



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



JANET T. MILLS
GOVERNOR

MELANIE LOYZIM
COMMISSIONER

September 17, 2024

Mr. Todd Langevin
Superintendent of Hatcheries
41 State House Station
Augusta, ME. 04333

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0001139
Maine Waste Discharge License (WDL) Application #W0002029-6F-G-R
Proposed Draft MEPDES Permit

Dear Mr. Langevin:

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

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

The comment period begins today, Tuesday, September 17, 2024, and ends on Thursday, October 17, 2024. All comments on the proposed draft permit must be received in the Department of Environmental Protection office on or before the close of business **Thursday, October 17, 2024**. Failure to submit comments in a timely fashion may result in the proposed draft/license permit document being issued as drafted.

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

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

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

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

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

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

If you have any questions regarding the matter, please feel free to call me at (207) 592-6871 or e-mail me at Benjamin.S.Pendleton@maine.gov

Sincerely,

Benjamin S. Pendleton

Benjamin Pendleton
Division of Water Quality Management
Bureau of Water Quality

Enc.

cc: John Adamo, DEP/EMRO
Gary Brooks, DEP/EMRO
Wendy Garland, DEP/CMRO
Lori Mitchell, DEP/CMRO
Elizabeth Latti, MDIFW
Lynne Jennings, USEPA
Ellen Weitzler, USEPA
Michael Cobb, USEPA
Alex Rosenberg, USEPA
Richard Carvalho, USEPA
Environmental Review. MDIFW
Environmental Review, MDMR
Sean Mahoney, CLF



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

DEPARTMENT ORDER

IN THE MATTER OF

ME. DEPT. INLAND FISHERIES & WILDLIFE) MAINE POLLUTANT DISCHARGE
EMBDEN, SOMERSET COUNTY, ME) ELIMINATION SYSTEM PERMIT
FISH HATCHERY ELA REARING STATION) AND
ME0001139) WASTE DISCHARGE LICENSE
W-002029-6F-G-R) **APPROVAL**) **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) has considered the application of the MAINE DEPARTMENT OF INLAND FISHERIES AND WILDLIFE (MDIFW, permittee), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

On October 5, 2022, the Department accepted as complete for processing an application from the permittee for the renewal of combination Waste Discharge License (WDL) W-002029-6F-F-R/ Maine Pollutant Discharge Elimination System (MEPDES) permit ME0001139, which was issued on October 11, 2017, for a five-year term. The October 11, 2017, permit authorized the monthly average discharge of 5.0 million gallons per day (MGD) of fish hatchery wastewater to Mill Stream, Class B, from the MDIFW Embden (Ela) Fish Rearing Station in Embden, Maine.

PERMIT SUMMARY

This permitting action is carrying forward the terms and conditions of the October 11, 2017, permit except that it is:

1. Establishes under Special Condition A, *Effluent Limitation and Monitoring Requirements*, once per month downstream ambient receiving water quality sampling for total phosphorus and the associated footnotes.
2. Updating Special Condition A, *Effluent Limitations and Monitoring Requirements*, footnote 1, Sampling to include using sufficiently sensitive methods.
3. Updating Special Condition A, *Effluent Limitations and Monitoring Requirements* footnote 2, *Composite Samples*, To the Departments most current language.

PERMIT SUMMARY (cont'd)

4. Removing the requirement to report dissolved oxygen data on a supplemental data sheet. The Department has determined that data reported on the discharge monitoring report is sufficient.
5. Establishing Special Condition A, *Effluent Limitations and Monitoring Requirements*, footnote 3 *Twice per Month Monitoring* to be consistent with MEPDES permit language for land-based fish hatcheries requiring twice per month monitoring.
6. Updating Special Condition E *Monitoring and Reporting* to the Department's most current requirements.
7. Amending Special Condition F, *Operation and Maintenance Plan* to include a requirement for documentation of all drug/pesticide/other compound use as well as to include a section specifically applicable to wastewater operations.
8. Modifies Special Condition G, *Uses of Drugs for Disease Control* to be consistent with Department updates to MEPDES permit language for land-based fish hatcheries, regarding the application of preventative treatments.

CONCLUSIONS

BASED on the findings summarized in the attached Fact Sheet dated September 17,2024, and subject to the special and standard conditions that follow, the Department makes the following **CONCLUSIONS**:

1. The discharge, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification.
2. The discharge, either by itself or in combination with other discharges, will not lower the quality of any unclassified body of water below the classification which the Department expects to adopt in accordance with state law.
3. The provisions of the State's antidegradation policy, *Classification of Maine waters*, 38 M.R.S. § 464(4)(F), will be met, in that:
 - (a) Existing in-stream water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected;
 - (b) Where high quality waters of the State constitute an outstanding natural resource, that water quality will be maintained and protected;
 - (c) Where the standards of classification of the receiving water body are not met, the discharge will not cause or contribute to the failure of the water body to meet the standards of classification;
 - (d) Where the actual quality of any classified receiving water body exceeds the minimum standards of the next highest classification that higher water quality will be maintained and protected; and
 - (e) Where a discharge will result in lowering the existing water quality of any water body, the Department has made the finding, following opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.
4. The discharges will be subject to effluent limitations that require application of best practicable treatment as defined in *Conditions of license*, 38 M.R.S. § 414-A(1)(D).

ACTION

THEREFORE, the Department APPROVES the application of the MAINE DEPARTMENT OF INLAND FISHERIES & WILDLIFE to discharge a monthly average of 5.0 MGD of fish hatchery wastewater via Outfall #005A to Mill Stream, Class B, in Embden, Maine, SUBJECT TO ALL APPLICABLE STANDARDS AND REGULATIONS AND THE FOLLOWING CONDITIONS:

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

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

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

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
For: MELANIE LOYZIM, Commissioner

Date of initial receipt of application September 23, 2022
Date of application acceptance October 5, 2022

Date filed with Board of Environmental Protection _____

This Order prepared by Benjamin Pendleton, Bureau of Water Quality

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. The permittee is authorized to discharge **fish hatchery wastewater from Outfall #005A** to Mill Stream. Such discharges are limited and must be monitored by the permittee as specified below⁽¹⁾:

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements
	Monthly <u>Average</u> as specified	Daily <u>Maximum</u> as specified	Monthly <u>Average</u> as specified	Daily <u>Maximum</u> as specified	Daily <u>Minimum</u> as specified	Measurement <u>Frequency</u> as specified	Sample <u>Type</u> as specified
Flow <i>[50050]</i>	5.0 MGD <i>[03]</i>	---	---	---	---	Daily <i>[01/01]</i>	Measure <i>[MS]</i>
Total Suspended Solids <i>[00530]</i>	250 lbs./day <i>[26]</i>	417 lbs./day <i>[26]</i>	6 mg/L <i>[19]</i>	10 mg/L <i>[19]</i>	---	1/Month <i>[01/30]</i>	Composite ⁽²⁾ <i>[CP]</i>
Dissolved Oxygen (June 1 – September 30th) <i>[00300]</i>	---	---	Report mg/L <i>[19]</i>	Report mg/L <i>[19]</i>	7.5 mg/L <i>[19]</i>	2/Month ⁽³⁾ <i>[2/30]</i>	Measured <i>[MS]</i>
Total Phosphorus ⁽⁴⁾ <i>[00665]</i> (June 1 – September 30th)	1.5 lbs./day <i>[26]</i>	Report lbs./day <i>[26]</i>	0.035 mg/L <i>[19]</i>	Report mg/L <i>[19]</i>	---	2/Month ⁽³⁾ <i>[02/30]</i>	Composite ⁽²⁾ <i>[CP]</i>
Fish on Hand <i>[45604]</i>	Report lbs./day <i>[26]</i>	Report lbs./day <i>[26]</i>	---	---	---	2/Month ⁽³⁾ <i>[2/30]</i>	Calculated <i>[CA]</i>
Formalin ⁽⁵⁾ <i>[51064]</i>	Report lbs./day <i>[26]</i>	150 lbs./day <i>[26]</i>	Report mg/L <i>[26]</i>	---	---	1/Occurrence <i>[01/OC]</i>	Calculated <i>[CA]</i>

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

FOOTNOTES: See Page 7 - 9 of this permit for applicable footnotes.

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

The permittee must conduct Ambient Receiving Water monitoring of Mill Stream. Such sampling must be conducted by the permittee as specified below⁽¹⁾.

Ambient Receiving Water Characteristic	Ambient Reporting	Monitoring Requirements	
	Monthly Average	Measuring Frequency	Sample Type
Down-Stream⁽⁶⁾: Total Phosphorus <i>(June 1st – September 30th)</i> <i>[00665]</i>	Report mg/L <i>[19]</i>	1/Month <i>[01/30]</i>	Grab ⁽⁷⁾ [GR]

The italicized numeric values bracketed in the table and in subsequent text are code numbers that Department personnel utilize to code the monthly Discharge Monitoring Reports. **FOOTNOTES:** See Page 7 - 9 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

Footnotes

1. **Sampling** – All effluent monitoring must be conducted at a location following the last treatment unit in the treatment process, to be representative of end-of-pipe effluent characteristics. Any change in sampling location must be approved by the Department in writing. The permittee must conduct sampling and analysis in accordance with; a) methods approved by 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 Health and Human Services for wastewater. Samples that are sent to a laboratory operated by a waste discharge facility licensed pursuant to *Waste discharge licenses*, 38 M.R.S. § 413 are subject to the provisions and restrictions of *Maine Comprehensive and Limited Environmental Laboratory Certification Rules*, 10-144 C.M.R. ch. 263 (Amended March 15, 2023). Laboratory facilities that analyze compliance samples in-house are subject to the provisions and restrictions of 10-144 CMR ch. 263. 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 (DMR).

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.

2. **Composite Samples** – Samples must consist of 24-hour composites collected with an automatic composite sampler. Alternatively, when weather conditions and/or equipment prevents automatic compositing and upon Department notification, the permittee may manually composite a minimum of eight grab samples collected at one-hour intervals during the working day at the facility. The permittee must indicate the type of sample collected on the DMR.

SPECIAL CONDITIONS

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

3. **Twice per Month Monitoring:** Monitoring required at a minimum frequency of 2/month must be collected no less than 14 days between sampling events, unless specifically authorized by the Department's compliance inspector.
4. **Total Phosphorus** – Total phosphorus monitoring must be performed in accordance with **Attachment A** of this permit entitled, *Protocol for Total P Sample Collection and Analysis for Wastewater – May 2014*, unless otherwise specified by the Department. Phosphorus mass and concentration monitoring requirements and limits are seasonal and in effect from June 1 through September 30 of each year.
5. **Formalin** – Formalin monitoring must be conducted when in use at the facility and must consist of a calculated effluent mass value. Therefore, the following calculation must be applied to assess the total mass of formalin discharged per day (lbs./day):

$$\text{Formalin applied (gallons)} \times 9.03^1 \text{ (lbs./gallon)} = \text{Total formalin in effluent (lbs./day)}$$

The permittee must provide this information and calculations to the Department in a document accompanying the monthly DMR. The formalin limit corresponds to two types of treatments:

1. One hour per day treatment typical of hatchery and rearing facility discharges; and
2. Maximum of up to 24 hours of treatment and discharge for addressing emergency conditions at the facility.

Formalin treatments lasting longer than 1-hour in duration must be conducted no more frequently than once every four days. The permittee must provide a list of dates on which treatments greater than 1-hour were performed, and the length of time of each such treatment, with each monthly DMR.

For instances when a permittee has not used formalin for an entire reporting period, the permittee must report "NODI-9" for this parameter on the monthly DMR.

6. **Down-Stream Monitoring** – Downstream is defined as a location representative of the receiving water after complete mixing with effluent from the hatchery.

¹ Per Material Safety Data Sheet, Parasite-S has a specific gravity of 1.0775-1.0865 giving it an average density of 9.03 lbs./gallon.

SPECIAL CONDITIONS

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

7. **Grab Samples** – Receiving water samples shall be taken concurrently with effluent samples (i.e., the receiving water grab samples shall be taken during the 24-hour composite period for the effluent). To the extent practicable, receiving water samples shall be collected following a minimum of 72 hours with no precipitation (i.e., dry weather).

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 unsuitable for the designated uses and characteristics ascribed to their classification.
4. The permittee must not discharge effluent that lowers the quality of any classified body of water below such classification or lower the existing quality of any body of water if the existing quality is higher than the classification.

C. AUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with: 1) the permittee's General Application for Waste Discharge Permit, accepted for processing October 5, 2022; 2) the terms and conditions of this permit; and 3) only from Outfall #005A. Discharges of wastewater from any other point source(s) are not authorized under this permit and must be reported in accordance with Standard Condition D(1)(f), *Twenty-four-hour reporting*, of this permit.

D. NOTIFICATION REQUIREMENT

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

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

SPECIAL CONDITIONS

E. NOTIFICATION REQUIREMENT (cont'd)

2. For the purposes of this section, adequate notice must include information on:
 - a. The quality and quantity of wastewater introduced to the wastewater collection and treatment system; and
 - b. Any anticipated change in the quality and quantity of the wastewater to be discharged from the treatment system.

E. MONITORING AND REPORTING

Electronic Reporting

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

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

1. Submitted by a facility authorized signatory; and
2. Submitted no later than **midnight on the 15th day of the month** following the completed reporting period.

Documentation submitted in support of the electronic DMR may be attached to the electronic DMR. Toxics reporting must be done using the DEP 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. 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.

SPECIAL CONDITIONS

F. OPERATION & MAINTENANCE PLAN

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

An acceptable O&M plan must ensure the following items are adequately addressed:

1. Solids Control

- a. Methods and practices to ensure efficient feed management and feeding strategies that limit feed input to the minimum amount reasonably necessary to achieve production goals and sustain targeted rates of aquatic animal growth in order to minimize potential discharges to waters of the State.
- b. In order to minimize the discharge of accumulated solids from the settling basin, settling tanks, and production systems, identify and implement procedures for routine cleaning of rearing units and settling tanks, and procedures to minimize any discharge of accumulated solids during the inventorying, grading, and harvesting of aquatic animals in the production system.
- c. Procedure for removal and disposal of mortalities to prevent discharge to waters of the State.

2. Materials Storage

- a. Ensure proper storage of drugs², pesticides³, feed, and any petroleum and/or hazardous material(s) in a manner designed to prevent spills that may result in the discharge of drugs, pesticides, or feed to waters of the State.
- b. Implement procedures for properly containing, cleaning, and disposing of any spilled material that has the potential to enter waters of the State.

3. Structural Maintenance

² **Drug.** “Drug” means any substance defined as a drug in section 201(g)(1) of the *Federal Food, Drug and Cosmetic Act* [21 U.S.C. § 321].

³ **Pesticide.** “Pesticide” means any substance defined as a “pesticide” in section 2(u) of the *Federal Insecticide, Fungicide, and Rodenticide Act* [7 U.S.C. § 136 (u)].

SPECIAL CONDITIONS

F. OPERATION & MAINTENANCE (O&M) PLAN (cont'd)

- a. Inspect the production system and the wastewater treatment system on a routine basis in order to identify and promptly repair any damage.
 - b. Conduct regular maintenance of the production system and the wastewater treatment system in order to ensure that they are properly functioning.
4. Recordkeeping
- a. Maintain records for fish rearing units documenting the feed amounts and estimates of the numbers and weight of fish.
 - b. Maintain records that document the frequency of cleaning, inspections, repairs and maintenance.
 - c. Maintain records that document drug/pesticide/other compound use as indicated under Special Condition G, Use of Drugs for Disease Control, and Special Condition H, Use of Pesticides and Other Compounds.
5. Training
- a. In order to ensure the proper clean-up and disposal of spilled material adequately, train all relevant personnel in spill prevention and how to respond in the event of a spill.
 - b. Train staff on the proper operation and cleaning of production and wastewater treatment systems including training in feeding procedures and proper use of equipment to prevent unauthorized discharges.
6. Wastewater Operations
- a. Provide a flow chart for the wastewater treatment process, the sludge and solids dewatering and removal process, and effluent discharge system.
 - b. Identify and develop operational and maintenance standard operating procedures for the treatment system components used to treat clean water, sludge water from cleaning mechanical filters, sludge water from backflushing biological treatment filters, and other wastewaters, as applicable:
 - i. Belt/drum filters and thickeners;
 - ii. Use of flocculants/coagulants;
 - iii. Clarifiers/settling tanks;
 - iv. Fish exclusion barriers;

SPECIAL CONDITIONS

F. OPERATION & MAINTENANCE (O&M) PLAN (cont'd)

- v. Centrifuges;
- vi. UV disinfection/sterilization;
- vii. Chemical storage and disposal;
- viii. Intake/outfall maintenance;
- ix. Other

- c. Define each of the following wastewater operations responsibilities:
 - i. Operations Manager qualifications and duties;
 - ii. Staff duties;
 - iii. Sample collection and analysis;
 - iv. Regulatory reporting:
 - 1. Discharge monitoring reports
 - 2. Spill/release reports;
 - v. Any other wastewater operations responsibilities not listed.

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

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

G. USE OF DRUGS FOR DISEASE CONTROL

- 1. General requirements.** All drugs used for disease prevention or control must be approved or authorized by the U.S. Food and Drug Administration (FDA), and all applications must comply with applicable FDA requirements.
- 2. FDA-approved drugs.** Drugs approved by the FDA for fish culture purposes may be used in accordance with label instructions.
 - a. Preventative treatments: The discharge of any approved drug administered as a preventative measure is not authorized by this permit, unless the following conditions are met: the drug must be approved by the FDA, and the treatment and route of administration must be consistent with the drug's intended use. Discharges may occur through direct application of a drug or indirectly through feed, injection, ingestion, or immersion at the facility.

SPECIAL CONDITIONS

G. USE OF DRUGS FOR DISEASE CONTROL (cont'd)

- b. Drugs identified in the permittee's application: A list of drugs, pesticides and other compounds proposed for use at Maine Department of Inland Fisheries and Wildlife ELA Rearing Station during the term of the permit, which was provided by the permittee on Form DEPLW1999-18 included with its September 23, 2022, General Application for Waste Discharge Permit, is included as **Attachment B** of this permit.

Name	Frequency of Use	Concentration	Quantity Used/Year
Parasite-S (formalin)	As Needed	1:4000	+/- 55 gal
Tricane-Methanesulfonate (Tricaine-S, MS 222)	As Needed	15-330 mg/L	+/- 250 grams

- c. Drugs not identified in the permittee's application: When the need to treat or control diseases requires the use of an FDA-approved drug not identified in the application, or **Attachment B** of the permit. The permittee must notify the Department orally or by electronic mail prior to initial use of the drug.
 - 1. The notification must include a description of the drug, its intended purpose, the method of application, the amount, the concentration, the duration of the use, and information on aquatic toxicity.
 - 2. **Within seven (7) days of** the initial notification the permittee must submit a written report that includes all of the information outlined in Section G(2)(c)(1) above.
 - 3. The Department may require submission of an application for permit modification, including public notice requirements, if the drug is to be used for more than a 30-consecutive day period.
 - 4. If, upon review of information regarding the use of a drug pursuant to this section, the Department determines that significant adverse effects are likely to occur, it may deny, restrict or limit use of the drug.
- 3. **Extralabel drug use.** Extralabel drug use is not authorized by this permit, unless in accordance with a specific prescription written for that use by a licensed veterinarian.
 - a. Notification. The permittee must notify the Department orally or by e-mail prior to initial extralabel use of a drug.
 - 1. The notification must include a description of the drug, its intended purpose, the method of application, the amount, concentration, and duration of the use,

SPECIAL CONDITIONS

G. USE OF DRUGS FOR DISEASE CONTROL (cont'd)

information on aquatic toxicity, and a description of how and why the use qualifies as an extralabel drug use under FDA requirements.

2. ***Within seven (7) days of*** the initial notification the permittee must submit a written report that includes all of the information outlined in Section G(3)(a)(1) above. Notice must include documentation that a veterinarian has prescribed the drug for the proposed use. A copy of the veterinarian's prescription must be maintained on-site during treatment for Department review.
3. If, upon review of information regarding the extralabel use of a drug pursuant to this section, the Department determines that significant adverse effects are likely to occur, it may deny, restrict or limit use of the drug.
4. **Investigational New Animal Drug (INAD).** The discharge of drugs authorized by the FDA for use during studies conducted under the INAD program is not authorized by this permit, unless in accordance with specific prior consent given in writing by the Department.
 - a. Initial report. The permittee must provide a written report to the Department for the proposed use of an INAD ***within seven (7) days*** of agreeing or signing up to participate in an INAD study. The written report must identify the INAD to be used, method of use, dosage, and disease or condition the INAD is intended to treat.
 - b. Evaluation and monitoring. ***At least ninety (90) days prior to initial use*** of an INAD at a facility, the permittee must submit for Department review and approval a study plan for the use of the drug that:
 1. Indicates the date the facility agreed or signed up to participate in the INAD study.
 2. Demonstrates that the minimum amount of drug necessary to evaluate its safety, efficacy, and possible environmental impacts will be used.
 3. Includes an environmental monitoring and evaluation program that at a minimum describes sampling strategies, analytical procedures, evaluation techniques and a timetable for completion of the program. Currently available data or literature that adequately characterizes the environmental fate of the INAD and its metabolite(s) may be proposed for consideration in determinations of environmental monitoring and evaluation programs required by the Department pursuant to this section.

SPECIAL CONDITIONS

G. USE OF DRUGS FOR DISEASE CONTROL (cont'd)

- c. Notification. The permittee must notify the Department orally or by electronic mail *no more than forty-eight (48) hours after* beginning the first use of the INAD under the approved plan.
- d. The following INAD was identified by the permittee and is authorized to be used in accordance with the INAD program:

Name	Frequency of Use	Concentration	Quantity Used/Year
AQUI-S ® 20E	As needed	<100 mg/L	<50 mL

H. PESTICIDES AND OTHER COMPOUNDS

- 1. **General requirements.** All pesticides used at the facility must be applied in compliance with federal labeling restrictions and in compliance with applicable statute, Board of Pesticides Control rules and best management practices (BMPs). Chemicals or compounds not registered as pesticides and proposed for use at the facility must be identified in the permittee’s application and may only be discharged to waters of the State with express approval in this permitting action. In accordance with Special Condition D of this permit, the permittee must notify the Department of any substantial change in the volume or character of pollutants being introduced into the wastewater collection and treatment system.

- a. Pesticides identified in the permittee’s application. The following pesticides were identified in the permittee’s application as currently being or potentially being in use:

Name	Frequency of Use	Concentration	Quantity Used/Year
Virkon Aquatic	As needed	1% solution (1.3 oz/gal H ₂ O)	+/- 10 lbs

- b. Other compounds identified in the permittee’s application. The following compounds were identified in the permittee’s application as currently being or potentially being in use. The permittee is authorized to discharge the following compounds. It is the Department’s Best Professional Judgment (BPJ) that the incidental discharge of these chemicals will not cause or contribute to non-attainment of applicable water quality standards.

Name	Frequency of Use	Concentration	Quantity Used/Year
Argentyne or Ovadine	As needed	100 mg/L (37.8/ml/gal H ₂ O)	+/- 2 gal
Sodium Chloride	As needed	300 mg/L	3000 lbs

I. SPILLS

In the event of a spill of drugs, pesticides, or feed that results in a discharge to waters of the State, the permittee must provide an oral report of the spill to the Department within 24 hours of its occurrence and a written report within 5 days to the Department. The report must include the identity and quantity of the material spilled.

J. REOPENING OF PERMIT FOR MODIFICATION

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

K. SEVERABILITY

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

PERMIT 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 H₂SO₄ 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.

PERMIT ATTACHMENT B

ATTACHMENT "B"

Facility Name: Embden "Ela" Rearing Station

NPDES #: ME 0001139

DISINFECTANTS:

PRODUCT NAME	INGREDIENTS	FREQ. OF USE	CONCENTRATION	TOTAL USED/YR
Virkon Aquatic	Potassium peroxymonosulfate-----21.41% Sodium chloride-----1.50% Other ingredients-----77.09%	As needed for disinfection of nets, utensils, boots, stocking trucks, etc.)	1% solution (1.3 oz/gal H ₂ O)	+/- 10 lbs
Argentyne or Ovadine	Polymeric or Povidone Iodine Complex----10% Inert ingredients-----90% Available iodine-----1%	As needed for disinfection of nets, utensils, boots, stocking trucks, etc.)	100 ppm ; (37.8 ml/gal H ₂ O)	+/- 2 gals.

DRUGS/THERAPEUTIC AGENTS:

PRODUCT NAME	INGREDIENTS	FREQ. OF USE	CONCENTRATION	TOTAL USED/YR
Tricaine-S (MS 222)	Tricaine methanesulfonate	As needed for anesthetizing fish during sampling, fish health/quality exams, fish marking, etc.	15 to 330 mg/l	+/- 250 grams
AQUI-S 20E	10% Eugenol	As needed for fish external parasitic control,	20 - 30 mg/L eugenol	<50 ml
Parasite-S (Formalin)	Formaldehyde-----37% Methanol-----6-14% Water & Inert-----49-57%	As needed for fish external parasitic control,	1:4000 1 hr duration	+/- 55 gals
White Salt Block	NaCl	As needed for fish external parasitic control	300 mg/l 100 lbs @ 110 gpm for 6 hr duration	+/- 3000 lbs.

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

FACT SHEET

Date: **September 17, 2024**

MEPDES PERMIT: **ME0001139**
WASTE DISCHARGE LICENSE: **W002029-6F-G-R**

NAME AND ADDRESS OF APPLICANT:

**MAINE DEPARTMENT OF INLAND FISHERIES AND WILDLIFE
284 STATE STREET, 41 STATE HOUSE STATION
AUGUSTA, MAINE 04333**

COUNTY: **SOMERSET**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

**ELA REARING STATION
809 CROSS TOWN ROAD
EMBDEN, MAINE 04958**

RECEIVING WATER / CLASSIFICATION: **MILL STREAM / CLASS B**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **TODD LANGEVIN**
Todd.Langevin@Maine.gov
(207) 287-5262

1. APPLICATION SUMMARY

On October 5, 2022, the Department of Environmental Protection accepted as complete for processing an application from the Maine Department of Inland Fisheries and Wildlife (MDIFW, permittee) for the renewal of combination Waste Discharge License (WDL) W-002029-6F-F-R/ Maine Pollutant Discharge Elimination System (MEPDES) permit ME0001139, which was issued on October 11, 2017, for a five-year term. The October 11, 2017, permit authorized the discharge of a monthly average of 5.0 million gallons per day (MGD) of fish hatchery wastewater to Mill Stream, Class B from the ELA Rearing Station, a state brook trout, brown trout, splake, and landlocked Atlantic salmon rearing facility in Embden, Maine.

- a. Source Description: The Ela Rearing Station facility is a fish rearing station, raising brook trout, brown trout, and splake fry and landlocked Atlantic salmon fingerlings obtained from other MDIFW hatchery facilities to appropriate sizes for stocking in Maine waters as part of MDIFW's responsibilities in managing fisheries in Maine. The facility was originally constructed in 1957 as a state aquaculture facility and underwent significant upgrades in 2005. The Embden facility is a gravity-fed flow-through facility that contains a dissolved oxygen management system with bulk liquid oxygen and low head oxygen contact chambers, and ultraviolet (UV) disinfection of influent water with one UV unit dedicated to each of three lines of rearing tanks. A map showing the location of the treatment facility is included as **Fact Sheet Attachment A**.
- b. Influent Water: The Ela Rearing Station facility receives its source water from Embden Pond (1,568-acres) through two intake pipes, a deep water (64-foot deep) 24-inch diameter iron pipe and a shallow water (15-foot deep) 24-inch diameter iron pipe. The Embden facility blends influent water in a head box at the headworks of the facility. The deep and shallow source waters are blended as needed to meet specific temperature requirements of (35-62 degrees F) for its fish. Influent pipes are screened and the headbox is strained to prevent fish and debris from entering the station.
- c. Rearing Operations: Ela Rearing Station's rearing facilities consist of thirty, 20-foot diameter by 3.0-foot deep (7,050-gallon) stainless steel circular fish tanks, arranged in three lines of 10 tanks. Influent water is provided to the head of the three lines of tanks, then independently to each tank. Tank effluent water is independently discharged but combined for treatment. Feeding is conducted with demand and belt feeders as well as manually.

Ela Rearing Station houses a maximum of 300,000 first-year fish (combined weight 75,000 pounds) at any time. In the months of September and October, Ela Rearing Station stocks fall fingerlings (< 12 months old), 6- to 8-inch-long brook trout, brown trout, and splake. Also in the fall, yearlings (approx. 20 months old), 12 to 14-inch brook trout, brown trout, splake and landlocked Atlantic salmon are stocked. In the months of May and June, Ela Rearing Station stocks spring yearlings (>12 months old), 6- to 8-inch-long landlocked Atlantic salmon and spring yearling (>12 months old), 10- to 12-inch-long brook trout, brown trout, and splake.

1. APPLICATION SUMMARY (con't)

New trout fry and salmon fingerlings are brought on station for rearing as outlined above to replace stocked fish.

- d. Wastewater Treatment: Ela Rearing Station facility's rearing tanks contain a screened pit on the bottom for settling and collection of fish solid waste materials. Based on daily inspections, MDIFW removes standpipes from individual rearing tanks in order to divert fish solid waste material from the pits to the facility's wastewater treatment infrastructure for filtration, settling, and removal of solids. Rearing tanks are also inspected a minimum of twice per year and cleaned by power washing as needed when empty.

All of the facility's cleaning and flow-through wastewater is carried by a common wastewater pipe to two 60-micron drum filters. These drum filters are designed to be operated simultaneously under normal conditions, or individually if needed for maintenance purposes. Filter backwash and captured solids are routed to a 24,217-gallon settling basin that measures 25-feet by 37-feet that contains a sloped bottom. The depth of the tank ranges from a few inches to 3.5 feet. In 2005, MDIFW upgraded the facility to include a 47,685-gallon sludge storage/dewatering tank designed to provide a minimum of 6-months of storage capacity. The structure measures 25-feet by 50-feet and has a depth of 5-feet deep. The facility is not currently utilizing the sludge storage tank, accumulated sludge is removed from the settling basin. The facility discharges effluent through Outfall #005A, which consists of a 24-inch diameter high-density polyethylene (HDPE) pipe that daylights approximately one-foot above stream level onto a riprap apron. Ela Rearing Station discharges to Mill Stream (Class B), which in turn flows to the Carrabassett River (Class B). A process flow diagram submitted by the permittee is included as **Fact Sheet Attachment B**.

2. PERMIT SUMMARY

- a. This permitting action is carrying forward the terms and conditions of the October 11, 2017, permit, except that it is:
 1. Establishing under Special Condition A, *Effluent Limitation and Monitoring Requirements*, once per month upstream and downstream ambient receiving water quality sampling for total phosphorus and the associated footnotes.
 2. Updating Special Condition A, *Effluent Limitations and Monitoring Requirements*, footnote 1, Sampling to include using sufficiently sensitive methods.
 3. Updating Special Condition A, *Effluent Limitations and Monitoring Requirements* footnote 2, *Composite Samples*, To the Departments most current language.
 4. Removing the requirement to report dissolved oxygen data on a supplemental data sheet. The Department has determined that data reported on the discharge monitoring report is sufficient.

2. PERMIT SUMMARY (cont'd)

5. Establishing Special Condition A, *Effluent Limitations and Monitoring Requirements*, footnote 3 *Twice per Month Monitoring* to be consistent with MEPDES permit language for land-based fish hatcheries requiring twice per month monitoring.
 6. Updating Special Condition E *Monitoring and Reporting* to the Department's most current requirements.
 7. Amending Special Condition F, *Operation and Maintenance Plan* to include a requirement for documentation of all drug/pesticide/other compound use as well as to include a section specifically applicable to wastewater operations.
 8. Modifies Special Condition G, *Uses of Drugs for Disease Control* to be consistent with Department updates to MEPDES permit language for land-based fish hatcheries, regarding the application of preventative treatments.
- b. History: This section provides a summary of recent, relevant licensing/permitting actions that have been completed for the ELA Rearing Station by the Maine Department of Inland Fisheries and Wildlife (MDIFW) wastewater facility.

February 20, 1975 – The United States Environmental Protection Agency (USEPA) issued National Pollutant Discharge Elimination System (NPDES) Permit #ME0001139 to the Maine Department of Inland Fisheries and Game for the discharge of an unspecified volume of wastewater from the Ela Rearing Station to Mill Stream. The Permit was valid through February 15, 1980.

May 11, 1983 – The Maine Board of Environmental Protection issued WDL #2029 for the discharge of a daily maximum of 5.0 MGD of fish hatchery wastewater from the MDIFW Ela Rearing Station to Mill Stream, Class B-1. The WDL was a renewal of a previously issued license #2029. The WDL was issued for a five-year term.

April 18, 1996 – The Maine Department of Environmental Protection issued a letter clarifying the impact of upgrading Cold Stream to a Class A waterbody. The discharge from the MDIFW Enfield hatchery would be allowed to continue only until a practical alternative exists and would be “grandfathered” from having to meet Class A standards of discharging effluent that is of an equal or better quality than the receiving water as defined in Chapter 586. However, this letter did not allow for an exemption from all Class A standards in perpetuity and the letter does not stand as a legally binding document that supersedes legislative action. Internal Department discussion over the next three years made clear that the discharges would be required to meet water quality criteria for Class A waters.

July 21, 2000 – The Department issued # W-002029-5Q-A-R to MDIFW Ela Rearing Station for the discharge of a daily maximum of 4.75 MGD of treated fish hatchery

2. PERMIT SUMMARY (cont'd)

wastewater. This permitting action set discharge limitations for TSS and BOD at a monthly average concentration of 2 mg/L, and total phosphorus at 0.030 mg/L. The WDL was issued for a five-year term.

September 10, 2001 – The Department suspended monitoring requirements established in WDL # W-002029-5Q-A-R for Outfall #001A, designated for effluent discharges from the settling basin when not cleaning raceways. The Department required monitoring for Outfalls #001B and #002A, designated for effluent discharges from the settling basin when cleaning raceways and from non-cleaning flow-through water bypassing the settling basin, to be conducted by auto-compositer. The Department made no mention of Outfall #003A, previously designated for a summary of the flow, mass of fish on hand, and total phosphorus values from Outfalls #001B and #002A. MDIFW continued to monitor all outfalls.

February 2002 – On behalf of MDIFW, Fishpro Inc. submitted an Alternative Discharge Study report for all nine MDIFW hatcheries and rearing stations. The study evaluated eliminating effluent discharges through piping that discharges to larger receiving waters, connecting to municipal wastewater treatment facilities, wastewater storage collection, & land application of wastewater, and discharging to existing wetland areas. The study determined that none of the alternatives evaluated were viable options for the MDIFW facilities.

September 12, 2002 – The Department submitted a report entitled *Maine Department of Environmental Protection Water Quality Concerns and Effects from State Fish Hatchery Discharges* to the Maine Legislature's Inland Fisheries and Wildlife Subcommittee's Commission to Study the Needs and Opportunities Associated with the Production of Salmonid Sport Fish in Maine and MDIFW.

November 2002 – FishPro Inc. submitted to MDIFW its *Comprehensive Statewide Fish Hatchery System Engineering Study* addressing recommended upgrades to all MDIFW fish hatcheries and rearing facilities.

July 11, 2003 – The Department administratively modified WDL # W-002029-5Q-A-R to extend the 3-year schedule of compliance for BOD, TSS, and phosphorus effluent limits established in the WDL through the life of the WDL.

January 30, 2006 – The Department issued MEPDES Permit #ME0001139 / Maine WDL #W-002029-5Q-B-R to Ela Fish Rearing Station for the discharge of a monthly average of 4.75 MGD of fish rearing facility wastewater to Mill Stream, Class B, in Embden. This permitting action modified the BOD and TSS concentration limits to 6 mg/L monthly average and 10 mg/L daily maximum with corresponding mass limitations of 238 and 396 lbs/day respectively. This action also updated the total phosphorus monthly average concentration limit to 0.035 mg/L, with a corresponding mass limit of 1.4 lbs/day. The Permit/WDL was issued for a five-year term.

2. PERMIT SUMMARY (cont'd)

October 6, 2008 – The Department issued Minor Revision #W-002029-5Q-C-M / MEPDES Permit #ME0001139 to revise effluent formalin limitations based on newly obtained toxicity data and a revision of the Department's best professional judgement (BPJ) of ambient water quality criteria.

April 23, 2009 – The Department issued Minor Revision #W-002029-5Q-D-M / MEPDES Permit #ME0001139 to revise effluent BOD₅ and TSS minimum monitoring frequency requirements from once / 2 weeks to once / month. The Minor Revision also provided guidance for reporting analytical results below detection and/or reporting limits.

July 6, 2011 – The Department issued WDL / MEPDES Permit W-002029-6F-E-R / ME0001139 for a five-year term. This permitting action established a 5.0 MGD monthly average flow limitation, and recalculated the BOD, TSS, and total phosphorus mass limits accordingly.

March 14, 2016 – MDIFW submitted a timely application for renewal of its MEPDES Permit/Maine WDL. The application was accepted as complete for processing on March 15, 2016, and was assigned MEPDES Permit #ME0001139 / Maine WDL #W-002029-6F-F-R.

October 11, 2017 – The Department issued WDL / MEPDES Permit W-002029-6F-F-R / ME0001139 for a five-year term.

September 23, 2022 – MDIFW submitted a timely application for renewal of its MEPDES Permit/Maine WDL. The application was accepted as complete for processing on October 5, 2022, and was assigned MEPDES Permit #ME0001139 / Maine WDL #W-002029-6F-G-R.

3. CONDITIONS OF PERMIT

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

4. RECEIVING WATER QUALITY STANDARDS

Classifications of Major River Basins, 38 M.R.S. § 467(4)(B)(2)(b) classifies all tributaries of the Carrabasset River below the Wire Bridge in New Portland, including Mill Stream (AU ID

4. RECEIVING WATER QUALITY STANDARDS (con't)

ME0103000304_313R01) at the point of discharge as a Class B waterway. 38 M.R.S. § 465(3) describes the standards for Class B waters:

- A. *Class B waters must be of such quality that they are suitable for the designated uses of drinking water supply after treatment; fishing; agriculture; recreation in and on the water; industrial process and cooling water supply; hydroelectric power generation, except as prohibited under Title 12, section 403; navigation; and as habitat for fish and other aquatic life. The habitat must be characterized as unimpaired.*
- B. *Class B waters must be of sufficient quality to support all aquatic species indigenous to those waters without detrimental changes in the resident biological community. The dissolved oxygen content of Class B waters may not be less than 7 parts per million or 75% of saturation, whichever is higher, except that for the period from October 1st to May 14th, in order to ensure spawning and egg incubation of indigenous fish species, the 7-day mean dissolved oxygen concentration may not be less than 9.5 parts per million and the one-day minimum dissolved oxygen concentration may not be less than 8.0 parts per million in identified fish spawning areas. Between April 15th and October 31st, the number of Escherichia coli bacteria in these waters may not exceed a geometric mean of 64 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.*
- C. *Discharges to Class B waters may not cause adverse impact to aquatic life in that the receiving waters must be of sufficient quality to support all aquatic species indigenous to the receiving water without detrimental changes in the resident biological community.*
 - (1-A) *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 resident biological communities affected by an invasive species, the department may find that the discharged effluent will not cause adverse impact to aquatic life as long as the materials and methods used do not cause a significant loss of any nontarget species and allow restoration of nontarget species. The department may find that an unavoidable, temporary loss of nontarget species does not constitute a significant loss of nontarget species.*
 - (2) *For the purpose of allowing the discharge of aquatic pesticides approved by the department for the control of mosquito-borne diseases in the interest of public health and safety, the department may find that the discharged effluent will not cause adverse impact to aquatic life as long as the materials and methods used provide protection for nontarget species. When the department issues a license for the discharge of aquatic pesticides authorized under this subparagraph, the department shall notify the municipality in which the application is licensed to occur and post the notice on the department's publicly accessible website.*

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)(ii).

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, prepared by the Department pursuant to Sections 303(d) and 305(b) of the Federal Water Pollution Control Act, lists Mill Stream (AU ID ME0103000304_313R01) as, “Category 4-B, Rivers and Streams Impaired by Pollutants – Pollution Control Requirements Reasonably Expected to Result in Attainment. The Segment has failed to attain Class B status in the previous four benthic macro invertebrate bioassessments. The Results of previous biomonitoring assessments are as follows:

Sample Date	Class Attained
8/17/2000	C
8/11/2006	B
8/22/2011	C
8/11/2016	No class attained
8/7/2017	C
8/13/2021	C

The macroinvertebrate community at the downstream station indicates strong evidence of nutrient and organic enrichment including extreme hyper-abundance of tolerant midge taxa and net-spinning caddisflies in 2021. Nutrient concentrations for stream water samples collected in July 2021 were also very high, including total phosphorus (0.070 mg/L) and orthophosphate (soluble reactive phosphorus, 0.053 mg/L).

6. RECEIVING WATER QUALITY CONDITIONS (cont'd)

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

Pursuant to *Interim Effluent Limitations and Controls for the Discharge of Mercury*, 06-096 C.M.R. Ch. 519, the Department has made a best professional judgment determination to exempt fish hatcheries from applicability of the mercury rule.

7. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

- a. Applicability of National Effluent Guidelines: The USEPA has promulgated national effluent guidelines for the *Concentrated Aquatic Animal Production Point Source Category* at 40 C.F.R. Part 451 Subpart A, *Flow-Through and Recirculating Systems Subcategory*. This subpart is applicable to discharges from a concentrated aquatic animal production facility that produces 100,000 lbs. or more per year of aquatic animals in a flow-through or recirculating system. For the Ela Rearing Station, the maximum number of fish on hand reported for the period of November 2017, through December 2023, at any time consisted of a maximum of 63,581 lbs. The facility daily maximum of 63,581 lbs. is less than the 100,000 lbs. per year applicable threshold and is therefore not categorically subject to regulation under this subpart.
- b. Flow: The previous permitting action established, and this permitting action is carrying forward, a monthly average flow limitation of 5.0 MGD for Outfall #005A, which is considered representative of effluent flows for the facility. This permitting action is carrying forward a monthly average discharge flow reporting requirement.

The Department reviewed 71 Discharge Monitoring Reports (DMRs) that were submitted for the period November 2017 – December 2023. A review of data indicates the following:

Flow (DMR=71)

Value	Limit (MGD)	Range (MGD)	Mean (MGD)
Monthly Average	5.0	2.23 – 4.92	4.62

- c. Dilution Factors: Dilution factors associated with wastewater discharges are derived in accordance with *Surface Water Toxics Control Program* 06-096 C.M.R. ch. 530 (effective

7. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (con't)

date March 21, 2012), and methods for low flow calculation contained in *Estimating Monthly, Annual, and Low 7-day, 10-year Streamflows for Ungauged Rivers in Maine*, Scientific Investigations Report 2004-5026, US Department of Interior, US Geological Survey. The Department utilizes the receiving water's available dilution during low flow conditions. The Department's DEA has determined that MDIFW Ela Rearing Station's discharge does not achieve rapid and complete mixing. Thus, the Department is utilizing the default stream flow of ¼ of the 1Q10 for modifying the acute dilution factor in accordance with 06-096 C.M.R. ch. 530 § (4)(B)(1).

The Ela Rearing Station reports that the area of Embden Pond around the dam and the upper portion of Mill Stream are significantly or completely dewatered on occasion. At those times, the Ela Rearing Station discharge constitutes the only flow in that portion of Mill Stream. In 2013 a new spillway dam was constructed at the outlet of Embden Pond. MDIFW reports obtaining rough water level measurements of 8.25 inches on September 13, 2016. The Department's Division of Environmental Assessment took this new information into consideration and the increase in flow was minimal and still resulted in a 1.03:1 dilution ratio.

The Department must assume a seasonal low flow of 0 cubic feet per second in Mill Stream and acute (1Q10), chronic (7Q10) and harmonic mean dilution factors of 1:1, which is representative of the MDIFW ELA discharge at times being the only river flow. If MDIFW wishes to establish a guaranteed minimum flow from the Mill Stream dam in the future, this determination may be revisited.

The 1:1 ratio is based on the following calculations:

Conversion factor: 1 cfs = 0.6464 MGD

Flow = 5.0 MGD

$$\text{Modified Acute: } \frac{1}{4} \text{ 1Q10} = 0 \text{ cfs} \quad \Rightarrow \quad \frac{(0 \text{ cfs})(0.6464) + 5.0 \text{ MGD}}{5.0 \text{ MGD}} = 1:1$$

$$\text{Acute: } 1\text{Q10} = 0.0 \text{ cfs} \quad \Rightarrow \quad \frac{(0 \text{ cfs})(0.6464) + 5.0 \text{ MGD}}{5.0 \text{ MGD}} = 1:1$$

$$\text{Chronic: } 7\text{Q10} = 0.0 \text{ cfs} \quad \Rightarrow \quad \frac{(0 \text{ cfs})(0.6464) + 5.0 \text{ MGD}}{5.0 \text{ MGD}} = 1:1$$

$$\text{Harmonic Mean: } \text{HM} = 0.0 \text{ cfs} \quad \Rightarrow \quad \frac{(0 \text{ cfs})(0.6464) + 5.0 \text{ MGD}}{5.0 \text{ MGD}} = 1:1$$

7. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (con't)

- d. TSS: The previous permitting action established, and this permitting action is carrying forward, monthly average and daily maximum concentration limits of 6 mg/L and 10 mg/L respectively for TSS. These limits were based on recommendations included in USEPA’s 2002 proposed draft National Effluent Guidelines for TSS from fish hatchery wastewater receiving a secondary level of treatment and consideration of effluent quality from facilities utilizing the Department’s BPJ of minimum treatment technology.

The previous permitting action carried over the TSS mass limits to a monthly average of 250 lbs./day and a daily maximum of 417 lbs./day based on the flow limit of 5.0 MGD.

Calculations are as follows:

$$(5.0 \text{ MGD})(8.34 \text{ lbs/gal})(6 \text{ mg/L}) = \mathbf{250 \text{ lbs./day}}$$

$$(5.0 \text{ MGD})(8.34 \text{ lbs/gal})(10 \text{ mg/L}) = \mathbf{417 \text{ lbs./day}}$$

The Department reviewed 71 DMRs that were submitted for the period November 2017 – December 2023. A review of data indicates the following:

TSS Mass (DMRs = 71)

Value	Limit (lbs./day)	Range (lbs./day)	Mean (lbs./day)
Monthly Average	250	0 – 1,130*	56.35
Daily Maximum	417	40 – 1,130	108.77

TSS concentration (DMRs = 71)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	6	< 1 – 28*	2.77
Daily Maximum	10	1 – 28	2.8

*It is noted that there was an excursion for all mass and concentration values of TSS reported in the February 2023 DMR.

The previous permitting action established, and this permitting action is carrying forward mass and concentration limits for TSS with a monitoring frequency of 1/Month.

- e. Dissolved Oxygen (DO): The previous permitting action established, and this permitting action is carrying forward the daily minimum limit, monthly average and daily maximum monitoring requirements DO. The previous permitting action established, and this permitting action is carrying forward a 2/month monitoring frequency. This permitting action is carrying forward the requirement that the MDIFW must maintain copies of all data from effluent DO monitoring at the facility for a period of five years and must make available copies of data to the Department upon request.

The Department reviewed 24 DMRs that were submitted for the period November 2017 – December 2023. A review of data indicates the following:

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

DO Outfall 005A (DMRs = 24)

Value	Limit (mg/L)	Range (mg/L)
Daily Minimum	7.5	8.9 – 10.8

f. Total Phosphorus: The January 30, 2006, permit established, and this permitting action is carrying forward, both mass and concentration limitations for total phosphorous. The monthly average concentration limit of 0.035 mg/L for total phosphorous was established based on Department research, the ambient water quality criteria of 0.035 mg/L corresponds to the maximum level at which algal blooms will not typically occur in a receiving river or stream under normal circumstances. Phosphorus is typically of concern under chronic discharge conditions, as impacts are generally observed after a longer exposure period than what is generally observed under acute, 1-hour impacts. Therefor the 7Q10 dilution of 1:1 described in Fact Sheet section 6(c) Dilution Factors is being utilized in calculation of a water quality-based effluent concentration limit of 0.035 mg/L as follows:

$$(0.035 \text{ mg/L})(1) = \mathbf{0.035 \text{ mg/L}}$$

The monthly average mass limit of 1.5 lbs./day, established in the July 6, 2011, permit, is based on the revised flow limit of 5.0 MGD. The calculation for the monthly average mass limit is as follows:

$$(5.0\text{MGD})(8.34 \text{ lbs/gal})(.035 \text{ mg/L}) = \mathbf{1.5 \text{ lbs/day}}$$

The previously established seasonal effluent limits and monitoring requirements, in effect from June 1 through September 30 each year, are being carried forward in this permitting action. A required minimum monitoring frequency of twice per month is being carried forward.

The Department reviewed 24 DMRs that were submitted for the period November 2017 – December 2023. A review of data indicates the following:

Phosphorus Mass (DMR=24)

Value	Limit (lbs./day)	Range (lbs./day)	Mean (lbs./day)
Monthly Avg.	1.5	0.90 - 5.40	2.37*
Daily Max.	Report	1 - 6.9	2.645

Phosphorus Concentration (DMR=24)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Avg.	0.035	0.03-0.13	0.06*
Daily Max.	report	0.03-0.17	0.07

*For the reporting period of November 2017, through December 2023, the DMRs indicate that there were 18 excursions of the established limitations for mass and concentration of total phosphorus.

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

Ambient monitoring requirements are being added to the IFW hatchery permits as needed to evaluate local site conditions, potentially identify sources of phosphorus and to calculate future reasonable potential to cause or contribute to an excursion above water quality standards.

This permit contains the requirement to conduct downstream ambient monitoring. Mill Stream has failed to meet Class B standards in previous biomonitoring conducted by the Department. The Department has sufficient upstream data collected at Embden Pond. The combination of upstream, downstream and effluent data will aid the Department in determining the permittee’s impact on the receiving water.

- g. *Fish on Hand*: This permitting action is carrying forward the reporting requirement for monthly average and daily maximum mass of fish on hand. The July 6, 2011, permitting action established, and this permitting action is carrying forward a minimum monitoring frequency of twice per month.

The Department reviewed 71 DMRs that were submitted for the period November 2017 – December 2023. A review of data indicates the following:

Fish on Hand (DMR=71)

Value	Limit lbs./day	Range lbs./day	Mean lbs./day
Monthly Average	report	18,722 – 52,938	35,852
Daily Maximum	report	19,333 – 63,581	40,485

- h. *Formalin*: Formalin is a drug used to treat fungal infections and external parasites of finfish and finfish eggs. The previous permitting action established daily maximum concentration and mass effluent limitations of 45 mg/L and 150 lbs./day, for 1-hour formalin treatments and 25 mg/L and 150 lbs./day, respectively, for 24-hour formalin treatments.

Neither the Department nor USEPA have promulgated ambient water quality criteria for formalin. Using best professional judgment, the Department has established water quality-based thresholds for formalin based on Whole Effluent Toxicity (WET) testing on the water flea (*Ceriodaphnia dubia*) for 48-hour acute toxicity. For one-hour treatments, which are typical of most hatchery and rearing facility operations, the Department has established an ambient water quality threshold of 45 mg/L. Rarely, certain circumstances require use of formalin to control disease on additional rearing structures which results in the discharge of formalin for periods longer than the typical one-hour period for normal disease treatment. To ensure water quality standards are met and that formalin is not discharged at levels that would be toxic to aquatic life in the receiving water, the Department has established an ambient water quality threshold of 25 mg/L based on best professional judgment for a maximum 24-hour treatment period

Effective parasite treatment of hatchery trout using formalin may require formalin concentrations up to 250 µl/L (= 273.6 mg/L) when water temperatures are less than 10°C

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

(50°F). To achieve this concentration, 151.8 pounds of formalin will need to be added to a ten-tank line having a total volume of 66,500 gallons.

Formalin mass:

$$(273.6 \text{ mg/L}) \times (66,500 \text{ gal.}) \times (3.78541 \text{ l/gal}) \times (1 \text{ lb.} / 453,592 \text{ mg}) = 151.8 \text{ lbs.}$$

Inland Fisheries & Wildlife has developed a mixing model to determine the hatchery's discharge concentrations of formalin to Mill Stream once treatment commences. The department's Division of Environmental Assessment has reviewed this model, revised it to optimize mass conservation, and found it acceptable for determining the hatchery's discharge concentrations of formalin. The model incorporates the following conservative assumptions and reasonably achievable dilution flows:

- The mass of formalin is assumed to be conserved through the treatment process (i.e., the formalin added for treatment = formalin discharged to Mill Stream).
- Water in each 6,650-gallon tank of the dosed, ten-tank line mixes with 80 gallons per minute (gpm) of freshwater to dilute the formalin concentration in the tank by a *compounding* dilution ratio of 1.012:1 *every minute*; and
- The 800 gpm of effluent from the ten, dosed tanks mixes with 2,672 gpm of effluent from the twenty, un-dosed tanks to dilute the formalin concentration by a *constant* dilution ratio of 4.34:1 prior to discharge to Mill Stream.

As a result of these assumptions and these dilution ratios, the hatchery's discharge concentration of formalin decreases from 63 mg/L at the start of discharge to less than 0.01 mg/L after 13 hours. The peak hourly average discharge concentration of 44.9 mg/L occurs the first hour of discharge and is less than the acute toxicity threshold of 45 mg/L. The formalin discharge concentration falls below the chronic toxicity threshold of 25 mg/L approximately 70 minutes after discharge starts.

Mass limits are based on the following language from the 2008 revision:

"Effluent mass limits were previously calculated based on the permittee's projected maximum amount of formalin used per day (16.5-gallons) times the weight of formalin (9.13 lbs./gal), resulting in a value of 150 lbs./day."

This permitting action is carrying forward the minimum monitoring frequency requirement of once per occurrence for formalin.

The Department reviewed 5 DMRs that were submitted for the period November 2017 – December 2023. A review of data indicates the following:

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

Formalin Mass (DMR=5)

Value	Limit lbs./day	Range lbs./day
Monthly Average	Report	10.00 - 27.7
Daily Maximum	150	10.00 - 27.7

Formalin concentration (DMR=5)

Value	Limit (mg/L)	Range (mg/L)
Monthly Average	Report	7.5 – 16.90

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 except for provisions specified in the regulation, effluent limitations, standards, or conditions must be at least as stringent as the final effluent limitations, standards, or conditions in the previous permit. 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 at the time of permit issuance. All limitations in this permit are equally or more stringent than the previous permit.

9. ANTI-DEGREDDATION

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

10. PUBLIC COMMENTS

Public notice of this application was made in the *Kennebec Journal* newspaper on or about September 28, 2022. The Department receives public comments on an application until the date a final agency action is taken on the application. Those persons receiving copies of draft permits must have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to *Application Processing Procedures for Waste Discharge Licenses*, 06-096 C.M.R. ch. 522 (effective January 12, 2001).

11. DEPARTMENT CONTACTS

Additional information concerning this permitting action may be obtained from, and written comments 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 Telephone: (207) 592-6871
e-mail: Benjamin.S.Pendleton@maine.gov

12. RESPONSE TO COMMENTS

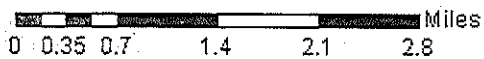
Reserved until the end of the 30-day comment period.

**FACT SHEET
ATTACHMENT A**



Legend

- | | |
|---------------------|-----------------------|
| Rivers | |
| | AA |
| | A |
| | B |
| | C |
| Streams | |
| | AA |
| | A |
| | B |
| | C |
| | Ponds and Lakes |
| | Wastewater Facilities |
| | Wastewater Outfalls |
| Roads | |
| JURISDICTION | |
| | Town Road |
| | Town Road - Summer |
| | Town Road - Winter |
| | State-aided Highway |
| | State Highway |
| | Toll Highway |
| | Private Road |
| | Reservation Road |
| | Seasonal Parkway |



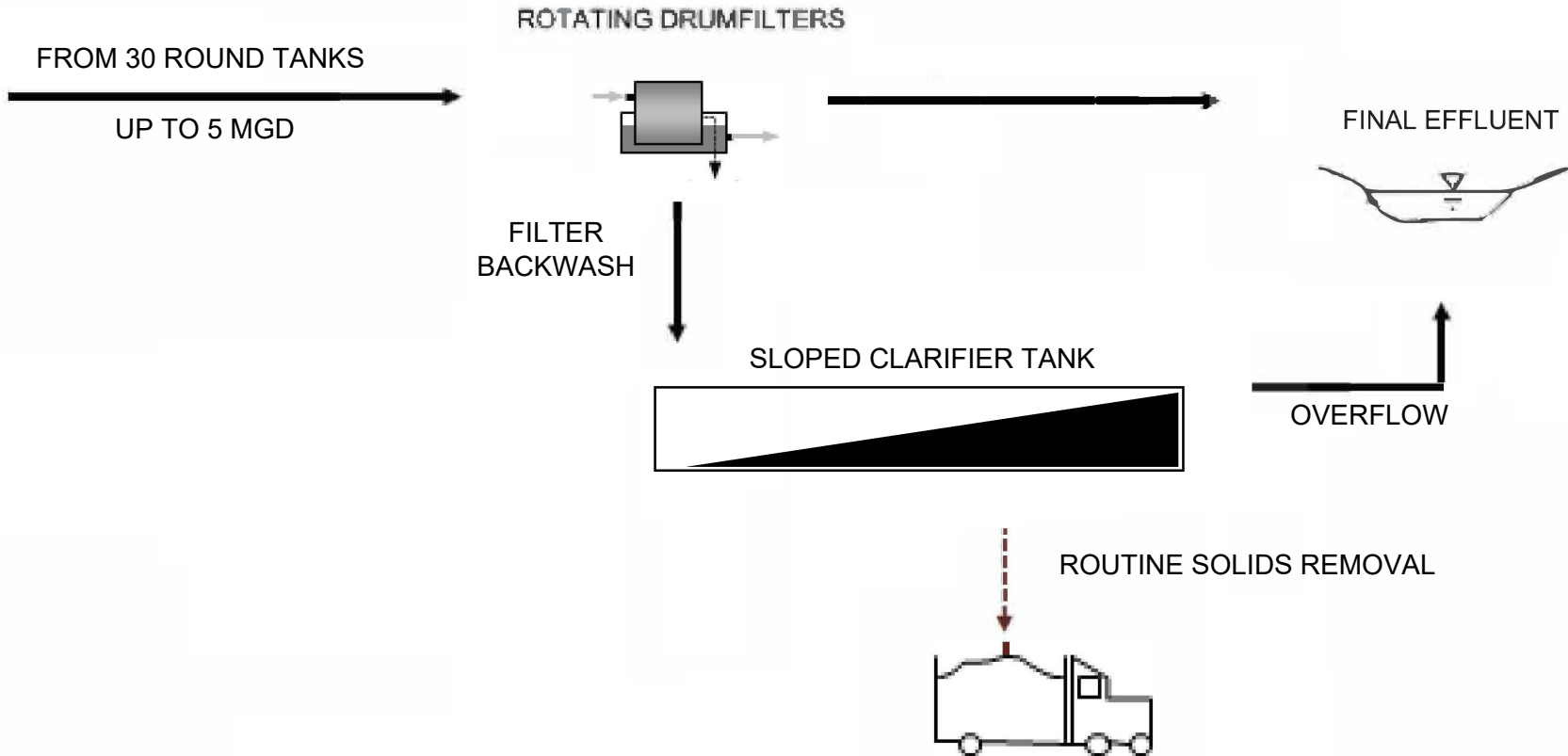
**MDIFW ELA Rearing Station
Embden, Maine**

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



**FACT SHEET
ATTACHMENT B**

EMBDEN REARING STATION EFFLEUNT PROCESS FLOW SCHEMATIC



MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

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A. GENERAL PROVISIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

B. OPERATION AND MAINTENANCE OF FACILITIES

1. General facility requirements.

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

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

- maximize removal of pollutants unless authorization to the contrary is obtained from the Department.
- (b) The permittee shall at all times maintain in good working order and operate at maximum efficiency all waste water collection, treatment and/or control facilities.
 - (c) All necessary waste treatment facilities will be installed and operational prior to the discharge of any wastewaters.
 - (d) Final plans and specifications must be submitted to the Department for review prior to the construction or modification of any treatment facilities.
 - (e) The permittee shall install flow measuring facilities of a design approved by the Department.
 - (f) The permittee must provide an outfall of a design approved by the Department which is placed in the receiving waters in such a manner that the maximum mixing and dispersion of the wastewaters will be achieved as rapidly as possible.

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

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

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

5. Bypasses.

- (a) Definitions.
 - (i) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
 - (ii) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- (b) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (c) and (d) of this section.
- (c) Notice.
 - (i) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.

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

6. Upsets.

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

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C. MONITORING AND RECORDS

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

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

3. Monitoring and records.

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

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

D. REPORTING REQUIREMENTS

1. Reporting requirements.

- (a) Planned changes. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
 - (i) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
 - (ii) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under Section D(4).
 - (iii) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;
- (b) Anticipated noncompliance. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- (c) Transfers. This permit is not transferable to any person except upon application to and approval of the Department pursuant to 38 MRSA, § 344 and Chapters 2 and 522.
- (d) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.
 - (i) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Department for reporting results of monitoring of sludge use or disposal practices.
 - (ii) If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR part 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Department.
 - (iii) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Department in the permit.
- (e) Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
- (f) Twenty-four hour reporting.
 - (i) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

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

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

(A) Any unanticipated bypass which exceeds any effluent limitation in the permit.

(B) Any upset which exceeds any effluent limitation in the permit.

(C) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit to be reported within 24 hours.

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

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

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

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

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

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

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

(i) One hundred micrograms per liter (100 ug/l);

(ii) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

(iii) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with Chapter 521 Section 4(g)(7); or

(iv) The level established by the Department in accordance with Chapter 523 Section 5(f).

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

5. Publicly owned treatment works.

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

E. OTHER REQUIREMENTS

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

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

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

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

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

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

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

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

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

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

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

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

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

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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.

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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.