STATE OF MAINE **DEPARTMENT OF ENVIRONMENTAL PROTECTION**





September 9, 2024

Mr. Mark Holt Superintendent 2 Main Street Livermore Falls, ME. 04254

Sent via electronic mail **Delivery confirmation requested**

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit # ME0100315 Maine Waste Discharge License (WDL) Application # W002654-6D-M-R **Proposed Draft MEPDES Permit Renewal**

Dear Mark,

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.

All comments on the proposed draft permit must be received in the Department of Environmental Protection office on or before the close of business October 9, 2024. Failure to submit comments in a timely fashion will result in the proposed draft permit document being issued as drafted.

AUGUSTA 17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017 (207) 287-7688 FAX: (207) 287-7826 (207) 941-4570 FAX: (207) 941-4584

BANGOR 106 HOGAN ROAD, SUITE 6 BANGOR, MAINE 04401

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

Town of Livermore Falls September 9, 2024 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 <u>Benjamin.S.Pendleton@Maine.gov</u>

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

Sincerely,

Benjamin S Fendleton

Benjamin Pendleton Division of Water Quality Management Bureau of Water Quality ph: 207-592-6871

Enc.

ec: James Knight, MEDEP Bradley Kelso, MEDEP Wendy Garland, MEDEP Lori Mitchell, MEDEP Laura Crossley, MEDEP Environmental Review, MEDMR Environmental Review, MEDIFW Sean Mahoney, CLF Ellen Weitzler, USEPA Alex Rosenberg, USEPA Lynne Jennings, USEPA Michael Cobb, USEPA Richard Carvalho, USEPA



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

DEPARTMENT ORDER

IN THE MATTER OF

TOWN OF LIVERMORE FALLS) MAINE POLLUTANT DISCHARGELIVERMORE FALLS, ANDROSCOGGIN CTY, MAINE) ELIMINATION SYSTEM PERMITPUBLICLY OWNED TREATMENT WORKS) ANDME0100315) WASTE DISCHARGE LICENSEW002654-6D-M-RAPPROVALAPPROVAL) RENEWAL

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

APPLICATION SUMMARY

The permittee has submitted a timely and complete application to the Department for the renewal of Waste Discharge License (WDL) #W002654-6D-K-R / Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0100315 (permit), that was issued by the Department on September 7, 2016, for a five-year term. The September 7, 2016, permit authorized the monthly average discharge of up to 2.0 million gallons per day (MGD) of secondary treated wastewater from a publicly owned treatment works (POTW) to the Androscoggin River, Class C, in Livermore Falls, Maine.

The Department issued a minor revision ME0100315/W002654-6D-L-M on May 7, 2018, removing Special Condition J *Ambient Water Quality Monitoring* from the permit in order to be consistent with other MEPDES permits for dischargers on the Androscoggin River.

PERMIT SUMMARY

This permitting action is carrying forward all the terms and conditions of the September 7, 2016, permitting action except that this permit is:

Establishing a seasonal monitoring requirement for *Escherichia coli (E. coli)* bacteria from April 15th – October 31st starting from the authorization date on this permit. This permit is also establishing monthly average limit not to exceed a geometric mean of 100 CFU or MPN per 100 milliliters and daily maximum limit of 236 CFU or MPN per 100 milliliters instantaneous, in accordance with *Standards for classification of fresh surface waters* §465 (4)(B).

PERMIT SUMMARY (con't)

- 2. Updating Special Condition A, *Effluent Limitations and Monitoring Requirements*, footnote 1, Sampling to the Department's most current requirements.
- 3. Updating Special Condition A, *Effluent Limitations and Monitoring Requirements*, footnotes 7, 8, and 9 most current requirements.
- 4. Updating the Special Condition B, *Narrative Effluent Limitations*, to the Department's most current requirements.
- 5. Revising Special Condition C, *Treatment Plant Operator*, to require the person who has the management responsibility over the treatment facility to hold a Maine Grade IV certificate or higher.
- 6. Updating Special Condition K. (Monitoring and Reporting) to the Departments most current language.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated September 9, 2024, and subject to the Conditions listed below, the Department makes the following CONCLUSIONS:

- 1. The discharge, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification.
- 2. The discharge, either by itself or in combination with other discharges, will not lower the quality of any unclassified body of water below the classification which the Department expects to adopt in accordance with state law.
- 3. The provisions of the State's antidegradation policy, 38 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 water body are not met, the discharge will not cause or contribute to the failure of the water body to meet the standards of classification;
 - (d) Where the actual quality of any classified receiving water body exceeds the minimum standards of the next highest classification that higher water quality will be maintained and protected; and
 - (e) Where a discharge will result in lowering the existing water quality of any water body, the Department has made the finding, following opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.
- 4. The discharge will be subject to effluent limitations that require application of best practicable treatment as defined in Maine law, 38 M.R.S., §414-A(1)(D).

DRAFT PERMIT

ACTION

THEREFORE, the Department APPROVES the above noted application of the TOWN OF LIVERMORE FALLS to discharge up to a monthly average flow of up to 2.0 MGD of secondary treated sanitary wastewater from a publicly owned treatment works to the Androscoggin River, Class C, in Livermore Falls, Maine, SUBJECT TO THE FOLLOWING CONDITIONS, and all applicable standards and regulations including:

- 1. "Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable to All Permits," revised July 1, 2002, copy attached.
- 2. The attached Special Conditions, including any effluent limitations and monitoring requirements.
- 3. This permit becomes effective upon the date of signature below and expires at midnight five (5) years 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 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 Matters, 06-096 C.M.R. Ch. 2 § (21)(A) (effective June 9, 2018).

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

DONE AND DATED AT AUGUSTA, MAINE, THIS ____ DAY OF _____ 2024.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:

For: Melanie Loyzim, Commissioner

Date of initial receipt of application:April 5, 2021Date of application acceptance:April 9, 2021

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge secondary treated sanitary wastewater from <u>Outfall #001</u> to the Androscoggin River. Such discharges shall be limited and monitored by the permittee as specified below⁽¹⁾:

							IVIIIIIIIIIIIII		
Effluent Characteristic			Discharge Li	mitations		Monitoring Requiremer			
	Monthly <u>Average</u>	Weekly <u>Average</u>	Daily <u>Maximum</u>	Monthly <u>Average</u>	Weekly <u>Average</u>	Daily <u>Maximum</u>	Measurement <u>Frequency</u>	Sample <u>Type</u>	
Flow [50050]	2.0 MGD [03]		Report MGD [03]				Continuous [99/99]	Recorder [RC]	
BOD5 [00310]	500 lbs./day [26]	750 lbs./day [26]	834 lbs./day [26]	30 mg/L [19]	45 mg/L [19]	50 mg/L [19]	2/Week [02/07]	Composite [24]	
BOD ₅ Percent Removal ⁽²⁾ [81010]				85% [23]			1/Month [01/30]	Calculate [CA]	
TSS [00530]	500 lbs./day [26]	750 lbs./day [26]	834 lbs./day [26]	30 mg/L [19]	45 mg/L [19]	50 mg/L [19]	2/Week [02/07]	Composite [24]	
TSS Percent Removal ⁽²⁾ [81011]				85% [23]			1/Month [01/30]	Calculate [CA]	
Settleable Solids [00545]						0.3 mL/L [25]	4/Week [04/07]	Grab [GR]	
E. coli Bacteria⁽³⁾ (April 15 th – October 31 st) [31633]				100/100 mL ⁽⁴⁾ [13]		236/100 mL ⁽⁴⁾ [13]	2/Week [02/07]	Grab [GR]	
Total Residual Chlorine⁽⁵⁾ [50060]						1.0 mg/L [19]	4/Week [04/07]	Grab [GR]	
pH [00400]						6.0 – 9.0 SU [12]	4/Week [04/07]	Grab [GR]	

The italicized numeric values bracketed in the table above and the tables that follow are code numbers that Department personnel utilize to code the monthly Discharge Monitoring Reports. FOOTNOTES: See Pages 8 through 11 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 <u>Outfall #001</u> to the Androscoggin River. Such discharges shall be limited and monitored by the permittee as specified below⁽¹⁾:

							Minimum	
Effluent Characteristic			Discharge	Limitations			Monitoring R	equirements
	Monthly	Weekly	Daily	Monthly	Weekly	Daily	Measurement	Sample
	Average	Average	Maximum	Average	Average	<u>Maximum</u>	Frequency	Type
Orthophosphate ⁽⁶⁾ (June 1 st – Sept. 30 th) [04175]	8.3 lbs./day [26]		Report lbs./day [26]	Report mg/L <i>[19]</i>		Report mg/L [19]	1/Month [01/30]	Composite [24]
Total Phosphorus⁽⁶⁾ (June 1 – Sept. 30) [00665]	Report lbs./day [26]		Report lbs./day [26]	Report mg/L <i>[19]</i>		Report mg/L [19]	1/Month [01/30]	Composite [24]
Aluminum (Total) [01105]	1.2 lbs./day [26]		2.6 lbs./day [26]	Report ug/L [19]		Report ug/L [28]	1/Year [01/YR]	Composite [24]
Copper (Total) [01042]			0.77 lbs./day [26]			Report ug/L [28]	1/Year [01/YR]	Composite [24]
Mercury (Total) ⁽⁷⁾ [71900]				126.8 ng/L [ЗМ]		190.2 ng/L [ЗМ]	1/Year [01/YR]	Grab [GR]
Zinc (Total) [01092]			1.6 lbs./day [26]			Report ug/L [28]	1/Year [01/YR]	Composite [24]

The italicized numeric values bracketed in the table above and the tables that follow are code numbers that Department personnel utilize to code the monthly Discharge Monitoring Reports. FOOTNOTES: See Pages 8 through 11 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

2. SCREENING LEVEL TESTING – During calendar year 2025 and every five years thereafter if a timely request for renewal has been made and the permit continues in force or is replaced by a permit renewal containing this requirement.

Effluent Characteristic		Discharge Limitations			Minimum Monitoring Requiremen		
	Monthly	Daily	Monthly	Daily	Measurement	Sample	
	<u>Average</u>	<u>Maximum</u>	<u>Average</u>	<u>Maximum</u>	<u>Frequency</u>	<u>Type</u>	
<u>Whole Effluent Toxicity (WET)</u> ⁽⁸⁾							
<u>A-NOEL</u> Ceriodaphnia dubia (Water Flea) [TDA3B]				Report % [23]	1/Year <i>[01/YR]</i>	Composite [24]	
Salvelinus fontinalis (Brook trout) [TDA6F] <u>C-NOEL</u> Ceriodaphnia dubia				Report % [23]	1/Year [01/YR]	Composite [24]	
(Water Flea) [TBP3B] Salvelinus fontinalis							
(Brook trout) [TBO6F]				Report % [23]	1/Year [01/YR]	Composite [24]	
[= 20-]				Report % [23]	1/Year [01/YR]	Composite [24]	
Priority Pollutants ^(9,11) [50008]				Report ug/L [28]	1/Year [01/YR]	Composite/Grab [24/GR]	
Analytical Chemistry ^(10,11) [51477]				Report ug/L [28]	1/Quarter <i>[01/90]</i>	Composite/Grab [24/GR]	

The italicized numeric values bracketed in the table above and the tables that follow are code numbers that Department personnel utilize to code the monthly Discharge Monitoring Reports. *FOOTNOTES:* See pages 8-11 of this permit for applicable footnotes.

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

Footnotes:

1. Sampling

Influent: Influent sampling must be conducted in the headworks building after the bar screen structure.

Effluent: Effluent sampling must be conducted at the outlet of the chlorine contact tank prior to the outfall structure entry.

Sampling and analysis must be conducted in accordance with; a) methods approved in 40 Code of Federal Regulations (C.F.R.) Part 136, b) alternative methods approved by the Department in accordance with the procedures in 40 C.F.R. 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 Human Services for wastewater. Samples that are analyzed by laboratories operated by waste discharge facilities licensed pursuant to *Waste discharge licenses*, 38 M.R.S. § 413 or laboratory facilities that analyze compliance samples in-house are subject to the provisions and restrictions of *Maine Comprehensive and Limited Environmental Laboratory Certification Rules*, 10-144 C.M.R. Ch. 263 (last amended March 15, 2023).

In accordance with 40 C.F.R. § 122.44(i)(1)(iv), the permittee must monitor according to sufficiently sensitive test procedures (i.e., methods) approved under 40 C.F.R. Part 136 or required under 40 C.F.R. chapter I, subchapter N or O, for the analysis of pollutants or pollutant parameters (except WET). A method is "sufficiently sensitive" when: 1) The method minimum level (ML) is at or below the level of the effluent limitation established in the permit for the measured pollutant or pollutant parameter; or 2) The method has the lowest ML of the analytical methods approved under 40 C.F.R. Part 136 or required under 40 C.F.R. chapter I, subchapter N or O for the measured pollutant or pollutant parameter. The term "minimum level" refers either to the sample concentration equivalent to the lowest calibration point in a method or a multiple of the method detection limit (MDL), whichever is higher. Minimum levels may be obtained in the following ways: they may be published in a method; they may be based on the lowest acceptable calibration point used by a laboratory; or they may be calculated by multiplying the MDL in a method, or the MDL determined by a laboratory, by a factor.

If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 C.F.R. part 136 or as specified in this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report.

2. **Percent Removal** – The treatment facility must maintain a minimum of 85 percent removal of both biochemical oxygen demand and total suspended solids for all flows receiving secondary treatment. The percent removal must be calculated based on influent and effluent concentration values.

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

Footnotes:

- 3. *E. coli* bacteria *E. coli* bacteria limits and monitoring requirements are seasonal and apply between April 15 and October 31 of each year. The Department reserves the right to require year-round disinfection to protect the health, safety, and welfare of the public.
- 4. *E. coli* bacteria reporting The monthly average *E. coli* bacteria limitation is a geometric mean limitation and sample results must be reported as such. Results must be expressed in CFU or MPN/100mL.
- 5. TRC Monitoring Monitoring for TRC is only required when elemental chlorine or chlorinebased compounds are in use for effluent disinfection. For instances when a facility has not disinfected with chlorine-based compounds for an entire reporting period, the facility must report "N-9" for this parameter on the monthly DMR. The permittee must utilize approved test methods that are capable of bracketing the TRC limitation in this permit.
- 6. Total phosphorus and Ortho-phosphorus See Attachment A of this permit for Department protocols.
- 7. 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 C.M.R. 519 in accordance with the USEPA's "clean sampling techniques" found in USEPA Method 1669, *Sampling Ambient Water For Trace Metals At EPA Water Quality Criteria Levels*. All mercury analysis must be conducted in accordance with USEPA Method 1631, *Determination of Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Fluorescence Spectrometry*. Go to https://www.maine.gov/dep/water/wd/municipal_industrial/index.html and select "Whole

Effluent Toxicity, Chemistry, and Mercury Reporting Forms" for a reporting 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.

- 8. Whole effluent toxicity (WET) testing Definitive WET testing is a multiconcentration testing event [a minimum of five dilutions bracketing the critical acute (modified acute) and chronic dilution of 0.7% and 0.2% respectively], which provides a point estimate of toxicity in terms of No Observed Effect Level, commonly referred to as NOEL or NOEC. A-NOEL is defined as the acute no observed effect level with survival as the end point. C-NOEL is defined as the chronic no observed effect level with survival, reproduction, and growth as the end points.
 - a. Surveillance level testing Waived pursuant to Department rule, 06-096 Ch. 530 § 2(D)(3).

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

Footnotes:

b. Screening level testing – Beginning in calendar year 2025 and every five years thereafter if a timely request for renewal has been made and the permit continues in force or is replaced by a permit renewal containing this requirement, the permittee must conduct screening level WET testing at a minimum frequency of once per year (1/Year) on the water flea and brook trout.

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.

- a. <u>Short Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving</u> <u>Water to Freshwater Organisms</u>, Fourth Edition, October 2002, EPA-821-R-02-013.
- b. <u>Methods for Measuring the Acute Toxicity of Effluent and Receiving Waters to</u> <u>Freshwater and Marine Organisms</u>, Fifth Edition, October 2002, EPA-821-R-02-012.

Results of WET tests must be reported on the "Whole Effluent Toxicity Report Fresh Waters" form each time a WET test is performed. The form can be found at: <u>https://www.maine.gov/dep/water/wd/municipal_industrial/index.html</u>

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 each time a WET test is performed. The form can be found at: https://www.maine.gov/dep/water/wd/municipal_industrial/index.html

- 9. Priority Pollutant– Refers to those pollutants listed in their respective categories on the "WET and Chemical Specific Data Report Form" found at: https://www.maine.gov/dep/water/wd/municipal_industrial/index.html
 - a. **Surveillance level testing** Not required pursuant Department rule 06-096 C.M.R. Ch. 530, §2(D).
 - b. Screening level testing Beginning in the calendar year 2025 and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement, the permittee must conduct screening level priority pollutant testing at a minimum frequency of once per year (1/Year) in any calendar quarter provided the sample is representative of the discharge and any seasonal or other variations in effluent quality.

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

Footnotes:

- 10. Analytical Chemistry Refers to those pollutants listed in their respective categories on the "WET and Chemical Specific Data Report Form" found at: <u>https://www.maine.gov/dep/water/wd/municipal_industrial/index.html</u>
 - a. Surveillance level testing Waived pursuant to Department rule, 06-096 Ch. 530 § 2(D)(3).
 - b. Screening level testing Beginning in calendar year 2025 and every five years thereafter if a timely request for renewal has been made and the permit continues in force or is replaced by a permit renewal containing this requirement, the permittee must conduct screening level analytical chemistry testing once per quarter (1/Quarter) for four consecutive calendar quarters.
- 11. **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.

Analytical chemistry and priority pollutant test results must be submitted to the Department not later than the next Discharge Monitoring Report (DMR) required by the permit, provided, however, that the permittee may review the laboratory reports for up to 10 business days after receiving the test results from the laboratory conducting the testing before submitting them. The permittee must evaluate test results being submitted and identify to the Department, possible exceedances of the acute, chronic, or human health AWQC as established in 06-096 C.M.R. Ch. 584. For the purposes of DMR reporting, enter a "1" for yes, testing done this monitoring period or "N-9" monitoring <u>not required</u> this period.

B. NARRATIVE EFFLUENT LIMITATIONS

- 1. The permittee must not discharge effluent that contains a visible oil sheen, foam or floating solids at any time which would impair the 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.

B. NARRATIVE EFFLUENT LIMITATIONS (con't)

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.

C. TREATMENT PLANT OPERATOR

The person who has the management responsibility over the treatment facility must hold a **Maine Grade IV** certificate (or higher) or must be a Maine Registered Professional Engineer pursuant to *Sewerage Treatment Operators*, Title 32 M.R.S., Sections 4171-4182 and *Regulations for Wastewater Operator Certification*, 06-096 C.M.R. Ch. 531 (effective July 24, 2023). The permittee must be in compliance with the **Grade IV** treatment plant operator requirement within five (5) years from the effective date of this permit. All proposed contracts for facility operation by any person must be approved by the Department before the permittee may engage the services of the contract operator.

D. LIMITATIONS FOR INDUSTRIAL USERS

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

E. AUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with: 1) the permittee's General Application for Waste Discharge Permit, accepted for processing on April 9, 2021; 2) the terms and conditions of this permit; and 3) only from Outfall #001. Discharges of wastewater from any other point source are not authorized under this permit and must be reported in accordance with Standard Condition D(1)(f), *Twenty-four-hour reporting*, of this permit.

F. WET WEATHER FLOW MANAGEMENT PLAN

The treatment facility staff must maintain a current written Wet Weather Flow Management Plan to direct the staff on how to operate the facility effectively during periods of high flow. The Department acknowledges that the existing collection system may deliver flows in excess of the monthly average design capacity of the treatment plant during periods of high infiltration and rainfall.

The plan must 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

F. WET WEATHER FLOW MANAGEMENT PLAN (cont'd)

maintenance procedures during the events. The **permittee must review their plan annually** and record any necessary changes to keep the plan up to date.

G. 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, notice regarding substantial change shall include information on:
 - (a) the quality and quantity of wastewater introduced to the wastewater collection and treatment system; and
 - (b) any anticipated impact caused by the change in the quantity or quality of the wastewater to be discharged from the treatment system.

H. OPERATION & MAINTENANCE PLAN

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

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

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

I. STATEMENT FOR REDUCED/WAIVED TOXICS TESTING

In accordance with 06-096 C.M.R. Ch. 530 § (2)(D)(4), and 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 E 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.

- (a) Changes in stormwater collection or inflow/infiltration affecting the facility that may increase the toxicity of the discharge; and
- (b) Increases in the type or volume of transported (hauled) wastes accepted by the facility.

The Department may require that routine screening or surveillance level 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.

J. DISPOSAL OF TRANSPORTED WASTES IN WASTEWATER TREATMENT FACILITY

During the effective period of this permit, the permittee is authorized to receive and introduce into the treatment process or solids handling stream **a daily maximum of 10,000 gallons per day** of transported wastes, subject to the following terms and conditions.

- Pursuant to 06-096 C.M.R. Ch. 555, "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. For the purposes of this
 permitting action, transported wastes received at the permittee's facility are limited to septage
 from septic tanks and holding tanks.
- 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.

J. DISPOSAL OF TRANSPORTED WASTES IN WASTEWATER TREATMENT FACILITY

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

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

- 4. The permittee shall maintain records for each load of transported wastes in a daily log which shall include at a minimum the following.
 - (a) The date;
 - (b) The volume of transported wastes received;
 - (b) 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 shall be maintained at the treatment facility for a minimum of five years.

- 5. The addition of transported wastes into the treatment process or solids handling stream shall 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 shall be reduced or terminated in order to eliminate the overload condition.
- 6. Holding tank wastewater from domestic sources to which no chemicals in quantities potentially harmful to the treatment process have been added shall not be recorded as transported wastes but should be reported in the treatment facility's influent flow.
- 7. During wet weather events, transported wastes may be added to the treatment process or solids handling facilities only in accordance with a current Wet Weather Flow Management Plan approved by the Department that provides for full treatment of transported wastes without adverse impacts.
- 8. In consultation with the Department, chemical analysis is required prior to receiving transported wastes from new sources that are not of the same nature as wastes previously received. The analysis must be specific to the type of source and designed to identify concentrations of pollutants that may pass through, upset, or otherwise interfere with the facility's operation.

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

- 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 06-096 C.M.R. Ch. 555 of the Department's rules and the terms and conditions of this permit.

K. 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 DMR to the regulatory agency utilizing the USEPA electronic system.

Electronic 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.

Documentation submitted in support of the electronic DMR may be attached to the electronic DMR. Toxics reporting must be done using the Department toxsheet reporting form. An electronic copy of the Toxsheet reporting document must be submitted to your Department compliance inspector as an attachment to an email. In addition, a hardcopy form of this sheet must be signed and submitted to your compliance inspector, or a copy attached to your NetDMR submittal will suffice. Documentation submitted electronically to the Department in support of the electronic DMR must be submitted no later than midnight on the 15th day of the month following the completed reporting period.

L. REOPENING OF PERMIT FOR MODIFICATIONS

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

M. 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 shall remain in full force and effect and shall be construed and enforced in all aspects as if such unlawful provision, or part thereof, had been omitted, unless otherwise ordered by the court.

ATTACHMENT A

Protocol for Total Phosphorus Sample Collection and Analysis for Waste Water and Receiving Water Monitoring Required by Permits

Approved Analytical Methods: EPA 200.7 (Rev. 44), 365.1 (Rev. 2.0), (Lachat), 365.3, 365.4; SM 3120 B, 4500-P B.5, 4500-P E, 4500-P F, 4500-P G, 4500-P H; ASTM D515-88(A), D515-88(B); USGS I-4471-97, I-4600-85, I-4610-91; OMAAOAC 973.55, 973.56

Sample Collection: The Maine DEP is requesting that total phosphorus analysis be conducted on composite effluent samples, unless a facility's Permit specifically designates grab sampling for this parameter. Facilities can use individual collection bottles or a single jug made out of glass or polyethylene. Bottles and/or jugs should be cleaned prior to each use with dilute HCL. This cleaning should be followed by several rinses with distilled water. Commercially purchased, pre-cleaned sample containers are an acceptable alternative. The sampler hoses should be cleaned, as needed.

Sample Preservation: During compositing the sample must be at 0-6 degrees C (without freezing). If the sample is being sent to a commercial laboratory or analysis cannot be performed the day of collection then the sample must be preserved using H_2SO_4 to obtain a sample pH of <2 su and refrigerated at 0-6 degrees C (without freezing). The holding time for a preserved sample is 28 days.

Note: Ideally, Total P samples are preserved as described above. However, if a facility is using a commercial laboratory then that laboratory may choose to add acid to the sample once it arrives at the laboratory. The Maine DEP will accept results that use either of these preservation methods.

Laboratory QA/QC: Laboratories must follow the appropriate QA/QC procedures that are described in each of the approved methods.

Sampling QA/QC: If a composite sample is being collected using an automated sampler, then once per month run a blank on the composite sampler. Automatically, draw distilled water into the sample jug using the sample collection line. Let this water set in the jug for 24 hours and then analyze for total phosphorus. Preserve this sample as described above.

Protocol for Orthophosphate Sample Collection and Analysis for Waste Water and Receiving Water Monitoring Required by Permits

Approved Analytical Methods: EPA 300.0 (Rev. 2.1), 300.1 (Rev. 1.0), 365.1 (Rev. 2.0), 365.3; SM 4110 B, 4110 B-00, 4500-P E, 4500-P F; ASTM D515-88(A), D4327-97, 03; D6508 (Rev. 2); USGS I-4601-85; OMAAOAC 973.55, 973.56, 993.30

Sample Collection: The Maine DEP is requesting that orthophosphate analysis be conducted on composite effluent samples unless a facility's Permit specifically indicates grab sampling for this parameter. Facilities can use individual collection bottles or a single jug made out of glass or polyethylene. Bottles and/or jugs should be cleaned prior to each use with dilute HCL. This cleaning should be followed by several rinses with distilled water. The sampler hoses should be cleaned, as needed. Commercially purchased, pre-cleaned sample containers and or syringe type filtering apparatus are acceptable. If bench top filtering apparatus is being used this should be cleaned, as described above, before each use.

Sample Preservation: During compositing the sample must be at 0-6 degrees C (without freezing). The sample must be filtered immediately (within 15 minutes) after collection using a pre-washed 0.45-um membrane filter. Be sure to follow one of the pre-washing procedures described in the approved methods unless your commercial lab is providing you with pre-washed filters and filtering apparatus. If the sample is being sent to a commercial laboratory or analysis cannot be performed within 2 hours after collection then the sample must be kept at 0-6 degrees C (without freezing). There is a 48-hour holding time for this sample although analysis should be done sooner, if possible.

Laboratory QA/QC: Laboratories must follow the appropriate QA/QC procedures that are described in each of the approved methods. Additionally, laboratories providing filters or filter apparatus for sampling are required to submit blank data for each lot of filters/filtering apparatus to the facility.

Sampling QA/QC:

Filter Blank- if a facility is using a pre-cleaned filter and or filtering apparatus provided by a commercial laboratory then the commercial laboratory must run a filter/filtering apparatus blank on each lot. The results of that analysis must be provided to the facility.

If a facility is using their own filters and filtering apparatus then a filter blank must be included with every sample set that does not include a composite sampler (composite jug and sample line) blank.

Composite Sampler Blank- If a composite sample is being collected using an automatic composite sampler, then once per month run a blank on the composite sampler. A separate filter blank does not have to be done along with the composite sampler blank. When running a composite sampler blank, automatically, draw distilled water into the sample jug using the sample collection line. Let this water set in the jug for 24 hours and then filter and analyze for orthophosphate. Preserve these samples as described above.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT AND MAINE WASTE DISCHARGE LICENSE

FACT SHEET

DATE: SEPTEMBER 9, 2024

PERMIT NUMBER: **ME0100315** LICENSE NUMBER: W002654-6D-M-R

NAME AND MAILING ADDRESS OF APPLICANT:

TOWN OF LIVERMORE FALLS 2 Main Street Livermore Falls, Maine 04254

COUNTY:

Androscoggin

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Livermore Falls Wastewater Treatment Facility 108 Foundry Road Livermore Falls, Maine

Androscoggin River / Class C **RECEIVING WATER / CLASSIFICATION:**

COGNIZANT OFFICIAL CONTACT INFORMATION: Mr. Mark Holt (207) 576-1414

e-mail: jsewer@jay-maine.org

1. APPLICATION SUMMARY

- a. <u>Application</u>: The Town of Livermore Falls (permittee) has submitted a timely and complete application to the Department for the renewal of Waste Discharge License (WDL) #W002654-6D-K-R / Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0100315 (permit), that was issued by the Department on September 7, 2016, for a five-year term. The September 7, 2016, permit authorized the monthly average discharge of up to 2.0 million gallons per day (MGD) of secondary treated wastewater from a publicly owned treatment works (POTW) to the Androscoggin River, Class C, in Livermore Falls, Maine.
- b. <u>Source Description</u>: The Livermore Falls wastewater treatment facility (facility) receives commercial and residential sanitary wastewater from customers in the Town of Livermore Falls and a portion of the Town of Jay. There are no significant industrial users within the collection system and there are no combined sewer overflow (CSO) points associated with the collection system. The collection system contains both separate and combined storm water and sanitary sewer systems. Livermore Falls receives transported wastes (septic tank waste) at the treatment facility. See Fact Sheet Attachment A for a map showing the location of the facility.
- c. <u>Wastewater treatment</u>: The permittee provides a secondary level of wastewater treatment via trickling filter towers and secondary clarification. Sanitary wastewater generated in the facility's service area is conveyed via a sewer collection system and four (4) pump stations to the facility headworks building where it passes through a mechanical bar screen for screening followed by an aerated grit chamber. The solids that are removed from the grit chamber by pumping into a grit classifier and are conveyed from there to the dry sludge container disposal.

Wastewater then flows from the grit chamber into two (2) new 45,000-gallon capacity primary clarifiers where primary and secondary sludge is settled out and pumped into one of two (2) sludge holding tanks with a capacity of 94,000 gallons each, to be dewatered. The primary effluent is conveyed to one (1) wet well and then pumped to the trickling filters for biological treatment on the tower filter media. The tower effluent is then conveyed to a flow distribution box where a portion of the flow goes to two (2) 176,000-gallon capacity circular secondary clarifiers. From the secondary clarifiers, the effluent goes to two (2) 34,500-gallon capacity chlorine contact tanks for disinfection. Final effluent is conveyed for discharge to the Androscoggin River via a 24-inch diameter pipe that extends 30 feet into the river. See Fact Sheet **Attachment B** for a schematic of the treatment process.

The facility is authorized to receive and treat receives a maximum of 10,000 gallons per day (GPD) of transported wastes (septic tank waste) from licensed septage haulers and authorized to accept up to 200 gallons per day and up to 4,000 gallons per year of holding tank wastes (with or without chemicals) from recreational vehicles and campers. The transported waste is introduced into the treatment system prior to the headworks building.

2. PERMIT SUMMARY

- a. <u>Terms and conditions</u> This permitting action is carrying forward all the terms and conditions of the September 7, 2016, permitting action except that this permit is:
 - 1. Establishing a seasonal monitoring requirement for *Escherichia coli (E. coli)* bacteria from April 15th October 31st starting from the authorization date on this permit. This permit is also establishing monthly average limit not to exceed a geometric mean of 100 CFU or MPN per 100 milliliters and daily maximum limit of 236 CFU or MPN per 100 milliliters instantaneous, in accordance with *Standards for classification of fresh surface waters* §465 (4)(B).
 - 2. Updating Special Condition A, *Effluent Limitations and Monitoring Requirements*, footnote 1, Sampling to the Department's most current requirements.
 - 3. Updating Special Condition A, *Effluent Limitations and Monitoring Requirements*, footnotes 7, 8, and 9 most current requirements.
 - 4. Updating the Special Condition B, *Narrative Effluent Limitations*, to the Department's most current requirements.
 - 5. Revising Special Condition C, *Treatment Plant Operator*, to require the person who has the management responsibility over the treatment facility to hold a Maine Grade IV certificate or higher.
 - 6. Updating Special Condition K. (Monitoring and Reporting) to the Departments most current language.
- b. <u>History</u>: The most recent licensing/permitting actions include the following:

April 14, 1994 – The Department issued WDL #W002654-46-C-R to the permittee for the discharge of treated wastewater to the Androscoggin River in Livermore Falls. The 4/14/94 WDL superseded WDL #W002654-46-B-R issued on June 27, 1988.

August 30, 1999 – The USEPA issued NPDES permit #ME0100315 to the permittee for the monthly average discharge of up to 2.0 MGD of treated wastewater to the Androscoggin River in Livermore Falls.

June 1, 2000 – The Department administratively modified WDL #W002654-46-C-R by establishing interim monthly average and daily maximum concentration limits of 126.8 parts per trillion (ppt) and 190.2 ppt, respectively, for mercury.

October 17, 2001 – The Department issued WDL #W002654-5L-E-R / MEPDES Permit #ME0100315 to the permittee for the discharge of treated wastewater to the Androscoggin River in Livermore Falls. The October 17, 2001, permitting action superseded WDL #W002654-46-C-R issued on April 14, 1994, and the NPDES permit issued by the USEPA on August 30, 1999.

November 14, 2001 – The permittee filed an appeal of the October 17, 2001, Department Order to the Maine Board of Environmental Protection (BEP). The permittee's objection and basis for appeal was focused on the requirement to perform seasonal phosphorus monitoring.

2. PERMIT SUMMARY (cont'd)

March 21, 2002 – The BEP affirmed the October 17, 2001, Department Order establishing effluent limitations and monitoring requirements for phosphorus in Board Order #W002654-5L-F-Z.

October 23, 2003 – The Department issued a letter to the permittee thereby administratively modifying WDL #W002654-5L-E-R and revising the minimum monitoring frequency requirements for biochemical oxygen demand and total suspended solids during the cold season from three times per week to twice per week.

April 23, 2004 – The Department issued a letter to the permittee thereby administratively modifying WDL #W002654-5L-E-R and eliminating the monthly average mass limit of 5.5 lbs./day for total phosphorus. As of April 23, 2024, the Department had not completed a total maximum daily load (TMDL) for the Androscoggin River to determine whether the phosphorus limit, which was based on a Department best professional judgment determination, was appropriate for protection of receiving water quality. Therefore, the numeric effluent phosphorus limit was eliminated.

July 18, 2005 – The USEPA approved a total maximum daily load (TMDL) entitled, <u>May 2005</u> <u>TMDL, Final</u> for the Androscoggin River.

September 21, 2005 – The Department issued combination MEPDES permit ME0100315/WDL W002654-5L-F R for a five-year term.

October 20, 2011 - The Department issued combination MEPDES permit ME0100315/WDL W002654-6D-H-R for a five-year term.

February 6, 2012 – The Department issued a minor revision that modified MEPDES permit ME0100315/WDL #W002654-6D-H-R by reducing the monitoring frequency for total mercury from 4/Year to 1/Year.

January 29, 2014 – The Department issued a minor revision that modified MEPDES permit ME0100315/WDL #W002654-6D-H-R, by authorizing the facility to receive and treat up to 6,000 gpd of transported waste.

May 27, 2016 – The Town of Livermore Falls submitted a timely and complete application to the Department for the renewal of the October 20, 2011, permit.

September 7, 2016 – The Department issued combination MEPDES permit ME0100315/WDL W002654-6D-K-R for a five-year term.

May 7, 2018 – The Department issued a minor revision that modified MEPDES permit ME0100315/WDL #W002654-6D-K-R, by removing Special Condition J, *Ambient Water Quality Monitoring* from the permit to be consistent with other MEPDES permits for dischargers on the Androscoggin River.

April 5, 2021 – The Town of Livermore Falls submitted a timely and complete application to the Department for the renewal of the September 7, 2016, permit.

3. CONDITIONS OF PERMITS

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

4. RECEIVING WATER QUALITY STANDARDS

Classification of major river basins, 38 M.R.S. § 467(1)(A)(2) classifies the "Androscoggin River, from its confluence with the Ellis River to the Worumbo Dam in Lisbon Falls," which includes the river at the point of discharge, as Class C waters. *Standards for classification of fresh surface waters*, 38 M.R.S. § 465(4) describes the standards for Class C waters as follows:

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

B. Class C waters must be of sufficient quality to support all species of fish indigenous to those waters and to maintain the structure and function of the resident biological community. The dissolved oxygen content of Class C water may not be less than 5 parts per million or 60% of saturation, whichever is higher, except that in identified salmonid spawning areas where water quality is sufficient to ensure spawning, egg incubation and survival of early life stages, that water quality sufficient for these purposes must be maintained. In order to provide additional protection for the growth of indigenous fish, the following standards apply.

(1) The 30-day average dissolved oxygen criterion of a Class C water is 6.5 parts per million using a temperature of 22 degrees centigrade or the ambient temperature of the water body, whichever is less, if:

(a) A license or water quality certificate other than a general permit was issued prior to March 16, 2004, for the Class C water and was not based on a 6.5 parts per million 30-day average dissolved oxygen criterion: or

(b) A discharge or a hydropower project was in existence on March 16, 2005, and required but did not have a license or water quality certificate other than a general permit for the Class C water.

This criterion for the water body applies to licenses and water quality certificates issued on or after March 16, 2004.

4. RECEIVING WATER QUALITY STANDARDS (con't)

(2) In Class C waters not governed by subparagraph (1), dissolved oxygen may not be less than 6.5 parts per million as a 30-day average based upon a temperature of 24 degrees centigrade or the ambient temperature of the water body, whichever is less. This criterion for the water body applies to licenses and water quality certificates issued on or after March 16, 2004.

The department may negotiate and enter into agreements with licensees and water quality certificate holders in order to provide further protection for the growth of indigenous fish.

Agreements entered into under this paragraph are enforceable as department orders according to the provisions of sections 347-A to 349.

Between April 15th and October 31st, the number of Escherichia coli bacteria in Class C waters may not exceed a geometric mean of 100 CFU or MPN per 100 milliliters over a 90-day interval or 236 CFU or MPN per 100 milliliters in more than 10% of the samples in any 90-day interval. The board shall adopt rules governing the procedure for designation of spawning areas. Those rules must include provision for periodic review of designated spawning areas and consultation with affected persons prior to designation of a stretch of water as a spawning area.

C. Discharges to Class C waters may cause some changes to aquatic life, except that the receiving waters must be of sufficient quality to support all species of fish indigenous to the receiving waters and maintain the structure and function of the resident biological community. For the purpose of allowing the discharge of aquatic pesticides or chemicals approved by the department and conducted by the department, the Department of Inland Fisheries and Wildlife or an agent of either agency to restore biological communities affected by an invasive species, the department may find that the discharged effluent will not cause unacceptable changes to aquatic life as long as the materials and methods used will ensure the support of all species of indigenous fish and the structure and function of the resident biological community and will allow restoration of nontarget species.

5. REASONABLE POTENTIAL

Pursuant to 33 U.S.C. § 1311(b)(1)(C) and 40 C.F.R. § 122.44(d)(1), NPDES permits must contain any requirements in addition to technology based effluent limitations (TBELs) that are necessary to achieve water quality standards established under 33 U.S.C. § 1311(b)(1)(C). In addition, limitations "must control any pollutant or pollutant parameter (conventional, non-conventional, or toxic) which the permitting authority determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any water quality standard (WQS), including State narrative criteria for water quality." 40 C.F.R. § 122.44(d)(1)(i). To determine if the discharge causes, or has the reasonable potential to cause, or contribute to an excursion above any WQS, EPA considers: 1) existing controls on point and non-point sources of pollution; 2) the variability of the pollutant or pollutant parameter in the effluent; 3) the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity); and 4) where appropriate, the dilution of the effluent by the receiving water. *See* 40 C.F.R. § 122.44(d)(1)(i).

5. REASONABLE POTENTIAL (cont'd)

If the permitting authority determines that the discharge of a pollutant will cause, has the reasonable potential to cause, or contribute to an excursion above WQSs, the permit must contain water quality-based effluent limitations (WQBELs) for that pollutant. *See* 40 C.F.R. § 122.44(d)(1)(i).

6. RECEIVING WATER QUALITY CONDITIONS

The State of Maine Department of Environmental Protection 2018/2020/2022 Integrated Water Quality Monitoring and Assessment Report published by the Department lists the segment of the Androscoggin River (ME0104000206_423R) that incorporates the point of discharge in the following categories;

Category 4-B: Rivers and Streams Impaired By Pollutants – Pollution Control Requirements Reasonably Expected To Result in Attainment. Impairment in this context refers to the designated use of fish consumption due to dioxin. Compliance is measured by (1) no detection of dioxin in any internal waste stream (at 10 pg/l detection limit), (2) no detection in fish tissue sampled below a mill's outfall greater than upstream reference. The Department has no information that indicates Livermore Falls POTW is causing or contributing to this impairment.

Category 5-D: Rivers and Streams Impaired by Legacy Pollutants. Impairment in this context refers to the designated use of fish consumption due to the presence of polychlorinated biphenyls (PCBs) in fish tissue. This legacy pollutant cannot be addressed with a TMDL or permit. Pollutant effects will continue to diminish naturally over time. The Department has no information that indicates Livermore Falls facility is causing or contributing to this impairment.

In addition, the report lists all freshwaters in Maine 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 4-A (Total Maximum Daily Load (TMDL) Completed) due to the USEPA approval of a Regional Mercury TMDL in December 2007. Maine has a fish consumption advisory for fish taken from all freshwaters due to mercury. Many waters, and many fish from any given water, do not exceed the action level for mercury. However, because it is impossible for someone consuming a fish to know whether the mercury level exceeds the action level, the Maine Department of Health and Human Services decided to establish a statewide advisory that recommends limits on consumption for all freshwater fish. Maine has already instituted statewide programs for removal and reduction of mercury sources."

Pursuant to Maine law, 38 M.R.S. §420(1-B)(B)(1), "a facility is not in violation of the ambient criteria for mercury if the facility is in compliance with an interim discharge limit established by the Department pursuant to section 413 subsection 11." The Department has established interim monthly average and daily maximum mercury concentration limits for this facility and the facility has been in substantial compliance with said interim discharge limits. See Section 7(j) of this Fact Sheet. The Department is not aware of any information that indicates the discharges from the permittee are causing or contributing to the continuance of the fish consumption advisory.

7. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

a. <u>Flow</u>: The previous permitting action contained, and this permitting action is carrying forward, a monthly average discharge flow limit of 2.0 million gallons per day (MGD) based on the design capacity of the treatment facility. This permitting action is also carrying forward the continuous recorder monitoring requirement for discharge flow.

A review of the monthly Discharge Monitoring Reports (DMR) data for the period October 2016 – October 2023 and values have been reported as follows:

Value	Limit (MGD)	Range (MGD)	Mean (MGD)
Monthly Average	2.0	0.17 - 1.22	0.463
Daily Maximum	Report	0.05 - 2.98	0.816

b. <u>Dilution Factors</u>: Dilution factors associated with the discharge from the Livermore Falls wastewater treatment facility were derived in accordance with freshwater protocols established in Department Regulation 06-096 C.M.R. Ch. 530, <u>Surface Water Toxics Control Program</u>, October 2005. With a monthly average treatment plant design flow of 2.0 MGD, dilution calculations are as follows:

1 cfs = 0.6464 MGD

Flow (DMRs=84)

Acute: 1Q10 = 1,673.0 cfs	$\Rightarrow (1,673.0 \text{ cfs})(0.6464) + 2.0 \text{ MGD} = 542:1$ 2.0 MGD
Modified Acute: $\frac{1}{4}$ 1Q10 = 419 cfs	$\Rightarrow (419.0 \text{ cfs})(0.6464) + 2.0 \text{ MGD} = 136:1$ 2.0 MGD
Chronic: 7Q10 = 1,673.0 cfs	$\Rightarrow (1,673.0 \text{ cfs})(0.6464) + 2.0 \text{ MGD} = 542:1$ 2.0 MGD
Harmonic Mean = 3,197.0 cfs	$\Rightarrow (3,197.0 \text{ cfs})(0.6464) + 2.0 \text{ MGD} = 1,034:1$ 2.0 MGD

Department rule 06-096 C.M.R. Ch. 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. Flows that allow bioaccumulation of compounds to levels that are toxic, carcinogenic, mutagenic, or teratogenic are not to be used in setting effluent limits.

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

The permittee has not submitted information or data to the Department to demonstrate the mixing characteristics of the effluent with the receiving waters. Therefore, the Department is utilizing the default stream flow of ¹/₄ 1Q10 in acute evaluations in accordance with 06-096 C.M.R. Ch. 530.

c. <u>Biochemical Oxygen Demand (BOD₅) and Total Suspended Solids (TSS)</u>: The previous permitting action contained monthly average and weekly average BOD₅ & TSS concentration limits of 30 mg/L and 45 mg/L, respectively, which were based on secondary treatment requirements of the Clean Water Act of 1977 §301(b)(1)(B) as defined in 40 C.F.R. § 133.102 and Department rule 06-096 C.M.R. Ch. 525 § (3)(III). The previous permitting action also established daily maximum BOD₅ & TSS concentration limits of 50 mg/L based on a Department best professional judgment (BPJ) of best practicable treatment (BPT). All three technology-based concentration limits are being carried forward in this permitting action.

Department rule 06-096 C.M.R. Ch. 523 § (6)(f) states that all pollutants limited in permits shall have limitations, standards or prohibitions expressed in terms of mass. The previous permitting action established monthly average, weekly average, and daily maximum technology-based mass limits of 500 lbs./day, 750 lbs./day, and 834 lbs./day, respectively, for BOD₅ & TSS, which are being carried forward in this permitting action and were derived as follows:

Monthly Average Mass Limit: (30 mg/L)(8.34 lbs./gallon)(2.0 MGD) = 500 lbs./day Weekly Average Mass Limit: (45 mg/L)(8.34 lbs./gallon)(2.0 MGD) = 750 lbs./day Daily Maximum Mass Limit: (50 mg/L)(8.34 lbs./gallon)(2.0 MGD) = 834 lbs./day

This permitting action is carrying forward the minimum monitoring frequency requirement of two times per week (2/Week) based on Department guidance for POTWs permitted to discharge between 1.5 and 5.0 MGD.

A review of the monthly DMR data was completed for the period October 2016 – October 2023 and values have been reported as follows:

DOD Mass (DMIKS 03)		
Value	Limit (lbs/day)	Range (lbs/day)	Average (lbs/day)
Monthly Average	500	12 - 107.7	41.664
Weekly Average	750	19.7 - 111	51.72
Daily Maximum	834	23 - 287	70.64

BOD Mass (DMRs=85)

BOD Concentration (DMRs=85)			
Value	Limit (mg/L)		

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	30	4.9 - 24	11.71
Weekly Average	45	5.6 - 37	14.17
Daily Maximum	50	6 - 37	17.53

<u>155 mass (DNIKs=85)</u>			
Value	Limit (lbs/day)	Range (lbs/day)	Average (lbs/day)
Monthly Average	500	12 - 145	53.84
Weekly Average	750	17 - 416	71.17
Daily Maximum	834	21-684	106.44

TOO $(DMD_{a}-05)$

TSS concentration (DMRs=85)

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	30	3.9 - 30	15.49
Weekly Average	45	4.45 - 37	18.74
Daily Maximum	50	6-64.6	24.34

The previous permitting action contained, and this permitting action is carrying forward, a requirement for a minimum of 85% removal of BOD₅ & TSS pursuant to Department rule 06-096 C.M.R. Ch. 525 § (3)(III)(a)(3) and (b)(3).

A review of the monthly DMR data was completed for the period October 2016 – October 2023 and values have been reported as follows:

BOD % Removal (DMRs=85)

Value	Limit (%)	Range (%)	Average (%)
Monthly Average	85	80.3 - 98	92.32

TSS % Removal (DMRs=85)

Value	Limit (%)	Range (%)	Average (%)
Monthly Average	85	81.1-98	92.65

d. Settleable Solids - The previous permitting action contained a daily maximum technologybased concentration limit of 0.3 mL/L for settleable solids which is being carried forward in this permitting action. The daily maximum concentration limit of 0.3 mL/L is based on a Department BPJ determination that this limit provides sufficient information to assess whether the treatment facility is providing BPT.

A review of the monthly DMR data was completed for the period October 2016 – October 2023 and values have been reported as follows:

Settleable solids (DMRs=85)

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

The previous permitting action established, and this permitting action is carrying forward a monitoring frequency of 4 times per week (4/week).

e. Escherichia coli bacteria: The previous permitting action contained seasonal monthly average and daily maximum concentration limits for E. coli bacteria of 126 colonies/100 mL (geometric mean) and 949 colonies/100 mL (instantaneous level), respectively, which were based on the

State of Maine Water Classification Program criteria for Class C waters found at 38 M.R.S. § 465(4)(B).

This permitting action is establishing monthly average and daily maximum concentration limits for *E. coli* bacteria of 100 MPN or CFU/100mL and 236 MPN or CFU/100mL, respectively which are based on the State of Maine Water Classification Program criteria for Class C waters found at 38 M.R.S. § 465(4)(B).

A review of the monthly DMR data was completed for the period May 2017 – September 2023, and values have been reported as follows:

E. coli. bacteria (DMRs=35)

Value	Limit (col/100 mL)	Range (col/100 mL)	Mean (col/100 mL)
Monthly Average	126	0 - 21.5	3.48
Daily Maximum	949	1 - 344	32.98

The previous permitting action established, and this permitting action is carrying forward a minimum monitoring frequency of 2 times per week (2/week).

f. <u>Total Residual Chlorine (TRC)</u>: The previous permitting action contained a daily maximum technology-based concentration limit of 1.0 mg/L for TRC and a minimum monitoring frequency requirement of once per day. Limitations on TRC are specified to ensure that ambient water quality standards are maintained and that BPT technology is being applied to the discharge. Department licensing/permitting actions impose the more stringent of either a water quality based or BPT based limit. End-of-pipe acute and chronic water quality-based concentration thresholds may be calculated as follows:

Acute (A)	Chronic (C)	Modified A & C	Calculated Acute	Calculated Chronic
Criterion	Criterion	Dilution Factors	Threshold	Threshold
0.019 mg/L	0.011 mg/L	136:1 (Mod A) 542:1 (C)	2.6 mg/L	6.0 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.

The BPT-based limit of 1.0 mg/L is more stringent than the calculated acute water quality-based threshold of 2.6 mg/L and is therefore being carried forward in this permitting action.

A review of the monthly DMR data was completed for the period October 2016 – October 2023 and values have been reported as follows:

Total residual chlorine (DMRs=15)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Daily Maximum	1.0	0.1 - 1.0	0.661

This permitting action is carrying forward the minimum monitoring frequency of 4 per week (4/Week).

g. <u>Total Phosphorus (Total-P) and Orthophosphate (Ortho-P)</u>: The previous permitting action contained a seasonal (June 1st – September 30th) reporting requirement for monthly average and daily maximum concentration and mass values for total-P and established a numeric monthly average mass limitation of 8.3 lbs/day for ortho-P along with a monthly average concentration reporting requirement. Modeling performed by the Department to support the 2005 TMDL approved by the USEPA indicates that the permittee constituted approximately 2.8% of the total phosphorus and 12.7% of the ortho-phosphorus loading to Gulf Island Pond and that the contribution of ortho-P is significant enough to warrant a limit for the permittee.

The monthly average ortho-P mass limit of 8.34 lbs./day was derived as follows:

(0.5 mg/L)(8.34 lbs/gal)(2.0 MGD) = 8.34 lbs./day

The concentration criterion of 0.5 mg/L is considered by the Department as a best professional judgment of achievable phosphorus removal through chemical addition that will result in attainment of receiving water quality standards.

A review of the monthly DMR data was completed for the period June 2017 – September 2023 and values have been reported as follows:

Concentration

Total phosphorus (DWIKS-20)				
Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)	
Monthly average	Report	1.09 - 4.28	2.88	
Daily Maximum	Report	1.09 - 8.70	3.09	

Total phosphorus (DMRs=28)

Ortho phosphate (DMRs=28)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly average	Report	0.87 - 3.8	2.49
Daily maximum	Report	0.87 - 3.8	2.49

Mass

Total phosphorus (DMRs=12)

Value	Limit (lbs/day)	Range (lbs/day)	Mean (lbs/day)
Monthly average	Report	4.1 - 11.7	7.01
Daily maximum	Report	4.1 - 11.7	7.01

Ortho phosphate (DMRs=12)

Value	Limit (lbs/day)	Range (lbs/day)	Mean (lbs/day)
Monthly average	Report	3.66 - 9.0	5.9
Daily maximum	8.3	3.66 - 9.0	6.1

In accordance with Special Condition L of this permit, the Department reserves the right to reopen this permit at any time, with notice to the permittee, to revise the monitoring frequencies and/or establish effluent limits for total phosphorus and orthophosphate based on river monitoring data or to protect receiving water quality. In addition, the permit may be reopened

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

to remove the seasonal monitoring requirements for total phosphorus and or ortho-phosphate if ambient monitoring data indicates monitoring for said parameters is no longer necessary.

h. <u>pH</u> – The previous permitting action contained a pH range limitation of 6.0 – 9.0 standard units based on Department rule found at 06-096 C.M.R. Ch. 525 § (3)(III)(c), which is being carried forward in this permitting action.

A review of the DMR data was completed for the period October 2016 – October 2023 indicates the daily pH values have been reported as follows:

· (· · · · ·)				
Value	Limit (SU)	Minimum (SU)	Maximum (SU)	
Range	6.0 - 9.0	6.4	8.0	

The previous permitting action established, and this permitting action is carrying forward a minimum monitoring frequency requirement of 4/week.

i. Whole Effluent Toxicity (WET) & Chemical-Specific Testing - Maine law,

38 M.R.S., Sections 414-A and 420, prohibit the discharge of effluents containing substances in amounts that would cause the surface waters of the State to contain toxic substances above levels set forth in Federal Water Quality Criteria as established by the USEPA. Department Rules, 06-096 C.M.R. Ch. 530, *Surface Water Toxics Control Program*, and 06-096 C.M.R. Ch. 584, *Surface Water Quality Criteria for Toxic Pollutants* set forth ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters. WET, priority pollutant and analytical chemistry testing as required by 06-096 C.M.R. Ch. 530, is included in this permit in order to fully characterize the effluent. This permit also provides for reconsideration of effluent limits and monitoring schedules after evaluation of toxicity testing results. The monitoring schedule includes consideration of results currently on file, the nature of the wastewater, existing treatment and receiving water characteristics.

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

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

- 1) Level I chronic dilution factor of <20:1.
- 2) Level II chronic dilution factor of \geq 20:1 but <100:1.
- 3) Level III chronic dilution factor \geq 100:1 but <500:1 or >500:1 and Q \geq 1.0 MGD
- 4) Level IV chronic dilution factor >500:1 and Q \leq 1.0 MGD

Department rule 06-096 C.M.R. Ch. 530 § (1)(D) specifies the criteria to be used in determining the minimum monitoring frequency requirements for WET, priority pollutant and analytical

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

chemistry testing. Based on the 06-096 C.M.R. Ch. 530 criteria, the permittee's facility falls into the Level III frequency category as the facility has a chronic dilution factor of >500:1 and a $Q \ge 1.0 \text{ MGD}$. 06-096 C.M.R. Ch. 530 § (1)(D)(1) specifies that <u>routine</u> screening and surveillance level testing requirements are as follows:

Surveillance level testing - Waived pursuant to 06-096 C.M.R Ch. 530 § D(3)

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

Screening level testing – Beginning in the calendar year 2025 and every five years thereafter if a timely request for renewal has been made and the permit continues in force or is replaced by a permit renewal containing this requirement.

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

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

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

06-096 C.M.R. Ch. 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 exceedance of water quality criteria, appropriate water quality-based limits must be established in any licensing action."

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

WET evaluation

On December 18, 2023, the Department conducted a statistical evaluation on the most recent 60 months of WET data that indicates that the discharge does not exceed or have a reasonable potential (RP) to exceed either the acute or chronic critical ambient water quality thresholds (0.7% and 0.2%, respectively – mathematical inverse of the applicable dilution factors) for any of the WET species tested to date.

Given the absence of exceedances or reasonable potential to exceed critical WET thresholds, the permittee meets the surveillance level monitoring frequency waiver criteria found at Department rule 06-096 C.M.R. Ch. 530 § (D)(3)(b). Therefore, the only WET testing requirements are established as screening level testing of once per year (1/Year). Screening level testing must be conducted beginning in the calendar year 2025 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.

In accordance with Department rule 06-096 C.M.R. Ch. 530 § (2)(D)(4) and Special Condition I of this permit, *Statement For Reduced/Waived Toxics Testing*, the permittee must annually submit to the Department a written statement evaluating its current status for each of the conditions listed. See **Attachment E** of this Fact Sheet for a copy of the certification form.

Chemical Evaluation

On November 21, 2023, the Department conducted a statistical evaluation, Report 1372, of the most recent 60 months of chemical-specific test results on file with the Department. The evaluation indicated there are no exceedances or reasonable potential to exceed critical applicable AWQC thresholds for any chemical specific parameters including the three limited in the September 7, 2016, permit. Past practice has been to eliminate the limits for total aluminum, total copper, and total zinc based on the new test results collected between October 2016 and October 2023. The USEPA has objected to this practice stating it violates the anti-backsliding provisions in federal rules as new test results obtained during the most current 60 months does not qualify for the anti-backsliding provision of "new information that was not available at the time of the previous permit."

The previous permit established, and this permit is carrying forward water quality-based mass limitations and monitoring requirements for total aluminum, total copper, and total zinc at a monitoring frequency of 1/year.

A review of monthly DMR data for the period January 2016 – October 2023 indicates values have been reported as follows:

Aluminum mass (DNIKS – 11)					
Value	Limit (lbs/day)	Range (lbs/day)	Mean (lbs/day)		
Monthly Average	1.2	0.0-0.75	0.231		
Daily Maximum	2.6	0.09 - 0.58	0.253		

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Aluminum concentration (DMRs = 11)

Value	Limit (ug/L)	Range (ug/L)	Mean (ug/L)
Monthly Average	Report	0.04 - 115	63.09
Daily Maximum	Report	20-115	66.94

Copper mass (DMRs = 11)

Value	Limit (lbs/day)	Range (lbs/day)	Mean (lbs/day)
Monthly Average			
Daily Maximum	0.77	.0323	0.103

Copper concentration (DMRs = 11)

Value	Limit (ug/L)	Range (ug/L)	Mean (ug/L)
Monthly Average			
Daily Maximum	Report	5.48 - 45	28.378

Zinc mass (DMRs = 11)

Value	Limit (lbs/day)	Range (lbs/day)	Mean (lbs/day)
Monthly Average			
Daily Maximum	1.6	0.07 - 0.35	0.162

Zinc concentration (DMRs = 11)

Value	Limit (ug/L)	Range (ug/L)	Mean (ug/L)
Monthly Average			
Daily Maximum	Report	15.20 - 85.90	46.60

The limitations carried over in this permit were calculated in the September 7, 2016, permit as follows:

Aluminum

Mean concentration = 65 ug/L or 0.065 mg/LPermit flow limit = 2.0 MGDHistorical average mass = (0.065 mg/L)(8.34)(2.0 MGD) = 1.08 lbs/day

The May 27, 2016, statistical evaluation (Report ID # 849) indicates the historical average mass of aluminum discharged by the permittee (1.08 lbs/day) is 0.17 % of the aluminum discharged by facilities on the main stem of the Androscoggin River. The acute assimilative capacity (AC) at Brunswick was calculated based on 90% of the applicable AWQC (taking into consideration the

10% reduction to account for background, 0% reduction for reserve, totaling 10%), critical low flows (1Q10 = 451 cfs) at Brunswick less the assimilative capacity allocated to Whitney Brook in Canton (critical low flows 1Q10 = 20 cfs), to Seven Mile Stream in Jay (critical low flows 1Q10 = 2 cfs) and to the Little Androscoggin River in Mechanic Falls (critical low flows 1Q10 = 15.3 cfs). The calculation for aluminum is as follows:

Acute:

1Q10 @ Brunswick = 451 cfs or 292 MGD 1Q10 at Canton = 20 cfs or 12.9 MGD 1Q10 at Jay = 2 cfs or 1.29 MGD 1Q10 at Mechanic Falls = 15.3 cfs or 9.89 MGD

AWQC = 750 ug/L 750 ug/L(0.90) = 675 ug/L or 0.675 mg/L

Acute AC = 292 MGD - 12.9 MGD - 1.29 MGD - 9.89 MGD = 268 MGD

(268 MGD)(8.34 lbs/gal)(0.675 mg/L) = 1,509 lbs/day

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

<u>Daily maximum mass for aluminum:</u> (Acute assimilative capacity mass)(% of total aluminum discharged) (1,509 lbs/day)(0.0017) = 2.6 lbs/day

Chronic:

The May 27, 2016, statistical evaluation (Report ID #849) indicates the historical average mass of aluminum discharged by the permittee (1.09 lbs/day) is 0.17 % of the aluminum discharged by facilities on the main stem of the Androscoggin River. The chronic assimilative capacity (AC) at Brunswick was calculated based on 90% of the applicable AWQC (taking into consideration the 10% reduction to account for background, 0% reduction for reserve, totaling 10%), critical low flows (7Q10 = 1,715 cfs) at Brunswick less the assimilative capacity allocated to Whitney Brook in Canton (critical low flow 7Q10 = 20 cfs), to Seven Mile Stream in Jay (critical low flow 7Q10 = 2 cfs) and to the Little Androscoggin River in Mechanic Falls (critical low flow cfs, 7Q10 = 32.5 cfs). The calculation for aluminum is as follows:

7Q10 @ Brunswick = 1,715 cfs or 1,109 MGD 7Q10 at Canton = 20 cfs or 12.9 MGD 7Q10 at Jay = 2 cfs or 1.29 MGD 7Q10 at Mechanic Falls= 32.5 cfs or 20.9 MGD

AWQC = 87 ug/L87 ug/L(0.90) = 78.3 ug/L or 0.0783 mg/L

Chronic AC = 1,109 MGD – 12.9 MGD – 1.29 MGD – 20.9 MGD = 1,074 MGD

(1,074 MGD)(8.34 lbs/gal)(0.0783 mg/L) = 701 lbs/day

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

Monthly average mass for aluminum:

(Chronic assimilative capacity mass)(% of total aluminum discharged) (701 lbs/day)(0.0017) = **1.2 lbs/day**

Copper

Mean concentration = 28 ug/L or 0.028 mg/L Permit flow limit = 2.0 MGD Historical average mass = (0.028 mg/L)(8.34)(2.0 MGD) = 0.47 lbs/day

The May 27, 2016, statistical evaluation (Report ID #849) indicates the historical average mass of copper discharged by the permittee (0.47 lbs/day) is 12.5 % of the copper discharged by facilities on the main stem of the Androscoggin River. The acute assimilative capacity (AC) at Brunswick was calculated based on 90% of the applicable AWQC (taking into consideration the 10% reduction to account for background, 0% reduction for reserve, totaling 10%), critical low flows (1Q10 = 451 cfs) at Brunswick less the assimilative capacity allocated to Whitney Brook in Canton (critical low flows 1Q10 = 20 cfs), to Seven Mile Stream in Jay (critical low flows 1Q10 = 2 cfs) and to the Little Androscoggin River in Mechanic Falls (critical low flows 1Q10 = 15.3 cfs). The calculation for copper is as follows:

Acute:

1Q10 @ Brunswick = 451 cfs or 292 MGD 1Q10 at Canton = 20 cfs or 12.9 MGD 1Q10 at Jay = 2 cfs or 1.29 MGD 1Q10 at Mechanic Falls = 15.3 cfs or 9.89 MGD

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

AWQC = 3.07 ug/L 3.07 ug/L(0.90) = 2.76 ug/L or 0.00276 mg/L

Acute AC = 292 MGD - 12.9 MGD - 1.29 MGD - 9.89 MGD = 268 MGD

(268 MGD)(8.34 lbs/gal)(0.00276 mg/L) = 6.17 lbs/day

<u>Daily maximum mass for copper:</u> (Acute assimilative capacity mass)(% of total copper discharged) (6.17 lbs/day)(0.0125) = 0.77 lbs/day

Zinc

Mean concentration = 56 ug/L or 0.053 mg/L Permit flow limit = 2.0 MGD Historical average mass = (0.053 mg/L)(8.34)(2.0 MGD) = 0.88 lbs/day

The May 27, 2016, statistical evaluation (Report ID 849) indicates the historical average mass of zinc discharged by the permittee (0.94 lbs/day) is 2.6 % of the zinc discharged by facilities on the main stem of the Androscoggin River. The acute assimilative capacity (AC) at Brunswick was calculated based on 90% of the applicable AWQC (taking into consideration the 10% reduction to account for background, 0% reduction for reserve, totaling 10%), critical low flows (1Q10 = 451 cfs) at Brunswick less the assimilative capacity allocated to Whitney Brook in Canton (critical low flows 1Q10 = 20 cfs), to Seven Mile Stream in Jay (critical low flows 1Q10 = 2 cfs) and to the Little Androscoggin River in Mechanic Falls (critical low flows 1Q10 = 15.3 cfs). The calculation for zinc is as follows:

Acute:

1Q10 @ Brunswick = 451 cfs or 292 MGD 1Q10 at Canton = 20 cfs or 12.9 MGD 1Q10 at Jay = 2 cfs or 1.29 MGD 1Q10 at Mechanic Falls = 15.3 cfs or 9.89 MGD

AWQC = 30.6 ug/L 30.6 ug/L(0.90) = 27.5 ug/L or 0.0275 mg/L

Acute AC = 292 MGD - 12.9 MGD - 1.29 MGD - 9.89 MGD = 268 MGD

(268 MGD)(8.34 lbs/gal)(0.0275 mg/L) = 61.5 lbs/day

Therefore, the acute mass segment allocations for zinc for the permittee can be calculated as follows:

Daily maximum mass for zinc: (Acute assimilative capacity mass)(% of total zinc discharged) (61.5 lbs/day)(0.026) = **1.6 lbs/day**

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

j. <u>Mercury</u>: Pursuant to *Certain deposits and discharges prohibited*, 38 M.R.S. § 420 and *Waste discharge licenses*, 38 M.R.S. § 413 and *Interim Effluent Limitations and Controls for the Discharge of Mercury*, 06-096 C.M.R. 519 (last amended October 6, 2001), the Department issued a *Notice of Interim Limits for the Discharge of Mercury* to the permittee thereby administratively modifying WDL W002654 by establishing interim monthly average and daily maximum effluent concentration limits of 126.8 parts per trillion (ppt) and 190.2 ppt, respectively, and a minimum monitoring frequency requirement of four (4) tests per year for mercury. It is noted the limitations have been incorporated into Special Condition A, *Effluent Limitations And Monitoring Requirements*, of this permit.

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 substantial compliance with an interim discharge limit established by the Department. A review of the Department's data base for the period April 2018 - October 2023 indicates the permittee has been in substantial compliance with the interim limits for mercury as results have been reported as follows:

Value	Limit (ng/L)	Range (ng/L)	Mean (ng/L)
Monthly Average	126.8	2.3 - 8.9	5.23
Daily Maximum	190.2	1.03 - 4.8	3.29

Mercury

The previous permitting action established, and this permitting action is carrying forward a 1/year monitoring frequency for Mercury.

k. <u>Transported Wastes</u> – The September 7, 2016, permit authorized the permittee to receive and introduce up to 10,000 gpd of transported wastes into the wastewater treatment process or solids handling stream. Department rule 06-096 C.M.R. Ch. 555, *Standards For The Addition of Transported Wastes to Wastewater Treatment Facilities*, limits the quantity of transported wastes received at a facility to 1% of the design capacity of the treatment facility if the facility utilizes a side stream or storage method of introduction into the influent flow, or 0.5% of the design capacity of the facility if the facility does not utilize the side stream or storage method of introduction into the influent flow. A facility may receive more than 1% of the design capacity on a case-by-case basis. The permittee does not utilize a side stream/storage method of metering transported wastes into the facility's influent flow. With a design capacity of 2.0 MGD, 10,000 gpd represents 0.5% of said capacity.

The Department has determined that under normal operating conditions, the receipt and treatment of 10,000 gpd of transported wastes to the facility will not cause or contribute to upset conditions of the treatment process.

8. ANTI-BACKSLIDING

Federal regulation 40 C.F.R. § 122.44(l) contains the criteria for what is often referred to as the anti-backsliding provisions of the Federal Water Pollution Control Act (Clean Water Act). In general, the regulation states that effluent limitations, standards, or conditions must be at least as stringent as the final effluent limitations, standards, or conditions in the previous permit, except for provisions specified in the regulation. Applicable exceptions include (1) material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation and (2) information is available which was not available at the time of the permit issuance (other than revised regulations, guidance, or test methods) and which would justify the application of less stringent effluent limitations in this permit, aside from total aluminum and total zinc, are equally or more stringent than the previous permit.

9. ANTI-DEGRADATION

The Department has made a best professional judgment determination based on information gathered to date, that as permitted, the discharge will not cause or contribute the failure of the Androscoggin River to meet the standards for Class C classification and the designated uses of the waterbody will continue to be maintained and protected.

10. PUBLIC COMMENTS

Public notice of this application was made in the <u>Sun Journal</u> newspaper on or about February 24, 2021. The Department receives public comments on an application until the date a final agency action is taken on the application. Those persons receiving copies of draft permits shall have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to 06-096 C.M.R. Ch. 522 of the Department's rules.

11. DEPARTMENT CONTACTS

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

Benjamin Pendleton Division of Water Quality Management Bureau of Water Quality Department of Environmental Protection 17 State House Station Augusta, Maine 04333-0017 e-mail: benjamin.s.pendleton@maine.gov

Telephone (207) 592-6871

12. RESPONSE TO COMMENTS

This space is reserved until the end of the thirty (30) day public comment period.

FACT SHEET ATTACHMENT A



FACT SHEET ATTACHMENT B



FACT SHEET ATTACHMENT C

FACILITY WET EVALUATION REPORT



Facility: LIVERMORE FALLS WWTP	Permit Number: ME0100315	Report Date: 7/16/2024
Receiving Water: ANDROSCOGGIN RIVER		Rapidmix: N
Diluition Factors: 1/4 Acute: 136.1810	Acute: 541.724 Chronic: 541.7240	
Effluent Limits: Acute (%): 0.738	Chronic (%): 0.185 Date range for Evaluation: From	16/Jul/2019 To: 16/Jul/2024
Test Type: A NOEL		
Test Species: TROUT	Test Date Result (%)	Status
	12/09/2019 100.000	ОК
Species Summary:		
Test Number: 1	RP: 6.200 Min Result (%): 100.000 RP factor (%):	16.129 Status: OK
Test Type: C_NOEL		
Test Species: TROUT	Test Date Result (%)	Status
	12/09/2019 100.000	ОК
Species Summary:		
Test Number: 1	RP: 6.200 Min Result (%): 100.000 RP factor (%):	16.129 Status: OK
Test Type: A_NOEL		
Test Species: WATER FLEA	Test Date Result (%)	Status
	12/09/2019 100.000	ОК
Species Summary:		
Test Number: 1	RP: 6.200 Min Result (%): 100.000 RP factor (%):	16.129 Status: OK
Test Type: C_NOEL		
Test Species: WATER FLEA	Test Date Result (%)	Status
	12/09/2019 100.000	ОК
Species Summary:		
Test Number: 1	RP: 6.200 Min Result (%): 100.000 RP factor (%):	16.129 Status: OK

FACT SHEET ATTACHMENT D

Data entered into Toxscan for the period

23/Nov/2018 - 23/Nov/2023



Facility Name:	LIVERMORE FALLS WWTP		Permit Nu	imber: ME	0100315
	ALKALINITY				
		Test Date	Result (ug/l)	Lsthan	Status
		12/09/2019	18000.000	Ν	
	ALUMINUM	, ,			
		Test Date	Result (ug/l)	Lsthan	Status
		01/22/2019	44.800	Ν	
		12/09/2019	73.100	Ν	
		03/10/2020	44.100	Ν	
		05/14/2020	79.800	Ν	
		10/26/2020	76.200	Ν	
		09/22/2021	115.000	Ν	
		01/24/2023	42.340	Ν	
	AMMONIA				
		Test Date	Result (ug/l)	Lsthan	Status
		12/09/2019	800.000	Ν	
		03/10/2020	860.000	Ν	
		05/14/2020	910.000	Ν	
		07/14/2020	600.000	Ν	
	COPPER				
		Test Date	Result (ug/l)	Lsthan	Status
		01/22/2019	27.500	Ν	
		12/09/2019	24.100	Ν	
		03/10/2020	33.700	Ν	
		05/14/2020	25.500	Ν	
		07/14/2020	5.480	Ν	
		10/26/2020	22.800	Ν	
		09/22/2021	44.300	Ν	
		01/24/2023	15.780	Ν	
	CYANIDE TOTAL				
		Test Date	Result (ug/l)	Lsthan	Status
		07/14/2020	5.800	Ν	
	LEAD				
		Test Date	Result (ug/l)	Lsthan	Status
		12/09/2019	0.724	Ν	
		03/10/2020	0.586	Ν	
		05/14/2020	0.791	Ν	
	MERCURY				
		Test Date	Result (ng/l)	Lsthan	Status
		12/09/2019	1.150	Ν	
		10/26/2020	8.080	N	
		03/04/2021	3.020	N	
		11/01/2022	4.400	N	
		04/24/2023	2.900	N	
	NICKEL	,,			
		Test Date	Result (ua/l)	Lsthan	Status
		12/00/2010	1 400	N	Status
		12/09/2019	1.4ðU	IN N	
		03/10/2020	1.250	N	

	05/14/2020	1.510	Ν	
PH				
	Test Date	Result (ug/l)	Lsthan	Status
	12/09/2019	7.000	Ν	
SOLIDS				
	Test Date	Result (ug/l)	Lsthan	Status
	12/09/2019	376000.000	Ν	
SPECIFIC CONDUCTA	NCE (UMHOS)			
	Test Date	Result (ug/l)	Lsthan	Status
	12/09/2019	577.000	Ν	
TOTAL CALCIUM				
	Test Date	Result (ug/l)	Lsthan	Status
	12/09/2019	22500.000	Ν	
TOTAL HARDNESS				
	Test Date	Result (ug/l)	Lsthan	Status
	12/09/2019	66900.000	Ν	
TOTAL MAGNESIUM				
	Test Date	Result (ug/l)	Lsthan	Status
	12/09/2019	2620.000	Ν	
TOTAL ORGANIC CAR	BON			
	Test Date	Result (ug/l)	Lsthan	Status
	12/09/2019	11000.000	Ν	
TOTAL SUSPENDED SO	OLIDS			
	Test Date	Result (ug/l)	Lsthan	Status
	12/09/2019	11000.000	Ν	
ZINC				
	Test Date	Result (ug/l)	Lsthan	Status
	01/22/2019	55.600	Ν	
	12/09/2019	47.600	Ν	
	03/10/2020	33.600	Ν	
	05/14/2020	60.700	Ν	
	07/14/2020	15.200	Ν	
	10/26/2020	50.600	Ν	
	09/22/2021	85.900	Ν	
	01/24/2023	19.730	N	

FACT SHEET ATTACHMENT E

STATE OF MAINE **DEPARTMENT OF ENVIRONMENTAL PROTECTION**

CHAPTER 530.2(D)(4) CERTIFICATION

_Facility Name_____ MEPDES#

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	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th 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.

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A. GENERAL PROVISIONS

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

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

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

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

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

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

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

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

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 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.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

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 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.

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.

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.