eliminated the water quality based limitations and monitoring requirements for total arsenic and inorganic arsenic.

June 30, 2015 – The permittee submitted a document entitled, *2015 Long Term Control Plan Update* to the Department for review.

3. CONDITIONS OF PERMITS

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

4. RECEIVING WATER STANDARDS

Maine law, 38 M.R.S.A., Sections 467(4)(A)(12) indicates the main stem of the Kennebec River at the point of discharge is classified as Class B waterways. Maine law, 38 M.R.S.A., Section 465(3) establishes the classification standards of Class B waters as follows;

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

4. RECEIVING WATER STANDARDS (cont'd)

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

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

Maine law, 38 M.R.S.A., Section 467(4)(A)(13) classifies the main stem of the Kennebec River *from the Calumet Bridge at Old Fort Western in Augusta to a line drawn across the tidal estuary of the Kennebec River due east of Abagadasset Point - Class B. Further, the Legislature finds that the free-flowing habitat of this river segment provides irreplaceable social and economic benefits and that this use must be maintained. Further, the license limits for total residual chlorine and bacteria for existing direct discharges of wastewater to this segment as of January 1, 2003 must remain the same as the limits in effect on that date and must remain in effect until June 30, 2009 or upon renewal of the license, whichever comes later. Thereafter, license limits for total residual chlorine and bacteria must be those established by the department in the license and may include a compliance schedule pursuant to section 414-A, subsection 2.*

Maine law, 38 M.R.S.A., Section 467(4)(A)(14) classifies the main stem of the Kennebec River *from a line drawn across the tidal estuary of the Kennebec River due east of Abagadasset Point, to a line across the southwesterly area of Merrymeeting Bay formed by an extension of the Brunswick-Bath boundary across the bay in a northwesterly direction to the westerly shore of Merrymeeting Bay and to a line drawn from Chop Point in Woolwich to West Chop Point in Bath - Class B. Further, the Legislature finds that the free-flowing habitat of this river segment provides irreplaceable social and economic benefits and that this use must be maintained.*

5. RECEIVING WATER CONDITIONS

The State of Maine Department of Environmental Protection 2012 Integrated Water Quality Monitoring and Assessment Report (DEPLW1246), prepared by the Department pursuant to Sections 303(d) and 305(b) of the Federal Water Pollution Control Act includes the receiving water in the designations Main stem from Augusta (Calumet Bridge) to the Merrymeeting Bay (Chops) (Assessment Unit ID ME0103000312_340R_01), *Kennebec River at Augusta, including Riggs Brook* (Assessment Unit ID ME0103000312_340R_02), *Kennebec River at Hallowell* (Assessment Unit ID ME0103000312_340R_03) and *Kennebec River at Gardiner-Randolph* (Assessment Unit ID ME0103000312_340R_04) listed in the following categories:

Assessment Unit ID ME0103000312_340R_02, ME0103000312_340R_03 and ME0103000312_340R_04 are listed in *Category 4-A: Rivers and Streams with Impaired Use other than mercury, TMDL completed.* The three segments are variable impaired due to elevated levels of *E. coli* bacteria caused by CSO discharges but a statewide bacteria TMDL has been approved.

Assessment Unit ID ME0103000312_340R_01 (30.53 miles) is listed in *Category 4-B: Rivers and Streams Impaired by Pollutants – Pollution Control Requirements Reasonably Expected To Result in Attainment* due to the historic presence of dioxin. With the establishment of numeric limitations for dioxin in the MEPDES permit for the SAPPI pulp and paper mill approximately 30 miles upstream of the GAUD facility and the requirement that the levels of dioxin in fish tissue of fish below the mill discharge can not be greater than the dioxin levels in fish above the SAPPI outfall, the Department anticipates attainment to be achieved by calendar year 2020.

Assessment Unit ID ME0103000312_340R_01 (30.53 miles) is listed in *Category 5-D: Rivers and Streams Impaired by Legacy Pollutants* due to historic fish tissue sampling indicating the presence of PCBs.

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

5. RECEIVING WATER CONDITIONS (cont'd)

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

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

Outfall #001A, Secondary Treated Effluent

a. Flow: The previous permitting action established a monthly average flow limitation of 8.0 MGD and a daily maximum reporting requirement; both of which are being carried forward in this permitting action. The monthly average limit is considered to be representative of the monthly average design flow for the wastewater treatment facility. The daily maximum reporting requirement is a requirement common to other facility permits and is based upon Department best professional judgement (BPJ) of information that is necessary to determine on-going compliance at the facility. A review of the Discharge Monitoring Report (DMR) data for the period January 2012 through March 2015 indicates values have been reported as follows:

Flow (Outfall #001A)

Value	Limit	Range	Mean	# DMRs
Monthly Avg	8.0 MGD	2.2 – 7.3	3.7 MGD	39
Daily Max	Report MGD	2.7 – 13.5	8.5 MGD	39

b. Dilution Factors - The Department has made the determination that the dilution factors associated with the discharge shall be calculated in accordance with freshwater protocols established in Department Regulation Chapter 530, *Surface Water Toxics Control Program*, October 2005. With a permit flow limit of 8.0 MGD and the 7Q10 and 1Q10 low flow values for the Kennebec River, the dilution factors are calculated as follows:

Modified Acute: ¼ 1Q10 = 520 cfs $\Rightarrow \frac{(520 \text{ cfs})(0.6464) + (8.0 \text{ MGD})}{(8.0 \text{ MGD})} =$ 43:1

Acute: 1Q10 = 2,079 cfs $\Rightarrow \frac{(2{,}079 \text{ cfs})(0.6464) + (8.0 \text{ MGD})}{(8.0 \text{ MGD})} =$ 169:1

Chronic: 7Q10 =2,538 cfs $\Rightarrow \frac{(2{,}538 \text{ cfs})(0.6464) + (8.0 \text{ MGD})}{(8.0 \text{ MGD})} =$ 206:1

Harmonic Mean: = 5,618 cfs $\Rightarrow \frac{(5{,}618 \text{ cfs})(0.6464) + (8.0 \text{ MGD})}{(8.0 \text{ MGD})} =$ 455:1

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

Outfall #001A, Secondary Treated Effluent

Chapter 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. Based on the location of the outfall pipe, its

lack of a diffuser structure, and instream hydrology information collected by the Department in 1999 and contained in a 2000 modeling report, the Department has made the determination that the discharge does not receive rapid and complete mixing with the receiving water. Therefore, the Department is utilizing the default stream flow of ¼ of the 1Q10 pursuant to Chapter 530 in acute evaluations.

c. Carbonaceous Biochemical Oxygen Demand ($CBOD_5$): The previous permitting action carried forward monthly average, weekly average and daily maximum concentration limits, monthly average and weekly average mass limits, and a daily maximum mass reporting requirement for $CBOD_5$. Typically, the Department establishes effluent limitations for BOD_5 for facilities that do not nitrify or complete the nitrification process through internal process control measures. BOD_5 is the measure of the total oxygen demand from both nitrogenous and carbonaceous components in a wastewater. Because the District has a high rate activated sludge process, the treatment process does not give the operator(s) of the facility the flexibility to control the nitrification process once it begins. 06-096 CMR Chapter 525(3)III authorizes the permitting authority to substitute $CBOD_5$ limitations for BOD_5 and the Department is doing so in this permitting action based on the facility-specific conditions outlined herein and BPJ.

This permitting action carries forward the monthly and weekly average $CBOD_5$ concentration limitations of 25 mg/L and 40 mg/L respectively, pursuant to Department rule Chapter 525(3)III. The daily maximum $CBOD_5$ concentration limit of 45 mg/L is also being carried forward from the previous permitting action and is considered a Department BPJ of best practicable treatment (BPT) limitation. The monthly average and weekly average mass limitations were and are based on the monthly average flow limit of 8.0 MGD and the applicable concentration limits, and are calculated as follows:

Monthly average: (8.0 MGD)(8.34 lbs/gal)(25 mg/L) = 1,668 lbs/day
Weekly average: (8.0 MGD)(8.34 lbs/gal)(40 mg/L) = 2,669 lbs/day

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

Outfall #001A, Secondary Treated Effluent

No daily maximum mass limit for $CBOD_5$ has been established in this permit (or the previous permit) due to the presence of CSOs in the collection system. Establishing such a limit would likely discourage the District from treating as much wastewater as the plant can physically treat during wet weather events. However, pursuant to Standard Condition B(2) of this permit, the District shall maximize its capacity to treat as much wastewater to a secondary level of treatment as possible during wet weather events. This permitting action is carrying forward a monthly average 85% removal requirement for $CBOD_5$ pursuant to Department rule Chapter 525(3)III.

A review of the DMR data for the period January 2012 through March 2015 indicates values have been reported as follows:

$CBOD_5$ Mass (Outfall #001A)

Value	Limit	Range of Values	Arithmetic Mean	# Values
Monthly Avg	1,668 lbs/day	153 - 688 lbs/day	349 lbs/day	39
Daily Max	Report lbs/day	423–2,226 lbs/day	930 lbs/day	39

$CBOD_5$ Concentration (Outfall #001A)

Value	Limit	Range of Values	Arithmetic Mean	# Values
Monthly Avg	25 mg/L	5-18 mg/L	11 mg/L	39
Daily Max	45 mg/L	9 - 28 mg/L	19 mg/L	39

The previous permitting action established a minimum monitoring frequency requirement of five times per week (5/Week) for CBOD which is based on Department guidance for POTWs permitted to discharge greater than 5.0 MGD.

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

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

Outfall #001A, Secondary Treated Effluent

Although EPA's 1996 Guidance recommends evaluation of the most current two-years of effluent data for a parameter, the Department is considering 39 months of data (January 2012 – March 2015). A review of the mass monitoring data for CBOD indicates the ratios (expressed in percent) of the long term effluent average to the monthly average limits can be calculated as 21%. According to Table I of the EPA Guidance and Department Guidance, a 5/Week monitoring requirement can be reduced to 3/Week. Therefore, this permitting action is reducing the monitoring frequency for CBOD to 3/Week.

The previous permitting action established, and this permitting action is carrying forward a requirement to achieve a minimum 30-day average removal of 85 percent for CBOD and TSS pursuant to Department rule, 06-096 CMR Chapter 525(3)(III)(a&b)(3).

CBOD % Removal (DMRs=39)

Value	Limit (%)	Range (%)	Average (%)
Monthly Average	85	85 - 97	92

d. Total Suspended Solids (TSS) – The previous permitting action carried forward monthly average and weekly average TSS technology based concentration limits of 30 mg/L and 45 mg/L respectively, that are based on secondary treatment requirements in Department rule Chapter 525(3)(III). The daily maximum concentration limit of 50 mg/L was based on a Department BPJ of BPT. All three concentration limits are being carried forward in this permitting action, common to all permits for publicly owned treatment works permitted by the Department. The monthly average and weekly average technology based mass limits were based on the monthly average flow limitation of 8.0 MGD and the applicable concentration limits and are also being carried forward in this permitting action. The mass limits are calculated as follows:

Monthly average: (8.0 MGD)(8.34 lbs/gal)(30 mg/L) = 2,002 lbs/day
Weekly average: (8.0 MGD)(8.34 lbs/gal)(45mg/L) = 3,002 lbs/day
Daily maximum: Report Only

As with $CBOD_5$, no daily maximum mass limits for TSS have been established as doing so may discourage the District from maximizing the use of the secondary treatment process during wet weather events.

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

Outfall #001A, Secondary Treated Effluent

A review of the DMR data for the period January 2012 through March 2015 indicates values have been reported as follows:

TSS Mass (Outfall #001A)

Value	Limit	Range	Mean	# DMRs
Monthly Avg	2,002 lbs/day	102–1,235 lbs/day	374 lbs/day	39
Daily Max	Report lbs/day	262-5,253 lbs/day	1,661 lbs/day	39

TSS Concentration (Outfall #001A)

Value	Limit	Range	Mean	#DMRs
Monthly Avg	30 mg/L	4.0 - 20 mg/L	10 mg/L	39
Daily Max	50 mg/L	8 - 66 mg/L	24 mg/L	39

The previous permitting action established a minimum monitoring frequency requirement of five times per week (5/Week) for TSS which is based on Department guidance for POTWs permitted to discharge greater than 5.0 MGD.

Although EPA's 1996 Guidance recommends evaluation of the most current two-years of effluent data for a parameter, the Department is considering 39 months of data (January 2012 – March 2015). A review of the mass monitoring data for TSS indicates the ratios (expressed in percent) of the long term effluent average to the monthly average limits can be calculated as 19%. According to Table I of the EPA Guidance and Department Guidance, a 5/Week monitoring requirement can be reduced to 3/Week. Therefore, this permitting action is reducing the monitoring frequency for TSS to 3/Week.

This permitting action carrying forward a monthly average 85% percent removal requirement for TSS pursuant to Department rule Chapter 525(3)III.

TSS % Removal (DMRs=39)

Value	Limit (%)	Range (%)	Average (%)
Monthly Average	85	86 - 98	94

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

Outfall #001A, Secondary Treated Effluent

e. Settleable Solids - The previous permitting action carried forward a BPT daily maximum concentration limit of 0.3 ml/L which is being carried forward in this permitting action.

A review of the DMR data for the District for the period January 2012 through March 2015 indicates values have been reported as follows:

Settleable solids (DMRs=39)

Value	Limit (ml/L)	Range (ml/L)	Average (ml/L)
Daily Maximum	0.3	<0.1 - <0.2	<0.05

The previous permitting action established a minimum monitoring frequency requirement of once per day (1/Day) for SS which is based on Department guidance for POTWs permitted to discharge greater than 5.0 MGD.

Although EPA's 1996 Guidance recommends evaluation of the most current two-years of effluent data for a parameter, the Department is considering 39 months of data (January 2012 – March 2015). A review of the mass 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 17%. According to Table I of the EPA Guidance and Department Guidance, a 1/Day monitoring requirement can be reduced to 3/Week. Therefore, this permitting action is reducing the monitoring frequency for settleable solids to 3/Week.

f. *Escherichia coliform (E. coli)* bacteria: The June 6, 2003, permit established monthly average and daily maximum *E. coli* bacteria limits of 142 colonies/100 ml and 949 colonies/100 ml respectively, based on the State of Maine Water Classification Program criteria for Class C waters in place at the time. Subsequent to the June 6, 2003 permitting action, the Kennebec River and tributaries at the points of discharge were reclassified as Class B waterways and more stringent ambient water quality criteria (AWQC) of *E. coli* bacteria were adopted by the Maine Legislature.

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

Outfall #001A, Secondary Treated Effluent

As described in Fact Sheet Section 4, Maine law, 38 M.R.S.A., Section 467(4)(A)(13) states that "*...the license limits for total residual chlorine and bacteria for existing direct discharges of wastewater to this segment as of January 1, 2003 must remain the same as the limits in effect on that date and must remain in effect until June 30, 2009 or upon renewal of the license, whichever comes later. Thereafter, license limits for total residual chlorine and bacteria must be those established by the department in the license and may include a compliance schedule pursuant to section 414-A, subsection 2.*"

The permittee requested a schedule of compliance to meet the revised limits for *E. coli* bacteria and total residual chlorine, noting that the amount of work necessary to complete the Department-approved Phase III CSO abatement project as well as necessary facility infrastructural and operational improvements will make compliance by the June 30, 2009 date specified in statute impossible. The District noted the Phase III CSO and facility upgrade project includes modifications of the Westside Consolidated Conduit and Westside Interceptor, the facility grit removal system, secondary effluent disinfection and CSO related bypass disinfection systems, replacement of two pump stations with a combined dry and wet weather pump station, off line storage, and improvement to gravity and force mains systems. The District proposed to address portions of the project more closely related to the wastewater treatment facility first, enabling attainment of the revised limits for Outfall #001A by May 15, 2010. Project improvements more closely related to CSO discharges and a schedule of compliance for Outfall #001B were addressed in Fact Sheet Section 6 (end) of the September 18, 2008 permit. Accordingly, from the effective date of the permitting action until May 14, 2010, the Class C AWQC based *E. coli* bacteria limits of 142 colonies / 100 ml (monthly average) and 949 colonies / 100 ml (daily maximum) applied. Beginning May 15, 2010, *E. coli* bacteria limits of 64 colonies / 100 ml (monthly average) and 427 colonies / 100 ml (daily maximum) applied. The revised limits correspond to the Class B *E. coli* bacteria AWQ standards in place when the receiving waters were reclassified. The Department made the BPJ determination that, after taking into consideration the dilution associated with the discharge, the BPT limits established in the September 18, 2008 permit were protective of the newer AWQC for bacteria.

E. coli bacteria limits and monitoring requirements are seasonal and apply between May 15th and September 30th of each year. The Department reserves the right to require disinfection on a year-round basis to protect the health and welfare of the public. A review of the DMR data for the District for the period May 2012 through September 2014 indicates the following:

***E. coli* Bacteria (Outfall #001A)**

Value	Limit	Range	Mean	#DMRs
Monthly Avg	64/100 ml	1 - 8	3	15
Daily Max	427/100 ml	1 - 345	80	15

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

Outfall #001A, Secondary Treated Effluent

The previous permitting action established a minimum monitoring frequency requirement of three times per week (3/Week) for *E. coli* bacteria which is based on Department guidance for POTWs permitted to discharge greater than 5.0 MGD.

Although EPA's 1996 Guidance recommends evaluation of the most current two-years of effluent data for a parameter, the Department is considering 15 months of data (May 2012 – September 2014). A review of the mass 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 4%. According to Table I of the EPA Guidance and Department Guidance, a 3/Week monitoring requirement can be reduced to 2/Week. Therefore, this permitting action is reducing the monitoring frequency for *E. coli* bacteria to 2/Week.

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

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

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

Outfall #001A, Secondary Treated Effluent

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

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

Criterion (mg/L)		Dilution Factors		Calculated Limit (mg/L)	
Acute (A)	Chronic C	Acute	Chronic	Acute	Chronic
0.019	0.011	43:1	206:1	0.82	2.27

Example calculation: Acute = 0.019 mg/L x 43 = 0.82 mg/L

The daily maximum water quality based limit of 0.82 mg/L is more stringent than the BPT based limit of 1.0 mg/L. Based on the provisions of 38 M.R.S.A., Section 467(4)(A)(13) specific to this receiving water and the permittee requested a schedule of compliance described in Fact Sheet Section 6.f of the September 18, 2008, permit. As a result, the BPT based daily maximum TRC limit of 1.0 mg/L was carried forward until May 14, 2010. Beginning May 15, 2010, the water quality based limit of 0.82 mg/L applied. TRC limits and monitoring requirements are applicable whenever elemental chlorine or chlorine based compounds are being used to disinfect the discharge.

A review of the DMR data for the period May 2012 through September 2015 indicates the following:

Total Residual chlorine (Outfall #001A)

Value	Limit	Range	Mean	#DMRs
Daily Max	0.82 mg/L	0.13-0.74 mg/L	0.3 mg/L	15

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

Outfall #001A, Secondary Treated Effluent

The previous permitting action established a monitoring frequency of 2/day.

Although EPA's 1996 Guidance recommends evaluation of the most current two-years of effluent data for a parameter, the Department is considering 15 months of data (May 2012 – September 2014). A review of the mass monitoring data for total residual chlorine indicates the ratios (expressed in percent) of the long term effluent average to the monthly average limits can be calculated as 36%. According to Table I of the EPA Guidance and Department Guidance, a 2/Day monitoring requirement can be reduced to 1/Day. Therefore, this permitting action is reducing the monitoring frequency for total residual chlorine to 1/Day.

h. Total Phosphorus – The previous permit established reporting requirements for the monthly average and daily maximum mass and concentration levels of total phosphorus discharged. Monitoring was required at a frequency of once per month from June 1 through September 30 of each year. This requirement was established to provide the Department with the ability to continually update the river model developed by the Department in 2000 to predict potential algal blooms that may lead to depressed ambient dissolved oxygen conditions.

A review of the DMR data for the District for the period June 2012 through September 2014 indicates the following:

Total Phosphorus (mass) (OUTFALL #001A)

Value	Limit	Range	Mean	# DMRs
Monthly Avg	Report lbs/day	37 – 112 lbs/day	54 lbs/day	17
Daily Max	Report lbs/day	37 - 112 lbs/day	57 lbs/day	17

Total phosphorus (concentration) (OUTFALL #001A)

Value	Limit	Range	Mean	# DMRs
Monthly Avg	Report mg/L	1.3-4.2 mg/L	1.9 mg/L	17
Daily Max	Report mg/L	1.8 – 4.2 mg/L	2.0 mg/L	17

To get more current values of the total phosphorus being discharged from the GAUD facility, the Department requested GAUD intensify effluent testing during the summer of 2014. The GAUD submitted nine test results ranging from 0.84 mg/L – 2.6 mg/L with an arithmetic mean of 1.6 mg/L which is being utilized in reasonable potential calculations in this Fact Sheet.

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

Outfall #001A, Secondary Treated Effluent

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

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

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

For the background concentration in the Kennebec River just upstream of the GAUD discharge, the Department collected three test results during summer of 2014 and the highest result was 0.014 mg/L which is being utilized in reasonable potential calculations in this Fact Sheet.

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

---

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

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

Using the following calculation and criteria, the GAUD facility does not have a reasonable potential to exceed the EPA's Gold Book goal of 0.100 mg/L for phosphorus or a reasonable potential to exceed the Department's 06-096 CMR Chapter 583 draft criteria of 30 ug/L for Class B waters. The calculations are as follows:

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

Qe = effluent flow i.e. facility design flow	=	8.0 MGD
Ce = effluent pollutant concentration	=	1.6 mg/L
Qs = 7Q10 flow of receiving water	=	1,640 MGD
Cs = upstream concentration	=	0.014 mg/L
Qr = receiving water flow	=	1,648 MGD
Cr = receiving water concentration		

$$Cr = \frac{(8.0 \text{ MGD} \times 1.6 \text{ mg/L}) + (1{,}640 \text{ MGD} \times 0.014 \text{ mg/L})}{1{,}648 \text{ MGD}} = 0.022 \text{ mg/L}$$

Cr = 0.022 mg/L < 0.1 mg/L ⇒ **No Reasonable Potential**
Cr = 0.022 mg/L < 0.030 mg/L⇒ **No Reasonable Potential**

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

i. pH Range- The previous permitting action carried forward a BPT pH range limitation of 6.0 – 9.0 standard units pursuant to Department rule found at Chapter 525(3)(III)(c) and a monitoring frequency of 1/day, typically established for wastewater treatment facilities based on Department BPJ.

A review of the monthly DMR data for the period January 2012 – March 2015 indicates the following:

pH (DMRs = 12)

Value	Limit (su)	Minimum (su)	Maximum (su)
Range	6.0 – 9.0	6.1	8.0

Both the pH range limitation and minimum monitoring frequency of once per day (1/Day) are being carried forward in this permitting action.

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

Outfall #001A, Secondary Treated Effluent

j. Whole Effluent Toxicity (WET) and Chemical Specific Testing Maine Law, 38 M.R.S.A., Sections 414-A and 420, prohibits the discharge of effluents containing substances in amounts which would cause the surface waters of the State to contain toxic substances above levels set forth in Federal Water Quality Criteria as established by the USEPA. Department Rules, 06-096 CMR Chapter 530, *Surface Water Toxics Control Program*, and Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants*, set forth ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters.

WET, priority pollutant and analytical chemistry testing, as required by Chapter 530, is included in this permit in order to fully characterize the effluent. This permit also provides for reconsideration of effluent limits and monitoring schedules after evaluation of toxicity testing results. The monitoring schedule includes consideration of results currently on file, the nature of the wastewater, existing treatment and receiving water characteristics.

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

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

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

Department rule Chapter 530 (2)(D) specifies the criteria to be used in determining the minimum monitoring frequency requirements for WET, priority pollutant and analytical chemistry testing. Based on the Chapter 530 criteria, the permittee's facility falls into the Level III frequency category as the facility has a chronic dilution factor of between 100:1 and 500:1. Chapter 530(2)(D)(1) specifies that default surveillance and screening level testing requirements are as follows:

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

Outfall #001A, Secondary Treated Effluent

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

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

Screening level testing - Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement.

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

The Department's records indicate that the permittee has conducted and submitted its required testing in accordance with the September 18, 2008, permit. See **Attachment C** of this Fact Sheet for a summary of the WET test results and **Attachment D** of this Fact Sheet for a summary of the chemical-specific test dates.

WET test evaluation

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

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

Outfall #001A, Secondary Treated Effluent

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

On April 27, 2015, the Department conducted a statistical evaluation on the most recent 60 months of WET test results on file with the Department in accordance with the statistical approach cited above. The statistical evaluation indicates the discharge from the permittee's wastewater treatment facility does not exceed or have a reasonable potential to exceed the critical acute (2.3%) or chronic (0.48%) water quality thresholds for any of the WET species tested to date. Therefore, no numeric limitations for any WET species tested to date are being established in this permitting action. It is noted, the critical water quality thresholds expressed in percent (%) were derived as the mathematical inverse of the acute (43:1) and chronic (206:1) dilution factors.

As for testing frequencies, Chapter 530(2)(D)(3)(b) states in part that Level III facilities "*... may be waived from conducting surveillance testing for individual WET species or chemicals provided that testing in the preceding 60 months does not indicate any reasonable potential for exceedence as calculated pursuant to section 3(E)*". Based on the results of the April 27, 2015 statistical evaluation, the permittee qualifies for the testing waiver. Therefore, this permit action establishes a screening level WET testing requirements as follows:

Screening level testing - Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement.

Level	WET Testing
III	1 per year

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

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

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

Outfall #001A, Secondary Treated Effluent

(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, *06-096 CMR 530(2)(D)(4) Statement For Reduced/Waived Toxics Testing,* of this permitting action requires the permittee to file an annual certification with the Department. It is noted however that if future WET testing results indicate the discharge exceeds critical water quality thresholds this permit will be reopened pursuant to Special Condition Q, *Reopening of Permit For Modification*, of this permit to establish applicable limitations and monitoring requirements.

Chemical specific testing evaluation

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

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

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

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

Outfall #001A, Secondary Treated Effluent

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

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

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

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

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

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

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

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

Report 800 indicates the discharge from the GAUD facility does not have any chemical specific pollutants subject to the testing reuirements pursuant to 06-096 CMR Chapter 530 that exceed or have a reasonable potential to exceed AWQC established in 06-096 Chapter 584, Surface Water Quality Criteria for Toxic Pollutants. Therefore, pursuant to 06-096 CMR Chapter 530(2)(D)(3)(b), surveillance level analytical chemistry and priority pollutant testing is being waived. As a result screening level testing is being required as follows:

Screening level testing - Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement.

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

As with WET testing, Special Condition L, *06-096 CMR 530(2)(D)(4) Statement For Reduced/Waived Toxics Testing,* of this permitting action requires the permittee to file an annual certification with the Department. It is noted however that if future alaytical chemistry or priority pollutant test results indicate the discharge exceeds critical AWQC, this permit will be reopened pursuant to Special Condition Q, *Reopening of Permit For Modification,* of this permit to establish applicable limitations and monitoring requirements.

k. Mercury: Pursuant to Maine law, 38 M.R.S.A. §420 and Department rule, 06-096 CMR Chapter 519, *Interim Effluent Limitations and Controls for the Discharge of Mercury,* the Department issued a *Notice of Interim Limits for the Discharge of Mercury* to the permittee thereby administratively modifying WDL # W-002695 by establishing interim monthly average and daily maximum effluent concentration limits of 15.7 parts per trillion (ppt) and 23.6 ppt, respectively, and a minimum monitoring frequency

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

requirement of four tests per year for mercury. The interim mercury limits were scheduled to expire on October 1, 2001. However, effective June 15, 2001, the Maine Legislature enacted Maine law, 38 M.R.S.A. §413, sub-§11 specifying that interim mercury limits and monitoring requirements remain in effect. . On September 28, 2011, the Maine Legislature enacted, *Certain deposits and discharges prohibited*, 38 M.R.S.A § 420 sub-§ 1-B(F), allowing the Department to reduce mercury monitoring frequencies to once per year for facilities that maintain at least five (5) years of mercury testing data. The permittee met the data requirement and on February 6, 2012, the Department issued a permit modification revising the minimum mercury monitoring frequency from 4/Year to 1/Year. A review of the Department's database for the period August, 2010 – April 2015 (#DMRs=10) indicates mercury test results have ranged from 1.5 ppt to 4.2 ppt with an arithmetic mean of 2.9 ppt. The mercury effluent limitations have been incorporated into Special Condition A, *Effluent Limitations And Monitoring Requirements*, of this permit

l. Transported wastes/Septage – The previous permitting action authorized the permittee to receive and introduce up to 20,000 gpd of transported wastes into the wastewater treatment process or solids handling stream. Department rule Chapter 555, *Standards For The Addition of Transported Wastes to Wastewater Treatment Facilities*, limits the quantity of transported wastes received at a facility to 1% of the design capacity of the treatment facility if the facility utilizes a side stream or storage method of introduction into the influent flow, or 0.5% of the design capacity of the facility if the facility does not utilize the side stream or storage method of introduction into the influent flow. A facility may receive more than 1% of the design capacity on a case-by-case basis. The permittee has requested the Department carry forward the daily quantity of 20,000 gpd of transported wastes that it is authorized to receive and treat as it utilizes the side stream/storage method of metering transported wastes into the facility's influent flow. With a design capacity of 8.0 MGD, 20,000 gpd only represents 0.25% of said capacity.

The Department has determined that under normal operating conditions, the receipt and treatment of 20,000 gpd of transported wastes to the facility will not cause or contribute to upset conditions of the treatment process.

7. CSO-RELATED BYPASS OF SECONDARY TREATMENT

During wet weather events, flows up to 36 MGD (29 MGD from the two 42-inch interceptor pipes plus up to 7.0 MGD from the West Side Consolidation Conduit (WSCC)) pass through the preliminary and primary treatment component of the plant (screening, grit removal, primary clarification). At flow distribution structure #2, flows of up to at least 12 MGD are conveyed to the secondary treatment process and the balance of the flow up to 24 MGD is conveyed to a dedicated high-rate disinfection system with dechlorination capabilities. After disinfection, the primary treated flow is combined with the secondary treated flow (after the secondary treatment disinfection chamber) prior to discharge to the river via Outfall #001A.

7. CSO-RELATED BYPASS OF SECONDARY TREATMENT

A review of the DMR data for the period January 2013 – January 2015 indicates the following:

a. Flow:

Flow (DMRs=19)

Value	Limit (MGD)	Range (MGD)
Daily Maximum	Report	0.135 – 6.391 (2013) 0.174 – 4.223 (2014) 0.345 – 0.345 (2015)

Flow (DMRs=19)

Value	Limit (MGD)	Range (MGD)	Total (MGD)
Total gallons/month	Report	0.135 – 8.038 (2013) 0.174 – 8.333 (2014) 4.5 – 4.5 (2015)	25.739 (2013) 30.837 (2014) 4.5 (2015)

b. Overflow occurrences

Overflow occurrences (DMRs = 21)

Value	Range (# of days)	Total (# of days)
2013	1 – 6	21
2014	1 – 5	25
2015	1 – 1	1

c. BOD concentration

BOD concentration (DMRs-21)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Daily Maximum	Report	36 - 315	92

d. TSS concentration

TSS concentration (DMRs-21)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Daily Maximum	Report	26 - 640	250

7. CSO-RELATED BYPASS OF SECONDARY TREATMENT (cont'd)

e. *E. coli* bacteria

***E. coli* bacteria (DMRs-9)**

Value	Limit (col/100 ml)	Range (col/100 ml)	Mean (col/100 ml)
Daily Maximum	427	1 – 70	24

f. Total residual chlorine (TRC)

TRC concentration (DMRs-17)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Daily Maximum	1.0	0.01 – 0.04	0.01

The permittee maintains a combined sewer system from which wet weather overflows occur. Section 402(q)(1) of the Clean Water Act requires that "each permit, order or decree issued pursuant to this chapter after December 21, 2000 for a discharge from a municipal combined storm and sanitary sewer shall conform to the Combined Sewer Overflow Control Policy signed by the Administrator on April 11, 1994 ....." 33 U.S.C. § 1342(q)(1). The Combined Sewer Overflow Control Policy (CSO Policy, 59 Fed. Reg. 18688-98), states that under USEPA's regulations the intentional diversion of waste streams from any portion of a treatment facility, including secondary treatment, is a bypass and that 40 CFR 122.41(m), allows for a facility to bypass some or all the flow from its treatment process under specified limited circumstances. Under the regulation, the permittee must show that the bypass was unavoidable to prevent loss of life, personal injury or severe property damage, that there was no feasible alternative to the bypass and that the permittee submitted the required notices. The CSO Policy also provides that, for some CSO-related permits, the study of feasible alternatives in the control plan may provide sufficient support for the permit record and for approval of a CSO-related bypass to be included in an NPDES permit.[3] Such approvals will be re-evaluated upon the reissuance of the permit, or when new information becomes available that would represent cause for modifying the permit.

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

---

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

4 59 Fed. Reg. at 18,694.

7. CSO-RELATED BYPASS OF SECONDARY TREATMENT (cont'd)

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

This permitting action allows a CSO-related bypass of secondary treatment at the GAUD facility based on an evaluation of feasible alternatives, as summarized in a document entitled, *2015 Long Term Control Plan Update Greater Augusta Utility District"*. During wet weather events when flows to the treatment facility exceeds an instantaneous flow rate of 8,333 gallons per minute (12 MGD), secondary treatment of wet weather flows is not practicable and excess flow that has receuived primary clarification and solids and floatables removal is diverted to a high rate disinfection system. After high rate disinfection, the primary treated flow is combined with the secondary treated flow (after the secondary treatment disinfection chamber) prior to discharge to the river via Outfall #001A.

This permitting action is establishing end-of-pipe limitations for both CSO-related discharge scenarios to comply with USEPA's CSO Control Policy and Clean Water Act section 402(q)(1). The CSO Control Policy does not define specific design criteria or performance criteria for primary clarification. The Department and USEPA agree that existing primary treatment infrastructure was constructed to provide primary clarification. Therefore, the effluent quality from a properly designed, operated and maintained existing primary treatment system satisfies the requirements for primary clarification and solids removal.

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

---

5 59 Fed. Reg. at 18,693.

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

7 40 CFR 122.45(h).

7. CSO-RELATED BYPASS OF SECONDARY TREATMENT (cont'd)

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

In allocating assimilative capacity for $CBOD_5$ and TSS for discharges from CSO-related bypasses, the Department will 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 will 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. The Department may increase this amount where it has information that significant non-point sources of a pollutant are present in a watershed. The Department may allocate quantities held in water quality reserve to new or changed dischargers according to the principles of the State's anti-degradation policy described in 38 M.R.S.A. § 464(4)(F). The Department may, however, use any unallocated assimilative capacity that the Department has set aside for future growth if the use of that unallocated assimilative capacity would avoid an exceedence of an applicable water quality standard or a determination by the Department of a reasonable potential to exceed an applicable water quality standard.

The federal secondary treatment regulation does not contain daily maximum effluent limitations for $CBOD_5$ and TSS. The Department has established daily maximum concentration limit of 45 mg/L for $CBOD_5$ and 50 mg/L for TSS for secondary treated wastewater as best professional judgment of best practicable treatment. This standard was developed by the Department prior to NPDES delegation and promulgation of secondary treatment regulations into State rule that are consistent with the Clean Water Act. Following consultation with USEPA, the Department has decided to waive the requirement to comply with numeric daily maximum concentration limitations for BOD_5 and TSS during CSO-related bypass discharges.

---

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

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

7. CSO-RELATED BYPASS OF SECONDARY TREATMENT (cont'd)

During CSO-related bypasses via Outfall #001B, secondary treated wastewater is combined with wastewater that has received primary clarification and solids and floatables removal and disinfection. The permittee is not able to consistently achieve compliance with technology based effluent limits (TBELs) derived from the secondary treatment regulation during CSO-related bypasses. As part of its consideration of possible adverse effects resulting from the bypass, the Department must ensure that the bypass will not cause exceedance of water quality standards. CSO Control Policy at 59 Fed. Reg. 18694.

For the discharge of blended effluent via the main outfall, the Department is establishing daily maximum water quality-based effluent limitations for $CBOD_5$ and TSS for discharges of blended wastewater to Kennebec River. For data management purposes, this permitting action is designating an outfall identifier of Outfall #001C for discharges of blended wastewater when the flow rate through secondary treatment exceeds an instantaneous flow rate of 8,333 gallons per minute (12 MGD).

Blended effluent discharged to the Kennebec River

Discharges of blended effluent to the Kennebec River are only authorized when the influent to the treatment facility is more than an instantaneous flow rate of 8,333 gpm (12.0 MGD).

g. BOD_5 and TSS: The Department has calculated past demonstrated performance thresholds (based on 99th percentile) for BOD_5 and TSS for discharges receiving primary treatment based on data from calendar years 2013 and 2014 (46 overflow occurrences, 35 with measureable results). For statistical purposes, two sets of data were not included in the evaluation as each were clearly outlyers, one extremely high and one extremely low. A a result 33 test results were evaluated and the results are as follows:

Flow: 4.81 MGD
BOD_5: 6,476 lbs./day
TSS: 20,351 lbs./day

7. CSO-RELATED BYPASS OF SECONDARY TREATMENT (cont'd)

To determine if water quality standards are being met when the bypass is activated, the Department's Division of Environmental Assessment modeled the maximum permitted CBOD and TSS loads and flow from the secondary treatment side of the facility plus the past demonstrated performance (99%) BOD and TSS loads and flow from the primary treated waste stream . The modeled values are as follows:

CBOD/BOD: 6,476 lbs/day + 3,002 lbs/day = 9,478 lbs/day
(1°) (2°)

TSS: 20,351 lbs/day + 3,336 lbs/day = 23,687 lbs/day
(1°) (2°)

Flow: 4.81 MGD + 8.0 MGD = 12.81 MGD
(1°) (2°)

To determine if water quality standards (dissolved oxygen) are maintained during times when the bypass is active, one must calculate the increase in the BOD and TSS concentration in the receiving water when the primary and secondary treatment systems are active. The only remaining unknown variable is what flow does one use for the Kennebec River when the bypass and secondary treatment systems are active?

The Department evaluated the flows of the Kennebec River recorded at USGS gauging station at North Sidney for each day during 2013 and 2014 in which the bypass was active. Therefore, for the purposes of this permitting action only, the Department chose the most conservative flow of 4,330 cfs (1.7 times 7Q10) to calculate the increase in BOD and TSS concentrations in the Kennebec River. The calculations are as follows:

What are the BOD and TSS concentrations discharged from the facility when the bypass is active?

BOD: $\frac{9{,}478 \text{ lbs/day}}{(12.81 \text{ MGD})(8.34 \text{ lbs/gal})} = 89 \text{ mg/L}$

TSS: $\frac{23{,}687 \text{ lbs/day}}{(12.81 \text{ MGD})(8.34 \text{ lbs/gal})} = 221 \text{ mg/L}$

What is the increase in the concentrations in the Kennebec River after reasonable opportunity for mixing with the receiving waters?

Dilution factor: $\frac{(4{,}330 \text{ cfs})(0.6464) + (12.81 \text{ MGD})}{(12.81 \text{ MGD})} = 219{:}1$

7. CSO-RELATED BYPASS OF SECONDARY TREATMENT (cont'd)

BOD: $\frac{89 \text{ mg/L}}{219} = 0.40 \text{ mg/L}$ (not measurable)

TSS: $\frac{221 \text{ mg/L}}{219} = 1.0 \text{ mg/L}$ (not measurable)

Based on the combined BOD_5 and TSS values (blended effluent) cited the Department has made a best professional judgment that maximum effluent discharge limitations of 9,478 lbs./day for $CBOD_5$ and 23,687 lbs/day for TSS established in this permit provides reasonable assurance that the discharge will not cause or contribute to a violation of any applicable water quality standard in the Kennebec River and complies with the State's antidegradation policy at 38 M.R.S.A. § 464(4)(F).

These limitations are based on new information concerning treatment system performance data as well as a revised and corrected methodology for regulating CSO-related bypasses in Maine. As such, the Department concludes that the new daily maximum effluent limitations of 9,478 lbs./day for $CBOD_5$ and 23,687 lbs/day for TSS for the discharge of primary and secondary blended effluents when the flow rate through secondary treatment exceeds an instantaneous flow rate of 8,333 gpm (12 MGD) complies with the exceptions to antibacksliding at Section 402(o)(2)(B)(i) of the Clean Water Act. This permitting action is establishing monthly average and weekly average mass reporting requirements for $CBOD_5$ and TSS to assist in comparing the effluent quality against secondary treatment technology based effluent limits.

h. *E. coli* bacteria - This permitting action establishes a numeric daily maximum water quality based limitation of 427 colonies/100 ml for *E. coli* bacteria as the Department has made the determination that after taking into consider the dilution associated with the discharge, the limit of 427 colonies/100 ml is protective of the AWQC criteria of 236 colonies/100 ml for Class B waterbodies.

i. Total residual chlorine (TRC): This permit is establishing a technology based limitation of 1.0 mg/L given the dilution of the blended effluent with the Kennebec River during wet weather events far exceeds any critical threshold at which water quality based effluents are necessary.

j. pH – As with secondary treated discharges this permit is carrying forward a technology-based pH limit of 6.0 – 9.0 standard units, which is based on 06-096 CMR 525(3)(III), and a minimum monitoring frequency requirement of once per discharge day based on Department guidance.

7. PRETREATMENT

The permittee shall develop, implement, and enforce an Industrial Pretreatment Program in accordance with the legal authorities, policies, procedures, and financial provisions described in the permittee's approved Pretreatment Program, the General Pretreatment Regulations found at 40 CFR 403, Department rule 06-096 CMR 528, Pretreatment Program, (effective March 17, 2008), and the requirements and materials in Permit Special Condition K and related permit attachments.

8. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

The Department acknowledges that the elimination of the nineteen (19) remaining CSOs in the collection system and the CSO-related bypasses of secondary treatment (primary treated only) of sanitary wastewater is a costly long term project. With the implementation of the CSO Master Plan and Nine Minimum Controls, there should be reductions in the frequency and volume of CSO activities and in the wastewater receiving primary treatment only at the treatment plant and over time, improvement in the quality of the wastewater discharge to the receiving waters.

As permitted, the Department has determined the existing water uses will be maintained and protected.

9. PUBLIC COMMENTS

Public notice of this application was made in the Kennebec Journal newspaper on or about June 7, 2013. The Department receives public comments on an application until the date a final agency action is taken on that application. Those persons receiving copies of draft permits shall have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to Chapter 522 of the Department's rules.

10. DEPARTMENT CONTACTS

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

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

Telephone (207) 287-7693
Fax (207) 287-3435
email: gregg.wood@maine.gov

11. RESPONSE TO COMMENTS

During the period of October 23, 20105, through the issuance date of the permit/license, the Department solicited comments on the proposed draft permit/license to be issued for the discharge(s) from the GAUD facility. The Department did not receive comments from the permittee, state or federal agencies or interested parties that resulted in any substantive change(s) in the terms and conditions of the permit. Therefore, the Department has not prepared a Response to Comments.

ATTACHMENT A

Greater Augusta Utility District
Waste Water Treatment Facility
1-Mile Radius

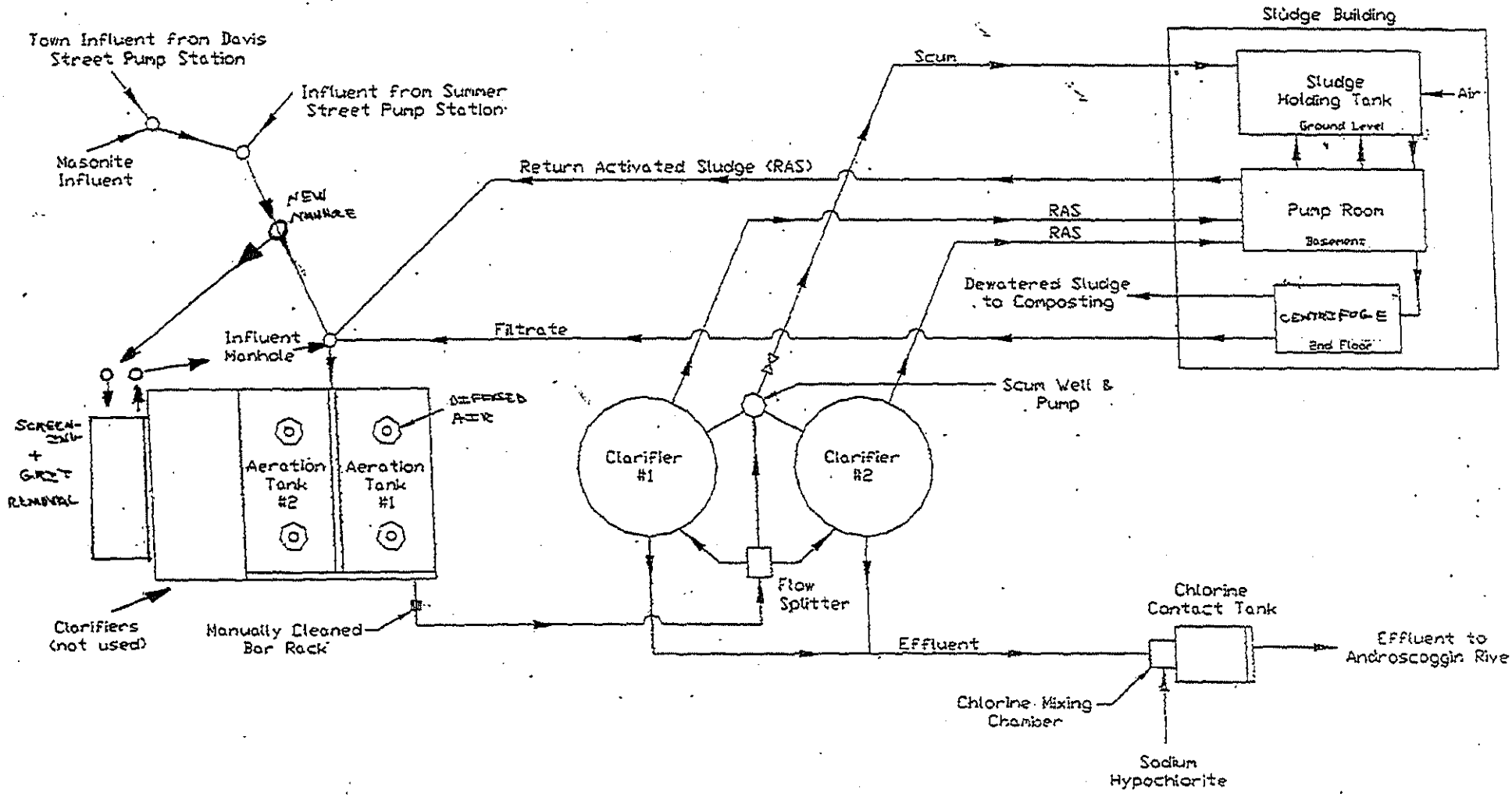
Prepared By: Kristine Ghezzi
Printing Date/Feb 15, 2006
Greater Augusta Utility District

GPS Points' Geographic Coordinate System: GCS_North_American_1983

ATTACHMENT B

ATTACHMENT A

WWTF PROCESS FLOW SCHEMATIC
LISBON, MAINE WWTF



ATTACHMENT C

WET TEST REPORT

Data for tests conducted for the period

06/Oct/2010 - 06/Oct/2015

GREATER AUGUSTA UTILITIES NPDES= ME010001 Effluent Limit: Acute (%) = 0.592 Chronic (%) = 0.485

Species	Test	Percent	Sample date	Critical %	Exception	RP
TROUT	A_NOEL	50	08/06/2013	0.592		
TROUT	C_NOEL	50	08/06/2013	0.485		
WATER FLEA	A_NOEL	100	08/06/2013	0.592		
WATER FLEA	C_NOEL	25	08/06/2013	0.485		

ATTACHMENT D

PRIORITY POLLUTANT DATA SUMMARY

Date Range: 06/Oct/2010 - 06/Oct/2015

Facility Name: **GREATER AUGUSTA UTILITIES** NPDES: **ME0100013**

Test Date	Monthly (Flow MGD)	Daily (Flow MGD)	Total Test Number	Test # By Group M	V	BN	P	O	A	Clean	Hg
10/06/2010	NR	2.49	1	1	0	0	0	0	0	F	0
02/23/2011	3.59	3.67	1	1	0	0	0	0	0	F	0
04/28/2011	8.67	7.79	1	1	0	0	0	0	0	F	0
08/16/2011	3.35	4.10	1	1	0	0	0	0	0	F	0
10/18/2011	4.69	3.51	1	1	0	0	0	0	0	F	0
01/11/2012	3.29	2.63	1	1	0	0	0	0	0	F	0
04/03/2012	3.93	3.16	1	1	0	0	0	0	0	F	0
07/02/2012	NR	3.27	12	10	0	0	0	2	0	F	0
07/16/2012	NR	NR	1	0	0	0	0	1	0	F	0
10/23/2012	2.86	2.61	11	10	0	0	0	1	0	F	0
01/15/2013	2.96	3.57	11	10	0	0	0	1	0	F	0
08/06/2013	3.14	2.25	136	14	29	46	25	11	11	F	0

Key:

A = Acid O = Others P = Pesticides

BN = Base Neutral M = Metals V = Volatiles

ATTACHMENT E

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

MEMORANDUM

DATE: October 2008

TO: Interested Parties

FROM: Dennis Merrill, DEP

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

****

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

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

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

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

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

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

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

Maine Department of Environmental Protection

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

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

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

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

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

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

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

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

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

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

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

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

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

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

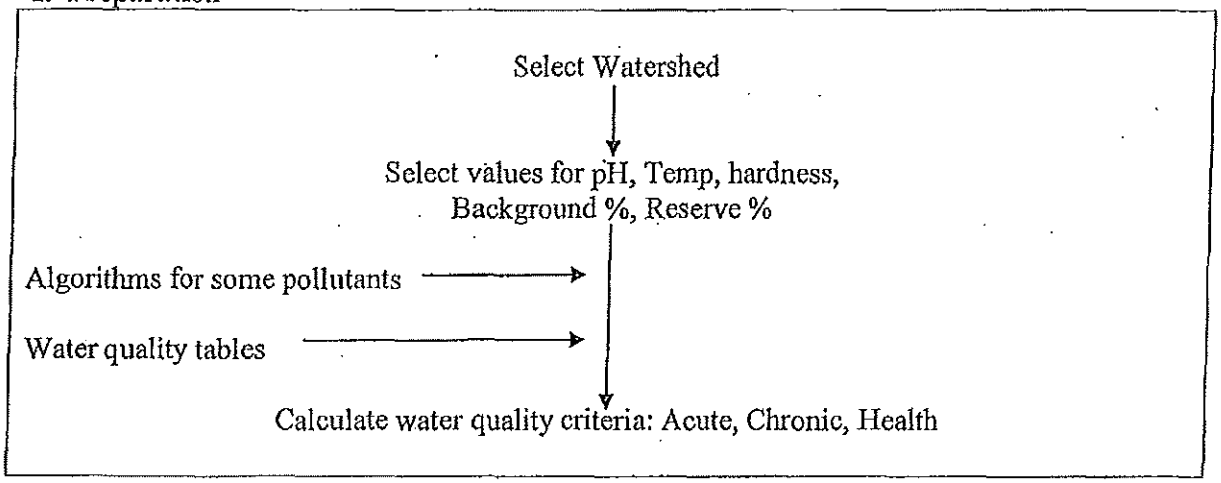
Segment allocation. One of three ways of developing an *allocation.* The amount is set by multiplying a facility's *historical discharge percentage* for a specific pollutant by the *assimilative capacity* for that pollutant and criterion. A facility will have different allocation percentages for each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

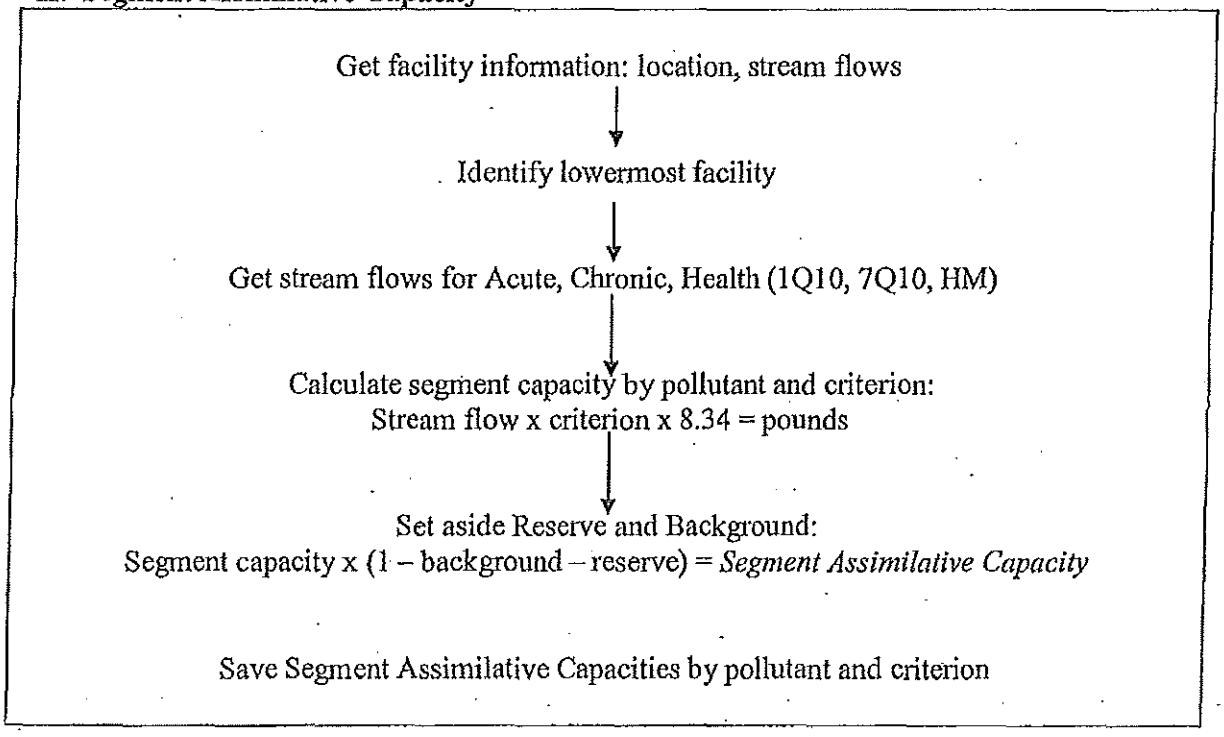
Water quality criteria. Standards for acceptable in-stream or ambient levels of pollutants. These are established in the Department's Chapter 584 and are expressed as concentrations in ug/L. There may be separate standards for acute and chronic protection aquatic life and/or human health. Each criterion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

Select each facility effluent data for each facility

Data input and edits →

Identify "less than" results and assign at ½ of reporting limit

Bypass pollutants if all results are "less than"

Average concentrations and calculate pounds:
Ave concentration x license flow x 8.34 = *Historical Average*

Determine reasonable potential (RP) using algorithm

Calculate RP adjusted pounds:
Historical Average x RP factor = *RP Historical Allocation*

Save for comparative evaluation

Calculate adjusted maximum pounds:
Highest concentration x RP factor x license flow x 8.34 = *RP Maximum Value*

IV. Determine Facility History Percentage

By pollutant, identify facilities with *Historical Average*

Sum all Historical Averages within segment

By facility, calculate percent of total:
Facility pounds / Total pounds = *Facility History %*

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

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

CHAPTER 530.2(D)(4) CERTIFICATION

MEPDES#_____Facility Name_____

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

COMMENTS:

Name (printed): _____

Signature:_____Date: _____

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

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

Scheduled Toxicity Testing for the next calendar year

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

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

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

DEP INFORMATION SHEET

Appealing a Department Licensing Decision

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

SUMMARY

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

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

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

I. ADMINISTRATIVE APPEALS TO THE BOARD

LEGAL REFERENCES

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

HOW LONG YOU HAVE TO SUBMIT AN APPEAL TO THE BOARD

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

HOW TO SUBMIT AN APPEAL TO THE BOARD

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

WHAT YOUR APPEAL PAPERWORK MUST CONTAIN

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

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

OTHER CONSIDERATIONS IN APPEALING A DECISION TO THE BOARD

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

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

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

II. JUDICIAL APPEALS

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

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

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

ADDITIONAL INFORMATION

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

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