



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 #ME0001082
Maine Waste Discharge License (WDL) Application #W0002037-6F-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: Gary Brooks, DEP/EMRO
Wendy Garland, DEP/CMRO
Lori Mitchell, DEP/CMRO
Elizabeth Latti, MEDIFW
Lynne Jennings, USEPA
Ellen Weitzler, USEPA
Michael Cobb, USEPA
Alex Rosenberg, USEPA
Richard Carvalho, USEPA
Environmental Review, MDIFW
Environmental Review, MEDMR
Trevor White, Passamaquoddy Tribe Indian Township
Marvin Cling, Passamaquoddy Tribe Sipayik
Billy Longfellow, Passamaquoddy Tribe Sipayik
Sean Mahoney, CLF
Zach Normile, ACOE
Megan Rideout, MHPC



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

DEPARTMENT ORDER

IN THE MATTER OF

ME. DEPT. OF INLAND FISHERIES & WILDLIFE)	MAINE POLLUTANT DISCHARGE
GRAND LAKE STREAM FISH HATCHERY)	ELIMINATION SYSTEM PERMIT
GRAND LAKE STREAM, WASHINGTON CTY, MAINE)	AND
#ME0001082)	WASTE DISCHARGE LICENSE
#W002037-6F-G-R)	RENEWAL
APPROVAL)	

In compliance with the applicable provisions of *Pollution Control*, 38 M.R.S. §§ 411 – 424-C, *Water Classification Program*, 38 M.R.S. §§ 464 – 470 and *Federal Water Pollution Control Act*, Title 33 U.S.C. § 1251 *et seq*, and applicable rules of the Department of Environmental Protection (Department), the Department has considered the application of the 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 23, 2023, the Department accepted as complete for processing, a renewal application from the permittee for Waste Discharge License (WDL) #W002037-6F-F-R / Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0001082, which was issued on October 8, 2020 for a five-year term. The October 8, 2020, MEPDES permit authorized the permittee to discharge a monthly average of 2.9 million gallons per day (MGD) of fish hatchery wastewater to Grand Lake Stream, Class A, from the MDIFW Grand Lake Stream Hatchery in Grand Lake Stream Plantation, Maine.

PERMIT SUMMARY

This permitting action is carrying forward all the terms and conditions of the previous permitting action except that this permitting action is:

1. Updating Special Condition A, *Effluent Limitations and Monitoring Requirements*, Footnote 1, Sampling to include using sufficiently sensitive methods.
2. Updating Special Condition A, *Effluent Limitations and Monitoring Requirements* footnote 2, *Composite Samples*, To the Department’s most current language.
3. Establishing footnote 3B describing the calculation for deriving total lbs/month for Phosphorus.
4. Establishing footnote 4 *Twice per Month Monitoring* to be consistent with MEPDES permit language for land-based fish hatcheries requiring twice per month monitoring.
5. Updating Special Condition E *Monitoring and Reporting* to the Department’s most current requirements.

PERMIT SUMMARY (cont'd)

6. 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.
7. Modifying 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).
5. The applicant has objectively demonstrated to the Department's satisfaction that the discharge is necessary and that there are no other reasonable alternatives available, as required by *Standards for classification of fresh surface waters*, 38 M.R.S. § 465(2)(C).

ACTION

THEREFORE, the Department APPROVES the above noted application of the MAINE DEPARTMENT OF INLAND FISHERIES & WILDLIFE to discharge a monthly average of 2.9 MGD of fish hatchery wastewater via Outfall #005A to Grand Lake Stream, Class A, in Grand Lake Stream Plantation, 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: October 13, 2023

Date of application acceptance: October 23, 2023

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

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

Effluent Characteristic	Discharge Limitations					Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Daily Minimum	Measurement Frequency	Sample Type
Flow <i>[50050]</i>	2.9 MGD <i>[03]</i>	---	---	---	---	Daily <i>[01/01]</i>	Measured <i>[MS]</i>
TSS <i>[00530]</i>	48 lbs./day <i>[26]</i>	242 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 <i>(June 1st – September 30th)</i> <i>[00300]</i>	---	---	Report mg/L <i>[19]</i>	Report mg/L <i>[19]</i>	7.5 mg/L <i>[19]</i>	1/Week <i>[01/07]</i>	Measured <i>[MS]</i>
Total Phosphorus ⁽³⁾ <i>(June 1st – September 30th)</i> <i>(concentration)^{(3A)(3B)}</i> <i>(January 1st – December 31st)</i> <i>(mass)</i> <i>[00665]</i>	Report total lbs./month <i>[76]</i>	Maximum 504 lbs./year <i>[50]</i>	0.14 mg/L <i>[19]</i>	Report mg/L <i>[19]</i>	---	2/Month ⁽⁴⁾ <i>[02/30]</i>	Composite ⁽²⁾ <i>[CP]</i>
Fish on Hand <i>[45604]</i>	---	Report lbs./day <i>[26]</i>	---	---	---	1/Month <i>[01/30]</i>	Calculate <i>[CA]</i>
Formalin ⁽⁵⁾ <i>[51064]</i>	Report lbs./day <i>[26]</i>	54.8 lbs./day <i>[26]</i>	---	---	---	1/Occurrence <i>[01/OC]</i>	Calculate <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 Pages 6 and 7 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, as to be representative of end-of-pipe effluent characteristics. Any change in sampling location must be approved by the Department in writing. The permittee must conduct 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 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 C.M.R. 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 licensee 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.
- 3. 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 Waste Water – May, 2014*, unless otherwise specified by the Department.

SPECIAL CONDITIONS

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

3A. Phosphorus Concentrations – Concentrations limits and monitoring requirements (mg/L) are seasonal and are only in effect from June 1 through September 30 of each year. Phosphorus mass limits and monitoring requirements are in effect year-round. The permittee is cautioned that compliance with concentration limits will not necessarily result in compliance with mass limits.

3B. Phosphorus Total lbs/month – Total Phosphorus (TP) lbs per month shall be calculated as follows: (TP monthly avg concentration mg/L)(total monthly flow MGD)(8.34 lbs/gal) = total pounds TP/month

4. 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.

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 "N9" for this parameter on the monthly DMR.

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

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 usages designated for the classification of the receiving waters.
2. The permittee must not discharge effluent that contains materials in concentrations or combinations which are hazardous or toxic to aquatic life, or which would impair the usages designated for 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 lowers 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 on October 23, 2023; 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.
2. For the purposes of this section, adequate notice must include information on:
 - a. The quality or quantity of wastewater introduced to the wastewater collection and treatment system; and
 - b. Any anticipated impact of the change in the quantity or quality of the wastewater to be discharged from the treatment system.

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.

SPECIAL CONDITIONS

E. MONITORING AND REPORTING (*cont'd*)

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.

F. OPERATIONS AND MAINTENANCE (O&M) 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
 - c. 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.
 - d. Procedure for removal and disposal of mortalities to prevent discharge to waters of the State.
2. Materials Storage

SPECIAL CONDITIONS

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

- a. Ensure proper storage of drugs¹, pesticides², 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

- 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.

¹ **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].

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

SPECIAL CONDITIONS

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

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;
 - 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.

SPECIAL CONDITIONS

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

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 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.
 - b. Drugs identified in the permittee's application: A list of drugs, pesticides and other compounds proposed for use at the Maine Department of Inland Fisheries and Wildlife Grand Lake Stream Fish Hatchery during the term of the permit, which was provided by the permittee on Form DEPLW1999-18 included with its October 13, 2023 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	175-250 mg/L	<100 gal
Tricane-Methanesulfonate (Tricaine-S, MS 222)	As Needed	15-330 mg/L	<200 grams
Chloramine-T Halamid Aqua	As Needed	12-20 mg/L	< 10 lbs

- 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.

SPECIAL CONDITIONS

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

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, 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 characterize 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	25-40 mg/L	<1 Liter

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 Standard Condition D, and 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 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 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)	+/- 3 gal
Sodium Chloride	As needed	1-2%	<1000 lbs

I. SPILLS

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

K. SEVERABILITY

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

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

Grand Lake Stream State Fish Hatchery - Improvement Project
Fish Rearing Facilities Form
List of Disinfectants, Drugs, and/or Therapeutic Agents

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 eggs, nets, utensils, boots, stocking trucks, etc.	100 ppm ; (37.8 ml/gal H ₂ O)	+/- 3 gals.

DRUGS/THERAPEUTIC AGENTS:

PRODUCT NAME	INGREDIENTS	FREQ. OF USE	CONCENTRATION	TOTAL USED/YR
Tricaine-S (MS 222)	Tricaine methanesulfonate	As needed for anestheizing fish during sampling, fish health/ quality exams, fish marking, etc	15 to 330 mg/l	< 200 grams
Aqui-S 20 E	10% Eugenol	Same as MS 222, but for when stocking of legal sized fish will take place soon after use	25- 40 mg/l	Annual anticipated use = 0 Potential use < 1 liter
Parasite-S (Formalin)	Formaldehyde-----37% Methanol-----6-14% Water & Inert-----49-57%	As needed for control of external parasites on fish	175-250 mg/l 1 hr duration	<100 gallons
Sodium Chloride blocks or crystals	NaCl	As needed as a fish stress reduction/osmoregulatory aid post handling/post parasitization	1 - 2%	<1000 lbs
Halamid Aqua	Chloramine-T	Control of bacterial gill disease Used in hatchery for fry	12-20 mg/l Limit of 381.8 grams/day Limit of 59.5 grams/hour	Annual anticipated use = 0 Potential use < 10 lbs Results in max effluent conc of 0.13 mg/l. Based on effluent of 2.9 MGD

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

FACT SHEET

DATE: **September 17, 2024**

PERMIT NUMBER: **ME0001082**

WASTE DISCHARGE LICENSE: **W002037-6F-G-R**

NAME AND ADDRESS OF APPLICANT: **MAINE DEPARTMENT OF INLAND FISHERIES
& WILDLIFE
GRAND LAKE STREAM FISH HATCHERY
284 STATE STREET, 41 STATE HOUSE STATION
AUGUSTA, MAINE 04333**

COUNTY: **WASHINGTON**

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

**MAINE DEPARTMENT OF INLAND FISHERIES
& WILDLIFE
GRAND LAKE STREAM HATCHERY
14 HATCHERY LANE, GRAND LAKE, MAINE
04637**

RECEIVING WATER CLASSIFICATION: **GRAND LAKE STREAM/CLASS A**

COGNIZANT OFFICIAL CONTACT INFORMATION:

**MR. TODD LANGEVIN
(207) 287-5261
Todd.Langevin@maine.gov**

1. APPLICATION SUMMARY

On October 23, 2023, the Department of Environmental Protection (Department) accepted as complete for processing, a renewal application from the Maine Department of Inland Fisheries and Wildlife (MDIFW, permittee) for Waste Discharge License (WDL) #W002037-6F-F-R / Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0001082, which was issued on October 8, 2020, for a five-year term. The October 8, 2020, MEPDES permit authorized the permittee to discharge a monthly average of 2.9 million gallons per day (MGD) of fish hatchery wastewater to Grand Lake Stream, Class A, from the MDIFW Grand Lake Stream Hatchery in Grand Lake Stream Plantation, Maine.

- a. Source Description: The MDIFW Grand Lake Stream State Fish Hatchery was constructed in 1936 as a state aquaculture facility and is located on a 13-acre parcel of state-owned land. Portions of the facility were added and/or renovated in the 1960s, 1970s, and 1980s. The MDIFW Grand Lake Stream facility is a state landlocked Atlantic salmon and brook trout hatchery and rearing facility, raising and stocking West Grand Lake strain salmon and Maine hatchery strain brook trout. A map showing the location of the facility is included as **Fact Sheet Attachment A**.

Salmon eggs used for hatching and rearing are obtained from up to 1,200 wild fish captured annually in the fall (October) in West Grand Lake. Captured fish are held in a floating net pen and returned to the lake following egg-stripping. The eggs are used at MDIFW Grand Lake Stream and at other MDIFW hatcheries as needed. Additionally, MDIFW Grand Lake Stream maintains broodstock salmon on site as a back-up to the wild capture program. Salmon are raised and stocked out as fall yearlings, spring yearlings, and adult retired broodstock, as well as supplied to other facilities as fall fingerlings, as described below. Brook trout are not hatched on site, but are received from other MDIFW hatcheries, such as MDIFW Enfield, as fall fingerlings in October-November, raised over the winter at MDIFW Grand Lake Stream, and stocked into lakes and streams in May-June each year. MDIFW Grand Lake Stream consists of an influent water ultraviolet (UV) disinfection / filter building, a hatchery building, and two lines of covered raceway pools for rearing.

- b. Influent Water: The MDIFW Grand Lake Stream hatchery and rearing station obtains its influent water from West Grand Lake, a 14,340-acre lake with a maximum depth of 128 feet. The lake is a dam-controlled impoundment, used by Woodland Pulp LLC for storage for downstream hydroelectric generation. Influent water is obtained through a 24-inch diameter iron pipe that wyes at the lake shore into two potential 24-inch diameter anchored HDPE intake pipes that are regulated using plug valves. A “shallow” supply line runs 600 feet out from the dam to an intake at around 14 feet deep, while the “deep” supply line runs over 2 miles to draw at a depth of around 52 feet. Water flow through each intake is adjusted to optimize water temperatures at the facility during the course of the year. Both intakes are fitted with a cone shaped coarse screen to preclude any large debris that could clog the pipe. Influent water passes through the MDIFW Grand Lake Stream facility’s stainless steel headbox and UV disinfection system after a main flow control butterfly valve. The headbox contains an inclined static screen with 5/64" diameter holes (46% open) to exclude any fish or small debris from the UV system. The UV disinfection system consists of two Trojan channel style units of 40 lamps per unit. The UV units are used in parallel and can each deliver a constant dose of 40 mJ at an influent flow of 1,000 gpm. Water leaving the UV units flows into a concrete headbox that supplies the two raceway lines for

1. APPLICATION SUMMARY (con't)

distribution. Disinfected water is pumped from the treated side of the UV units to the hatchery building to supply its seasonal water needs.

MDIFW Grand Lake Stream is a flow-through facility with flows through its hatchery and rearing facilities discharged to Grand Lake Stream, a Class A water and tributary to Big Lake, Class GPA, approximately 2 miles downstream.

- c. Broodstock Facilities: MDIFW Grand Lake Stream maintains approximately 750 salmon broodstock in the final two raceway pools. New broodstock year classes are started every two years and old broodstock classes are retired after four years, with the fish stocked in various waters.
- d. Hatchery Facilities: MDIFW Grand Lake Stream's hatchery facility consists of 42 aluminum troughs, that are 8-foot x 14-inches x 6-inches (operational depth) (35-gallons each). The troughs are used for incubation, fry capture, and early rearing. The troughs are arranged in seven sets of two parallel lines (14 lines) of 3 flow-through units. A fifteenth line is used for a "water alarm" and contains no fish. The flow rate for the indoor troughs is 6 gpm or 90 gpm total. Water within the indoor units flows down through each of the three troughs in each line before being discharged. Salmon eggs are introduced into the hatchery in November of each year, hatch in April, and the fry begin being fed by automatic feeders in May - June. After hatching, screens are inserted into the troughs to contain the approximately 80,000 salmon fry kept in the hatchery facility. Fry are moved to the rearing facility raceways in June after MDIFW Grand Lake Stream's spring yearling salmon are stocked out. The hatchery facility is then shut down until October when new eggs are brought on station.
- e. Rearing Facilities: MDIFW Grand Lake Stream's rearing facilities consist of two lines of seven, 100-foot x 8-foot x 2-foot (operational depth) (12,000 gallons each) covered concrete raceway pools. Salmon fry are moved from the hatchery facility to the raceways in June. Of the fourteen raceway pools, ten are used for salmon fry, two are used for fall yearlings, and two are used for broodstock. In October of each year, fall yearling salmon are stocked in various waters, a portion of the fall fingerling salmon are shipped to the MDIFW Embden rearing station, and brook trout are received on station.

The brook trout are housed in raceway space vacated by the salmon. In May - June each year, spring yearling salmon and brook trout are stocked in various waters and the cycle continues as described above.

Fish are fed by automatic feeders within the hatchery facility and for the first month they are in the raceways. Larger fish in the raceways are fed by demand-type feeders. Supplemental hand feeding is conducted as needed. MDIFW Grand Lake Stream indicates using an average of 62 pounds of food per day, a maximum of 210 lbs./day, and a period of peak feeding during August and September. MDIFW Grand Lake Stream indicates an approximate maximum quantity of fish on station of: 1,400 pounds of broodstock (900 fish), 14,400 pounds of first year fish (64,000 fish), and 1,400 pounds of second year fish (2,100 fish).

Proposed improvements to the rearing facility include the construction of 2 new pavilion style buildings each containing 4 tanks that will be 20 feet in diameter.

1. APPLICATION SUMMARY (con't)

- f. Wastewater Treatment: In 2010, the MDIFW Grand Lake Stream Hatchery facility underwent renovations. The following text was taken from the 2011 application from the MDIFW:

“Located at the end of each raceway are quiescent zones to settle solids which are regularly cleaned to a large concrete settling chamber. Water from raceway flow through and the settling chamber combines before leaving the facility at a single discharge point. Emergency bypass is only used when the settling chamber is down for maintenance and cleaning is minimized.”

The following summary was taken from the facility’s Operation and Maintenance Plan:

“The hatchery troughs are cleaned twice daily when fry are being fed. Hatchery flow-through and cleaning wastewater is routed to the settling basin prior to discharge into Grand Lake Stream. For rearing facility cleaning, MDIFW staff has historically scrubbed the sides and bottoms from the top end of the raceway pool moving down-flow toward the bottom end. Located at the bottom of all raceway pools, a screened 9.5-foot long “quiescent zone” with a covered discharge pipe leads to the settling basin. A blocking weir is placed in front of the quiescent zone and the discharge plug is pulled. Wastewater is then directed to the settling pond. The use of the blocking weir helps reduce the amount of wastewater going to the settling basin. After the raceway pool and quiescent zone screen are cleaned, the quiescent zone plug is replaced, and the cleaners move to the next raceway pool. All raceway pools are cleaned two to three times per week during the summer and once a week during the non-summer period, as needed (all cleaning practices are subject to change due to flow, pool densities, feeding rates and best professional judgment.) All solids are discharged directly to the settling basin except for the dead fish carcasses, which are composted on site.”

The August 1, 2006, permit included multiple outfall designations. The facility upgrade completed in 2010 combined the multiple points to discharge to the newly constructed settling basin. All final effluent monitoring and sampling is now reported from what is administratively identified as Outfall #005A.

The application accepted by the Department on October 23, 2023, includes plans to upgrade wastewater treatment at the facility. Construction is scheduled to begin in the fall of 2023 and be completed in the spring of 2025. Improvements will include a new drum filtration building, clarifier, and sludge storage tank.

A process flow diagram, and engineered plans for upgrades submitted by the permittee are included as **Fact Sheet Attachment B**. In accordance with Standard Condition D, 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.

2. PERMIT SUMMARY

- a. Terms and Conditions: This permitting action is carrying forward all the terms and conditions of the previous permitting action except that this permit 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 6 and 7.
 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 Department's most current language.
 4. Establishing footnote 3B describing the calculation for deriving total lbs/month for Phosphorus.
 5. Establishing footnote 4 *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. Modifying 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 significant licensing actions and milestones that have been completed for the MDIFW Grand Lake Stream Hatchery.

February 20, 1975 – The U.S. Environmental Protection Agency (USEPA) issued National Pollutant Discharge Elimination System (NPDES) Permit #ME0001082 to MDIFW for the discharge of an unspecified volume of wastewater from the Grand Lake Stream Hatchery to Grand Lake Stream. The Permit was valid through February 15, 1980.

May 11, 1983 – The Maine Board of Environmental Protection issued WDL #2037 for the discharge of a daily maximum of 2.88 MGD of treated fish hatchery wastewater from the MDIFW Grand Lake Stream hatchery to Grand Lake Stream, Class B-1. Grand Lake Stream was reclassified by the Maine Legislature as a Class A waterbody in 1985. The WDL was a renewal of an earlier WDL of the same number and 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

2. PERMIT SUMMARY (cont'd)

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 WDL #W-002037-5Q-A-R to MDIFW Grand Lake Stream for the discharge of a daily maximum of 2.88 MGD of treated fish hatchery wastewater. This permitting action established TSS and BOD₅ monthly average concentration limits of 2 mg/L, and a monthly average concentration limit of 0.052 mg/L for total Phosphorus. The WDL was issued for a five-year term.

January 12, 2001 – The Department received authorization from the USEPA to administer the NPDES permitting program in Maine, excluding areas of special interest to Maine Indian

Tribes. From this point forward, the program has been referred to as the MEPDES program, and MEPDES permit #ME0001082 has been utilized for this facility. On March 26, 2011, the USEPA authorized the Department to administer the MEPDES program in Indian territories of the Penobscot Nation and Passamaquoddy Tribe.

September 10, 2001 – The Department suspended monitoring requirements established in WDL # W-002037-5Q-A-R for Outfall #001A, designated for effluent discharges when not cleaning raceways. The Department required monitoring for Outfall #001B, designated for effluent discharges when cleaning raceways, to be conducted by auto-compositer. The Department made no mention of Outfall #002A, previously designated for a summary of the flow, mass of fish on hand, and total phosphorus (Kgs/month, Kgs/year) values from Outfalls #001A and #002A; Outfall #003A, previously designated for a summary of the total phosphorus (Kgs/day) values from Outfalls #001A and #002A; or Outfall #004A, previously designated for the flow, BOD₅, TSS, and duration of discharge from the facility's filter backwash.

October 26, 2001 – Based on a review of monitoring results, the Department suspended effluent limits and monitoring requirements established in WDL # W-002037-5Q-A-R for Outfall #004A, designated for the discharge of filter backwash.

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 the 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.

2. PERMIT SUMMARY (cont'd)

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-002037-5Q-A-R to extend the 3-year schedule of compliance for BOD₅, TSS, and phosphorus effluent limits established in the WDL through expiration of the WDL.

June 27, 2005 - The Department received a timely application from MDIFW for renewal of the WDL for the discharge of fish hatchery wastewater from the Grand Lake Stream facility. The application was assigned WDL #W-002037-5Q-B-R and MEPDES permit #ME0001082.

August 1, 2006 – The Department issued WDL #W-002037-5Q-B-R / #ME0001082 for a five-year term. This permitting action updated the monthly average concentration limit for TSS and BOD to 6 mg/L, established a daily maximum concentration limit of 10 mg/l, and calculated mass limits of 48 and 242 lbs per day respectively. This permitting action also established an annual mass limit for total phosphorus of 504 lbs/year and updated the concentration limit to 0.14 mg/L.

October 10, 2008 – The Department issued minor revision WDL #W-002037-5Q-C-M / MEPDES #ME0001082 for the amendment of the formalin concentration limits.

April 23, 2009 – The Department issued minor revision WDL #W-002037-5Q-D-M / MEPDES #ME0001082 for the amendment of the BOD₅ and TSS monitoring frequency requirements.

June 2, 2010 – The Department entered into a Consent Agreement with MDIFW for the violations incurred at several hatchery facilities including Grand Lake Stream hatchery.

June 28, 2011 – MDIFW submitted a complete and timely application for renewal of their WDL/MEPDES permit. The application was assigned WDL #W002037-6F-E-R / MEPDES #ME0001082.

August 6, 2014 – The Department issued WDL# W002037-6F-E-R/ MEPDES #ME0001082 for a five-year term.

May 20, 2019 – MDIFW submitted a timely and complete General Application to the Department for renewal of the August 6, 2014 MEPDES permit. The application was accepted for processing on May 20, 2019 and was assigned WDL#002037-6F-F-R/MEPDES #ME0001082.

October 8, 2020 – The Department issued WDL# W002037-6F-F-R/ MEPDES #ME0001082 for a five-year term.

October 13, 2023 – MDIFW submitted a timely and complete General Application to the Department for renewal of the October 8, 2020 MEPDES permit. The application was accepted for processing on October 23, 2023 and was assigned WDL# W002037-6F-G-R/MEPDES #ME0001082. The application includes proposed improvements to the facility, including updating wastewater treatment with a new drum filtration building, secondary clarifier, and sludge storage.

3. CONDITIONS OF PERMIT

Conditions of licenses, 38 M.R.S. § 414-A, requires that the effluent limitations prescribed for discharges, including, but not limited to, effluent toxicity, require application of best practicable treatment (BPT), be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System. In addition, *Certain deposits and discharges prohibited*, 38 M.R.S. § 420 and *Surface Water 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. ch. 584 (effective February 16, 2020), and that ensure safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected.

4. RECEIVING WATER QUALITY STANDARDS

Classification of major river basins, 38 M.R.S. § 467 (13)(B)(1) classifies the “St. Croix River...All tributaries entering upstream from the dam at Calais, the drainage areas of which are wholly within the State-Class A unless otherwise classified” which includes Grand Lake Stream at the point of discharge. Grand Lake Stream empties into Big Lake, which is classified as “St. Croix River...Those waters impounded in the Grand Falls Flowage including those waters between Route 1 (Princeton and Indian Township) and Grand Falls Dam – Class GPA.” pursuant to 38 M.R.S. § 467 (13)(A)(2). *Standards for classification of fresh surface waters*, 38 M.R.S. § 465 (2) describes the standards for **Class A waters** as follows:

- A. *Class A waters must be of such quality that they are suitable for the designated uses of drinking water after disinfection; 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 natural.*
- B. *The dissolved oxygen content of Class A 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. The aquatic life and bacteria content of Class A waters must be as naturally occurs, except that the numbers 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 per 100 milliliters in more than 10% of the samples in any 90-day interval.*
- C. *Except as provided in this paragraph, direct discharges to these waters licensed after January 1, 1986 are permitted only if, in addition to satisfying all the requirements of this article, the discharged effluent will be equal to or better than the existing water quality of the receiving waters. Prior to issuing a discharge license, the department shall require the applicant to objectively demonstrate to the department's satisfaction that the discharge is necessary and that there are no other reasonable alternatives available. Discharges into waters of this classification licensed prior to January 1, 1986 are allowed to continue only until practical alternatives exist.*

(1) *This paragraph does not apply to a discharge of storm water that is in compliance with state and local requirements.*

4. RECEIVING WATER QUALITY STANDARDS (cont'd)

- (2) *This paragraph does not apply to a discharge to Class A waters that are or once were populated by a distinct population segment of Atlantic salmon as determined pursuant to the United States Endangered Species Act of 1973, Public Law 93-205, as amended, if, in addition to satisfying all the requirements of this article, the applicant, prior to issuance of a discharge license, objectively demonstrates to the department's satisfaction that the discharge is necessary, that there are no other reasonable alternatives available and that the discharged effluent is for the purpose of and will assist in the restoration of Atlantic salmon and will return the waters to a state that is closer to historically natural chemical quality.*
- (3) *This paragraph does not apply to aquatic pesticide or chemical discharges approved by the department and conducted by the department, the Department of Inland Fisheries and Wildlife or an agent of either agency for the purpose of restoring biological communities affected by an invasive species.*
- (4) *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 be equal to or better than the existing water quality of the receiving waters 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) *This paragraph does not apply to discharges of pesticides approved by the department that are:*
 - (a) *Unintended and an incidental result of the spraying of pesticides;*
 - (b) *Applied in compliance with federal labeling restrictions; and*
 - (c) *Applied in compliance with statute, Board of Pesticides Control rules and best management practices.*

D. Storm water discharges to Class A waters must be in compliance with state and local requirements.

E. Material may not be deposited on the banks of Class A waters in any manner that makes transfer of pollutants into the waters likely.

Pursuant to 38 M.R.S. § 465 (2)(C), Prior to issuing a discharge license, the Department requires the applicant to objectively demonstrate to the Department's satisfaction that the discharge is necessary and that there are no other reasonable alternatives available. An Alternative Discharge Study performed by Fishpro for multiple MDIFW facilities (including Grand Lake Stream) indicates that there are no reasonable alternatives to the current discharge. MDIFW (via email correspondence to the Department dated February 12, 2024) confirmed the 2002 Fishpro conclusions that there are no practical alternatives to the discharge is valid for purposes of this permitting action.

Standards for classification of fresh surface waters, 38 M.R.S. § 465-A (1) describes the standards for Class GPA waters as follows:

4. RECEIVING WATER QUALITY STANDARDS (cont'd)

- A. *Class GPA waters must be of such quality that they are suitable for the designated uses of drinking water after disinfection, recreation in and on the water, fishing, agriculture, industrial process and cooling water supply, hydroelectric power generation, navigation and as habitat for fish and other aquatic life. The habitat must be characterized as natural.*
- B. *Class GPA waters must be described by their trophic state based on measures of the chlorophyll "a" content, Secchi disk transparency, total phosphorus content and other appropriate criteria.*

Class GPA waters must have a stable or decreasing trophic state, subject only to natural fluctuations, and must be free of culturally induced algal blooms that impair their use and enjoyment. The number of Escherichia coli bacteria in these waters may not exceed a geometric mean of 29 CFU or MPN per 100 milliliters over a 90-day interval or 194 CFU or MPN per 100 milliliters in more than 10% of the samples in any 90-day interval.

- C. *There may be no new direct discharge of pollutants into Class GPA waters. Notwithstanding paragraph D, section 466-A or any other provision of law to the contrary, the following are exempt from this provision:*

(1) Chemical discharges for the purpose of restoring water quality approved by the department;

(2) Aquatic pesticide or chemical discharges approved by the department and conducted by the department, the Department of Inland Fisheries and Wildlife or an agent of either agency for the purpose of restoring biological communities affected by an invasive species;

(3) Storm water discharges that are in compliance with state and local requirements;

(4) Discharges of aquatic pesticides approved by the department for the control of mosquito-borne diseases in the interest of public health and safety using materials and methods that provide for protection of 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; and

(5) Discharges of pesticides approved by the department that are:

(a) Unintended and an incidental result of the spraying of pesticides;

(b) Applied in compliance with federal labeling restrictions; and

(c) Applied in compliance with statute, Board of Pesticides Control rules and best management practices.

Discharges into these waters licensed prior to January 1, 1986 are allowed to continue only until practical alternatives exist. Materials may not be placed on or removed from the shores or banks of a Class GPA water body in such a manner that materials may fall or be washed into the water or that contaminated drainage may flow or leach into those waters, except as permitted pursuant to section 480-C. A change of land use in the watershed of a Class GPA water body may not, by itself or in combination with other activities, cause water quality degradation that impairs the

4. RECEIVING WATER QUALITY STANDARDS (cont'd)

characteristics and designated uses of downstream GPA waters or causes an increase in the trophic state of those GPA waters.

D. The following waters are subject to a sustenance fishing designated use pursuant to section 466-A: Conroy Lake in Monticello; Grand Lake Matagamon in Trout Brook Township and T.6 R.8 W.E.L.S.; Mattamiscotis Lake in T.3 R.9 N.W.P. and T.2 R.9 N.W.P.; Grand Falls Flowage, Berry Brook Flowage, George Brook Flowage, Huntley Brook Flowage, Lewey Lake, The Basin, The Narrows, Long Lake and Big Lake, adjacent to Indian Township; and Sysladobsis Lake in T.5 N.D.

38 M.R.S. § 467 (13)(A)(2), also states “ These waters are subject to a sustenance fishing designated use pursuant to section 466-A.” Sustenance fishing designated use is defined as “...a subcategory of the applicable fishing designated use that protects human consumption of fish for nutritional and cultural purposes... 38 M.R.S. 466(10-A).” Section 466-A, *Sustenance fishing designated use*, describes the criteria and limitations of **the sustenance fishing designated use** as follows:

1. *Water quality criteria. To protect the sustenance fishing designated use designated under this article, the department shall calculate and establish water quality criteria for human health using a fish consumption rate of 200 grams per day and a cancer risk level of one in a million, except that the cancer risk level for inorganic arsenic is governed by section 420, subsection 2, paragraph J.*
2. *Criteria deemed protective. For all purposes, the sustenance fishing designated use established under this article is deemed protected through the water quality criteria for human health calculated and established by the department for the water body segments subject to a sustenance fishing designated use under this article.*
3. *Limitation; construction. Nothing in this section and nothing in the designation in this article of a sustenance fishing designated use may be construed to:*
 - A. *Create any other right or protection, including a right to any particular quantity or quality of fish;*
 - B. *Limit any right or protection otherwise existing in law; or*
 - C. *Alter or affect the regulation of mercury in discharges, which is governed exclusively by section 413, subsection 11 and section 420, subsection 1-B.*

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

5. REASONABLE POTENTIAL (cont'd)

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 (Report), prepared by the Department pursuant to Sections 303(d) and 305(b) of the Federal Water Pollution Control Act, list the waters in Grand Lake Stream and tributaries (Integrated Report Assessment Unit ID ME0105000103_502R) as “Category 2: Rivers and Streams Attaining Some Designated Uses – Insufficient Information for Other Uses.” Big Lake at Peter Dana Point (Integrated Report Assessment Unit ID ME0105000105_502R) is listed in Category 2 as well.

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 38 M.R.S. § 420(1-B)(B), “a facility is not in violation of the ambient criteria for mercury if the facility is in compliance with an interim discharge limit established by the Department pursuant to section 413 subsection 11.” However, pursuant to *Interim Effluent Limitations and Controls for the Discharge of Mercury*, 06-096 CMR 519, the Department has made a best professional judgment determination to exempt fish hatcheries from applicability of the mercury rule.

The most recent biomonitoring of macroinvertebrates conducted by the Department has indicated Grand Lake Stream has historically met and is currently attaining Class A standards.

7. EFFLUENT LIMITATIONS AND 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

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

100,000 lbs. or more per year of aquatic animals in a flow-through or recirculating system. The facility’s highest reported total fish on hand from November 2020 – December 2023 was 18,066 lbs. The facility daily maximum of 18,066 lbs is less than the 100,000 lbs. per year applicable threshold and is not subject to regulation under this subpart.

- b. Flow: In the August 1, 2006, permit, the Department established a monthly average flow limit of 2.9 MGD based on information provided by MDIFW on facility operations and design capacity and to provide the facility with operational flexibility. This permitting action is carrying forward the monthly average discharge flow limit of 2.9 MGD.

The Department reviewed 36 Discharge Monitoring Reports (DMRs) that were submitted for the period November 2020 – December 2023. A review of data indicates the following:

Flow (DMR = 58)

Value	Limit (MGD)	Range (MGD)	Mean (MGD)
Monthly Average	2.9	1.47 – 2.30	2.03

- c. Dilution Factors: The Department’s Division of Environmental Assessment (DEA) has derived dilution factors in accordance with 06-096 C.M.R. ch. 530 § (4)(A) using the hatchery’s permitted flow of 2.9 MGD and Grand Lake Stream’s 1Q10, 7Q10, and harmonic mean flow determined from the daily stream flows recorded at USGS gauge station NWIS 01019000 Grand Lake Stream from 1981 to 2023 (i.e., all full-year records since the renewal of FERC license #2618 for the West Grand Lake Dam in 1980).

Conversion factor: 1 cfs = 0.6464 MGD

Flow = 2.9 MGD

$$\text{Modified Acute: } \frac{1}{4} \text{ 1Q10} = 25.2 \text{ cfs} \Rightarrow \frac{(25.2 \text{ cfs})(0.6464) + 2.9 \text{ MGD}}{2.9 \text{ MGD}} = 6.6:1$$

$$\text{Acute: 1Q10} = 100.8 \text{ cfs} \Rightarrow \frac{(100.8 \text{ cfs})(0.6464) + 2.9 \text{ MGD}}{2.9 \text{ MGD}} = 23.5:1$$

$$\text{Chronic: 7Q10} = 103.6 \text{ cfs} \Rightarrow \frac{(103.6 \text{ cfs})(0.6464) + 2.9 \text{ MGD}}{2.9 \text{ MGD}} = 24.1:1$$

$$\text{Harmonic Mean} = 252 \text{ cfs} \Rightarrow \frac{(252 \text{ cfs})(0.6464) + 2.9 \text{ MGD}}{2.9 \text{ MGD}} = 57.2:1$$

The Department’s DEA has determined that MDIFW Grand Lake Stream’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).

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

- d. TSS: The August 1, 2006, permit established TSS concentration limits of 6 and 10 mg/L for monthly average and daily maximum, respectively. 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 August 1, 2006, permitting action stated an increased discharge of pollutants was considered a new discharge and pursuant to 38 M.R.S § 464 (4)(A)(2) the department may not authorize a “*new direct discharge of domestic pollutants to tributaries of Class-GPA waters*”. Therefore, the monthly average mass limitation was calculated using the previously established concentration limit of 2 mg/L. Prior to the 2006 licensing action there was no daily maximum concentration limit. Therefore, the August 1, 2006 permitting action used the newly established limit of 10 mg/L to calculate the daily maximum mass limitation.

The calculations for monthly average mass and daily maximum mass limits are as follows:

$$(2.9\text{MGD})(8.34\text{lbs/gal})(2 \text{ mg/L}) = \mathbf{48 \text{ lbs/day}}$$

$$(2.9\text{MGD})(8.34 \text{ lbs/gal})(10 \text{ mg/L}) = \mathbf{242 \text{ lbs/day}}$$

This permitting action is carrying forward the established TSS mass and concentration limits as well as the monitoring frequency of 1/month.

The Department reviewed 36 DMRs that were submitted for the period November 2020 – December 2023 a review of data indicates the following:

TSS mass (DMR = 36)

Value	Limit (lbs./day)	Range (lbs./day)	Mean (lbs./day)
Monthly Average	48	0.0 – 51*	4.72
Daily Maximum	242	34 – 51	35.5

*Two excursions of the monthly average mass limit for TSS were reported in November of 2020 and December of 2021.

TSS concentration (DMR = 36)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	6	< 1 – 3	< 2
Daily Maximum	10	< 1 – 3	< 2

- e. Dissolved Oxygen: The August 1, 2006, permit required in-stream DO measurements to be taken at the point of discharge. This permitting action is carrying forward daily minimum limit of 7.5 mg/L, the seasonal, once per week (1/Week) reporting requirement for dissolved oxygen to ensure the discharge does not cause or contribute to non-attainment of Class A dissolved oxygen standards which are referenced in section 4 of this fact sheet.

The Department reviewed 12 DMRs that were submitted for the period November 2020 – December 2023. A review of data indicates the following:

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

DO (DMR = 12)

Value	Limit (mg/L)	Range (mg/L)
Daily Minimum	7.5	7.6 – 10.2

- f. Total Phosphorus: Both Big Lake and Grand Lake Stream receive the discharge from MDIFW’s Grand Lake Stream Hatchery. The August 1 2006, permit established an annual maximum mass limit for phosphorus of 504 pounds, which is considered to be protective of the Class GPA standard that:

“Class GPA waters must have a stable or decreasing trophic state, subject only to natural fluctuations and must be free of culturally induced algal blooms that impair their use and enjoyment.” 38 M.R.S. §465-A(1)(B).

The annual maximum mass limitation of 504 lbs./year is a water quality-based limit necessary to ensure compliance with Class GPA water quality standards and is being carried forward in this permitting action. This permitting action is also carrying forward the monitoring frequency of 2/Month to allow for monitoring flexibility.

The Department reviewed 36 DMRs that were submitted for the period November 2020 – December 2023. A review of data indicates the following:

Total-P Mass from Outfall 005A (DMR = 36)

Year	Limit (lbs./year)	Annual Total (lbs.)
2020	504	228.7
2021		196
2022		182.7
2023		95.8

For discharges to rivers and streams, the Department typically utilizes an ambient water quality threshold of 0.035 mg/L for phosphorus. Based on Department research, 0.035 mg/L phosphorus is the maximum level at which algae blooms will not typically occur in a receiving river or stream within regular 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. Utilizing the method of analysis from 2006, the Department utilized a dilution factor of 3.9 to calculate a water quality-based limit for this discharge as follows:

Phosphorus monthly average concentration = (0.035 mg/L)(3.9) = **0.14 mg/L**

The Phosphorus monthly average concentration has been recalculated using the current dilution factors that are referenced in section 6(c) of this fact sheet. Using chronic dilution factor and the chosen method of analysis in 2006 the calculations are as follows:

Phosphorus monthly average concentration = (0.035 mg/L)(24.1)= **0.84 mg/L**

A corresponding increase in the phosphorus limit is, however, restricted by the following;

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

38 M.R.S. § 464(12)(A), states, "...An unlicensed discharge from a fish hatchery is considered, and continues to be considered after it is licensed pursuant to section 413, the same as a discharge licensed prior to January 1, 1986, for the purposes of subsection 4, paragraph A, subparagraph (1); section 465, subsection 2, paragraph C; and section 465-A, subsection 1, paragraph C if the following conditions are met: A. The discharge was in existence prior to January 1, 1986;"

An increase in phosphorus being discharged, consistent with the updated dilution factor, would not be considered the same as a discharge prior to 1986. All proposed increases of pollutants in the existing discharge would also be subject to the provisions for discharges to Class A waters and would not meet 38 M.R.S. § 465(2)(C),

"...direct discharges to these waters licensed after January 1, 1986 are permitted only if, ... the discharged effluent will be equal to or better than the existing water quality of the receiving water. Discharges...licensed prior to January 1, 1986, are allowed to continue only until practical alternatives exist."

The October 8, 2020, permitting action reestablished, and this permitting action is carrying forward, a monthly average concentration limit of 0.14 mg/L for total phosphorus. The Department reviewed 12 DMRs that were submitted for the period November 2020 – December 2023. A review of data indicates the following:

Total-P Concentration from Outfall 005A (DMR = 12)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	0.14	0.02 – 0.07	0.04
Daily Maximum	Report	0.02 – 0.10	0.05

Phosphorus monthly average concentration monitoring frequencies will remain at twice per month (2/Month) and will be in effect June 1st – September 30th.

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. However, ambient monitoring requirements were not added to the MDIFW Grand Lakes Stream permit because of the facility’s excellent compliance record and the receiving water quality standards are consistently being met.

- g. Fish on Hand: The August 6, 2014, permit established a 1/Month reporting requirement of daily maximum mass for fish on hand. This permit is carrying that action forward.

The Department reviewed 36 DMRs that were submitted for the period November 2020 – December 2023. A review of data indicates the following:

Fish on Hand for Outfall 005A (DMR = 36)

Value	Limit (lbs.)	Range (lbs.)	Mean (lbs.)
Daily Maximum	Report	4,868 – 18,066	11,246

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

h. Formalin: Formalin is a drug used to treat fungal infections and external parasites of finfish and finfish eggs. Since the 2006 permit, mass limits have been carried forward based on the following language:

“Effluent mass limits were previously and remain calculated based on the permittee’s projected maximum amount of formalin used per day (6-gallons) times the weight of formalin (9.13 lbs/gal), resulting in a value of 54.8 lbs/day.”

The October 8, 2020, permit calculated new mass limits based on the ambient water quality criteria (AWQC) of 25 mg/L and 45 mg/L for 24-hour and 1-hour treatment limits, respectively, and a dilution factor of 6.7. The calculated limits of 396 lbs./hour and 4,103 lbs./day would have been less stringent than the previously established limit of 54.8 lbs./day. Therefore, based on the

Departments BPJ of AWQC, the mass limit established in the August 1, 2006 permit (and carried forward since that time) is being carried forward in this permitting action.

The August 6, 2014, permit revised Formalin monitoring to 1/Occurrence to better clarify the reporting requirement. This permit is carrying that action forward.

The Department reviewed 14 DMRs that were submitted for the period November 2020 – December 2023. A review of data indicates the following:

Formalin mass (DMR = 22)

Value	Limit (lbs./day)	Range (lbs./day)
Monthly Average	Report	1.4 – 40
Daily Maximum	54.8	1.4 – 40

8. ANTI-BACKSLIDING

Federal regulation 40 C.F.R. § 122(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 those in the previous permit.

9. ANTI-DEGREDAATION

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 Grand Lake Stream to meet standards for Class A classification or Big Lake to meet standards for GPA classification.

10. PUBLIC COMMENTS

Public notice of this application was made in the *Calais Advertiser* newspaper on or about October 12, 2023. 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

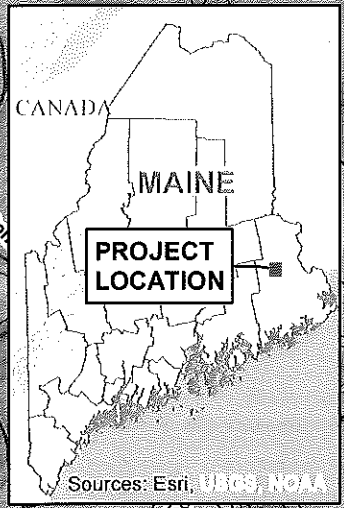
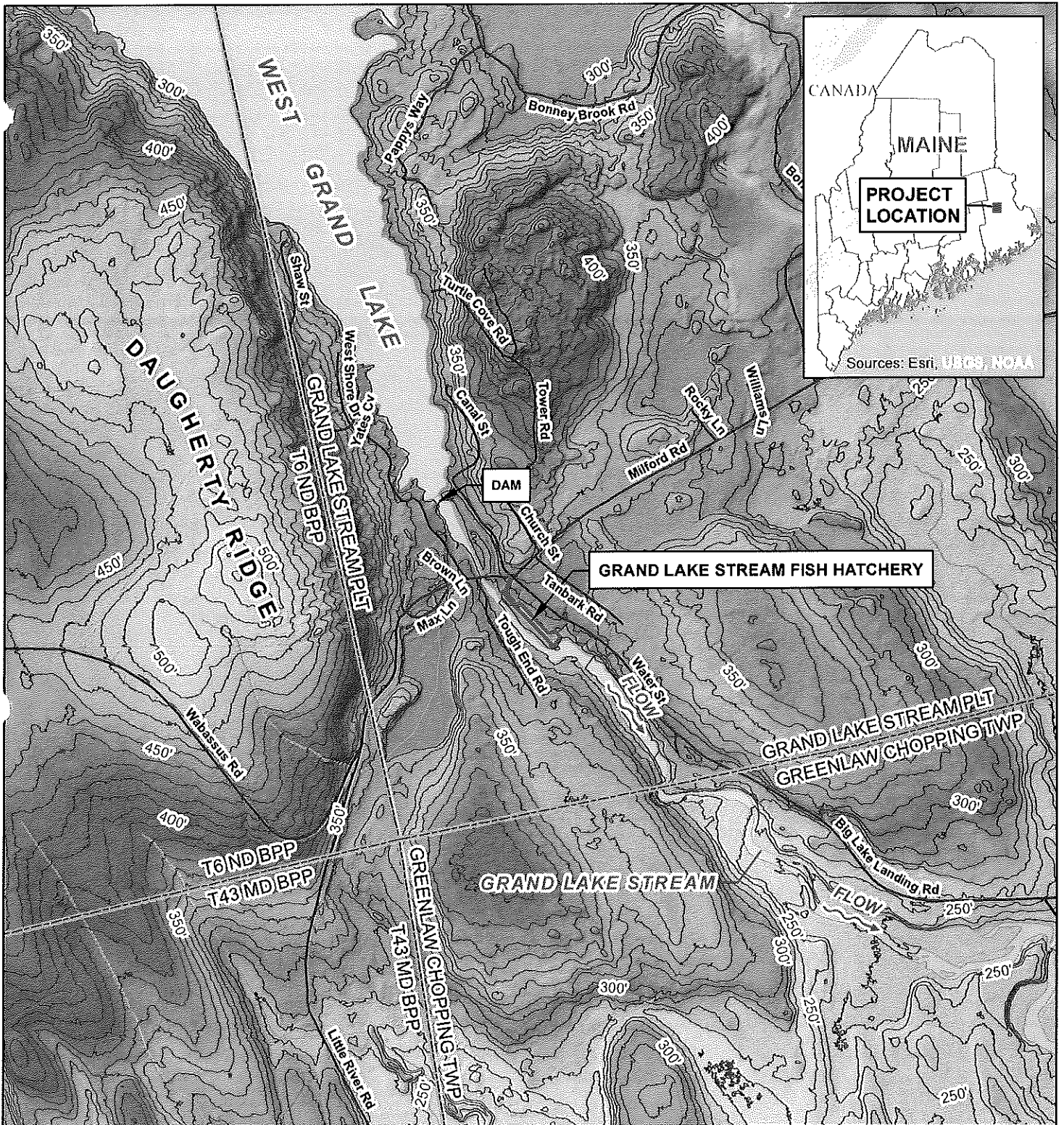
Additional information concerning this permitting action may be obtained from, and written comments sent to:

Benjamin Pendleton
Bureau of Water Quality
Division of Water Quality Management
Department of Environmental Protection
17 State House Station, Augusta, ME. 04333-0017
Telephone: (207) 592-6871
E-mail: Benjamin.S.Pendleton@maine.gov

12. RESPONSE TO COMMENTS

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

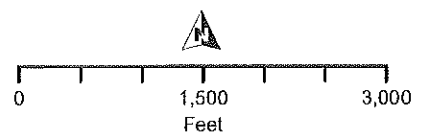
FACT SHEET ATTACHMENT A



LEGEND

- Project Limit of Disturbance
- Road
- 10 ft. Contour
- Township Boundary
- River / Stream
- Waterbody

Elevation (Ft.)
 High : 522.875
 Low : 214.47



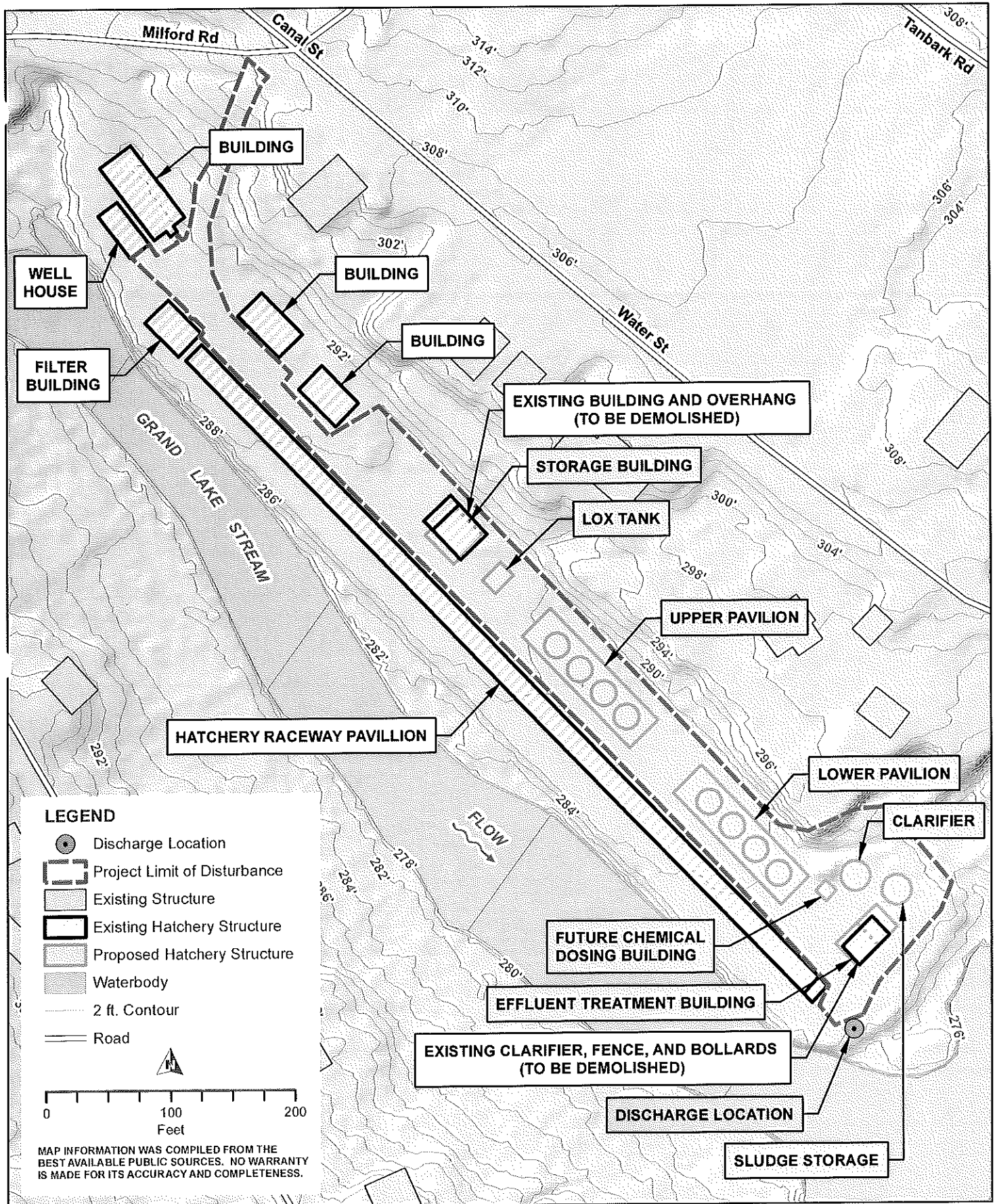
MAP INFORMATION WAS COMPILED FROM THE BEST AVAILABLE PUBLIC SOURCES. NO WARRANTY IS MADE FOR ITS ACCURACY AND COMPLETENESS.



MAINE DEPT. INLAND FISHERIES & WILDLIFE

TOPOGRAPHIC MAP OVERVIEW
GRAND LAKE STREAM STATE FISH HATCHERY IMPROVEMENT PROJECT

WASHINGTON COUNTY, MAINE



LEGEND

- Discharge Location
- Project Limit of Disturbance
- Existing Structure
- Existing Hatchery Structure
- Proposed Hatchery Structure
- Waterbody
- 2 ft. Contour
- Road

0 100 200
Feet

MAP INFORMATION WAS COMPILED FROM THE BEST AVAILABLE PUBLIC SOURCES. NO WARRANTY IS MADE FOR ITS ACCURACY AND COMPLETENESS.

TOPOGRAPHIC MAP

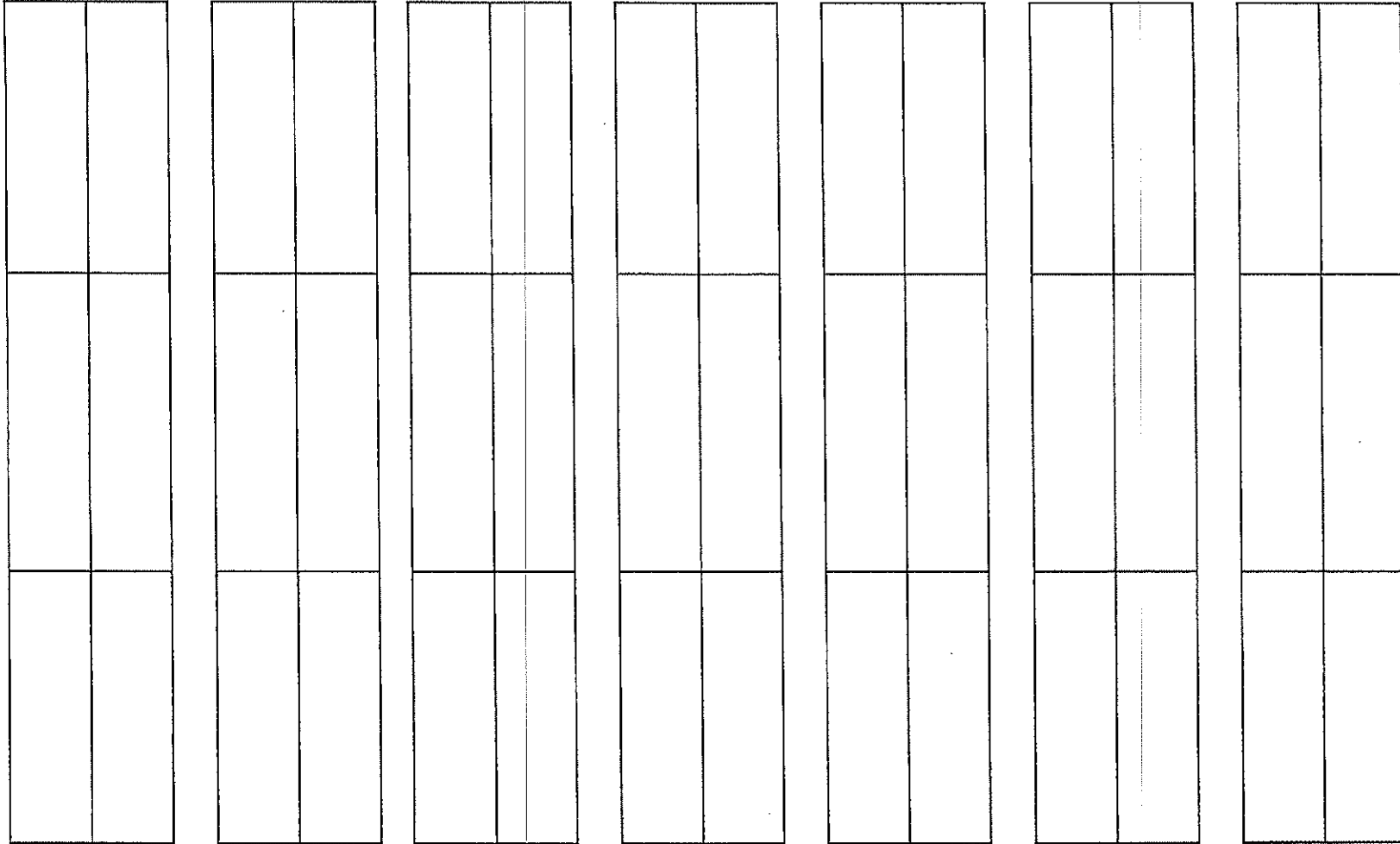
GRAND LAKE STREAM STATE FISH HATCHERY IMPROVEMENT PROJECT

WASHINGTON COUNTY, MAINE



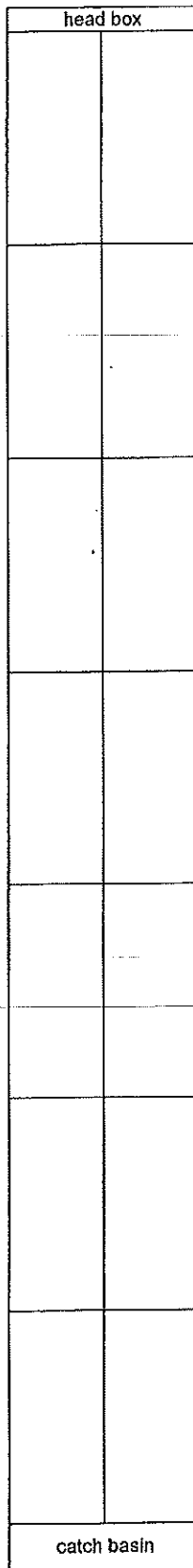
FACT SHEET ATTACHMENT B

Grand Lake Stream Hatchery Layout

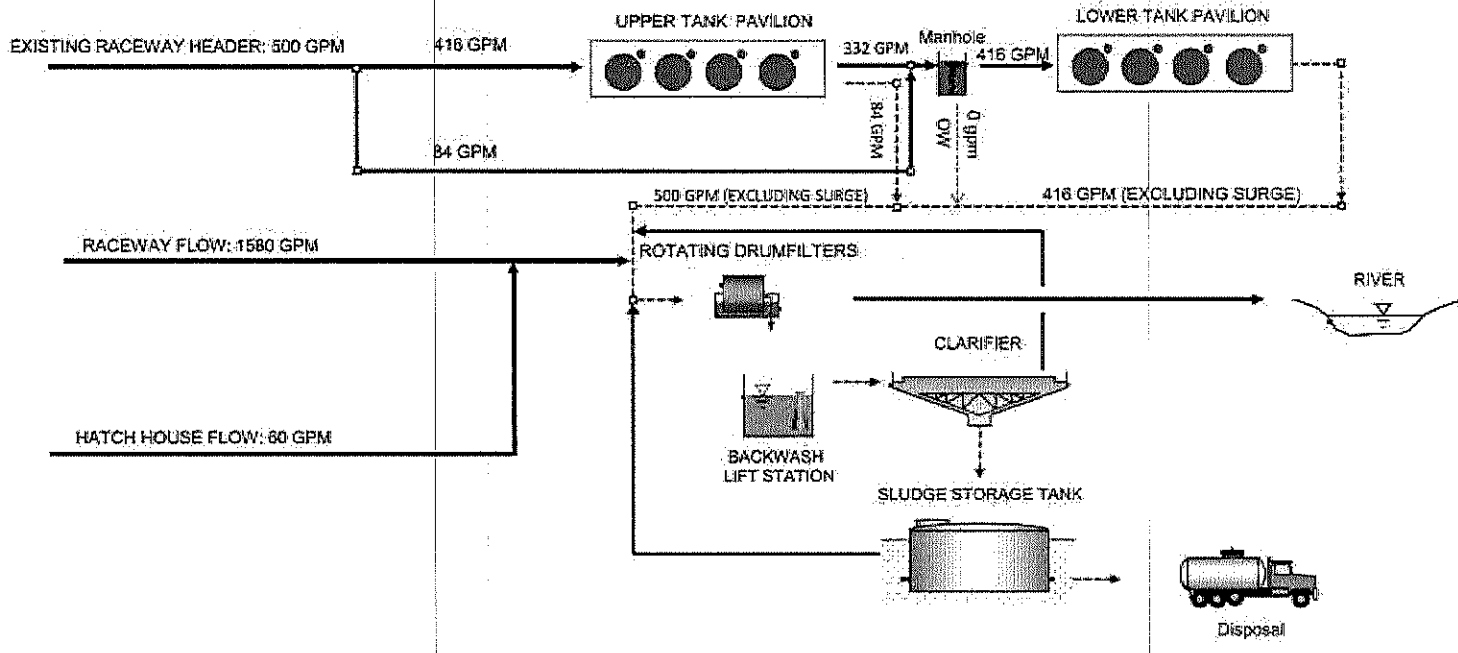


42 incubation/rearing troughs measuring 8 ft by 14 inch

GLS Raceway Layout
Pools 8' x 100'



FLOW SCHEMATIC



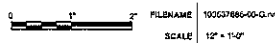
ISSUE	DATE	DESCRIPTION
07/14/2023		ISSUED FOR BID

PROJECT MANAGER: ANDREW GURSKI	
CIVIL	J. GAGNON
STRUCTURAL	B. BRADLEY
ARCHITECTURAL	M. BASIN
PROCESS	J. CHANDLER
MECHANICAL	J. CHANDLER
ELECTRICAL	A. KANER
PROJECT NUMBER: 10367886	



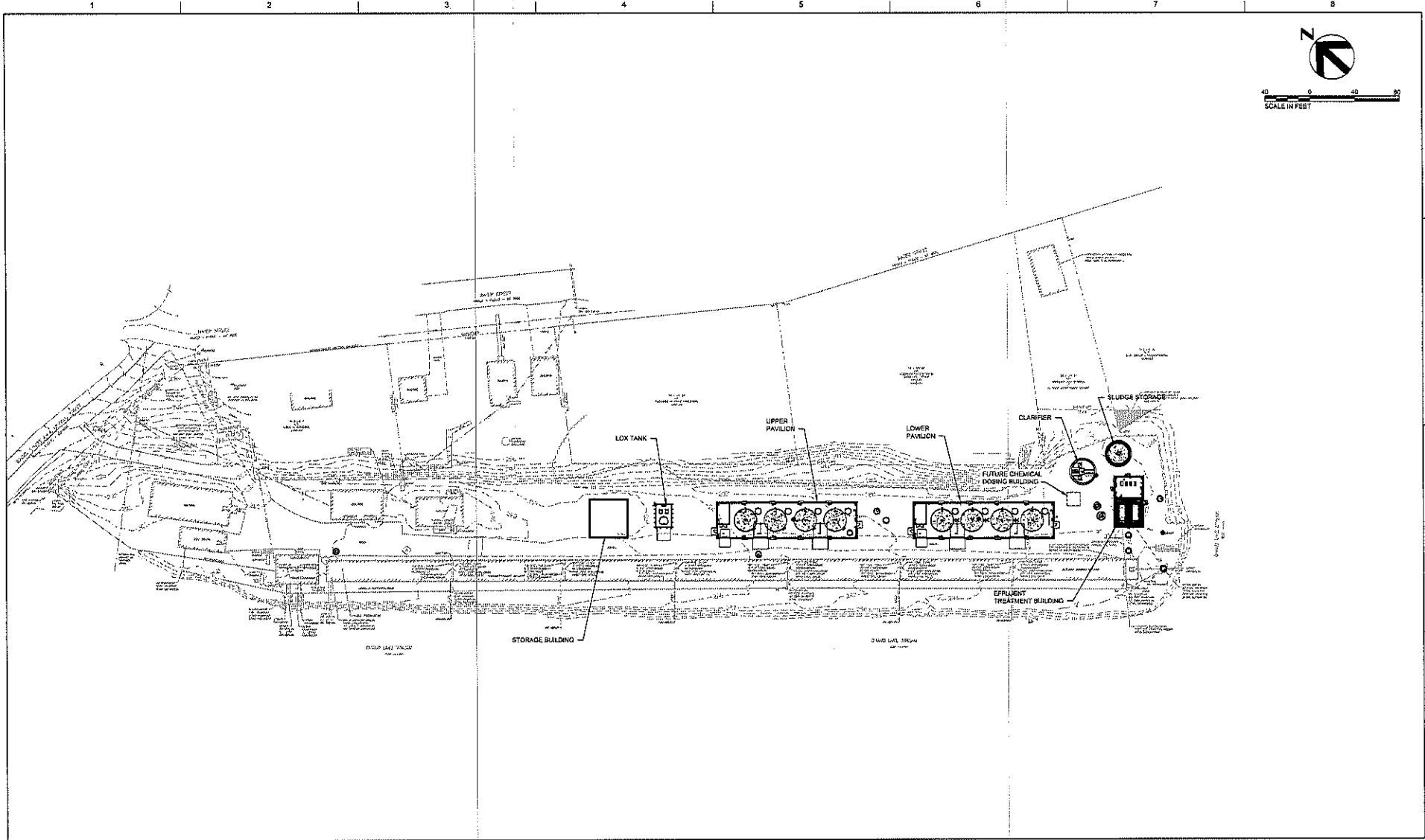
IMPROVEMENTS AT GRAND LAKE STREAM STATE FISH HATCHERY

PROCESS WATER FLOW SCHEMATIC



SHEET
00D-601

Andrew Gurski 10367886_00D-601_GrandLake Stream Imp_2023/03/27/03:05:00 PM
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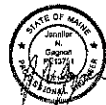


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ISSUE	DATE	DESCRIPTION
07/14/2023	ISSUED FOR BIDS	

PROJECT MANAGER	ANDREW GURKIN
CIVIL	J. OAGNON
STRUCTURAL	B. BRADLEY
ARCHITECTURAL	M. BASKIN
PROCESS	J. CHANDLER
MECHANICAL	J. CHANDLER
ELECTRICAL	A. KANER
PROJECT NUMBER	10357886



IMPROVEMENTS AT GRAND LAKE STREAM STATE FISH HATCHERY

OVERALL SITE PLAN



FILENAME | 10357886-01C-111.DWG
SCALE | 1" = 40'

SHEET
01C-111

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

CONTENTS

SECTION	TOPIC	PAGE
A	GENERAL PROVISIONS	
1	General compliance	2
2	Other materials	2
3	Duty to Comply	2
4	Duty to provide information	2
5	Permit actions	2
6	Reopener clause	2
7	Oil and hazardous substances	2
8	Property rights	3
9	Confidentiality	3
10	Duty to reapply	3
11	Other laws	3
12	Inspection and entry	3
B	OPERATION AND MAINTENANCE OF FACILITIES	
1	General facility requirements	3
2	Proper operation and maintenance	4
3	Need to halt reduce not a defense	4
4	Duty to mitigate	4
5	Bypasses	4
6	Upsets	5
C	MONITORING AND RECORDS	
1	General requirements	6
2	Representative sampling	6
3	Monitoring and records	6
D	REPORTING REQUIREMENTS	
1	Reporting requirements	7
2	Signatory requirement	8
3	Availability of reports	8
4	Existing manufacturing, commercial, mining, and silvicultural dischargers	8
5	Publicly owned treatment works	9
E	OTHER PROVISIONS	
1	Emergency action - power failure	9
2	Spill prevention	10
3	Removed substances	10
4	Connection to municipal sewer	10
F	DEFINITIONS	10

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

A. GENERAL PROVISIONS

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

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

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

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

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

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

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

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

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

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

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

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

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

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

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

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

B. OPERATION AND MAINTENANCE OF FACILITIES

1. General facility requirements.

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

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

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

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

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

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

5. Bypasses.

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

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

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

6. Upsets.

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

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

C. MONITORING AND RECORDS

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

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

3. Monitoring and records.

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

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

D. REPORTING REQUIREMENTS

1. Reporting requirements.

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

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).

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

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

5. Publicly owned treatment works.

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

E. OTHER REQUIREMENTS

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

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

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

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

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

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

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

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

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

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

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

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

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

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

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

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

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

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

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

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

Maximum daily discharge limitation means the highest allowable daily discharge.

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

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

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

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

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

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

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

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

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

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

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

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

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

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

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