



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



JANET T. MILLS
GOVERNOR

GERALD D. REID
COMMISSIONER

May 31, 2019

Mr. Carl Flora
Loring Development Authority
154 Development Drive, Suite F
Limestone, ME. 04750
cflora@loring.org

*Sent via electronic mail
Delivery confirmation requested*

**RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0102581
Maine Waste Discharge License (WDL) Application #W007926-5S-G-R
Proposed Draft MEPDES Permit - Renewal**

Dear Mr. Flora:

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 May 31, 2019 and ends on Monday, July 1, 2019. 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, July 1, 2019. Failure to submit comments in a timely fashion will result in the proposed draft/license permit document being issued as drafted.

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

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

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

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

Loring Development Authority
May 31, 2019
Page 2 of 2

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: 207-287-7823

Enc.

cc: Barry Mower, DEP
Pamela Parker, DEP
Bill Sheehan, DEP
Lori Mitchell, DEP
Fred Corey, Aroostook Band of Micmac Indians
Sean Mahoney, CLF
Environmental Review, DMR
Ellen Weitzler, USEPA
Alex Rosenberg, USEPA
Solanch Pastrana-Del Valle, USEPA
Marelyn Vega, USEPA
Richard Carvalho, USEPA
Shelley Puleo, 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

| | | |
|--------------------------------|---|---------------------------|
| LORING DEVELOPMENT AUTHORITY |) | MAINE POLLUTANT DISCHARGE |
| CARIBOU, AROOSTOOK COUNTY, ME |) | ELIMINATION SYSTEM PERMIT |
| DRINKING WATER TREATMENT PLANT |) | AND |
| ME0102581 |) | WASTE DISCHARGE LICENSE |
| W007926-5S-G-R |) | RENEWAL |
| APPROVAL |) | |

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 the LORING DEVELOPMENT AUTHORITY (LDA), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

On March 26, 2019, the Department accepted as complete for processing an application from LDA for the renewal of combination Waste Discharge License (WDL) #W007926-5S-F-R/Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0102581, which was issued on May 6, 2014. The 5/6/14 permit authorized a monthly average discharge of 0.080 million gallons per day (MGD) of filter cleaning (backwash) wastewater and settling tank wastewater for a quasi-municipal drinking water treatment plant via Outfall #001A to the Little Madawaska River, Class B, in Caribou, Maine.

PERMIT SUMMARY

This permitting action is carrying forward all the terms and conditions established in the previous permitting action.

CONCLUSIONS

Based on the findings summarized in the attached and incorporated Fact Sheet dated May 31, 2019, and subject to the special and standard conditions that follow, the Department makes the following CONCLUSIONS:

1. The discharge, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification.
2. The discharge, either by itself or in combination with other discharges, will not lower the quality of any unclassified body of water below the classification which the Department expects to adopt in accordance with state law.
3. The provisions of the State's antidegradation policy, *Classification of Maine waters*, 38 M.R.S. § 464(4)(F), will be met, in that:
 - a. Existing in-stream water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected;
 - b. Where high quality waters of the State constitute an outstanding natural resource, that water quality will be maintained and protected;
 - 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).

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ACTION

THEREFORE, the Department APPROVES the above noted application of the LORING DEVELOPMENT AUTHORITY to discharge a monthly average discharge of 0.080 MGD of filter cleaning (backwash) wastewater and settling tank wastewater from a quasi-municipal drinking water treatment plant via Outfall #001A to the Little Madawaska River Class B, in Caribou, Maine, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations including:

1. *Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable To All Permits*, revised July 1, 2002, copy attached.
2. The attached Special Conditions, including any effluent limitations and monitoring requirements.
3. This permit and the authorization to discharge become effective upon the date of signature below and expire at midnight five (5) years from the effective date. If a renewal application is timely submitted and accepted as complete for processing prior to the expiration of this permit, the authorization to discharge and the terms and conditions of this permit and all modifications and minor revisions thereto remain in effect until a final Department decision on the renewal application becomes effective. [*Maine Administrative Procedure Act*, 5 M.R.S. § 10002 and *Rules Concerning the Processing of Applications and Other Administrative Matters*, 06-096 CMR 2(21)(A) (amended June 9, 2018)]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

DONE AND DATED AT AUGUSTA, MAINE, THIS ____ DAY OF _____ 2019.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
Gerald D. Reid , Commissioner

Date filed with Board of Environmental Protection _____

Date of initial receipt of application: March 26, 2019

Date of application acceptance: March 26, 2019

This Order prepared by Cindy Dionne, BUREAU OF WATER QUALITY

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. The permittee is authorized to discharge **drinking water filter cleaning (backwash) wastewater, and settling tank wastewater from** Outfall #001A to the Little Madawaska River. Such discharges are limited and must be monitored by the permittee as specified below⁽¹⁾:

| Effluent Characteristic | Discharge Limitations | | | | Minimum Monitoring Requirements | |
|-------------------------------------|----------------------------|----------------------------|------------------------|-----------------------------|---------------------------------|---|
| | Monthly Average | Daily Maximum | Monthly Average | Daily Maximum | Measurement Frequency | Sample Type |
| Flow <i>[50050]</i> | 0.080 MGD <i>[03]</i> | Report MGD <i>[03]</i> | --- | --- | 2/Month <i>[2/30]</i> | Metered <i>[MT]</i> |
| TSS <i>[00530]</i> | 20 lbs./day <i>[26]</i> | 40 lbs./day <i>[26]</i> | 30 mg/L <i>[19]</i> | 60 mg/L <i>[19]</i> | 2/Month <i>[02/30]</i> | Composite ⁽²⁾ <i>[CP]</i> |
| Settleable Solids <i>[00545]</i> | --- | --- | --- | 0.3 ml/L <i>[25]</i> | 2/Month <i>[02/30]</i> | Composite ⁽²⁾ <i>[CP]</i> |
| pH <i>[00400]</i> | --- | --- | --- | 6.0 – 9.0 SU <i>[12]</i> | 2/Month <i>[02/30]</i> | Grab <i>[GR]</i> |

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 Page 5 of this permit for applicable footnotes

SPECIAL CONDITIONS

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

FOOTNOTES:

1. **Sampling** – All effluent monitoring must be conducted at a location following the last treatment unit in the treatment process, including dechlorination, as to be representative of end-of-pipe effluent characteristics. Any change in sampling location must be approved by the Department in writing. 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 for wastewater 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). Laboratory facilities that analyze compliance samples in-house are subject to the provisions and restrictions of 10-144 CMR 263. 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. **Composite samples** – Samples must consists of four equally-spaced grab samples collected during a single operating day, or other sampling protocol approved for this facility 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 by 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 by the classification of the receiving waters.
3. The permittee must not discharge effluent that imparts color, taste, turbidity, toxicity, radioactivity or other properties which cause those waters to be unsafe for the designated uses and characteristics ascribed to their classification.
4. The permittee must not discharge effluent that lowers the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.

SPECIAL CONDITIONS

C. 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 March 26, 2019; 2) the terms and conditions of this permit; and 3) only from Outfall #001A. Discharges of wastewater from any other point source(s) 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.

D. NOTIFICATION REQUIREMENT

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

1. Any introduction of pollutants into the wastewater collection and treatment system from an indirect discharger in a primary industrial category discharging process wastewater; and
2. Any substantial change in the volume or character of pollutants being introduced into the wastewater collection and treatment system by a source introducing pollutants to the system at the time of permit issuance.

E. OPERATIONS AND MAINTENANCE 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.

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SPECIAL CONDITIONS

F. MONITORING AND REPORTING

Electronic Reporting

NPDES Electronic Reporting, 40 C.F.R. 127, requires MEPDES permit holders to submit monitoring results obtained during the previous month on an electronic discharge monitoring report to the regulatory agency utilizing the USEPA electronic system.

Electronic Discharge Monitoring Reports (DMRs) submitted using the USEPA NetDMR system, must be:

1. Submitted by a facility authorized signatory; and
2. Submitted no later than **midnight on the 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 compliance inspector (unless otherwise specified) following address:

Department of Environmental Protection
Bureau of Water Quality
Division of Water Quality Management
1235 Central Drive-Skyway Park
Presque Isle, Maine 04769

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

G. REOPENING OF PERMIT FOR MODIFICATION

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

SPECIAL CONDITIONS

H. SEVERABILITY

In the event that any provision(s), 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.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

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MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

A. GENERAL PROVISIONS

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

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

- (a) They are not
 - (i) Designated as toxic or hazardous under the provisions of Sections 307 and 311, respectively, of the Federal Water Pollution Control Act; Title 38, Section 420, Maine Revised Statutes; or other applicable State Law; or
 - (ii) Known to be hazardous or toxic by the licensee.
- (b) The discharge of such materials will not violate applicable water quality standards.

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

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

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

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

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

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

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

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

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

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

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

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

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

B. OPERATION AND MAINTENANCE OF FACILITIES

1. General facility requirements.

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

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

- 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.

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- (ii) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph D(1)(f), below. (24-hour notice).
- (d) Prohibition of bypass.
 - (i) Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:
 - (A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (C) The permittee submitted notices as required under paragraph (c) of this section.
 - (ii) The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three conditions listed above in paragraph (d)(i) of this section.

6. Upsets.

- (a) Definition. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- (b) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (c) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- (c) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - (i) An upset occurred and that the permittee can identify the cause(s) of the upset;
 - (ii) The permitted facility was at the time being properly operated; and
 - (iii) The permittee submitted notice of the upset as required in paragraph D(1)(f) , below. (24 hour notice).
 - (iv) The permittee complied with any remedial measures required under paragraph B(4).
- (d) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

C. MONITORING AND RECORDS

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

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

3. Monitoring and records.

- (a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- (b) Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years, the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.
- (c) Records of monitoring information shall include:
 - (i) The date, exact place, and time of sampling or measurements;
 - (ii) The individual(s) who performed the sampling or measurements;
 - (iii) The date(s) analyses were performed;
 - (iv) The individual(s) who performed the analyses;
 - (v) The analytical techniques or methods used; and
 - (vi) The results of such analyses.
- (d) Monitoring results must be conducted according to test procedures approved under 40 CFR part 136, unless other test procedures have been specified in the permit.
- (e) State law provides that any person who tampers with or renders inaccurate any monitoring devices or method required by any provision of law, or any order, rule license, permit approval or decision is subject to the penalties set forth in 38 MRSA, §349.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

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

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STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

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).

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- (b) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (i) Five hundred micrograms per liter (500 ug/l);
 - (ii) One milligram per liter (1 mg/l) for antimony;
 - (iii) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with Chapter 521 Section 4(g)(7); or
 - (iv) The level established by the Department in accordance with Chapter 523 Section 5(f).

5. Publicly owned treatment works.

- (a) All POTWs must provide adequate notice to the Department of the following:
 - (i) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of CWA or Chapter 528 if it were directly discharging those pollutants.
 - (ii) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
 - (iii) For purposes of this paragraph, adequate notice shall include information on (A) the quality and quantity of effluent introduced into the POTW, and (B) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.
- (b) When the effluent discharged by a POTW for a period of three consecutive months exceeds 80 percent of the permitted flow, the permittee shall submit to the Department a projection of loadings up to the time when the design capacity of the treatment facility will be reached, and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans.

E. OTHER REQUIREMENTS

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

- (a) For municipal sources. During power failure, all wastewaters which are normally treated shall receive a minimum of primary treatment and disinfection. Unless otherwise approved, alternate power supplies shall be provided for pumping stations and treatment facilities. Alternate power supplies shall be on-site generating units or an outside power source which is separate and independent from sources used for normal operation of the wastewater facilities.
- (b) For industrial and commercial sources. The permittee shall either maintain an alternative power source sufficient to operate the wastewater pumping and treatment facilities or halt, reduce or otherwise control production and or all discharges upon reduction or loss of power to the wastewater pumping or treatment facilities.

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STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

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

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

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

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

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

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

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

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

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

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

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

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

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

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

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

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

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

Maximum daily discharge limitation means the highest allowable daily discharge.

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

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

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

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

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

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

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

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

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

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

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

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

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

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

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

**MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
MAINE WASTE DISCHARGE LICENSE**

Proposed Draft FACT SHEET

DATE: **May 31, 2019**

PERMIT NUMBER: **ME0102581**

WASTE DISCHARGE LICENSE: **W007926-5S-G-R**

NAME AND ADDRESS OF APPLICANT:

**LORING DEVELOPMENT AUTHORITY
154 DEVELOPMENT DRIVE, SUITE F
LIMESTONE, MAINE 04750**

COUNTY: **AROOSTOOK**

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

**MAD DAM TREATMENT PLANT
225 MAD DAM ROAD
CARIBOU, MAINE 04736**

RECEIVING WATER CLASSIFICATION: **LITTLE MADAWASKA RIVER/CLASS B**

COGNIZANT OFFICIAL CONTACT INFORMATION:

MR. CARL FLORA
(207) 328-7005
cflora@loring.org

1. APPLICATION SUMMARY

On March 26, 2019, the Department of Environmental Protection (Department) accepted as complete for processing an application from Loring Development Authority (LDA) for the renewal of combination Waste Discharge License (WDL) #W007926-5S-F-R/Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0102581, which was issued on May 6, 2014. The 5/6/14 permit authorized a monthly average discharge of 0.080 million gallons per day (MGD) of filter cleaning (backwash) wastewater and settling tank wastewater for a quasi-municipal drinking water treatment plant via Outfall #001A to the Little Madawaska River, Class B, in Caribou, Maine.

2. PERMIT SUMMARY

- a. This permitting action is carrying forward all the terms and conditions of the previous permitting action.
- b. History: This section provides a summary of significant licensing actions and milestones that have been completed for LDA.

March 13, 1986 – The Department issued WDL #W006654-46-A-N to the Loring Air Force Base for the discharge of wastewater from four (4) separate outfall pipes with different effluent characteristics and receiving waters. The WDL permitted the discharge of 2.5 MGD of secondary treated sanitary wastewater via Outfall #001 to the Little Madawaska River, the discharge of an unspecified quantity of filter cleaning (backwash) wastewater via Outfall #002 to the Little Madawaska River, and the discharge of an unspecified quantity of treated storm water from an oil/water separator via Outfall #003 and Outfall #004 to Greenlaw Brook. The 3/13/96 WDL expired on March 13, 1991.

February 5, 1996 – The Department issued WDL #W007926-ZA-C-R to the Air Force Base Conversion Agency (AFBCA) for the daily maximum discharge of 0.08 MGD of filter cleaning backwash wastewater from a drinking water treatment plant to the Little Madawaska River in Caribou, Maine for a five-year term.

May 7, 1998 – The AFBCA and the LDA submitted a joint application to the Department for the transfer of all licenses and permits issued by the Department from the AFBCA to the LDA.

September 19, 2000 – The U.S. Environmental Protection Agency (USEPA) issued National Pollutant Discharge Elimination System (NPDES) permit #ME0090174 to the LDA for the daily maximum discharge of 0.08 MGD of filter cleaning backwash wastewater from a drinking water treatment plant to the Little Madawaska River via Outfall #001A for a five-year term. The permit also renewed authorization for the discharge of secondary treated sanitary wastewater to the Little Madawaska River via Outfall #001A and treated storm water from an oil/water separator to Greenlaw Brook via Outfall #003A and Outfall #004A.

January 12, 2001 – The Department received authorization from the USEPA to administer the NPDES permit program in Maine, excluding areas of special interest to Maine Indian Tribes. From that point forward, the program has been referred to as the Maine Pollutant Discharge Elimination System program and MEPDES permit #ME0102581 has been utilized as the primary reference number for this facility. On March 26, 2011, the USEPA authorized the Department to administer the MEPDES program in Indian territories of the Penobscot Nation and Passamaquoddy Tribe.

July 2, 2003 – The LDA withdrew its 5/7/98 application for the transfer of State-issued permits and licenses on the bases that certain discharges had been eliminated subsequent to submission of the application and that the Department had issued permits/licenses to newly formed entities subsequent to the application for permit/license transfer.

2. PERMIT SUMMARY (cont'd)

April 15, 2009 – The Department issued WDL #W007926-5S-E-R / MEPDES Permit #ME0102581 to the LDA for a five-year term. The 4/15/09 permit superseded previous WDLs issued on 6/14/04 and 2/5/96.

May 6, 2014 – The Department issued WDL #W007926-5S-E-R / MEPDES Permit #ME0102581 to the LDA for a five-year term.

March 26, 2019 – The LDA submitted a timely and complete General Application to the Department for renewal of the 5/6/14 MEPDES permit. The application was accepted for processing on the same day and was assigned WDL W007926-5S-G-R/MEPDES ME0102581.

- c. Source Description: The LDA operates a drinking water treatment plant on the eastern shore of the Little Madawaska River in Caribou, Maine to supply potable water to a population of approximately 1,400 people living and/or working on the former Loring Air Force base in Limestone. Construction of the facility was completed in 1958. The drinking water treatment facility was designed to treat a monthly average of up to 2.25 million gallons of river water per day, although current potable water production is significantly lower. The LDA obtains raw water from an impoundment created by the Little Madawaska River Dam. A 16-inch diameter intake pipe located approximately 10-15 feet from the eastern shore of the Little Madawaska River serves as the raw water conduit to the treatment facility. The intake pipe is covered by various sized rock that serves as a primary filter for coarse material present in the river.

A map showing the location of the treatment facility and the receiving water is included as Attachment A of this fact sheet.

Raw water is pumped to two (2) 250,000-gallon subsurface settling/flocculation tanks where an aluminum-based coagulant is added to promote flocculation and settling of solids. The flow is then evenly distributed to three (3) downflow dual media filter beds. Following filtration, the flow is conveyed to a 140,000-gallon clearwell. Filtered water is pumped from the clearwell and treated with hypochlorite and hydrofluorosilicic acid.

The sand filter beds must be periodically cleaned through filter backwash procedures to remove the accumulation of filtered material and to ensure proper and efficient function of the filter media.

- d. Wastewater Treatment: The facility generates wastewater from two distinct processes: 1) sand filter cleaning events that include a backwash cycle that is performed once every 50 hours of operation; and 2) settling/flocculation tank drain-down events that performed twice a year, during the spring and the fall, on average.

2. PERMIT SUMMARY(cont'd)

Currently, the LDA initiates a filter cleaning cycle after each 24-hour period of operation, although the treatment plant operator may initiate a backwash following observations of filter headloss or filter break-through. Each filter cleaning cycle generates a total of approximately 30,000 gallons of wastewater. Two of the three filter units are cleaned once each month, on average, which generates a total of approximately 90,000 gallons of wastewater per week. In addition to the weekly filter cleaning cycles, the facility also generates up to approximately 250,000 gallons of wastewater at a time from the periodic draining of the 250,000-gallon settling/coagulation/flocculation tank utilized during the treatment of the source waters. All wastewater generated from these processes is conveyed to an enclosed structure referred to as the coagulation building, which consists of a 40,000-gallon settling tank and a 400,000-gallon settling/flow equalization tank as described in the following paragraphs.

Filter cleaning cycles are manually initiated by closing a valve on the filter influent line and opening a drain at the bottom of the filter bed. This procedure drains approximately 9,000 gallons of unfiltered or partially-filtered water remaining in the bed to the 60,000-gallon settling tank. After the filter bed has been drained, filtered water is pumped from the clearwell up through the filter bed (backwash) at a rate of 3,400 gallons per minute for a total of 8 to 9 minutes, which generates approximately 30,000 gallons of wastewater. Wastewater is pumped from the 40,000-gallon settling tank to one of two (2) settling/treatment lagoons. The lagoons were designed to settle solids and drain supernatant through an outfall to the Little Madawaska River.

Each of the two 250,000-gallon settling/coagulation/flocculation tanks are drained for cleaning and sludge removal once during the fall and once during the spring. The LDA alternates the tank cleaning events such that only one tank is drained for cleaning at a time. Wastewater generated during the tank draining sequence is conveyed to the 400,000-gallon settling/flow equalization tank located within the coagulation building. The wastewater is pumped to one of the two lagoon cells for additional settling prior to discharge.

The LDA utilizes two sedimentation lagoon cells in parallel such that wastewater is discharged to only one cell at any given time. Each cell measures approximately 260 feet long by 100 feet wide. The lagoons were constructed with a gravel based material. Each lagoon cell was designed such that supernatant decants to an overflow weir and into a collection system comprised of 8-inch diameter PVC pipe material. The effluent collection system was designed to convey treated wastewater to the Little Madawaska River in Caribou for discharge. Outfall #001A terminates in a concrete headwall approximately 50 feet inland from the normal high water line of the river. The outfall structure was designed such that wastewater exits the pipe and flows through a vegetated swale which serves as a conduit to the river. Based on this design, wastewater discharge from Outfall #001A is not considered to achieve complete and rapid mixing with the receiving water.

2. PERMIT SUMMARY(cont'd)

The LDA maintains an 18-inch diameter emergency overflow pipe, which is connected to the 40,000-gallon settling tank basin located within the coagulation building and a 24-inch diameter emergency overflow pipe, which is connected to the 400,000-gallon settling/flow equalization basin. The pipes are designed to capture wastewater that exceeds the capacity of the two settling basins and convey the waste for discharge, via a vegetated swale, to the Little Madawaska River at a location immediately adjacent to Outfall #001A. The LDA reported that there have been no known discharges via these emergency overflow pipes since the facility was constructed due, in part, to the ability to pump excess water directly to the treatment lagoons. Special Condition C of this permit, *Authorized Discharges*, prohibits the LDA from discharging wastewater from any other point source other than Outfall #001A and requires that the discharge from any other point source be reported to the Department in accordance with Standard Condition B(5), *Bypasses*, of this permit. This prohibition applies to the discharge of wastewater from either of the LDA's two emergency overflow pipes located in the coagulation building.

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 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 *Surface Water Toxic Control Program*, 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(1)(A)(2) classifies the Little Madawaska River, as Class B waters. *Standards for classification of fresh surface waters*, 38 M.R.S. § 465(3) describes the standards for Class B waters.

5. RECEIVING WATER QUALITY CONDITIONS

The State of Maine 2016 Integrated Water Quality Monitoring and Assessment Report (Report), prepared by the Department pursuant to Sections 303(d) and 305(b) of the Federal Water Pollution Control Act, lists the Little Madawaska River (Assessment Unit ID ME0101000413_145R01), which includes the receiving water at the point of discharge, as, "*Category 4-B: Rivers and Streams Impaired by Pollutants - Pollution Control Requirements Reasonably Expected to Result in Attainment.*" Impairment in this context is caused by polychlorinated biphenyls (PCBs). The comment field in the report states:

5. RECEIVING WATER QUALITY CONDITIONS (cont'd)

5/18/2015: Monitoring in 2012 showed that PCBs in fish tissue are still elevated. Prior to the 2014 cycle, this segment was incorrectly described as 'From source including Green Pond and Chapman Pit'. The fish consumption advisories, upon which the PCB cause of impairment of this segment is based, is for 'Little Madawaska River and tributaries from (Little) Madawaska Dam to Grimes Mill Road'; furthermore, Chapman Pit and Green Pond are located on Greenlaw Brook. In the 2014 cycle, the location description for this segment was updated to 'From (Little) Madawaska Dam to Grimes Mill Road, including tributaries (except Greenlaw Brook)'; the mapping was corrected and length updated from 20.5 to 31.7 miles. Chapman Pit and Green Pond were moved into the adjacent segment Greenlaw Brook, ME0101000413_145R02; for more details see the comment in that segment. Hazardous waste remediation project is complete (Superfund) - 4-B expected to attain standards. Erroneously listed for benthic invertebrates in 2006-8; biomonitoring results attained Class B in 2001, 2004 and 2008. Macroinvertebrate Cause removed in 2010; listing inadvertently included in 2010 report in Category 4-B.

The Report lists all of Maine's fresh waters as, "Category 4-A: Waters Impaired by Atmospheric Deposition of Mercury." Impairment in this context refers to a statewide fish consumption advisory due to elevated levels of mercury in some fish tissues. The Report states, "All freshwaters are listed in Category 4A (TMDL Completed) due to USEPA approval of a Regional Mercury TMDL. Maine has a fish consumption advisory for fish taken from all freshwaters due to mercury. Many waters, and many fish from any given water, do not exceed the action level for mercury.

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

The Department has no information at this time that the discharge from the LDA, as permitted, will cause or contribute to the failure of the receiving water to meet designated uses of its ascribed classification.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- a. Flow: The previous permitting action established, and this permitting action is carrying forward, a daily maximum discharge flow reporting requirement and a monthly average discharge flow limitation of 0.080 MGD, which is considered representative of wastewater flows generated by this facility. This permitting action is maintaining the previously established minimum monitoring frequency requirement for discharge flow of twice per month based on Department best professional judgment.

There were no excursions outside of the permit limits for flow within this permit cycle.

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

- b. Dilution Factors: Dilution factors associated with the permitted discharge flow of 0.080 MGD were derived in accordance with 06-096 CMR 530(4)(A) and were calculated as follows:

$$\text{Mod. Acute: } \frac{1}{4} Q_{10} = 4.74 \text{ cfs} \quad \Rightarrow \frac{(4.74 \text{ cfs})(0.6464) + 0.080 \text{ MGD}}{0.080 \text{ MGD}} = 39.3:1$$

$$\text{Acute: } 1Q_{10} = 22.5 \text{ cfs} \quad \Rightarrow \frac{(22.5 \text{ cfs})(0.6464) + 0.080 \text{ MGD}}{0.080 \text{ MGD}} = 182.8:1$$

$$\text{Chronic: } 7Q_{10} = 26.5 \text{ cfs} \quad \Rightarrow \frac{(22.9 \text{ cfs})(0.6464) + 0.080 \text{ MGD}}{0.080 \text{ MGD}} = 186.0:1$$

$$\text{Harmonic Mean: } 7Q_{10} = 84.0 \text{ cfs} \quad \Rightarrow \frac{(84.0 \text{ cfs})(0.6464) + 0.080 \text{ MGD}}{0.080 \text{ MGD}} = 679.7:1$$

06-096 CMR 530(4)(B)(1) states,

Analyses using numerical acute criteria for aquatic life must be based on 1/4 of the 1Q10 stream design flow to prevent substantial acute toxicity within any mixing zone and to ensure a zone of passage of at least 3/4 of the cross-sectional area of any stream as required by Chapter 581. Where it can be demonstrated that a discharge achieves rapid and complete mixing with the receiving water by way of an efficient diffuser or other effective method, analyses may use a greater proportion of the stream design flow, up to and including all of it, as long as the required zone of passage is maintained.

The LDA's outfall pipe terminates above the normal high-water mark of the Little Madawaska River and is therefore not considered to achieve rapid and complete mixing with the receiving water. Consequently, the Department is utilizing the default stream flow of 1/4 of the 1Q10 in acute evaluations.

- c. TSS: The previous permitting action established, and this permitting action is carrying forward, monthly average and daily maximum concentration limits of 30 mg/L and 60 mg/L, respectively, based on Department best professional judgment of best practicable treatment for discharges from drinking water treatment facilities in Maine. The previous permitting action established, and this permitting action is carrying forward, monthly average and daily maximum mass limits of 20 lbs./day and 40 lbs./day, respectively, for TSS. The mass limits were derived using the concentration limits specified above, the previous discharge flow limit of 0.080 MGD associated with the 6/14/2004 WDL, and a conversion factor of 8.34 lbs./gallon of water as follows:

$$\text{Monthly Average Mass: } (30 \text{ mg/L})(8.34 \text{ lbs./gallon})(0.080 \text{ MGD}) = 20 \text{ lbs./day}$$

$$\text{Daily Maximum Mass: } (60 \text{ mg/L})(8.34 \text{ lbs./gallon})(0.080 \text{ MGD}) = 40 \text{ lbs./day}$$

This permitting action is carrying forward the previously established monitoring frequency requirement of twice per month based on best professional judgment.

There were no excursions outside of the permit limits for TSS within this permit cycle.

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

- d. Settleable Solids: The previous permitting action established, and this permitting action is carrying forward, a daily maximum concentration limit of 0.3 ml/L for settleable solids, which is considered a BPT for discharges from drinking water treatment facilities in Maine. This permitting action is carrying forward the previously established monitoring frequency requirement of twice per month based on best professional judgment.

There were no excursions outside of the permit limits for settleable solids within this permit cycle.

- e. pH: The previous permitting action established, and this permitting action is carrying forward, a pH range limit of 6.0 – 9.0 standard units (SU). This permitting action is carrying forward a minimum monitoring frequency requirement of twice per month for pH based on Department BPJ.

There were no excursions outside of the permit limits for pH within this permit cycle.

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 Little Madawaska River to meet standards for Class B classification.

8. PUBLIC COMMENTS

Public notice of this application was made in the *Aroostook Republican* newspaper on or about March 25, 2019. 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

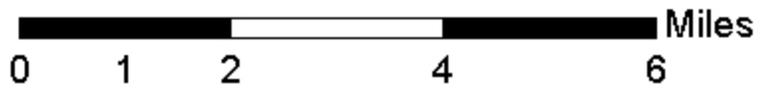
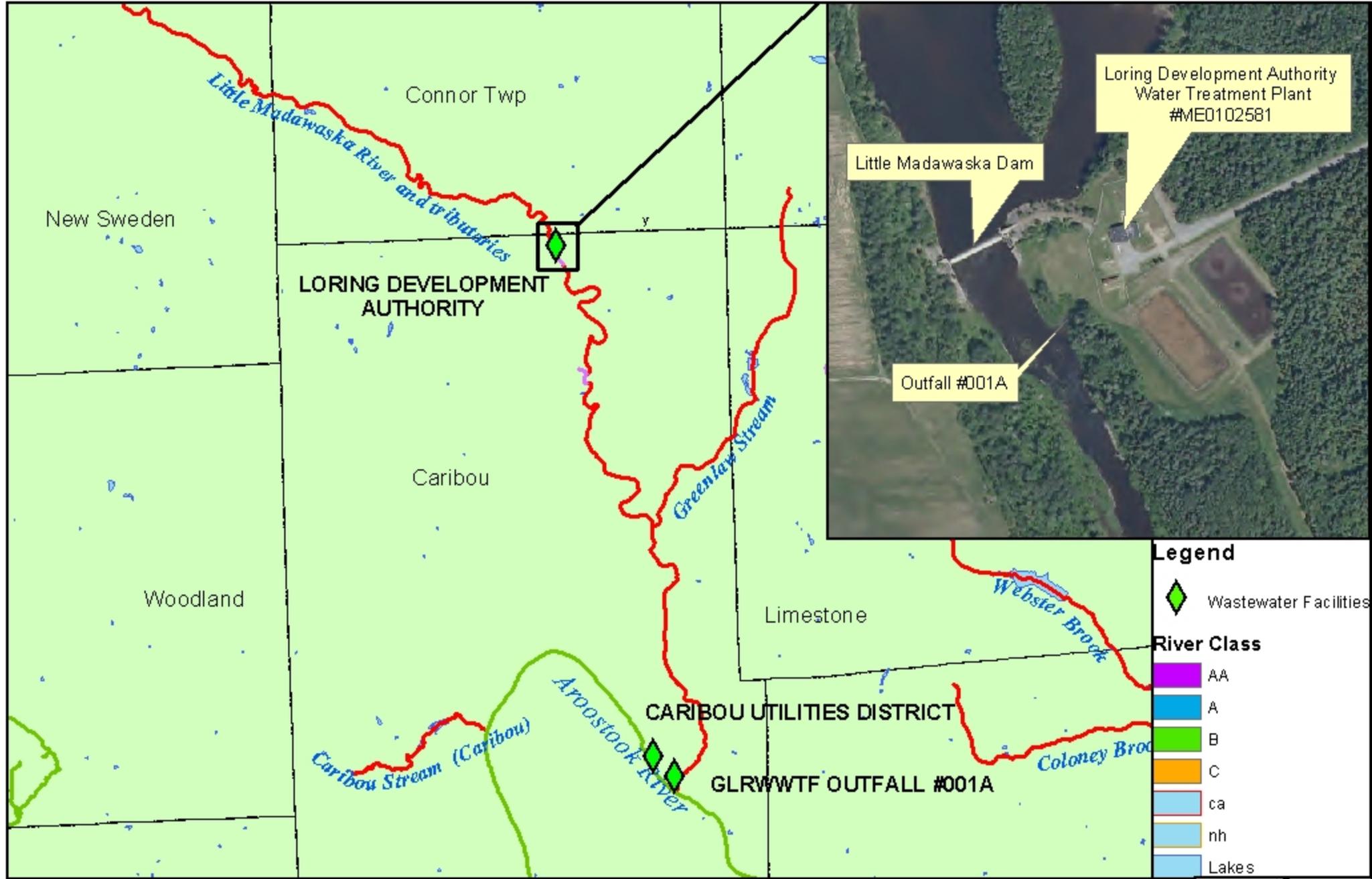
Additional information concerning this permitting action may be obtained from, and written comments sent to:

Cindy Dionne
Bureau of Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Telephone: (207) 287-7823
e-mail: cindy.l.dionne@maine.gov

10. RESPONSE TO COMMENTS

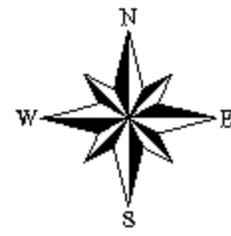
Reserved until the end of the comment period.

ATTACHMENT A



Caribou, Loring Development Authority

Map Created by Maine DEP
November 22, 2013



Legend

- Wastewater Facilities

River Class

- AA
- A
- B
- C
- ca
- nh
- Lakes

