STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JANET T. MILLS
GOVERNOR

MELANIE LOYZIM
COMMISSIONER

December 20, 2024

Mr. Oliver Cox
US Fish and Wildlife Service
One Hatchery Way, Route 180
Ellsworth, Maine 04605

Sent via electronic mail
Delivery confirmation requested

RE: *Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME*0002623
Maine Waste Discharge License (WDL) Application #W000721-6F-H-R
Proposed Draft MEPDES Permit Renewal

Dear Oliver,

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

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

All comments on the proposed draft permit must be received in the Department of Environmental Protection office on or before the close of business **January 20, 2025.** Failure to submit comments in a timely fashion will result in the proposed draft permit document being issued as drafted.

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

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

PORTLAND
312 CANCO ROAD
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(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

web site: www.maine.gov/dep

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
Benjamin.S.Pendleton@Maine.gov

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

Sincerely,

Benjamin S Pendleton

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

Enc.

ec: John Adamo, MEDEP
Gary Brooks, MEDEP
Laura Crossley, MEDEP
Wendy Garland, MEDEP
Lori Mitchell, MEDEP
Charlene Moore, MEDEP
Emily Green, CLF
Environmental Review, MEDMR
Ellen Weitzler, USEPA
Michael Cobb, USEPA
Kathryn Rosenberg, USEPA
Richard Carvalho, USEPA
Environmental Review, MEDIFW
Maine Field Office, USFWS

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

DEPARTMENT ORDER

IN THE MATTER OF

U.S. FISH AND WILDLIFE SERVICE	)	MAINE POLLUTANT DISCHARGE
GREEN LAKE HATCHERY	)	ELIMINATION SYSTEM PERMIT
ELLSWORTH, HANCOCK COUNTY, MAINE	)	AND
ME0002623	)	WASTE DISCHARGE LICENSE
W000721-6F-H-R **APPROVAL**	)	**RENEWAL**

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

APPLICATION SUMMARY

On February 5, 2020, the Department accepted as complete for processing, a timely renewal application from USFWS for Waste Discharge License (WDL) #W-000721-6F-G-R/Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0002623 which the Department issued on August 4, 2015 for a five-year term. The August 4, 2015, MEPDES permit authorized USFWS to discharge a monthly average of 13.3 million gallons per day (MGD) and a daily maximum of 19.4 MGD of fish hatchery and rearing facility wastewater via Outfall #001A to Graham Lake, Class GPA and 0.228 MGD and the discharge of an unspecified amount of influent filter backwash wastewater via Outfall #002A to Reeds Brook, Class B, in Ellsworth, Maine.

PERMIT SUMMARY

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

1. Amending Special Condition A, *Effluent Limitations and Monitoring Requirements,* footnote 1, Sampling to include the use of sufficiently sensitive methods and footnote 2, Composite Sampling, to the Department's most current requirements.

2. Establishing Special Condition A, *Effluent Limitations and Monitoring Requirements*, footnote 4, Phosphorus total lbs/month to describe the calculation to determine total lbs/month of phosphorus.

3. 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.

PERMIT SUMMARY (cont'd)

4. Amending Special Condition G, *Use of Drugs for Disease Control,* to report the use of the following FDA approved drugs:
    a. MS-222, a fish anesthetic
    b. Aquaflor (florfenicol) for mortality control
    c. Terramycin 200 (oxytetracycline) for mortality control
    d. Halamid Aqua (chloramine-T) for control of bacterial gill disease

5. Amending Special Condition H, *Pesticides and Other Compounds* to include sodium hypochlorite.

6. Updated Special Condition I, *Spills*, to the Department's most current requirements.

7. Removing Special Condition J, *Protection of Atlantic Salmon*, after consultation with the Maine Department of Marine Resources, National Marine Fisheries Service, and US Fish and Wildlife Service, it was determined that escapes from this facility are not a threat to Atlantic Salmon. In the event that the USFWS Green Lake National Fish Hatchery begins raising fish other than Atlantic Salmon, Special Condition J may be reinstituted.

CONCLUSIONS

Based on the findings summarized in the attached Internal Draft Fact Sheet dated December 20, 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 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 lakes and ponds*, 38 M.R.S. § 465-A.

ACTION

Based on the findings and conclusions as stated above, the Department APPROVES the above-noted application of U.S. FISH AND WILDLIFE SERVICE to discharge a monthly average of 13.3 million gallons per day (MGD) and a daily maximum of 19.4 MGD of fish hatchery and rearing facility wastewater from the Green Lake National Fish Hatchery via Outfall #001A to Graham Lake, Class GPA and up to 0.1 MGD of filter backwash wastewater via Outfall #002A to Reeds Brook, Class B in Ellsworth, Maine, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations including:

1. *Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable To All Permits*, revised July 1, 2002, copy attached.

2. The attached Special Conditions, including any effluent limitations and monitoring requirements.

3. This permit and the authorization to discharge become effective upon the date of signature below and expire at midnight five (5) years from the effective date. If a renewal application is timely submitted and accepted as complete for processing prior to the expiration of this permit, the authorization to discharge and the terms and conditions of this permit and all modifications and minor revisions thereto remain in effect until a final Department decision on the renewal application becomes effective. [*Maine Administrative Procedure Act*, 5 M.R.S. § 10002 and *Rules Concerning the Processing of Applications and Other Administrative Matters*, 06-096 C.M.R. Ch. 2(21)(A) (effective September 15, 2024)]

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES.

DONE AND DATED AT AUGUSTA, MAINE, THIS _____ DAY OF _____2025.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_____
For: MELANIE LOYZIM, Commissioner

Date of initial receipt of application: January 27, 2020
Date of application acceptance: February 5, 2020

This Order was prepared by Benjamin Pendleton, Bureau of Water Quality.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. The permittee is authorized to discharge **fish hatchery wastewater from Outfall #001A** to Graham Lake. Such discharges are limited and must be monitored by the permittee as specified below[(1)]:

Effluent Characteristic	Effluent Limitations				Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow *[50050]*	13.3 MGD *[03]*	19.4 MGD *[03]*	---	---	Daily *[01/01]*	Measured *[MS]*
Total suspended solids *[00530]*	665 lbs/day *[26]*	1,618 lbs/day *[26]*	6 mg/L *[19]*	10 mg/L *[19]*	1/Month *[01/30]*	Composite[(2)] *[CP]*
Effluent total phosphorus[(3)] *[00665]* *(January – November)*	Report total lbs/month[(4)] *[76]*	Report total lbs/year *[50]*	Report mg/L *[19]*	Report mg/L *[19]*	1/Week *[01/07]*	Composite[(2)] *[CP]*
Effluent total phosphorus[(3)] *[00665]* *(December)*	Report total lbs/month[(4)] *[76]*	1,780 lbs/year *[50]*	Report mg/L *[19]*	Report mg/L *[19]*	1/Week *[01/07]*	Composite[(2)] *[CP]*
Fish on hand *[45604]*	---	Report lbs/day *[26]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
Formalin[(5)] *[51064]*	Report lbs/day *[26]*	46 lbs/day *[26]*	---	---	1/Occurrence *[01/OC]*	Calculate *[CA]*

The italicized numeric values bracketed in the table and in the subsequent text are code numbers that Department personnel utilize to code the monthly Discharge Monitoring Reports. **FOOTNOTES: See pages 6 through 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 and 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 (CFR) Part 136, b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136, or c) as otherwise specified by the Department. Samples that are sent out for analysis must be analyzed by a laboratory certified by the State of Maine's Department of Health and Human Services for wastewater. Samples that the permittee sends out for analysis must be analyzed by a laboratory accredited by the Maine Laboratory Accreditation Program (MLAP). Samples that are analyzed by laboratories operated by waste discharge facilities licensed pursuant to *Waste discharge licenses*, 38 M.R.S. § 413 are subject to the provisions and restrictions of *Maine Comprehensive and Limited Environmental Laboratory Accreditation Rule*, 10-144 C.M.R. Ch. 263 and 06-096 C.M.R. Ch. 263 (amended March 15, 2023). If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report (DMR).

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

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

3. **Total phosphorus –** Total phosphorus monitoring must be performed in accordance with **Attachment A** of this permit entitled, *Protocol for Total Phosphorus Sample Collection and Analysis for Waste Water and Receiving Water Monitoring Required by Permits – May 2014*, unless otherwise specified by the Department.

SPECIAL CONDITIONS

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

FOOTNOTES

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

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 occurrence (lbs/day):

   Formalin applied (gallons) x 9.03[1] (lbs/gallon) = 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.

B. NARRATIVE EFFLUENT LIMITATIONS

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

2. The permittee must not discharge effluent that contains materials in concentrations or combinations which are hazardous or toxic to aquatic life, or which would impair the uses designated for the classification of the receiving waters.

3. The permittee must not discharge effluent that imparts color, taste, turbidity, radioactivity or other properties which cause those waters to be unsafe for the designated uses and characteristics ascribed to their classification.

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

SPECIAL CONDITIONS

B. NARRATIVE EFFLUENT LIMITATIONS (cont'd)

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 February 5, 2020; 2) the terms and conditions of this permit; and 3) only from Outfalls #001A and #002A. Discharges of wastewater from any other point source are not authorized under this permit, and must be reported in accordance with Standard Condition D(1)(f), *Twenty-four hour reporting*, of this permit.

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 by a source introducing pollutants to the system at the time of permit issuance.

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

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

   b. Any anticipated 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. Part 127, requires MEPDES permit holders to submit monitoring results obtained during the previous month on an electronic discharge monitoring report to the regulatory agency utilizing the USEPA electronic system.

Electronic 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.

SPECIAL CONDITIONS

E. MONITORING AND REPORTING (cont'd)

Documentation submitted in support of the electronic DMR may be attached to the electronic DMR. Toxics reporting must be done using the Department toxsheet reporting form. An electronic copy of the Toxsheet reporting document must be submitted to your Department compliance inspector as an attachment to an email. 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. OPERATION & MAINTENANCE PLAN

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

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

1. Solids Control

a. Methods and practices to ensure efficient feed management and feeding strategies that limit feed input to the minimum amount reasonably necessary to achieve production goals and sustain targeted rates of aquatic animal growth in order to minimize potential discharges to waters of the State.

b. In order to minimize the discharge of accumulated solids from the settling basin, settling tanks, and production systems, identify and implement procedures for routine cleaning of rearing units and settling tanks, and procedures to minimize any discharge of accumulated solids during the inventorying, grading, and harvesting of aquatic animals in the production system.

c. Procedure for removal and disposal of mortalities to prevent discharge to waters of the State.

2. Materials Storage

a. Ensure proper storage of drugs[1], pesticides[2], feed, and any petroleum and/or hazardous waste products 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.

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[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* [7 U.S.C. § 136 (u)].

SPECIAL CONDITIONS

F. OPERATION & MAINTENANCE PLAN (cont'd)

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.

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;

SPECIAL CONDITIONS

F. OPERATION & MAINTENANCE PLAN (cont'd)

vii. Chemical storage and disposal;
viii. Intake/outfall maintenance;
ix. Other

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

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

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

G. USE OF DRUGS FOR DISEASE CONTROL

1. **General requirements.** All drugs used for disease prevention or control must be approved or authorized by the U.S. Food and Drug Administration (FDA), and all applications must comply with applicable FDA requirements.

2. **FDA-approved drugs.** Drugs approved by the FDA for fish culture purposes may be used in accordance with label instructions.

   a. Preventative treatments: The discharge of any approved drug administered as a preventative measure is not authorized by this permit, unless the following conditions are met: the drug must be approved by 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 Green Lake National Fish Hatchery during the term of the permit, which was provided by the permittee on Form DEPLW1999-18 included with its February 5, 2020, General Application for Waste Discharge Permit, is included as **Attachment B** of this permit.

SPECIAL CONDITIONS

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

Name	Frequency of Use	Concentration	Quantity Used per Year
Parasite-S (formalin) Egg Treatment	60 days	1,720 ppm	96 gal
Parasite-S (formalin) Parasite Control	Intermittent	250 ppm	< 60 gal
Finquel/MS-222	Intermittent	60-80 mg/L	< 8 lb
Aquaflor (florfenicol)	As needed	As directed	< 500 g
Terramycin 200 (oxytetracycline)	As needed	As directed	< 2,500 g
Halamid Aqua (chloramine-T)	As needed	As directed	< 2.5 kg

c. Drugs not identified in the permittee's application: When the need to treat or control diseases requires the use of a 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 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.

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

SPECIAL CONDITIONS

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

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.

      4. Includes an environmental monitoring and evaluation program that at a minimum describes sampling strategies, analytical procedures, evaluation techniques and a timetable for completion of the program. Currently available data or literature that adequately characterizes the environmental fate of the INAD and its metabolite(s) may be proposed for consideration in determinations of environmental monitoring and evaluation programs required by the Department pursuant to this section.

   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.

SPECIAL CONDITIONS

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. 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. In accordance with Special Condition D of this permit, the permittee must notify the Department of any substantial change in the volume or character of pollutants being introduced into the wastewater collection and treatment system.

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

Name	Frequency of Use	Concentration	Quantity Used per Year
Virkon S or Virkon Aquatic	Intermittently	0.5 – 1%	< 5 lb

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

Name	Frequency of Use	Concentration	Quantity Used per Year
Lysol No-Rinse Sanitizer	Intermittently	800 ppm	< 10 gal
Ovadine (PVP iodine)	Seasonally	50 – 250 ppm	< 5 gal
Iodis (iodine)	Intermittently	100 – 250 ppm	< 25 gal
Chlorine (sodium hypochlorite)	Intermittently	200 – 500 ppm	< 58 lb
Sodium Chloride	Intermittently	5.5 ppm	< 45,000 lb
Sodium Bicarbonate	Intermittently	60 – 80 mg/L	< 8 lb

I. SPILLS

In the event of a spill of drugs, pesticides, or feed, that results in a discharge to waters of the State, the permittee must provide an oral report of the spill to the Department within 24 hours of its occurrence and a written report within 5 days to the Department. The report must identify and quantify the amount of material spilled, and describe methods used to contain and remediate the spill.

J. ALTERNATIVE DISCHARGE STUDY

On or before six months prior to the expiration of this permit, the permittee is required to submit to the Department for review, an Alternative Discharge Study (ADS) report ***[ICIS code 34099]*** for the Green Lake National Fish Hatchery facility to determine if practical alternatives to the discharge to Graham Lake exist. The ADS report shall evaluate wastewater treatment infrastructure, technologies, practices, or other modifications that will result in the elimination of the discharge to the receiving water or improvement in the effluent quality, pursuant to guidance in Fact Sheet Section 8.

K. REOPENING OF PERMIT FOR MODIFICATION

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

L. SEVERABILITY

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

ATTACHMENT A

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

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

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

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

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

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

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

ATTACHMENT B

Fish Rearing Facilities *#10:*

Attach a list of all disinfectants used, giving for each the name, ingredients, frequency of use, concentration of use, and total quantity used per year.

Name	Ingredients	Frequency of Use	Concentration	Estimated Annual Quantity
Lysol® No-Rinse Sanitizer	- 1.25 % Ethanol - 10.0% Alkyl Dimethyl Benzyl Ammonia Chlorides	Intermittently	800 ppm	< 10 gallons
PVP iodine (Ovadine®)	- 10.0% Polyvinylpyrrolidone iodine	Seasonally	50 - 100 ppm	< 5 gallons
Iodine (Iodis®)	1.75 % Iodine	Intermittently	100 – 250 ppm	< 20 gallons
Virkon® S or Virkon Aquatic Disinfectant	- Potassium peroxomonosulfate – 21.41% - Sodium Chloride – 1.50% - Other Ingredients – 77.09 %	Intermittently	0.5 – 1%	< 5 pounds
Chlorine	Sodium hypochlorite	Intermittently	200 – 500 ppm	< 58 pounds

Fish Rearing Facilities #*11:*
Attach a list of drugs and/or therapeutic agents used; giving for each a name, ingredients, frequency of use, concentration of use, and total quantity used per year.

Agent	Ingredients	Purpose	Frequency of Use	Concentration	Estimated Annual Quantity
Formalin (Parasite-S)	- 37% Formaldehyde - 15% Methanol	Egg Treatment	60 Days	1720 ppm	96 gallons
		Parasite Control	Intermittent	250 ppm	< 60 gallons
Salt (Sodium Chloride)	- 99% Sodium Chloride - <1% Yellow Prussiate of Soda	Mitigate handling stress	Intermittent	5.5 ppm	< 45,000 pounds
Finquel® / MS-222	- 99.5% Tricaine Methanesulfonate	Fish anesthetic	Intermittent	60-80 mg/L	< 8 lbs
Baking Soda (Sodium Bicarbonate)	- Sodium Bicarbonate	Buffer for MS-222	Intermittent	60-80 mg/L	< 8 lbs
Florfenicol (Aquaflor®)[1]	50% Florfenicol (premix)	Control of mortality	As Needed	As Directed	< 500 g
Oxytetracycline (Terramycin® 200)[2]	18% Oxytetracycline dihydrate	Control of mortality	As Needed	As Directed	< 2,500 g
Chloramine-T (Halamid®Aqua)[3]	98% Chloramin-T trihydrate	Control of mortality due to bacterial gill disease	As Needed	As Directed	< 2.5 kg

1. Approved by FDA, NADA #141-246
2. Approved by FDA, NADA #038-439. This agent has not been used; however, we would like to list it for future consideration.
3. Approved by FDS, NADA #141-423. This agent has not been used; however, we would like to list it for future consideration.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
AND
WASTE DISCHARGE LICENSE

FACT SHEET

DATE: **December 20, 2024**

PERMIT NUMBER: **ME0002623**
WASTE DISCHARGE LICENSE: **W000721-6F-H-R**

NAME AND ADDRESS OF APPLICANT: **U.S. FISH AND WILDLIFE SERVICE**
300 WESTGATE CENTER DRIVE
HADLEY, MA 01035-9589

COUNTY: **HANCOCK**

NAME AND ADDRESS WHERE DISCHARGE(S) OCCUR(S):
GREEN LAKE NATIONAL FISH HATCHERY
ONE HATCHERY WAY
ELLSWORTH, MAINE 04605

RECEIVING WATER CLASSIFICATIONS: **GRAHAM LAKE/CLASS GPA**
REEDS BROOK/CLASS B

COGNIZANT OFFICIAL CONTACT INFORMATION:
OLIVER COX
207-667-9531 ext. 2520
oliver_cox@fws.gov

1. APPLICATION SUMMARY

a. Application: On February 5, 2020, the Department of Environmental Protection (Department) accepted as complete for processing, a timely renewal application from U.S. Fish and Wildlife Service (USFWS) for Waste Discharge License (WDL) #W-000721-6F-G-R/Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0002623 which was issued on August 4, 2015 for a five-year term. The 8/4/15 MEPDES permit authorized USFWS to discharge a monthly average of 13.3 million gallons per day (MGD) and a daily maximum of 19.4 MGD of fish hatchery and rearing facility wastewater via Outfall #001A to Graham Lake, Class GPA and 0.288 MGD of filter backwash wastewater via Outfall #002A to Reeds Brook, Class B in Ellsworth, Maine.

b. Source description: Green Lake National Fish Hatchery (GLNFH) is a federal Atlantic salmon fish hatchery and rearing facility operated by USFWS. GLNFH propagates sea-run Atlantic salmon for rivers within the Gulf of Maine ecosystem as part of the USFWS Atlantic salmon restoration/recovery program. Fact Sheet **Attachment A** provides a map showing the location of the facility.

Green Lake is the source of water for GLNFH's operations. GLNFH withdraws water from Green Lake at two depths, blending them as needed to achieve optimum water temperatures for facility operation. GLNFH provides the following treatment to the source water:

- Solids removal (using up to three rotating drum microscreen filters)
- Disinfection (using up to 8 ultraviolet (UV) disinfection units)

The microscreen filters backwash intermittently to maintain throughput and control the pressure drop across the filters. The backwash water discharges to Reeds Brook via Outfall #002A (estimated to be 0.033 to 0.1 MGD based on the manufacturer's specifications).

GLNFH also seasonally heats the source water to a maximum of 50°F for egg incubation and fry rearing until the ambient supply water temperature reaches 50°F (generally mid-February to the end of May).

The facility production area comprises the broodstock rearing area, future broodstock rearing area, egg incubation and fry rearing area, and the outside rearing area. The facility receives eggs from Craig Brook National Fish Hatchery and maintains Penobscot River strain domestic broodstock. GLNFH collects flow-through water and maintenance wastewater (e.g. from cleaning tanks or equipment) from these operations for wastewater treatment.

c. Wastewater treatment: Wastewater from the production area flows to a distribution box and then to six rectangular sedimentation ponds that operate in parallel. GLNFH staff manually select which of the ponds are in operation at any time. The ponds have a total working volume of 969,000 gal, which provides a total retention time of 107 minutes at 9,000 gpm (13 MGD) of flow, when the flow is evenly distributed to all the ponds. The ponds remove solids from the wastewater by gravity settling. Effluent from the six ponds discharges to Graham Lake from a 30 inch pipe, Outfall #001A, west of the Mariaville Road causeway. GLNFH monitors the depth of solids that accumulate in the ponds, and periodically removes solids from the ponds and land applies them at the GLNFH property.

2. PERMIT SUMMARY (cont'd)

a. Terms and Conditions: This permitting action is carrying forward all the terms and conditions of the previous permitting actions except that it:

1. Amending Special Condition A, *Effluent Limitations and Monitoring Requirements,* footnote 1, Sampling to include the use of sufficiently sensitive methods. Footnote 2, Composite Sampling, to the Department's most current requirements.

2. Establishing Special Condition A, *Effluent Limitations and Monitoring Requirements*, footnote 4, Phosphorus total lbs/month to describe the calculation to determine total lbs/month of phosphorus.

3. 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.

4. Amending Special Condition G, *Use of Drugs for Disease Control,* to report the use of the following FDA approved drugs:

   e. MS-222, a fish anesthetic

   f. Aquaflor (florfenicol) for mortality control

   g. Terramycin 200 (oxytetracycline) for mortality control

   h. Halamid Aqua (chloramine-T) for control of bacterial gill disease

5. Amending Special Condition H, *Pesticides and Other Compounds* to include sodium hypochlorite.

6. Updated Special Condition I, *Spills*, to the Department's most current requirements.

7. Removing Special Condition J, *Protection of Atlantic Salmon*, after consultation with the Maine Department of Marine Resources, National Marine Fisheries Service, and US Fish and Wildlife Service, it was determined that escapes from this facility are not a threat to Atlantic Salmon. In the event that the USFWS Green Lake National Fish Hatchery begins raising fish other than Atlantic Salmon, Special Condition J may be reinstituted.

b. History: The text below summarizes the major permitting actions the Department has completed for this facility.

August 24, 1999 - The Department issued WDL #W-000721-5Q-B-R for a two-year term. The WDL authorized GLNFH to discharge 19.4 MGD of hatchery wastewater to Graham Lake and 0.228 MGD of influent filter backwash to Reeds Brook in Ellsworth. The WDL replaced WDL #W-000721-41-A-R, issued on June 20, 1985.

September 28, 2000 - The Department administratively modified WDL #W-000721-5Q-B-R by suspending monitoring requirements and an effluent flow limit for Outfall #002A, an influent filter backwash wastewater discharge to Reeds Brook, based on a request from GLNFH and a review of previous monitoring results.

2. PERMIT SUMMARY (con't)

January 12, 2001 - The Department received authorization from the U.S. Environmental Protection Agency (USEPA) to administer the National Pollutant Discharge Elimination System (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 #ME0002623 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.

December 11, 2001 - GLNFH submitted to the Department an Alternative Discharge Study report entitled, "Effluent Water/Waste Treatment Options Green Lake National Fish Hatchery, Ellsworth, Maine".

February 6, 2004 - The Department issued WDL #W-000721-5Q-C-R/MEPDES permit #ME0002623 for the discharge of up to a monthly average of 13.3 MGD and up to a daily maximum of 19.4 MGD of fish hatchery wastewater, as well as 0.288 MGD of influent filter backwash wastewater, to Reeds Brook, Class B and Graham Lake, Class GPA, from a federal salmon hatchery in Ellsworth, Maine. The permit incorporated the terms and conditions of the MEPDES permit program and was issued for a five-year term.

August 2, 2006 - The Department issued an Administrative Modification of WDL #W-000721-5Q-C-R/MEPDES permit #ME0002623 to revise the annual maximum phosphorus mass limit based on data from ambient water quality monitoring, effluent monitoring, and a reevaluation of the Department's lake water quality model based on receiving water-specific conditions.

October 6, 2008 - The Department issued Minor Revision #W-000721-5Q-D-M/MEPDES permit #ME0002623 to revise effluent formalin limitations based on newly obtained toxicity data and a revision of the Department's best professional judgment of ambient water quality criteria.

January 23, 2009 – The Department accepted as complete for processing GLNFH's timely application for renewal of its WDL/MEPDES permit. The Department assigned the application WDL #W-000721-5Q-E-R/MEPDES permit #ME0002623.

May 14, 2009 - GLNFH submitted a Practical Alternative Study entitled, *Green Lake National Fish Hatchery Effluent Treatment Review*, which verified earlier findings of no practical discharge alternative for GLNFH as well as identified options to upgrade wastewater treatment infrastructure and processes to affect improvements in effluent quality.

September 9, 2009 - The Department issued #ME0002623/#W-000721-5Q-E-M for a five-year term.

August 7, 2012 - The Department issued minor revision #ME0002623/#W-000721-5Q-F-M for the removal of monitoring and reporting requirements for pH.

March 2014 - USFWS submitted an *Alternative Discharge Review* report for their Green Lake facility.

2. PERMIT SUMMARY (con't)

May 2014 - USFWS submitted a report titled *Review of Lake Monitoring Data for Graham Lake in Ellsworth, Maine*.

May 15, 2014 - USFWS submitted a timely and complete General Application to the Department for renewal of the September 9, 2009 MEPDES permit. The Department accepted the application for processing on May 16, 2014 and assigned WDL #W-000721-6F-G-R/MEPDES Permit #ME0002623.

August 3, 2015 D- The Department issued #ME0002623/#W-000721-6F-G-R for a five-year term.

January 27, 2020 - USFWS submitted a timely and complete General Application to the Department for renewal of the August 3, 2015 MEPDES permit. The Department accepted the application for processing on February 5, 2020 and assigned WDL #W-000721-6F-H-R/MEPDES Permit #ME0002623.

3. CONDITIONS OF PERMIT

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

Pursuant to 38 M.R.S. § 465-A *Standards for classification of lakes and ponds*, Class GPA is the sole classification both of great ponds and of natural lakes and ponds less than 10 acres in size. Graham Lake is a Class GPA waterbody. 38 M.R.S. § 465-A describes the standards for Class GPA waters as follows:

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.*

4. RECEIVING WATER QUALITY STANDARDS (cont'd)

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

Classification of major river basins, 38 M.R.S. § 467(18)(B)(2) classifies Reeds Brook, the outlet of Green Lake (also referred to as 'the minor tributaries of Graham Lake' in this Fact Sheet) as Class B waters. *Standards for classification of fresh surface waters*, 38 M.R.S. § 465(3) describes the standards for Class B waters as follows:

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

4. RECEIVING WATER QUALITY STANDARDS (cont'd)

B. Class B waters must be of sufficient quality to support all aquatic species indigenous to those waters without detrimental changes in the resident biological community. The dissolved oxygen content of Class B waters may not be less than 7 parts per million or 75% of saturation, whichever is higher, except that for the period from October 1st to May 14th, in order to ensure spawning and egg incubation of indigenous fish species, the 7-day mean dissolved oxygen concentration may not be less than 9.5 parts per million and the one-day minimum dissolved oxygen concentration may not be less than 8.0 parts per million in identified fish spawning areas. Between April 15th and October 31st, the number of Escherichia coli bacteria in these waters may not exceed a geometric mean of 64 CFU or MPN per 100 milliliters over a 90-day interval or 236 CFU or MPN per 100 milliliters in more than 10% of the samples in any 90-day interval.

C. Discharges to Class B waters may not cause adverse impact to aquatic life in that the receiving waters must be of sufficient quality to support all aquatic species indigenous to the receiving water without detrimental changes in the resident biological community.

(1-A) For the purpose of allowing the discharge of aquatic pesticides or chemicals approved by the department and conducted by the department, the Department of Inland Fisheries and Wildlife or an agent of either agency to restore resident biological communities affected by an invasive species, the department may find that the discharged effluent will not cause adverse impact to aquatic life as long as the materials and methods used do not cause a significant loss of any nontarget species and allow restoration of nontarget species. The department may find that an unavoidable, temporary loss of nontarget species does not constitute a significant loss of nontarget species.

(2) For the purpose of allowing the discharge of aquatic pesticides approved by the department for the control of mosquito-borne diseases in the interest of public health and safety, the department may find that the discharged effluent will not cause adverse impact to aquatic life as long as the materials and methods used provide protection for nontarget species. When the department issues a license for the discharge of aquatic pesticides authorized under this subparagraph, the department shall notify the municipality in which the application is licensed to occur and post the notice on the department's publicly accessible website.

5. REASONABLE POTENTIAL

Pursuant to 33 U.S.C. § 1311(b)(1)(C) and 40 C.F.R. § 122.44(d)(1), NPDES permits must contain any requirements in addition to technology based effluent limitations (TBELs) that are necessary to achieve water quality standards established under 33 U.S.C. § 1311(b)(1)(C). In addition, limitations "must control any pollutant or pollutant parameter (conventional, non-conventional, or toxic) which the permitting authority determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any water quality standard (WQS), including State narrative criteria for water quality." 40 C.F.R. § 122.44(d)(1)(i). To determine if the discharge causes, or has the

reasonable potential to cause, or contribute to an excursion above any WQS, EPA considers: 1) existing controls on point and non-point sources of pollution; 2) the variability of the pollutant or pollutant parameter in the effluent; 3) the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity); and 4) where appropriate, the dilution of the effluent by the receiving water. *See* 40 C.F.R. § 122.44(d)(1)(ii).

5. REASONABLE POTENTIAL (cont'd)

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

6. RECEIVING WATER QUALITY CONDITIONS

The State of Maine Department of Environmental Protection 2018/2020/2022 Integrated Water Quality Monitoring and Assessment Report, prepared by the Department pursuant to Sections 303(d) and 305(b) of the Federal Water Pollution Control Act, lists Graham Lake (Assessment Unit: ME0105000212_4350L) as Category 4-C: *Lake Waters with Impairment not Caused by a Pollutant,* and the minor tributaries of Graham Lake, (Assessment Unit ME0105000212_517R) (also referred to as 'the outlet of Green Lake and Reeds Brook in this Fact Sheet) as Category 2: *Rivers and Streams Attaining Some Designated Uses – Insufficient Information for Other Uses*

The Report lists all of Maine's freshwaters as Category 4-A: Rivers and Streams Impaired by the Atmospheric Deposition of Mercury. The report states "All freshwaters are listed in Category 4-A (TMDL Completed) due to US EPA approval of a Regional Mercury TMDL in December 2007. Maine has a fish consumption advisory for fish taken from all freshwaters due to mercury. Many waters, and many fish from any given water, do not exceed the action level for mercury. However, because it is impossible for someone consuming a fish to know whether the mercury level exceeds the action level, the Maine Department of Health and Human Services decided to establish a statewide advisory recommending limits on consumption for all freshwater fish. Maine has instituted statewide programs for removal and reduction of mercury sources."

In 2020, a consultant conducted biomonitoring upstream and downstream of GLNFH in support of the Green Lake Dam relicensing. The upstream monitoring site below Green Lake Dam met Class B aquatic life criteria in 2020, however the two sites near the hatchery outfall #001A are periodically inundated by backwatering from Graham Lake and only met Class C aquatic life criteria. In making the final class determination, the Department raised the finding from non-attainment of criteria for any class (NA) to Class C for both downstream sites considering the benthic macroinvertebrate community present and the influence of Graham Lake. Although the two downstream sites failed to meet class B aquatic life criteria, the Department has no conclusive information indicating that the GLNFH is causing or contributing to impairments or nonattainment within Reeds Brook.

7. EFFLUENT LIMITATIONS, MONITORING REQUIREMENTS

Outfall #001A

a. Applicable national effluent guidelines: In 2004, the USEPA established effluent guidelines (ELGs) for the concentrated aquatic animal production (CAAP) point source category in 40 C.F.R. § 451. The ELGs are national standards for wastewater discharges to surface waters and municipal sewage treatment plants, and their purpose is to reduce discharges of conventional pollutants (primarily total suspended solids), nonconventional pollutants (e.g. nutrients, drugs, and chemicals), and toxic pollutants (metals and PCBs) from CAAP facilities covered by the regulation[1]. The ELGs apply to

[1] USEPA (2006). Compliance Guidance for the Concentrated Aquatic Animal Production Point Source Category.

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

facilities that contain, grow, or hold aquatic animals (cold water or warmwater species). For cold water species in flow-through and recirculating systems, the USEPA applies the ELGs when the facility discharges at least 30 days per year and produces greater than or equal to 100,000 lbs/year. The Department may also designate a facility as a CAAP on a case-by-case basis.

GLNFH is a flow-through facility that raises Atlantic salmon (a cold water species), discharges more than 30 days per year, and produces more than 100,000 lbs of fish per year. Due to these factors, the Department considers the ELGs directly applicable to GLNFH.

The USEPA and the Department consider CAAP facilities in construction on or before September 7, 2004 to be "existing sources". CAAP facilities in construction after this date are "new sources". The GLNFH has been operating since 1974[1] and licensed by the Department since 1999, and therefore the Department considers it an "existing source" under the ELGs.

The ELGs for CAAP facilities require management practices and recordkeeping activities, rather than numerical effluent limits. The following table summarizes the requirements and identifies the parts of the permit that contain the related provisions:

ELG topic area	Related permit provision(s)
Drug use	▪ Special Condition A.1 Effluent Limitations and Monitoring Requirements ▪ Special Condition G Use of Drugs for Disease Control
Aquatic animal containment system	▪ Special Condition F Operations and Maintenance (O&M) Plan
Spills	▪ Special Condition I Spills
Best Management Practice (BMP) plan	▪ Special Condition F Operations and Maintenance (O&M) Plan

b. Flow: The previous permitting action established, and this permitting action is carrying forward, monthly average and daily maximum discharge flow limitations of 13.3 MGD and 19.4 MGD, respectively, for Outfall #001A which are based on the design capacity of the facility.

The Department reviewed data from 61 Discharge Monitoring Reports (DMRs) submitted between August 2019 – August 2024. A review of the data indicates the following:

Flow Outfall #001A (N =61)

Value	Limit (MGD)	Range (MGD)	Mean (MGD)
Monthly average	13.3	2.8 – 12.3	8.9
Daily maximum	19.4	3.6 – 12.4	9.8

[1] USFWS (2019). Green Lake National Fish Hatchery 2019 Practical Alternative Discharge Analysis.

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

Total suspended solids (TSS): The 2015 permit carried forward TSS effluent limits and revised the required monitoring frequency from twice per month to once per month. The Department established the monthly average and daily maximum TSS concentration and mass limitations in the February 6, 2004, permit based on the Department's best professional judgment (BPJ) of best practicable treatment (BPT), using the recommendations in USEPA's 2002 proposed draft effluent guidelines for TSS from fish hatchery wastewater receiving a secondary level of treatment, and the monthly average flow limitation of 13.3 MGD.

The monthly average and daily maximum mass limitation for TSS was calculated in the February 6, 2004 permit as follows:

Monthly Average - (13.3 MGD)(8.34 lbs/gal)(6 mg/L) = **665 lbs/day**

Daily Maximum - (19.4 MGD)(8.34 lbs/gal)(10 mg/L) = **1,618 lbs/day**

The Department reviewed data from 61 DMRs submitted from August 2019 – August 2024. A review of the data indicates the following:

TSS Mass (N = 61)

Value	Limit (lbs./day)	Range (lbs./day)	Mean (lbs./day)
Monthly Average	665	0 – 293	25.9
Daily Maximum	1,618	23 – 346	91.0

TSS concentration (N = 61)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	6	<1 – 2.7	<1.15
Daily Maximum	10	<1 – 3.5	<1.174

This permit carries forward the TSS effluent limit and monitoring frequency from the 2015 permitting action.

d. Total Phosphorus: The previous permit established a water quality-based annual total phosphorous mass limitation of 1,780 lbs./year. This limitation was established to ensure compliance with water quality standards for Class GPA.

38 M.R.S.A. § 464(4)(A)(3) states:

Notwithstanding section 414-A, the department may not issue a water discharge license for any of the following discharges…Any discharge into a tributary of GPA waters that by itself or in combination with other activities causes water quality degradation that would impair the characteristics and designated uses of downstream GPA waters or causes an increase in the trophic state of those GPA waters….

38 M.R.S.A. § 465-A(1)(B) states:

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.

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

During the permit renewal process, the Department reviewed available information on the current trophic conditions in Graham Lake. The Department determined that no changes to the discharge total phosphorus effluent limitations were warranted at this time. Therefore, this permit carries forward the annual total phosphorus limitation of 1,780 lb. This permit also carries forward the reporting requirement of total pounds of phosphorus per month, the monthly average and daily maximum concentration reporting requirements, and the minimum required monitoring frequency of once per week.

The Department reviewed data from 61 DMRs submitted between August 2019 – August 2024. A review of the data indicates the following:

Total-P mass (N = 61)

Value	Limit	Maximum	Minimum	Average
Monthly Total	Report lbs.	230 lbs./mo	44 lbs./mo	102.4 lbs./mo
Annual Total	1,780 lbs.	1,453 lbs./yr	1,174 lbs./yr	1,282 lbs./yr

Total-P concentration (N = 61)

Value	Limit	Maximum	Minimum	Average
Monthly Total	Report mg/L	0.11 mg/L	0.02 mg/L	0.05 mg/L
Daily Max Total	Report mg/L	0.13 mg/L	0.02 mg/L	0.06 mg/L

The Department is currently developing 06-096 C.M.R. Ch. 583: *Nutrient Criteria for Class AA, A, B, C Fresh Surface Waters*, which sets numeric criteria for those waters. However, the effluent discharge from Outfall #001A discharges into Graham Lake, Class GPA and not Reeds Brook, Class B. Therefore, the Department has determined that the draft criteria is not applicable to the discharge from the GLNFH.

Green Lake, the source of Reeds Brook, and Graham Lake, the receiving water from the discharge are routinely monitored by the Department and Lake Stewards of Maine. Along with effluent data from the permittee, the Department has determined that there is ample ambient data available to assess the impacts of the GLNFH's discharge. Therefore, this permit does not require upstream or downstream ambient monitoring.

e. Fish on hand: The previous permit established a 1/month reporting requirement of daily maximum mass for fish on hand. This permit carries forward this reporting requirement.

The Department reviewed from 61 DMRs submitted between August 2019 – August 2024. A review of the data indicates the following:

Fish on hand (N = 61)

Value	Limit (lbs)	Range (lbs)	Mean (lbs)
Daily maximum	Report	16.64 - 109,732	59,524

f. Formalin: Formalin is a drug used to treat fungal infections and external parasites of finfish and finfish eggs. The previous permitting action removed concentration-based effluent limits for formalin which

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

had been established in error in 2008. The previous permitting action also continued mass-based limits, which the Department established in 2004 based on 06-096 C.M.R. Ch. 523(6)(f).

Since issuance of the February 6, 2004, MEPDES permit, mass limits have been carried forward based on the following language:

> *The mass limits are calculated based on the acute concentration limits (13.5 ppm and 1.6 ppm (prior to application of the multiplication factor)) times the daily maximum discharge flow over a projected 4-hour treatment period (3.2 MG) times a conversion factor of 9.13 lbs/gal, representative of the specific gravity of formalin*

Daily Maximum Mass - (1.6 mg/L)(3.2 MGD)(9.13 lbs/gal) = **46 lbs/day**

Based on the Department's best professional judgment of AWQC, the 24-Hour treatment maximum mass limit established in the February 6, 2004 MEPDES permit (and carried forward since that time) is protective of aquatic life in the receiving water. Therefore, the 24-Hour treatment maximum mass limit established in the previous permit, now referred to as a daily maximum mass limit, is being carried forward in this permit.

The Department reviewed data from 61 DMRs submitted between August 2019 – August 2024. A review of the data indicates the following:

Formalin (N=24)

Value	Limit (lbs/day)	Range (lbs/day)	Mean (lbs/day)
Monthly average	Report	1 - 19	13
Daily maximum	46	5 - 19	15

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.

This permitting action is carrying forward the previously established 1/occurrence formalin monitoring frequency.

Outfall #002A

Based on a review of effluent data Department issued an administrative modification to WDL #W-000721-5Q-B-R on September 28, 2000 which discontinued monitoring and the flow effluent limitations for Outfall #002A. The discharge of influent filter backwash is considered de minimis, and this permit continues that decision.

8. ALTERNATIVE DISCHARGE STUDY

38 M.R.S. § 465(2)(C) regarding Class A waters states, "Discharges into waters of this classification licensed prior to January 1, 1986 are allowed to continue only until practical alternatives exist." The 2015 permit contained Special Condition K, which required the permittee to submit to the Department an alternative discharge study to determine if practical alternatives to the discharge exist.

8. ALTERNATIVE DISCHARGE STUDY (cont'd)

As the previous permit required, the USFWS submitted a report entitled *Green Lake National Fish Hatchery 2019 Practical Alternative Discharge Analysis*, dated December 2019. The report provides updates to previously developed alternatives, reviews the performance of the current wastewater treatment system, and compares treatment system performance to the identified alternatives. The study concludes that effluent total phosphorus concentration is below what is typically achieved by the tertiary phosphorus removal technologies that the permittee reviewed. The report also concludes that non-treatment alternatives, such as relocation of the discharge, are not feasible at this time due to cost, ecological impacts, and/or extensive right-of-way requirements.

The Department has determined that the conclusion that no reasonable alternative exists and the supporting report satisfies 38 M.R.S. § 465-A. The Department is carrying forward Special Condition J so that the permittee considers new treatment technologies that may become commercially available and fully considers alternative approaches to discharge management in the future.

9. ANTI-BACKSLIDING

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

10. ANTI-DEGREDATION

As permitted, the Department has determined the existing water uses will be maintained and protected and the discharge will not cause or contribute to the failure of the water bodies to meet standards for Class B (Reeds Brook) and GPA (Graham Lake) classifications.

11. PUBLIC COMMENTS

Public notice of this application was made in the *Ellsworth American* newspaper on or about January 16, 2020. The Department receives public comments on an application until the date a final agency action is taken on the application. Those persons receiving copies of draft permits shall have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to *Application Processing Procedures for Waste Discharge Licenses,* 06-096 C.M.R. Ch. 522 (effective January 12, 2001).

12. DEPARTMENT CONTACTS

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

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

13. RESPONSE TO COMMENTS

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

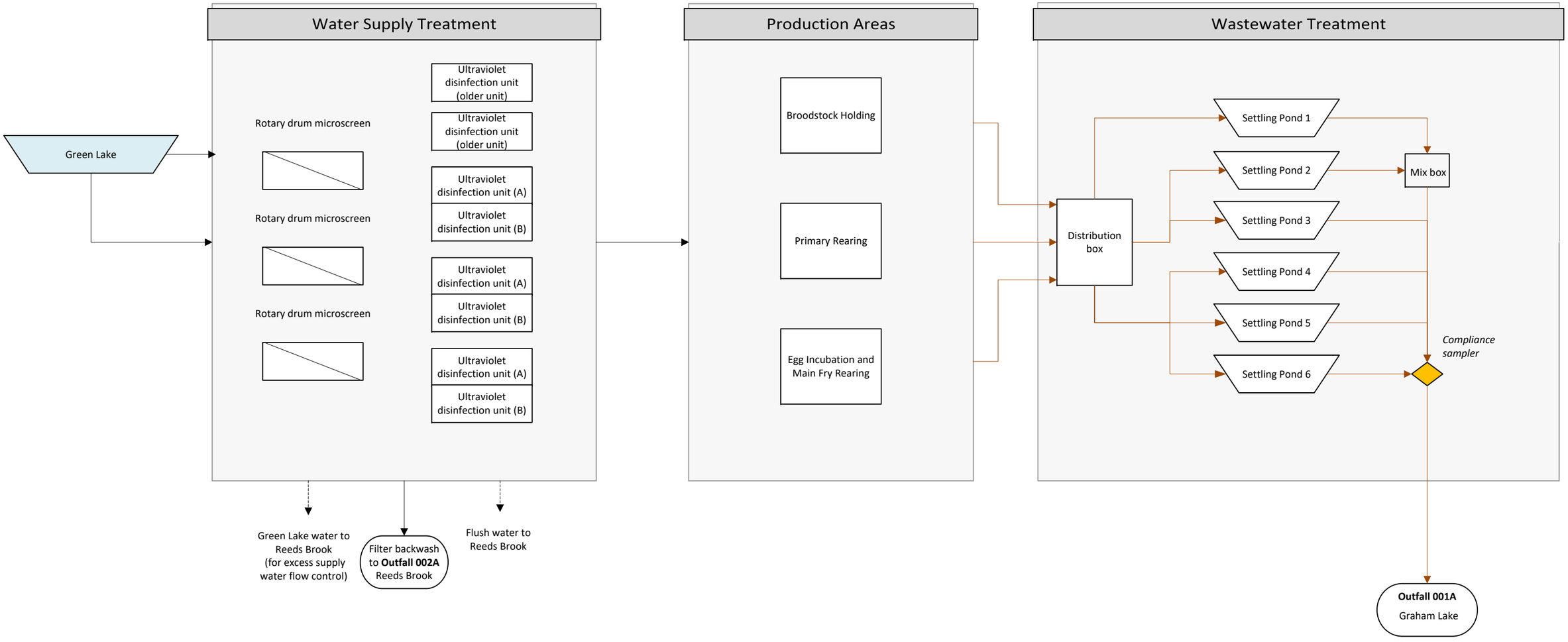
FACT SHEET ATTACHMENT A

General Application #11a: Topographic map of Green Lake National Fish Hatchery and the area extending one mile beyond property boundaries [highlighted in red].

#11b: Close-up topographic view of Green Lake National Fish Hatchery with latitude and longitude of the water intake and effluent outfall noted.

#11c: Arial view of Green Lake National Fish Hatchery depicting arrangement of sedimentation ponds and new effluent sampling station.

FACT SHEET ATTACHMENT B



Green Lake Fish Hatchery
Process Flow Diagram
Prepare by DEP (Andrews) – based on 5/18/22 site visit notes
Updated by DEP (Pendleton) - based on 5/25/2023 Update

CONTENTS

A. GENERAL PROVISIONS

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

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

(a) They are not

(i) Designated as toxic or hazardous under the provisions of Sections 307 and 311, respectively, of the Federal Water Pollution Control Act; Title 38, Section 420, Maine Revised Statutes; or other applicable State Law; or
(ii) Known to be hazardous or toxic by the licensee.

(b) The discharge of such materials will not violate applicable water quality standards.

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

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

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

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

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

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

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

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

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

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

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

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

B. OPERATION AND MAINTENACE OF FACILITIES

1. General facility requirements.

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

maximize removal of pollutants unless authorization to the contrary is obtained from the Department.

(b) The permittee shall at all times maintain in good working order and operate at maximum efficiency all waste water collection, treatment and/or control facilities.

(c) All necessary waste treatment facilities will be installed and operational prior to the discharge of any wastewaters.

(d) Final plans and specifications must be submitted to the Department for review prior to the construction or modification of any treatment facilities.

(e) The permittee shall install flow measuring facilities of a design approved by the Department.

(f) The permittee must provide an outfall of a design approved by the Department which is placed in the receiving waters in such a manner that the maximum mixing and dispersion of the wastewaters will be achieved as rapidly as possible.

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

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

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

5. Bypasses.

(a) Definitions.

(i) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.

(ii) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

(b) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (c) and (d) of this section.

(c) Notice.

(i) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.

(ii) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph D(1)(f), below. (24-hour notice).

(d) Prohibition of bypass.

(i) Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:

(A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
(B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
(C) The permittee submitted notices as required under paragraph (c) of this section.

(ii) The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three conditions listed above in paragraph (d)(i) of this section.

6. Upsets.

(a) Definition. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

(b) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (c) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

(c) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(i) An upset occurred and that the permittee can identify the cause(s) of the upset;
(ii) The permitted facility was at the time being properly operated; and
(iii) The permittee submitted notice of the upset as required in paragraph D(1)(f) , below. (24 hour notice).
(iv) The permittee complied with any remedial measures required under paragraph B(4).

(d) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

C. MONITORING AND RECORDS

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

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

3. Monitoring and records.

(a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(b) Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years, the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.

(c) Records of monitoring information shall include:

(i) The date, exact place, and time of sampling or measurements;
(ii) The individual(s) who performed the sampling or measurements;
(iii) The date(s) analyses were performed;
(iv) The individual(s) who performed the analyses;
(v) The analytical techniques or methods used; and
(vi) The results of such analyses.

(d) Monitoring results must be conducted according to test procedures approved under 40 CFR part 136, unless other test procedures have been specified in the permit.

(e) State law provides that any person who tampers with or renders inaccurate any monitoring devices or method required by any provision of law, or any order, rule license, permit approval or decision is subject to the penalties set forth in 38 MRSA, §349.

D. REPORTING REQUIREMENTS

1. Reporting requirements.

(a) Planned changes. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

(i) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or

(ii) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under Section D(4).

(iii) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;

(b) Anticipated noncompliance. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

(c) Transfers. This permit is not transferable to any person except upon application to and approval of the Department pursuant to 38 MRSA, § 344 and Chapters 2 and 522.

(d) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(i) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Department for reporting results of monitoring of sludge use or disposal practices.

(ii) If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR part 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Department.

(iii) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Department in the permit.

(e) Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

(f) Twenty-four hour reporting.

(i) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance

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

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

(A) Any unanticipated bypass which exceeds any effluent limitation in the permit.
(B) Any upset which exceeds any effluent limitation in the permit.
(C) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit to be reported within 24 hours.

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

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

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

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

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

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

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

(i) One hundred micrograms per liter (100 ug/l);
(ii) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
(iii) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with Chapter 521 Section 4(g)(7); or
(iv) The level established by the Department in accordance with Chapter 523 Section 5(f).

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

(i) Five hundred micrograms per liter (500 ug/l);
(ii) One milligram per liter (1 mg/l) for antimony;
(iii) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with Chapter 521 Section 4(g)(7); or
(iv) The level established by the Department in accordance with Chapter 523 Section 5(f).

5. Publicly owned treatment works.

(a) All POTWs must provide adequate notice to the Department of the following:

(i) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of CWA or Chapter 528 if it were directly discharging those pollutants.
(ii) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
(iii) For purposes of this paragraph, adequate notice shall include information on (A) the quality and quantity of effluent introduced into the POTW, and (B) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

(b) When the effluent discharged by a POTW for a period of three consecutive months exceeds 80 percent of the permitted flow, the permittee shall submit to the Department a projection of loadings up to the time when the design capacity of the treatment facility will be reached, and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans.

E. OTHER REQUIREMENTS

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

(a) For municipal sources. During power failure, all wastewaters which are normally treated shall receive a minimum of primary treatment and disinfection. Unless otherwise approved, alternate power supplies shall be provided for pumping stations and treatment facilities. Alternate power supplies shall be on-site generating units or an outside power source which is separate and independent from sources used for normal operation of the wastewater facilities.

(b) For industrial and commercial sources. The permittee shall either maintain an alternative power source sufficient to operate the wastewater pumping and treatment facilities or halt, reduce or otherwise control production and or all discharges upon reduction or loss of power to the wastewater pumping or treatment facilities.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Maximum daily discharge limitation means the highest allowable daily discharge.

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

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

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

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

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

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

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

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

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

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

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

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

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

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