STATE OF MAINE
DEPARTMENT OF -
ENVIRONMENTAL PROTECTION -

PAUL R. LEPAGE -
GOVERNOR -

PAUL MERCER
COMMISSIONER

October 26, 2016

Mr. Allen Hitchcock, P.E.
Caribou Utilities District
P.O. Box 879, 176 Limestone St.
Caribou, ME. 04736
cud@gwi.net

Sent via electronic mail
Delivery confirmation requested

RE: *Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0100145*
Maine Waste Discharge License (WDL) Application #W0001001-6D-K-R
Proposed Draft MEPDES Permit – Renewal (Re-issuance)

Dear Mr. Hitchcock:

Attached is a proposed draft MEPDES permit and Maine WDL which the Department proposes to issue for your facility as a final document after opportunity for your review and comment. By transmittal of this letter, you are provided with an opportunity to comment on the proposed draft permit and its special and standard conditions. If it contains errors or does not accurately reflect present or proposed conditions, please respond to this Department so that changes can be considered.

By copy of this letter, the Department is requesting comments on the proposed draft permit from various state and federal agencies and from any other parties who have notified the Department of their interest in this matter.

The comment period begins on October 26, 2016 and ends on Monday, November 28, 2016. All comments on the proposed draft permit must be received in the Department of Environmental Protection office on or before the close of business Monday, November 28, 2016. Failure to submit comments in a timely fashion will result in the proposed draft/license permit document being issued as drafted.

Comments in writing should be submitted to my attention at the following address:

Maine Department of Environmental Protection
Bureau of Water Quality
Division of Water Quality Management
17 State House Station
Augusta, ME 04333-0017
Cindy.L.Dionne@maine.gov

If you have any questions regarding the matter, please feel free to contact me.

Sincerely,

Cindy L. Dionne
Division of Water Quality Management
Bureau of Water Quality
ph: 207-557-5950

Enc.

ec: Barry Mower, DEP
Pamela Parker, DEP
Bill Sheehan, DEP
Sean Bernard, DEP
Lori Mitchell, DEP
Fred Corey, Aroostook Band of Micmac Indians
Sean Mahoney, CLF
Environmental Review, DMR
David Webster, USEPA
David Pincumbe, USEPA
Alex Rosenberg, USEPA
Olga Vergara, USEPA
Marelyn Vega, USEPA
Richard Carvalho, USEPA
Environmental Review, IFW
Sharri Venno, Houlton Band of Maliseet Indians

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

DEPARTMENT ORDER

IN THE MATTER OF

CARIBOU UTILITIES DISTRICT	)	MAINE POLLUTANT DISCHARGE
CARIBOU, AROOSTOOK COUNTY, MAINE	)	ELIMINATION SYSTEM PERMIT
PUBLICLY OWNED TREATMENT WORKS	)	AND
ME0100145	)	WASTE DISCHARGE LICENSE
W001001-6D-K-R **APPROVAL**	)	**RENEWAL**

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

APPLICATION SUMMARY

On June 6, 2016, the Department accepted as complete for processing an application from the District for renewal of combination Waste Discharge License (WDL) # W001001-6D-G-R / Maine Pollutant Discharge Elimination System (MEPDES) permit # ME0100145, which was issued by the Department on December 12, 2011 for a five-year term. The December 12, 2011 permit authorized the monthly average discharge of 1.71 million gallons per day (MGD) of secondary treated sanitary wastewater from a publicly owned treatment works (POTW) to the Aroostook River, Class C, in Caribou, Maine.

This space intentionally left blank.

PERMIT SUMMARY

a. Terms and conditions

This permitting action is <u>different from</u> the December 12, 2011 permit in that it:

1. Amends the Percent Removal footnote to include "rolling average" language; and eliminates the waiver for percent removal requirements for biochemical oxygen demand (BOD_5) and total suspended solids (TSS) when influent strength is less than 200 milligrams per liter (mg/L);

2. Corrects the *Escherichia coli* bacteria monthly average limit;

3. Reduces the monitoring frequency for BOD_5 and TSS from 2/Week to 1/Week;

4. Establishes a chronic ambient water quality threshold for the water flea during whole effluent toxicity testing (WET) based on the effluent exhibiting a reasonable potential to exceed toxicity limits during routine facility testing;

5. Increases surveillance level WET testing from 1/2 Years to 1/Year based on WET testing results exhibiting a reasonable potential to exceed the chronic ambient water quality threshold;

6. Reduces the monitoring frequency from 5/Week to 2/Week for pH;

7. Establishes seasonal, effluent and ambient total phosphorus reporting conditions;

8. Eliminates numeric limits for total copper in response to facility testing results;

9. Increases the 1Q10, 7Q10 and harmonic mean flow values for the Aroostook River at Caribou based on a 2016 updated statistical evaluation of historic river flow data from the U.S. Geologic Survey (USGS) flow gauge at Washburn. As a result, this permit is modifying the dilution factors for the facility; and

10. Incorporates an Industrial Waste Survey (IWS) into Special Condition F. *Limitations for Industrial Users*.

This space intentionally left blank.

CONCLUSIONS

BASED on the findings in the attached and incorporated Fact Sheet dated October 26, 2016, and subject to the Conditions listed below, the Department makes the following CONCLUSIONS:

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

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

3. The provisions of the State's antidegradation policy, *Classification of Maine waters,* 38 M.R.S. § 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 waterbody are not met, the discharge will not cause or contribute to the failure of the waterbody to meet the standards of classification;

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

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

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

This space intentionally left blank.

ACTION

THEREFORE, the Department APPROVES the application of the CARIBOU UTILITIES DISTRICT to discharge a monthly average of 1.71 million gallons per day of secondary treated sanitary wastewater from the permittee's facility to the Aroostook River, Class C, in Caribou, Maine, SUBJECT TO ALL APPLICABLE STANDARDS AND REGULATIONS AND THE FOLLOWING CONDITIONS:

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. § 10002 and *Rules Concerning the Processing of Applications and Other Administrative Matter*s, 06-096 CMR 2(21)(A) (amended October 19, 2015).

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

DONE AND DATED AT AUGUSTA, MAINE, THIS _____ DAY OF _____2016.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_____
PAUL MERCER, Commissioner

Date of initial receipt of application June 6, 2016
Date of application acceptance June 6, 2016

Date filed with Board of Environmental Protection _____

This Order prepared by Cindy L. Dionne, Bureau of Water Quality

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

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

	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow *[50050]*	1.71 MGD *[03]*	---	Report MGD *[03]*	---	---	---	Continuous *[99/99]*	Recorder *[RC]*
BOD_5 *[00310]*	642 lbs./day *[26]*	856 lbs./day *[26]*	927 lbs./day *[26]*	45 mg/L *[19]*	60 mg/L *[19]*	65 mg/L *[19]*	1/Week *[01/07]*	24-Hour Composite *[24]*
BOD_5 Percent Removal [(2)] *[81010]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
TSS *[00530]*	642 lbs./day *[26]*	856 lbs./day *[26]*	927 lbs./day *[26]*	45 mg/L *[19]*	60 mg/L *[19]*	65 mg/L *[19]*	1/Week *[01/07]*	24-Hour Composite *[24]*
TSS Percent Removal [(2)] *[81011]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
Settleable Solids *[00545]*	---	---	---	---	---	0.3 ml/L *[25]*	1/Week *[01/07]*	Grab *[GR]*
***E. coli* Bacteria**[(3)] *[31633] (May 15 – Sept. 30)*	---	---	---	126/100 ml[(4)] *[13]*	---	949/100 ml *[13]*	2/Week *[02/07]*	Grab *[GR]*
Total Residual Chlorine [(5)] *[50060]*	---	---	---	0.72 mg/L *[19]*	---	1.0 mg/L *[19]*	5/Week *[05/07]*	Grab *[GR]*
pH *[00400]*	---	---	---	---	---	6.0 – 9.0 SU *[12]*	2/Week *[02/07]*	Grab *[GR]*
Aluminum *[01105]*	6.2 lbs./day *[26]*	---	---	Report µg/L *[28]*	---	---	1/Year *[01/YR]*	24-Hour Composite *[24]*
Mercury (Total) [(6)] *[50286]*	---	---	---	18.3 ng/L *[3M]*	---	27.5 ng/L *[3M]*	1/Year *[01/YR]*	Grab *[GR]*

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

Footnotes: See Pages 9-12 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

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

	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type
Total Ambient Phosphorus[(7)] *[00665]* *(June 1- Sept 30, 2017)*	Report lbs./day *[26]*	---	---	Report mg/L *[19]*	---	Report mg/L *[19]*	2/Month *[02/30]*	Grab *[GR]*
Total Effluent Phosphorus *[00665]* *(June 1–Sept 30, each year)*	Report lbs./day *[26]*	---	---	Report mg/L *[19]*	---	Report mg/L *[19]*	2/Month *[02/30]*	Grab *[GR]*

Footnotes: See Pages 9-12 of this permit for applicable footnotes.

SPECIAL CONDITIONS

2. **SURVEILLANCE LEVEL TESTING -** Beginning upon permit issuance and lasting through 24 months prior to permit expiration (Years 1, 2 & 3 of the term of the permit) and commencing again 12 months prior to permit expiration (Year 5 of the term of the permit), the permittee must be limited and monitored as follows:

WHOLE EFFLUENT TOXICITY (WET) [8]	**Daily Maximum**	**Minimum Frequency**	**Sample Type**
Acute No Observed Effect Level (A-NOEL)			
Water Flea (*Ceriodaphnia dubia) [TDA3B]*	Report % *[23]*	1/2 Years *[01/2Y]*	24-Hour Composite *[24]*
Brook Trout (*Salvelinus fontinalis*) *[TDA6F]*	Report % *[23]*	1/2 Years *[01/2Y]*	24-Hour Composite *[24]*
Chronic No Observed Effect Level (C-NOEL)			
Water Flea (*Ceriodaphnia dubia) [TBP3B]*	1.54% *[23]*	1/Year *[01/YR]*	24-Hour Composite *[24]*
Brook Trout (*Salvelinus fontinalis*) *[TBQ6F]*	Report % *[23]*	1/2 Years *[01/2Y]*	24-Hour Composite *[24]*
Analytical Chemistry [9] *[51168]*	Report µg/L *[28]*	1/2 Years *[01/2Y]*	24-Hour Composite/Grab *[24/GR]*

Footnotes: See Pages 9-12 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

3. ***SCREENING LEVEL*** - Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (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.

WHOLE EFFLUENT TOXICITY (WET) [8]	**Daily Maximum**	**Minimum Frequency**	**Sample Type**
Acute No Observed Effect Level (A-NOEL)			
Water Flea (*Ceriodaphnia dubia) [TDA3B]*	Report % *[23]*	2/Year *[02/YR]*	24-Hour Composite *[24]*
Brook Trout (*Salvelinus fontinalis*) *[TDA6F]*	Report % *[23]*	2/Year *[02/YR]*	24-Hour Composite *[24]*
Chronic No Observed Effect Level (C-NOEL)			
Water Flea (*Ceriodaphnia dubia) [TBP3B]*	1.54 % *[23]*	2/Year *[02/YR]*	24-Hour Composite *[24]*
Brook Trout (*Salvelinus fontinalis*) *[TBQ6F]*	Report % *[23]*	2/Year *[02/YR]*	24-Hour Composite *[24]*
Analytical Chemistry [9] *[51168]*	Report µg/L *[28]*	1/Quarter *[01/90]*	24-Hour Composite/Grab *[24/GR]*
Priority Pollutant [9] *[50008]*	Report µg/L *[28]*	1/Year *[01/YR]*	24-Hour Composite/Grab *[24/GR]*

Footnotes: See Pages 9-12 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

Footnotes

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

2. **Percent Removal** – The treatment facility must maintain a minimum of 85 percent removal of both BOD and TSS for all flows receiving secondary treatment. Compliance with the limitation is based on a twelve-month rolling average. Calendar monthly average percent removal values must be calculated based on influent and effluent concentrations. The twelve-month rolling average calculation is based on the most recent twelve-month period.

3. ***E. coli* bacteria –** *E. coli* bacteria limits and monitoring requirements are seasonal and apply between May 15th and September 30th of each year. In accordance with 38 M.R.S. § 414-A(5), the Department may, at any time and with notice to the permittee, modify this permit to establish bacteria limitations on a year-round basis to protect the health and welfare of the public.

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

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

SPECIAL CONDITIONS

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

Footnotes

6. **Mercury** – The permittee must conduct all mercury monitoring required by this permit or required to determine compliance with interim limitations established pursuant to 06-096 CMR 519 in accordance with the U.S. Environmental Protection Agency's (USEPA) "clean sampling techniques" found in USEPA Method 1669, *Sampling Ambient Water For Trace Metals At EPA Water Quality Criteria Levels*. All mercury analysis must be conducted in accordance with USEPA Method 1631, *Determination of Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Fluorescence Spectrometry*. See **Attachment A** of this permit for a Department report form for mercury test results. Compliance with the monthly average limitation established in Special Condition A of this permit will be based on the cumulative arithmetic mean of all mercury tests results that were conducted utilizing sampling Method 1669 and analysis Method 1631E on file with the Department for this facility.

7. **Total Ambient Phosphorus –** The permittee must conduct ambient phosphorus testing immediately upstream of the discharge point (as reasonably accessible and safety allows).

8. **WET Testing** – Definitive WET testing is a multi-concentration testing event (a minimum of five dilutions set at levels to bracket the modified acute and chronic critical water quality thresholds of 1.8% and 1.5%, 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 or growth as the end points. The critical acute and chronic thresholds were derived as the mathematical inverse of the applicable acute and chronic dilution factors of 57:1 and 65:1, respectively, for Outfall #001A.

   Test results must be submitted to the Department no later than the next DMR required by the permit, provided, however, that the permittee may review the toxicity reports for up to 10 business days of their availability before submitting them. The permittee must evaluate test results being submitted and identify to the Department possible exceedances of the critical acute and chronic water quality thresholds of 1.8% and 1.5%, respectively.

This space intentionally left blank.

SPECIAL CONDITIONS

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

Footnotes

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

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

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

Results of WET tests must be reported on the "Whole Effluent Toxicity Report Fresh Waters" form included as **Attachment C** of this permit each time a WET test is performed.

The permittee must analyze the effluent for the analytical chemistry and priority pollutant parameters specified on the "WET and Chemical Specific Data Report Form" form included as **Attachment D** of this permit each time a WET test is performed.

9. Analytical chemistry and **Priority Pollutant testing** – Refers to those pollutants listed in their respective categories on the form included as **Attachment D** of this permit.

Analytical chemistry and priority pollutant test results must be submitted to the Department not later than the next DMR required by the permit, provided, however, that the permittee may review the laboratory 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 ambient water quality criteria (AWQC) as established in *Surface Water Quality Criteria for Toxic Pollutants*, 06-096 CMR 584 (effective July 29, 2012). For the purposes of DMR reporting, enter a "1" for yes, testing done this monitoring period or "N-9" monitoring not required this period.

SPECIAL CONDITIONS

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

Footnotes

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

B. NARRATIVE EFFLUENT LIMITATIONS

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

2. The permittee must not discharge effluent that contains 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 permittee must not discharge effluent that causes visible discoloration or turbidity in the receiving waters or otherwise impairs the uses designated for the classification of the receiving waters.

4. The permittee must not discharge effluent that lowers the quality of any classified body of water below such classification, or lowers the existing quality of any body of water if the existing quality is higher than the classification.

C. TREATMENT PLANT OPERATOR

The person who has management responsibility over the treatment facility must hold a Maine **Grade II,** Biological Treatment certificate (or higher) or must be a Maine Registered Professional Engineer pursuant to *Sewage Treatment Operators*, 32 M.R.S. § 4171-4182 and *Regulations for Wastewater Operator Certification*, 06-096 CMR 531 (effective May 8, 2006). All proposed contracts for facility operation by any person must be approved by the Department before the permittee may engage the services of the contract operator.

SPECIAL CONDITIONS

D. AUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with: 1) the permittee's General Application for Waste Discharge Permit, accepted for processing on June 6, 2016, 2) the terms and conditions of this permit; and 3) only from Outfall #001A. 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.

E. LIMITATIONS FOR INDUSTRIAL USERS

Pollutants introduced into the wastewater collection and treatment system by a non-domestic source (user) must not pass through or interfere with the operation of the treatment system. The permittee must conduct an IWS any time a new industrial user proposes to discharge within its jurisdiction; an existing user proposes to make a significant change in its discharge; or at an alternative minimum, once every permit cycle, and submit the results to the Department. The IWS must identify, in terms of character and volume of pollutants, any Significant Industrial Users discharging into the POTW subject to Pretreatment Standards under section 307(b) of the federal Clean Water Act, 40 CFR Part 403 (general pretreatment regulations) or *Pretreatment Program*, 06-096 CMR 528 (last amended March 17, 2008).

F. NOTIFICATION REQUIREMENT

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

1. Any introduction of pollutants into the wastewater collection and treatment system from an indirect discharger in a primary industrial category discharging process wastewater; and

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

3. For the purposes of this section, adequate notice must include information on:

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

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

SPECIAL CONDITIONS

G. OPERATION & MAINTENANCE (O&M) PLAN

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

By December 31 of each year, **or within 90 days of any process changes or minor equipment upgrades,** the permittee must evaluate and modify the O&M Plan including site plan(s) and schematic(s) for the wastewater treatment facility to ensure that it is up-to-date. The O&M Plan must be kept on-site at all times and made available to Department and USEPA personnel upon request.

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

H. WET WEATHER FLOW MANAGEMENT PLAN

The treatment facility staff must have 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 conform to Department guidelines for such plans and must include operating procedures for a range of intensities, address solids handling procedures (including septic waste and other high strength wastes if applicable) and provide written operating and maintenance procedures during the events.

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

This space intentionally left blank.

SPECIAL CONDITIONS

I. DISPOSAL OF TRANSPORTED WASTES IN WASTEWATER TREATMENT FACILITY

During the effective period of this permit, the permittee is authorized to receive **a daily maximum of 30,000 gallons per day** and introduce a **daily maximum of 14,000 gallons per day of transported wastes** as well as receive and introduce a **daily maximum of 200,000 gallons per day of landfill leachate** into the treatment process or solids handling stream, subject to the following terms and conditions.

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

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

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

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

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

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

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

SPECIAL CONDITIONS

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

5. The addition of transported wastes into the treatment process or solids handling stream must not cause the treatment 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 must not be recorded as transported wastes but should be reported in the treatment facility's influent flow.

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

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

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

10. The authorization 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.

This space intentionally left blank.

SPECIAL CONDITIONS

J. 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 B** of the Fact Sheet for an acceptable certification form to satisfy this Special Condition.

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

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

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

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

(d) Changes in stormwater collection or inflow/infiltration affecting the facility that may increase the toxicity of the discharge; and

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

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

This space intentionally left blank.

SPECIAL CONDITIONS

K. MONITORING AND REPORTING

Monitoring results obtained during the previous month must be summarized for each month and reported on separate DMR forms provided by the Department and **postmarked on or before the thirteenth (13th) day of the month or hand-delivered to the Department's Regional Office such that the DMRs are received by the Department on or before the fifteenth (15th) day of the month** following the completed reporting period. A signed copy of the DMR and all other reports required herein must be submitted to the Department-assigned inspector (unless otherwise specified by the Department) at the following address:

Department of Environmental Protection
Northern Maine Regional Office
Bureau of Water Quality
Division of Water Quality Management
1235 Central Park Drive – Skyway Park
Presque Isle, Maine 04769

Alternatively, if the permittee submits an electronic DMR, the completed DMR 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 DMR 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 DMR must be submitted not later than close of business on the 15th day of the month following the completed reporting period.

L. REOPENING OF PERMIT FOR MODIFICATIONS

In accordance with 38 M.R.S. § 414-A(5) and upon evaluation of the test results in the Special Conditions of this permitting action, new site specific information, or any other pertinent test results or information obtained during the term of this permit, the Department may, at any time and with notice to the permittee, modify this permit to: (1) include effluent limitations necessary to control specific pollutants or whole effluent toxicity where there is a reasonable potential that the effluent may cause water quality criteria to be exceeded: (2) require additional monitoring if results on file are inconclusive; or (3) change monitoring requirements or limitations based on new information.

M. SEVERABILITY

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

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.

ATTACHMENT A

MERCURY REPORT - Clean Test Only

Data Date Range: 14/Jul/2001 - 14/Jul/2016

Facility: **CARIBOU UTILITIES DISTRICT** **Permit Number:** ME0100145

Max (ng/l): 15.3000 **Average (ng/l):** 5.1940

Sample Date	Result (ng/l)	Lsthan	Clean
02/11/2009	7.00	N	T
05/19/2009	2.50	N	T
10/21/2009	3.40	N	T
01/26/2010	4.20	N	T
04/22/2010	2.96	N	T
07/21/2010	2.89	N	T
10/19/2010	9.83	N	T
01/18/2011	3.60	N	T
05/17/2011	5.40	N	T
08/10/2011	3.20	N	T
10/18/2011	7.90	N	T
02/06/2012	6.24	N	T
10/24/2013	15.30	N	T
09/17/2014	1.19	N	T
02/03/2015	2.30	N	T

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 # _____

Pipe # _____

Facility Representative _____ Signature _____

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

Facility Telephone # _____ Date Collected _____ Date Tested _____

mm/dd/yy mm/dd/yy

Chlorinated? _____ Dechlorinated? _____

Results	**% effluent**		Effluent Limitations	
	water flea	**trout**		
A-NOEL			A-NOEL	
C-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)		**Flow for Day (MGD)[1]**	**Flow Avg. for Month (MGD)[2]**
Acute dilution factor			
Chronic dilution factor		**Date Sample Collected**	**Date Sample Analyzed**
Human health dilution factor			
Criteria type: M(arine) or F(resh)	f		

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.

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

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

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

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

V	BROMOFORM	5									
V	CARBON TETRACHLORIDE	5									
V	CHLOROBENZENE	6									
V	CHLORODIBROMOMETHANE	3									
V	CHLOROETHANE	5									
V	CHLOROFORM	5									
V	DICHLOROBROMOMETHANE	3									
V	ETHYLBENZENE	10									
V	METHYL BROMIDE (Bromomethane)	5									
V	METHYL CHLORIDE (Chloromethane)	5									
V	METHYLENE CHLORIDE	5									
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:

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
AND
WASTE DISCHARGE LICENSE

PROPOSED DRAFT FACT SHEET

Date: **October 26, 2016**

MEPDES PERMIT: **ME0100145**
WASTE DISCHARGE LICENSE: **W001001-6D-K-R**

NAME AND ADDRESS OF APPLICANT:

CARIBOU UTILITIES DISTRICT
P.O. BOX 879, 176 LIMESTONE STREET
CARIBOU, ME 04736

COUNTY: **AROOSTOOK**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

CARIBOU UTILITIES DISTRICT WWTP
363 GRIMES ROAD
CARIBOU, MAINE 04736

RECEIVING WATER / CLASSIFICATION: **AROOSTOOK RIVER/CLASS C**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER:

MR. ALAN HITCHCOCK, PE
(207) 496-0911
District@gwi.net

1. APPLICATION SUMMARY

a. Application: On June 6, 2016, the Department of Environmental Protection (Department) accepted as complete for processing an application from the Caribou Utilities District (District/permittee) for renewal of combination Waste Discharge License (WDL) # W001001-6D-G-R / Maine Pollutant Discharge Elimination System (MEPDES) permit # ME0100145, which was issued by the Department on December 12, 2011 for a five-year term. The December 12, 2011 permit authorized the monthly average discharge of 1.71 million gallons per day (MGD) of secondary treated sanitary wastewater from a publicly owned treatment works (POTW) to the Aroostook River, Class C, in Caribou, Maine.

2. PERMIT SUMMARY

a. Terms and conditions

This permitting action is different from the December 12, 2011 permit in that it:

1. Amends the Percent Removal footnote to include "rolling average" language; and eliminates the waiver for percent removal requirements for biochemical oxygen demand (BOD_5) and total suspended solids (TSS) when influent strength is less than 200 milligrams per liter (mg/L);

2. Corrects the *Escherichia coli* bacteria monthly average limit;

3. Reduces the monitoring frequency for BOD_5 and TSS from 2/Week to 1/Week;

4. Establishes a chronic ambient water quality threshold for the water flea during whole effluent toxicity testing (WET) based on the effluent exhibiting a reasonable potential to exceed toxicity limits during routine facility testing;

5. Increases surveillance level WET testing from 1/2 Years to 1/Year based on WET testing results exhibiting a reasonable potential to exceed the chronic ambient water quality threshold;

6. Reduces the monitoring frequency from 5/Week to 2/Week for pH;

7. Establishes seasonal, effluent and ambient total phosphorus reporting conditions;

8. Eliminates numeric limits for total copper in response to facility testing results;

9. Increases the 1Q10, 7Q10 and harmonic mean flow values for the Aroostook River at Caribou based on a 2016 updated statistical evaluation of historic river flow data from the U.S. Geologic Survey (USGS) flow gauge at Washburn. As a result, this permit is modifying the dilution factors for the facility; and

2. PERMIT SUMMARY (cont'd)

10. Incorporates an Industrial Waste Survey (IWS) into Special Condition F. *Limitations for Industrial Users*.

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

May 23, 2000 – Pursuant to Maine law, 38 M.R.S.A. §420 and §413 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 #W001001-47-B-R by establishing interim monthly average and daily maximum effluent concentration limits of 18.3 parts per trillion (ppt) and 27.5 ppt, respectively, and a minimum monitoring frequency requirement of 4 tests per year for mercury.

June 16, 2000 – The U.S. Environmental Protection Agency (USEPA) issued a renewal of National Pollutant Discharge Elimination System (NPDES) permit #ME0100145 to the District. The 6/16/00 permit superseded the NPDES permits issued to the District by the USEPA on June 2, 1994, and June 30, 1988 (earliest NPDES permit on file with the Department).

January 12, 2001 – The State of Maine received authorization from the USEPA to administer the NPDES permitting program. From that date forward, the permitting program has been referred to as the MEPDES permit program and permit #ME0100145 (same as the NPDES permit number) has been used as the primary reference number for the District's facility.

August 14, 2001 – The Department issued WDL #W001001-5L-D-R / MEPDES permit #ME0100145 to the District for a five-year term. The 8/14/01 permit superseded WDL #W001001-47-B-R issued on July 25, 1996, and WDL #W001001-47-A-R issued on December 18, 1984 (earliest Order on file with the Department).

June 23, 2003 – The Department issued WDL/MEPDES permit modification #W001001-5L-E-M/#ME0100145 to the District thereby modifying the 8/14/01 MEPDES permit to authorize the District to receive up to 30,000 gallons per day (GPD) of septage and to introduce up to 14,000 GPD of septage into its treatment process.

March 25, 2004 – The Department provided written authorization for the District to receive and treat up to 100,000 GPD of landfill leachate from the Tri-Community Landfill.

December 22, 2006 – The Department issued combination MEPDES permit #ME0100145/ WDL #ME00100-5L-F-R for a five-year term.

December 12, 2011 – The Department issued MEPDES permit #ME0100145 / WDL #W001001-6D-G-R for a five year term.

2. PERMIT SUMMARY (cont'd)

February 4, 2013 – The Department issued minor revision #ME0100145 / WDL #W001001-6D-I-M to modify the screening and surveillance level WET testing schedules.

March 13, 2015 – The Department issued minor revision #ME0100145 / WDL #W001001-6D-J-M to modify the operator certification requirements from a Grade IV to a Grade II operator.

June 6, 2016 – The permittee submitted a timely and complete General Application to the Department for renewal of the December 12, 2011 permit (including subsequent minor permit revisions and permit modifications). The application was accepted for processing on the same day and was assigned WDL #W001001-6D-K-R / MEPDES #ME0100145.

c. Source Description: The Caribou Utilities District, a quasi-municipal organization located on Grimes Road in Caribou, receives residential, industrial, and commercial wastes from customers within the City of Caribou. The facility commenced operation in 1984 and is designed to treat 1.71 MGD of municipal/industrial sanitary wastewater.

There are no significant industrial users connected to the District treatment system and no combined sewer overflow (CSO) points associated with the collection system. However, the District stated that new industry may open within the effective term of this permit and modification of this permit may be necessary to adjust effluent limitations for new industrial loadings. Maine law, 38 M.R.S. §414-A sub§5.B. states that a "request for modification of a license may be made by the licensee for any valid cause or changed circumstance."

The District has submitted an updated Septage Management Plan as part of their June 16, 2016, renewal application, which has been reviewed and approved by the Department. The septage plan is consistent with the requirements of Department rule Chapter 555, *Regulations Relating To The Addition of Transported Wastes Into Waste Water Treatment Facilities.* This permitting action is carrying forward authorization for the facility to receive up to 30,000 gallons per day and introduce up to 14,000 gallons per day of septage into the treatment process, and to receive and introduce into the treatment process a daily maximum of up to 200,000 GPD of landfill leachate from the Tri-Community Landfill. Also see Special Condition I, *Disposal of Transported Waste In Waste Water Treatment Facility* of this permit.

A map showing the location of the facility and the receiving water is included as Fact Sheet **Attachment A.**

d. Wastewater Treatment: The District provides a secondary level of wastewater treatment via three aerated lagoons. Primary treatment, which is accomplished at the primary plant located at 176 Limestone Street, consists of solids screening and grit removal. A pumping station adjacent to the primary plant is used to convey the influent approximately 2.5-miles to the secondary treatment facility.

2. PERMIT SUMMARY (cont'd)

Primary treated wastewater is pumped to three aerated lagoons operated in series. The first lagoon measures 729 feet long by 201 feet wide, has a volume of 18 million gallons (MG) and a surface area of 3.36 acres. The second lagoon measures 345 feet long by 345 feet wide, has a volume of 10 MG, and has a surface area of 2.73 acres. The third lagoon measures 220 feet long by 345 feet wide, has a volume of 10 MG, and a surface area of 1.74 acres. The total volume provided by the lagoon system is 38 MG and total lagoon area is 7.83 acres.

The facility currently maintains 45 miles of gravity sewer and 14 pump stations. Each of the 14 pump stations is equipped with dedicated or portable back-up power sources.

During the summer months the District pumps sludge from the lagoons to two reed beds, which each measure 40 feet wide by 200 feet long.

Final effluent is conveyed for discharge to the middle of the Aroostook River channel via a 24-inch diameter, reinforced concrete, gravity flow outfall pipe designated as Outfall #001A. The end of the outfall pipe is fitted with a concrete box structure designed to enhance mixing of the treatment plant discharge with the receiving waters.

3. CONDITIONS OF PERMIT

Conditions of licenses, 38 M.R.S. § 414-A, requires that the effluent limitations prescribed for discharges, including, but not limited to, effluent toxicity, require the application of best practicable treatment (BPT), be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System. In addition, *Certain deposits and discharges prohibited*, 38 M.R.S. § 420 and Department rule *Surface Water Toxics Control Program*, 06-096 CMR 530 (effective March 21, 2012), require the regulation of toxic substances not to exceed levels set forth in *Surface Water Quality Criteria for Toxic Pollutants,* 06-096 CMR 584 (effective July 29, 2012), and that ensure safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected.

4. RECEIVING WATER QUALITY STANDARDS

Classification of major river basins, 38 M.R.S. § 467(15)(C)(1)(f) classifies the Aroostook River, main stem at the point of discharge (From a point located 100 yards downstream of the intake of the City of Caribou municipal water supply intake to the international boundary, including all impoundments) as Class C water. *Standards for classification of fresh surface waters,* 38 M.R.S. § 465(4) describes the standards for Class C waters.

5. RECEIVING WATER QUALITY CONDITIONS

The State of Maine 2012 Integrated Water Quality Monitoring and Assessment Report, prepared by the Department pursuant to Sections 303(d) and 305(b) of the Federal Water Pollution Control Act, lists the 16.6 mile long main stem segment of the Aroostook River from 100 yards downstream of the City of Caribou municipal water supply intake to the international boundary (Assessment Unit ID ME0101000413_148R02) as, "Category 2: Rivers and Streams Attaining Some Designated Uses – Insufficient Information for Other Uses." The comment states "New Assessment Unit, created during Aroostook River resegmentation in accordance with water classification (38 MRSA Section 465)."

The Report lists all of Maine's fresh waters as, "Category 4-A: Waters Impaired by Atmospheric Deposition of Mercury." Impairment in this context refers to a statewide fish consumption advisory due to elevated levels of mercury in some fish tissues. The Report states, "All freshwaters are listed in Category 4A (Total Maximum Daily Load (TMDL) Completed) due to USEPA approval of a Regional Mercury TMDL." Maine has a fish consumption advisory for fish taken from all freshwaters due to mercury. Many fish from any given waters do not exceed the action level for mercury. However, because it is impossible for someone consuming a fish to know whether the mercury level exceeds the action level, the Maine Department of Health and Human Services decided to establish a statewide advisory for all freshwater fish that recommends limits on consumption.

Maine has already instituted statewide programs for removal and reduction of mercury sources. Pursuant to 38 M.R.S. § 420(1-B)(B), "a facility is not in violation of the ambient criteria for mercury if the facility is in compliance with an interim discharge limit established by the Department pursuant to section 413 subsection 11." The Department has established interim monthly average and daily maximum mercury concentration limits and reporting requirements for this facility pursuant to 06-096 CMR 519.

It should be noted that the 2014 Draft Integrated Water Quality Monitoring and Assessment Report contains a new listing for the Aroostook River for the area including the discharge. The new listing will be in "Category 5-A: Rivers and Streams Impaired by Pollutants Other Than Those Listed in 5-B through 5-D (TMDL Required)" for pH, as a result of excess nutrients.

This space intentionally left blank.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

a. Flow: Previous permitting action established a monthly average discharge flow limitation of 1.71 MGD, which this permitting action is carrying forward.

The Department reviewed 53 Discharge Monitoring Reports (DMRs) that were submitted for the period of January 2012 through May 2016. A review of data indicates the following:

Flow

Value	Limit (MGD)	Range (MGD)	Mean (MGD)
Monthly Average	1.71	0.40 – 4.08	1.2
Daily Maximum	Report	0.53 – 14.00	2.3

b. Dilution Factors: The Department established applicable dilution factors for the discharge in accordance with freshwater protocols established in *Surface Water Toxics Control Program,* 06-096 CMR 530 (last amended March 21, 2012). The previous permitting action established dilution factors based on the 1.71 MGD flow limit to ensure that water quality-based limits are protective of receiving water quality on a year-round basis.

Acute: 1Q10 = 148 cfs $\Rightarrow \frac{(148 \text{ cfs})(0.6464) + 1.71 \text{ MGD}}{1.71 \text{ MGD}} = 57{:}1$

Chronic: 7Q10 = 170 cfs $\Rightarrow \frac{(170 \text{ cfs})(0.6464) + 1.71 \text{ MGD}}{1.71 \text{ MGD}} = 65{:}1$

Harmonic Mean = 1057 cfs $\Rightarrow \frac{(1057 \text{ cfs})(0.6464) + 1.71 \text{ MGD}}{1.71 \text{ MGD}} = 401{:}1$

The Department has determined that the outfall structure associated with the District's discharge provides complete and rapid mixing of the effluent with the receiving waters. The critical low flows cited above for the Aroostook River were recalculated by the Department based on a statistical evaluation of historic river gauge data through 2015 from the USGS flow gauge at Washburn.

c. BOD_5 and TSS: Previous permitting action established, and this permitting action is carrying forward, monthly average, weekly average, and daily maximum BOD_5 and TSS concentration limits of 45 mg/L, 60 mg/L, and 65 mg/L, respectively, which were based on the Department's best professional judgement (BPJ) of treatment equivalent to secondary treatment requirements as allowed under *Effluent Guidelines and Standards,* 06-096 C.M.R. ch. 525, subsection VI (effective date January 23, 2001). All three concentration limitations are being carried forward in this permitting action.

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

The mass limitations were derived as follows:

Mass Limit Calculations

Monthly Average	(45 mg/L)(8.34 lbs./gallon)(1.71 MGD) =	642 lbs./day
Weekly Average	(60 mg/L)(8.34 lbs./gallon)(1.71 MGD) =	856 lbs./day
Daily Maximum	(65 mg/L)(8.34 lbs./gallon)(1.71 MGD) =	927 lbs./day

This permitting action is also carrying forward the requirement for a minimum of 85% removal of BOD_5 & TSS pursuant to 06-096 CMR 525(3)(III)(a)(3) and (b)(3). The permittee has not demonstrated that it qualifies for special considerations pursuant to 06-096 CMR 525(3)(IV) to maintain a waiver from the 85% removal requirement when influent concentration is less than 200 mg/L, which was established in the previous permit. Therefore, this permitting action is eliminating the waiver from the 85% removal requirement provided in the previous permitting action when influent concentration is less than 200 mg/L.

A summary of BOD_5 data as reported on the DMRs submitted to the Department for the period of January 2012 – June 2016 is as follows:

BOD_5 Mass

Value	Limit (lbs./day)	Range (lbs./day)	Average (lbs./day)
Monthly Average	642	58 – 465	179
Weekly Average	856	68 – 779	270
Daily Maximum	927	23 – 881	312

BOD_5 Concentration

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	45	11 – 29	20
Weekly Average	60	14 – 48	26
Daily Maximum	65	14 – 58	29

A summary of TSS data as reported on the DMRs submitted to the Department for the period of January 2012 – June 2016 is as follows:

TSS Mass

Value	Limit (lbs./day)	Range (lbs./day)	Average (lbs./day)
Monthly Average	642	16 – 287	114
Weekly Average	856	25 – 590	176
Daily Maximum	927	7 – 600	197

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

TSS Concentration

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	45	0.8 – 23	13
Weekly Average	60	3 – 35	17
Daily Maximum	65	4 – 41	19

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

Although USEPA's 1996 Guidance recommends evaluation of the most current two years of effluent data for a parameter, the Department is considering 54 months of data (January 2012 – June 2016). A review of the mass monitoring data for BOD_5 & TSS indicates the ratios (expressed in percent) of the long term effluent average to the monthly average limits can be calculated as 28% for BOD_5 and 18% for TSS. According to Table I of the USEPA Guidance and Department Guidance, the monitoring requirement can be reduced to 2/Month for BOD_5 and 1/Month for TSS, however, taking into consideration both the USEPA and Department Guidance, this permitting action is reducing the current monitoring frequency of 2/Week to 1/Week for BOD_5 and TSS.

d. *Escherichia coli* bacteria: The previous permitting action established, and this permitting action is carrying forward, seasonal monthly average and daily maximum *Escherichia coli* bacteria limitations of 126 colonies/100 ml (geometric mean) and 949 colonies/100 ml (instantaneous), respectively, that are in effect between May 15 and September 30, inclusive, of each year.

During calendar year 2005, Maine's Legislature approved a new daily maximum water quality standard of 236 colonies/100 ml for Class B and Class C waters. The Department has determined that end-of-pipe limitations for the instantaneous concentration standard of 236 colonies/100 mL will be achieved through available dilution of the effluent with the receiving waters and need not be revised in MEPDES permits for facilities with adequate dilution.

The previous fact sheet stated "Therefore the monthly average limitation is being reduced from 142 colonies/100 mL to 126 colonies/100 mL." However, Special Condition A. Effluent Limitations and Monitoring Requirements of the previous permit was not updated to reflect this change. This permit is correcting that error.

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

A review of the data as reported on the monthly DMRs for the period of May 2012 – May 2016 indicates the following:

***E. coli* Bacteria (n=21)**

Value	Limit (col/100 ml)	Range (col/100 ml)	Mean (col/100 ml)
Monthly Average	126	2 – 83	33
Daily Maximum	949	12 – 173	89

This permitting action is carrying forward the seasonal, 2/Week monitoring and reporting frequency.

e. Total Residual Chlorine (TRC): The previous permitting action calculated a monthly average water quality-based concentration of 0.73 mg/L (however Special Condition A. Effluent Limitations and Monitoring Requirements of the permit incorrectly identified the limit as 0.68 mg/L) and a daily maximum BPT-based concentration limit of 1.0 mg/L as well as a minimum monitoring frequency requirement of five times a week at all times during the year. The Department specifies TRC limitations in order 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 either water quality-based or BPT-based limits. End-of-pipe acute and chronic water quality-based concentration thresholds may be calculated as follows:

Criterion		Dilution Factors	Calculated Threshold
Acute	0.019 mg/L	57:1	1.1 mg/L
Chronic	0.011 mg/L	65:1	0.72 mg/L

The Department has established a daily maximum BPT limitation of 1.0 mg/L for facilities that disinfect their effluent with elemental chlorine or chlorine-based compounds. For facilities that must dechlorinate the effluent in order to consistently achieve compliance with water quality based thresholds, the Department has established daily maximum and monthly average BPT limits of 0.3 mg/L and 0.1 mg/L, respectively. The permittee's wastewater treatment process does not include effluent dechlorination following disinfection. This permitting action is carrying forward the daily maximum BPT-based concentration limit of 1.0 mg/L as it is more stringent than the water quality-based threshold of 1.1 (acute) and the water quality-based threshold of 0.72 mg/L (chronic) as calculated above.

A summary of TRC data as reported on the monthly DMRs for the period of May 2012 through May 2016 is as follows:

Total residual chlorine (DMRs=21)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	0.73	0.05 – 0.28	0.2
Daily Maximum	1.0	0.11 – 0.65	0.3

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

This permitting action is carrying forward the monitoring frequency requirement of 5/Week.

f. pH: The previous permitting action established a technology based pH range limitation of 6.0 – 9.0 standard units pursuant to 06-096 CMR 525(3)(III)(c) along with a monitoring frequency of 5/Week. A review of the pH values from January 2012 to June 2016 (n=53) indicates that the results ranged from 7.0 to 8.8 standard units. Based on the consistent nature of the wastewater as well as facility compliance, this permitting action is reducing the monitoring frequency to 2/Week.

g. WET, Priority Pollutant, and Analytical Chemistry Testing: 38 M.R.S. § 414-A and 38 M.R.S. § 420 prohibit the discharge of effluents containing substances in amounts that would cause the surface waters of the State to contain toxic substances above levels set forth in Federal Water Quality Criteria as established by the USEPA. 06-096 CMR 530 sets forth effluent monitoring requirements and procedures to establish safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected and narrative and numeric water quality criteria are met. 06-096 CMR 584 sets forth ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters.

WET, priority pollutant and analytical chemistry testing, as required by 06-096 CMR 530, is included in this permit in order to characterize the effluent. WET monitoring is required to assess and protect against impacts upon water quality and designated uses caused by the aggregate effect of the discharge on specific aquatic organisms. Acute and chronic WET tests are performed on the water flea *(Ceriodaphnia dubia)* and the brook trout *(Salvelinus fontinalis)*. Chemical-specific monitoring is required to assess the levels of individual toxic pollutants in the discharge, comparing each pollutant to acute, chronic, and human health water quality criteria. Priority pollutant testing refers to the analysis for levels of priority pollutants listed under "Priority Pollutants" on the form included as Attachment D of the permit. Analytical chemistry refers to those pollutants listed under "Analytical Chemistry" on the form included as Attachment D of the permit.

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

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

The District discharges domestic (sanitary) wastewater to surface waters and are therefore subject to the testing requirements of the toxics rule.

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

06-096 CMR 530(2)(B) categorizes dischargers subject to the toxics rule into one of four levels (Levels I through IV). The four categories for dischargers 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

Based on the criteria, the permittee's facility is considered a Level II discharger as the chronic dilution of the receiving water is 66:1. 06-096 CMR 530(2)(D) specifies routine WET, priority pollutant, and analytical chemistry test schedules for Level II dischargers as follows.

Surveillance level testing

Level	WET Testing	Priority pollutant testing	Analytical chemistry
II	1 per year	None required	2 per year

Screening level testing

Level	WET Testing	Priority pollutant testing	Analytical chemistry
II	2 per year	1 per year	4 per year

This permit provides for reconsideration of effluent limits and monitoring schedules after evaluation of toxicity testing results. The monitoring schedule includes consideration of results currently on file, the nature of the wastewater, existing treatment, and receiving water characteristics.

This space intentionally left blank.

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

h. WET: 06-096 CMR 530(3)(E) states:

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

On August 9, 2016, the Department conducted a statistical evaluation on the most recent 60 months of WET test results on file with the Department for the District in accordance with the statistical approach outlined above. The 8/9/16 statistical evaluation indicates the discharge from the permittee had reasonable potential to exceed the chronic ambient water quality threshold of 1.5% on one occasion (test result from 8/4/2015) for the water flea *(Ceriodaphnia dubia).* See **Attachment C** of this Fact Sheet for a summary of the WET test results.

As a result, this permit is establishing a chronic limit of 1.54% for both surveillance and screening level WET testing. Screening level WET testing is being carried forward at the routine monitoring frequency of 2/Year. Surveillance level WET testing is being amended from the reduced level testing of 1/2 Years to the routine level testing schedule of 1/Year.

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

i. Analytical Chemistry & Priority Pollutant Testing Evaluation:

06-096 CMR 530(4)(C) states:

> The background concentration of specific chemicals must be included in all calculations using the following procedures. The Department may publish and periodically update a list of default background concentrations for specific pollutants on a regional, watershed or statewide basis. In doing so, the Department shall use data collected from reference sites that are measured at points not significantly affected by point and non-point discharges and best calculated to accurately represent ambient water quality conditions. The Department shall use the same general methods as those in section 4(D) to determine background concentrations. For pollutants not listed by the Department, an assumed concentration of 10% of the applicable water quality criteria must be used in calculations.

The Department has limited information on the background levels of metals in the water column in the Aroostook River in the vicinity of the permittee's outfall. Therefore, a default background concentration of 10% of the applicable water quality criteria is being used in the calculations of this permitting action.

06-096 CMR 530(4)(E) states:

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

However, in May 2012, 38 M.R.S. §464(J) was enacted which states:

> For the purpose of calculating waste discharge license limits for toxic substances, the department may 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 exceedance of applicable ambient water quality criteria or a determination by the department of a reasonable potential to exceed ambient water quality criteria.

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

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 Aroostook River has multiple dischargers that are subject to the Department's Chapter 530 testing requirements above and below the permittee's facility.

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

06-096 CMR 530(3)(E) states,

> Where it is determined through [the statistical approach referred to in USEPA's Technical Support Document for Water Quality-Based Toxics Control] that a discharge contains pollutants or WET at levels that have a reasonable potential to cause or contribute to an exceedance of water quality criteria, appropriate water quality-based limits must be established in any licensing action.

06-096 CMR 530(3)(D) states,

> Where the need for effluent limits has been determined, limits derived from acute water quality criteria must be expressed as daily maximum values. Limits derived from chronic or human health criteria must be expressed as monthly average values.

On September 22, 2016, the Department conducted a statistical evaluation of the most recent 60 months of chemical-specific test results on file with the Department. The evaluation indicates that the discharge demonstrates a reasonable potential to exceed the chronic AWQC for aluminum. Therefore, this permitting action is carrying forward an amended aluminum monthly average mass limit and eliminating the monthly average copper mass limits and daily maximum concentration reporting requirement based on updated information. See **Attachment D** of this Fact Sheet for test dates and results for the pollutants of concern.

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

Segment allocation methodology

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

Aluminum

Mass limits

Permit flow limit = 1.71 MGD
Historical average mass = (0.144 mg/L)(8.34)(1.71 MGD) = 1.64 lbs./day

The 9/22/2016 statistical evaluation (report ID #881) indicates the historical average mass of aluminum discharged by the permittee's facility is 7.569% of the aluminum discharged by the facilities on the Aroostook River and its tributaries. The Department has calculated a chronic assimilative capacity 82.3 lbs./day of aluminum at Fort Fairfield, the most downstream discharger on the Aroostook River. The chronic assimilative capacity (AC) at Fort Fairfield was calculated based on 90% of the applicable AWQC (taking into consideration the 10% reduction to account for background). The calculations for aluminum are as follows:

Chronic:

7Q10 @ Fort Fairfield = 195 cfs or 126 MGD
AWQC = 87 µg/L
87 µg/L (0.90) = 78.3 µg/L or 0.0783 mg/L

Chronic AC = (126 MGD)(8.34 lbs./gal)(0.0783 mg/L) = 82.3 lbs./day

Therefore, the mass segment allocation for aluminum for the permittee can be calculated as follows:

Monthly average: (Chronic assimilative capacity mass)(% of total aluminum discharged)
(82.3 lbs./day)(7.569%) = **6.2 lbs./day**

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

j. Mercury: Pursuant to 38 M.R.S. § 420 and 38 M.R.S. § 413 and 06-096 CMR 519, the Department issued a *Notice of Interim Limits for the Discharge of Mercury* to the permittee thereby administratively modifying WDL # W001001-47-B-R by establishing interim monthly average and daily maximum effluent concentration limits of 18 parts per trillion (ppt) and 28 ppt, respectively, and a minimum monitoring frequency requirement of 4 tests per year for mercury.

38 M.R.S. § 420(1-B)(B)(1) provides that a facility is not in violation of the AWQC for mercury if the facility is in compliance with an interim discharge limit established by the Department. A review of the Department's database for the period February 2009 through February 2015 is as follows:

Mercury (n = 15)

Value	Limit (ppt)	Range (ppt)	Mean (ppt)
Monthly Average	18.3	1.19 – 15.3	5.2
Daily Maximum	27.5		

On February 6, 2012, the Department issued a minor revision to amend the minimum monitoring frequency requirement from four times per year to once per year pursuant to 38 M.R.S. § 420(1-B)(F). This minimum monitoring frequency is being carried forward in this permitting action.

k. Total Phosphorus: *Waste Discharge License Conditions,* 06-096 CMR 523 specifies that water quality based limits are necessary when it has been determined that a discharge has a reasonable potential to cause or contribute to an excursion above any State water quality standard including State narrative criteria.[1] In addition, 06-096 CMR 523 specifies that water quality based limits may be based upon criterion derived from a proposed State criterion, or an explicit State policy or regulation interpreting its narrative water quality criterion, supplemented with other relevant information which may include: USEPA's Water Quality Standards Handbook, October 1983, risk assessment data, exposure data, information about the pollutant from the U.S. Food and Drug Administration, and current USEPA 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 nearest impounded area is approximately 4.5 miles upstream of the facility and the nearest downstream impoundment is greater than 10 miles downstream of the facility. The use of the 0.100 mg/L Gold Book value is consistent with the requirements of 06-096 CMR 523 noted above for use in a reasonable potential (RP) calculation.

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

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

Based on the above rationale, the Department has chosen to utilize the Gold Book value 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 value 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. This permit may be reopened during the term of the permit to modify any reasonable potential calculations, phosphorus limits, or monitoring requirements based on new site-specific data.

Two effluent samples from the District were obtained in the summer of 2014. The average effluent concentration of those samples was 3.8 mg/L (3,800 micrograms per liter (µg/L)) and, for this exercise, is considered representative of the discharge from the facility. Three data samples obtained upstream of the facility by the Department in the summer of 2014 indicates that the maximum concentration was 22 µg/L or 0.022 mg/L. Therefore, for this calculation, we will be using 0.022 mg/L.

Using the following calculation, the District does not have a reasonable potential to exceed the USEPA's Total P Ambient Water Quality Gold Book goal of 0.100 mg/L (100 µg/L), however, they do have reasonable potential to exceed the Department's draft ambient water quality criterion of 0.033 mg/L for phosphorus in rivers and streams not feeding lakes. Due to the proximity of the Limestone Water & Sewer District (Limestone) discharge, the Department has analyzed the combined discharges of phosphorus in the following reasonable potential calculation.

Reasonable Potential Analysis

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

Qe = combined effluent flow	=	2.96 MGD
Ce = weighted average effluent concentration	=	2.53 mg/L
Qs = 7Q10 flow of receiving water	=	110 MGD
Cs = upstream concentration	=	0.022 mg/L
Qr = receiving water flow (110 MGD + 2.96 MGD)	=	113 MGD
Cr = receiving water concentration		

$$Cr = \frac{(2.96\ MGD \times 2.53\ mg/L) + (110\ MGD \times 0.022\ mg/L)}{113\ MGD} = 0.088\ mg/L$$

Cr = 0.088 mg/L < 0.100 (EPA Gold Book) mg/L⇒ **No Reasonable Potential**
Cr = 0.088 mg/L > 0.033 (Maine Draft Criterion) mg/L ⇒ **Has Reasonable Potential**

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

According to Department guidance, when a discharger has reasonable potential at the Draft Criterion, they must conduct five years of effluent monitoring and 1 year of ambient (background) monitoring for phosphorus. The Department is required to conduct environmental indicator monitoring during low flow conditions (as specified by DEP protocol).

Therefore, a five-year, seasonal, phosphorus effluent monitoring requirement is being established in this permit as well as a one-year, seasonal, ambient phosphorus monitoring requirement.

7. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

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

8. PUBLIC COMMENTS

Public notice of this application was made in the *Aroostook Republican and News* newspaper on May 18, 2016. The Department receives public comments on an application until the date a final agency action is taken on the application. Those persons receiving copies of draft permits must have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to *Application Processing Procedures for Waste Discharge Licenses,* 06-096 CMR 522 (effective January 12, 2001).

9. DEPARTMENT CONTACTS

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

Cindy L. Dionne
Division of Water Quality Management
Bureau of Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Telephone: (207) 557-5950
e-mail: Cindy.L.Dionne@maine.gov

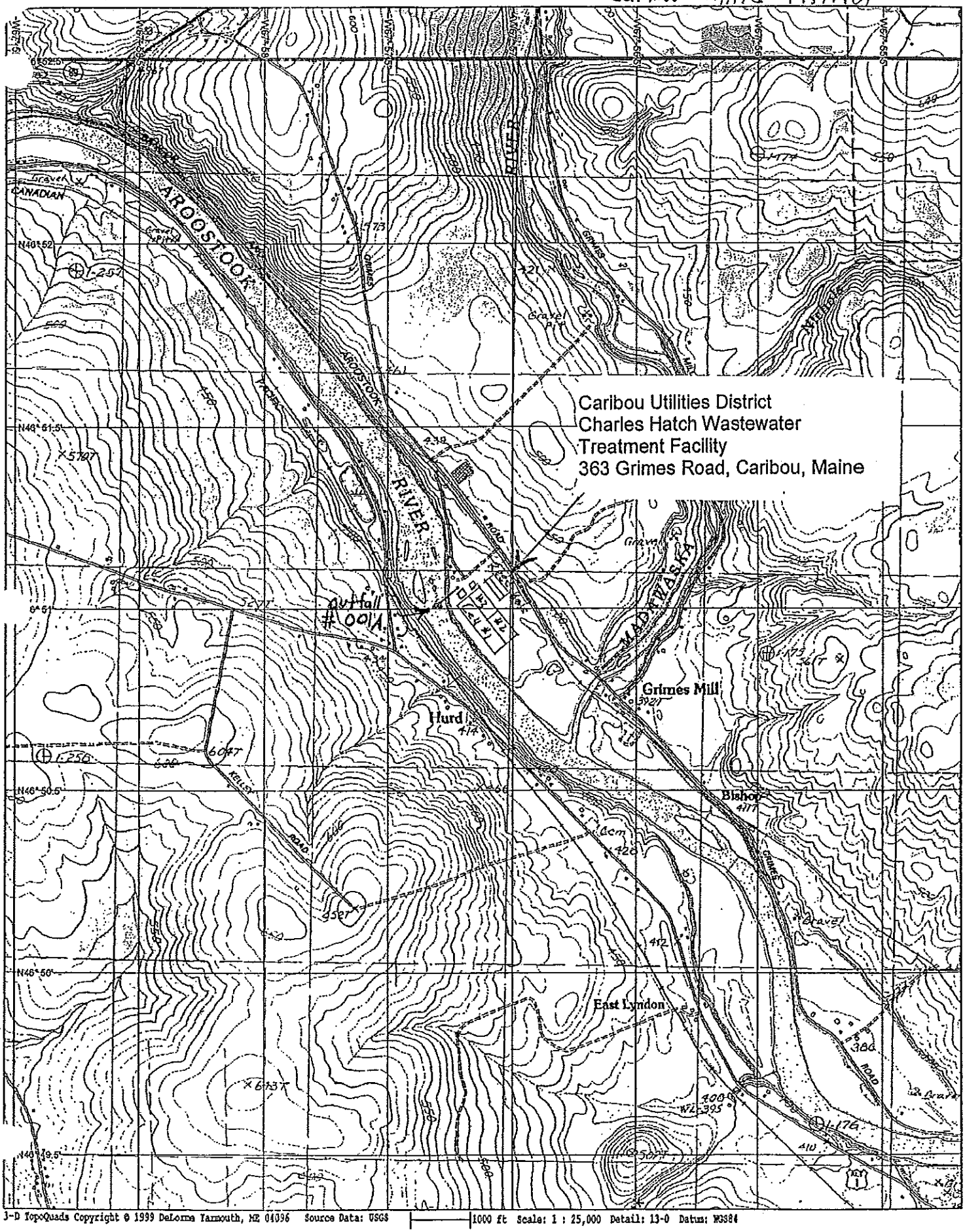
10. RESPONSE TO COMMENTS

Reserved until the end of the formal 30-day public comment period.

ATTACHMENT A

Attachment #1A

Caribou Utilities District



ATTACHMENT B

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.

ATTACHMENT C

FACILITY WET EVALUATION REPORT

Facility: CARIBOU UTILITIES DISTRICT **Permit Number:** ME0100145 **Report Date:** 8/9/2016

Receiving Water: AROOSTOOK RIVER **Rapidmix:** Y

Diluition Factors: 1/4 Acute: N/A Acute: 51.500 Chronic: 61.10

Effluent Limits: Acute (%): 1.942 Chronic (%): 1.637 **Date range for Evaluation: From** 09/Aug/2011 **To:** 09/Aug/2016

Test Type: **A_NOEL**

Test Species: **TROUT**

Test Date	Result (%)	Status
10/23/2013	100.000	OK
02/03/2015	100.000	OK
08/04/2015	100.000	OK
05/10/2016	100.000	OK

Species Summary:

Test Number: 4 **RP:** 2.600 **Min Result (%):** 100.000 **RP factor (%):** 38.462 **Status:** OK

Test Type: **C_NOEL**

Test Species: **TROUT**

Test Date	Result (%)	Status
10/23/2013	100.000	OK
02/03/2015	50.000	OK
08/04/2015	100.000	OK
05/10/2016	100.000	OK

Species Summary:

Test Number: 4 **RP:** 2.600 **Min Result (%):** 50.000 **RP factor (%):** 19.231 **Status:** OK

Test Type: **A_NOEL**

Test Species: **WATER FLEA**

Test Date	Result (%)	Status
10/23/2013	100.000	OK
02/03/2015	100.000	OK
08/04/2015	100.000	OK
05/10/2016	100.000	OK

Species Summary:

Test Number: 4 **RP:** 2.600 **Min Result (%):** 100.000 **RP factor (%):** 38.462 **Status:** OK

Test Type: **C_NOEL**

Test Species: **WATER FLEA**	**Test Date**	**Result (%)**	**Status**
	10/23/2013	25.000	OK
	02/03/2015	50.000	OK
	08/04/2015	1.520	EXC
	05/10/2016	100.000	OK

Species Summary:

Test Number: 4 **RP:** 2.600 **Min Result (%):** 1.520 **RP factor (%):** 0.585 **Status:** EXC

ATTACHMENT D

FACILITY PRIORITY POLLUTANT DATA REPORT

Data Date Range: 09/Aug/2011 - 09/Aug/2016

Showing only those values not reported as a less than result

Facility name: **CARIBOU UTILITIES DISTRICT** Permit Number: **ME0100145**

Parameter:	ALUMINUM	**Test date**	**Result (ug/l)**	**Lsthan**
		10/03/2011	86.000	N
		02/06/2012	106.000	N
		10/23/2013	82.000	N
		02/03/2015	103.000	N
		04/08/2015	129.000	N
		10/27/2015	355.000	N
Parameter:	AMMONIA	**Test date**	**Result (ug/l)**	**Lsthan**
		10/03/2011	11200.000	N
		10/23/2013	8960.000	N
		02/03/2015	14900.000	N
		04/08/2015	15000.000	N
		08/04/2015	6700.000	N
		10/27/2015	970.000	N
		05/10/2016	6000.000	N
Parameter:	ARSENIC	**Test date**	**Result (ug/l)**	**Lsthan**
		05/10/2016	1.600	N
Parameter:	BENZIDINE	**Test date**	**Result (ug/l)**	**Lsthan**
		02/03/2015	24.000	N
Parameter:	CALCIUM	**Test date**	**Result (ug/l)**	**Lsthan**
		10/23/2013	74100.000	N
		02/03/2015	77400.000	N
		08/04/2015	72000.000	N
Parameter:	CHLORINE	**Test date**	**Result (ug/l)**	**Lsthan**
		08/04/2015	50.000	N
Parameter:	CHROMIUM	**Test date**	**Result (ug/l)**	**Lsthan**
		05/10/2016	1.260	N
Parameter:	COPPER	**Test date**	**Result (ug/l)**	**Lsthan**
		10/03/2011	8.000	N
		02/06/2012	29.000	N
		10/23/2013	7.660	N
		02/03/2015	11.500	N
		04/08/2015	17.000	N
		10/27/2015	11.300	N
		05/10/2016	5.600	N
Parameter:	CYANIDE	**Test date**	**Result (ug/l)**	**Lsthan**
		04/08/2015	6.300	N
Parameter:	LEAD	**Test date**	**Result (ug/l)**	**Lsthan**
		05/10/2016	0.730	N
Parameter:	MAGNESIUM	**Test date**	**Result (ug/l)**	**Lsthan**
		10/23/2013	7260.000	N
		02/03/2015	7830.000	N

Facility name: **CARIBOU UTILITIES DISTRICT** Permit Number: **ME0100145**

		08/04/2015	7850.000	N
Parameter:	MERCURY	**Test date**	**Result (ug/l)**	**Lsthan**
		08/10/2011	0.003	N
		10/18/2011	0.008	N
		02/06/2012	0.006	N
		10/24/2013	0.015	N
		09/17/2014	0.001	N
		02/03/2015	0.002	N
Parameter:	NICKEL	**Test date**	**Result (ug/l)**	**Lsthan**
		04/08/2015	5.200	N
		10/27/2015	5.200	N
		05/10/2016	2.120	N
Parameter:	SPECIFIC CONDUCTANCE (UMH	**Test date**	**Result (ug/l)**	**Lsthan**
		05/10/2016	881.000	N
Parameter:	TOC	**Test date**	**Result (ug/l)**	**Lsthan**
		10/23/2013	8700.000	N
		08/04/2015	12000.000	N
Parameter:	TSS	**Test date**	**Result (ug/l)**	**Lsthan**
		10/23/2013	6400.000	N
		08/04/2015	18000.000	N
Parameter:	ZINC	**Test date**	**Result (ug/l)**	**Lsthan**
		10/03/2011	9.800	N
		10/23/2013	23.000	N
		02/03/2015	22.400	N
		04/08/2015	35.200	N
		10/27/2015	19.500	N
		05/10/2016	15.700	N