STATE OF MAINE
DEPARTMENT OF
ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

PAUL MERCER
COMMISSIONER

October 23, 2017

Mr. Todd Langevin
Maine Dept. of Inland Fisheries & Wildlife
SHS #41
Augusta, ME. 04333

Sent via electronic mail
Delivery confirmation requested

RE: *Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0001066*
Maine Waste Discharge License (WDL) Application #W002038-6F-F-R
Proposed Draft MEPDES Permit - Renewal

Dear Mr. Langevin:

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

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

The comment period begins on October 23, 2017 and ends on November 24, 2017. All comments on the proposed draft permit must be received in the Department of Environmental Protection office on or before the close of business Friday, November 24, 2017. Failure to submit comments in a timely fashion will result in the proposed draft/license permit document being issued as drafted.

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

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

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

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

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
Cindy.L.Dionne@maine.gov

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

Sincerely,

Cindy L. Dionne
Division of Water Quality Management
Bureau of Water Quality
ph: 207-557-5950

Enc.

ec: Barry Mower, DEP
Pamela Parker, DEP
Fred Gallant, DEP
Lori Mitchell, DEP
Sean Mahoney, CLF
Environmental Review, DMR
David Webster, USEPA
Ellen Weitzler, USEPA
Olga Vergara, USEPA
Solanch Pastrana-Del Valle, USEPA
Marelyn Vega, USEPA
Richard Carvalho, USEPA
Environmental Review, IFW
Earle Shettleworth, MHPC
Laury Zicari, USFWS

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

DEPARTMENT ORDER

IN THE MATTER OF

ME. DEPT. INLAND FISHERIES & WILDLIFE	)	MAINE POLLUTANT DISCHARGE
CASCO, CUMBERLAND COUNTY, ME	)	ELIMINATION SYSTEM PERMIT
WADE FISH HATCHERY	)	AND
ME0001066	)	WASTE DISCHARGE LICENSE
W-002038-6F-F-R **APPROVAL**	)	**RENEWAL**

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

APPLICATION SUMMARY

On December 10, 2016, the Department accepted as complete for processing an application from MDIFW for the renewal of combination Waste Discharge License (WDL) W-002038-6F-E-R/ Maine Pollutant Discharge Elimination System (MEPDES) permit ME0001066 (permit), which was issued on May 2, 2012, for a five-year term. The 5/2/12, permit authorized the monthly average discharge of 2.9 million gallons per day (MGD) of fish rearing facility wastewater (Outfall #005A) and 0.052 MGD of fish hatchery wastewater (Outfall #006A) to Mile Brook, Class B, from a state fish rearing facility in Casco, Maine.

It should be noted that in the summer of 2016, the facility had a failure in the intake pipes. The failure resulted in construction of new intake pipes, as well as other upgrades to the facility that are reflected in this permit.

PERMIT SUMMARY

This permitting action is carrying forward the terms and conditions of the May 2, 2012, permit except that it:

1. Eliminates the Biochemical Oxygen Demand (BOD_5) limitations and monitoring requirements;

2. Establishes a daily maximum flow rate of 4.752 MGD for the entire facility and amends the monthly average flow limit to report only to reflect the current capacity of the facility;

3. Eliminates Special Condition H. *Settling Basin Cleaning*, from the previous permit;

PERMIT SUMMARY (cont'd)

4. Amends language in the Footnotes section of Special Condition A. *Effluent Limitations And Monitoring Requirements*;

5. Eliminates Special Condition J. *Disinfecting/Sanitizing Agents,* from the previous permit;

6. Eliminates Special Condition K. *Minimum Treatment Technology Requirement,* from the previous permit;

7. Establishes additional requirements to be included in the facility Operations and Monitoring Plan;

8. Establishes Special Condition G. *Use of Drugs for Disease Control;*

9. Establishes Condition H. *Pesticide and Other Compounds* to replace Special Condition I. *Diseases, Pathogens, and Therapeutic Agents* from the 2012 permit;

10. Establishes Special Condition I. *Spills*;

11. Eliminates Special Conditions related to Outfall #006A (hatchery building) as the current facility has combined the two discharges into a single discharge;

12. Eliminates the monthly average reporting requirement for Fish on Hand and revises the daily maximum monitoring from 2/Month to 1/Month to allow for increased monitoring flexibility;

13. Eliminates Footnote #4 (from the previous license) as dissolved oxygen reporting is adequately recorded on the Discharge Monitoring Reports (DMRs).

14. Eliminates Special Condition G. *Alternative Discharge Study* from the previous permit;

15. Establishes a mass limit for phosphorus that combines both Outfall #005A and Outfall #006A from the previous permit; and

16. Establishes combined total suspended solids daily maximum and monthly average mass limits due to the combination of the outfalls (#005A and #006A).

CONCLUSIONS

BASED on the findings in the attached and incorporated draft Fact Sheet dated October 23, 2017, and subject to the Conditions listed below, the Department makes the following CONCLUSIONS:

1. The discharge, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification.

2. The discharge, either by itself or in combination with other discharges, will not lower the quality of any unclassified body of water below the classification which the Department expects to adopt in accordance with State law.

3. The provisions of the State's antidegradation policy, *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 national resource, that water quality will be maintained and protected;

   (c) Where the standards of classification of the receiving waterbody are not met, the discharge will not cause or contribute to the failure of the waterbody to meet the standards of classification;

   (d) Where the actual quality of any classified receiving waterbody exceeds the minimum standards of the next highest classification that higher water quality will be maintained and protected; and

   (e) Where a discharge will result in lowering the existing water quality of any waterbody, the Department has made the finding, following opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.

4. The discharge 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 fresh surface waters*, 38 M.R.S. § 464(4)(A)(1)(a) for the direct discharge of pollutants to waters having a drainage area of less than 10 square miles.

ACTION

THEREFORE, the Department APPROVES the application of MAINE DEPARTMENT OF INLAND FISHERIES AND WILDLIFE to discharge a daily maximum of 4.752 MGD of rearing facility wastewater from Outfall #005A to Mile Brook, Class B, in Gray, Maine, SUBJECT TO ALL APPLICABLE STANDARDS AND REGULATIONS AND THE FOLLOWING CONDITIONS:

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

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

3. This permit becomes effective upon the date of signature below and expires at midnight five (5) years after that date. If a renewal application is timely submitted and accepted as complete for processing prior to the expiration of this permit, the terms and conditions of this permit and all subsequent modifications and minor revisions thereto remain in effect until a final Department decision on the renewal application becomes effective. [*Maine Administrative Procedure Act*, 5 M.R.S. § 10002 and *Rules Concerning the Processing of Applications and Other Administrative Matter*s, 06-096 CMR 2(21)(A) (effective October 19, 2015)].

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

DONE AND DATED AT AUGUSTA, MAINE, THIS ___ DAY OF _____ 2017.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_____
PAUL MERCER, Commissioner

Date of initial receipt of application December 2, 2016
Date of application acceptance December 10, 2016

Date filed with Board of Environmental Protection _____
This Order prepared by Cindy L. Dionne, Bureau of Water Quality

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. The permittee is authorized to discharge **fish rearing wastewater from <u>Outfall #005A</u>** to Mile Brook. Such discharges are limited and must be monitored by the permittee as specified below[(1)]:

Effluent Characteristic	**Discharge Limitations**					**Minimum Monitoring Requirements**	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Daily Minimum	Measurement Frequency	Sample Type
Flow *[50050]*	Report MGD *[03]*	4.752 MGD *[03]*	---	---	---	Daily *[01/01]*	Measured *[MS]*
TSS *[00530]*	48 lbs./day *[26]*	246 lbs./day *[26]*	6 mg/L *[19]*	10 mg/L *[19]*	---	1/Month *[01/30]*	Composite[(2)] *[CP]*
Total Phosphorus[(3)] *[00665]*	Report total lbs./month *[76]*	Maximum 280 lbs./year *[50]*	0.035 mg/L *[19]*	Report mg/L *[19]*	---	2/Month[(4)] *[02/30]*	Composite[(2)] *[CP]*
Fish on Hand *[45604]*	---	Report lbs./day *[26]*	---	---	---	1/Month *[01/30]*	Calculated *[CA]*
Dissolved Oxygen From June 1 – Sept 30, annually *[00300]*	---	---	Report mg/L *[19]*	Report mg/L *[19]*	7.5 mg/L *[19]*	2/Month[(4)] *[02/30]*	Measured *[MS]*
Formalin [(5)] *[51064]*	Report lbs./day *[26]*	75 lbs./day *[26]*	Report mg/L *[19]*	Report mg/L *[19]*	---	Once per Occurrence *[01/OC]*	Calculated *[CA]*

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

<u>FOOTNOTES</u>: See Pages 6 and 7 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

Footnotes

1. **Sampling** – All effluent monitoring must be conducted at Outfall #005A, the only authorized facility discharge, following all means of wastewater treatment, prior to discharge to the receiving water. All monitoring must be conducted so as to capture conditions representative of wastewater generating processes as the facility, such as flow-through and cleaning discharge flows, use of therapeutic and disinfecting/sanitizing agents, etc. and in consideration of settling pond/basin detention times. Any change in sampling location must be approved by the Department in writing. Sampling and analysis must be conducted 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 (DHHS). Samples that are sent to a POTW licensed pursuant to *Waste discharge licenses*, 38 M.R.S. §413 are subject to the provisions and restrictions of *Maine Comprehensive and Limited Environmental Laboratory Certification Rules*, 10-144 CMR 263 (effective date April 1, 2010). Laboratory facilities that analyze compliance samples in-house are subject to the provisions and restrictions of 10-144 CMR 263.

2. **Composite Samples** – Composite 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 notification to the Department's compliance inspector, the permittee may manually composite a minimum of four grab samples collected at two-hour intervals during the working day at the facility.

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

4. **Twice per Month Monitoring:** Monitoring required at a minimum frequency of 2/month must be collected no less than 14 days between sampling events, unless specifically authorized by the Department's compliance inspector.

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SPECIAL CONDITIONS

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

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

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

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

SPECIAL CONDITIONS

B. NARRATIVE EFFLUENT LIMITATIONS

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

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 December 10, 2016; 2) the terms and conditions of this permit; and 3) only from Outfall #005A and Outfall #006A. 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.

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

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

    b. Any anticipated change in the quality and quantity of the wastewater to be discharged from the treatment system.

SPECIAL CONDITIONS

E. MONITORING AND REPORTING

Electronic Reporting

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

Electronic DMRs submitted using the USEPA NetDMR system, must be:

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

Documentation submitted in support of the electronic DMR may be attached to the electronic DMR. Toxics reporting must be done using the Department toxsheet reporting form. An electronic copy of the Toxsheet reporting document must be submitted to your Department compliance inspector as an attachment to an email. In addition, a hardcopy form of this sheet must be signed and submitted to your compliance inspector, or a copy attached to your NetDMR submittal will suffice.

Documentation submitted electronically to the Department in support of the electronic DMR must be submitted no later than midnight on the 15th day of the month following the completed reporting period.

Non-electronic Reporting

If you have received a waiver from the Department concerning the USEPA electronic reporting rule, or are permitted to submit hardcopy DMR's to the Department, then your monitoring results obtained during the previous month must be summarized for each month and reported on separate Discharge Monitoring Report (DMR) forms provided by the Department and **postmarked on or before the thirteenth (13th) day of the month or hand-delivered to a Department Regional Office such that the DMR's are received by the Department on or before the fifteenth (15th) day of the month** following the completed reporting period.

Toxsheet reporting forms must be submitted electronically as an attachment to an email sent to your Department compliance inspector. In addition, a signed hardcopy of your toxsheet must also be submitted.

SPECIAL CONDITIONS

E. MONITORING AND REPORTING

A signed copy of the DMR and all other reports required herein must be submitted to the Department assigned compliance inspector (unless otherwise specified) following address:

Department of Environmental Protection
Bureau of Water Quality
Division of Water Quality Management
312 Canco Road
Portland, Maine 04103

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.

SPECIAL CONDITIONS

F. OPERATION & MAINTENANCE PLAN (cont'd)

2. Materials Storage

    a. Ensure proper storage of drugs[2], pesticides[3], 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.

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.

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.

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

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

SPECIAL CONDITIONS

F. OPERATION & MAINTENANCE PLAN (cont'd)

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.

   b.: A list of FDA-approved drugs identified in the permittee's application. The following drugs were identified in the permittee's application as currently being in use:

Name	Freq. of Use	Concentration	Qty. Used/Year
Parasite-S	As needed	1:600 or 1:4000	+/- 55 gallons
Tricaine-S	As needed	15 – 330 mg/L	+/- 25 grams

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SPECIAL CONDITIONS

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

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 an application, or **Attachment B** of the permit. The permittee must notify the Department verbally 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 verbally or by e-mail prior to initial extralabel use of a drug.

1. The notification must include a description of the drug, its intended purpose, the method of application, the amount, concentration, and duration of the use, information on aquatic toxicity, and a description of how and why the use qualifies as an extralabel drug use under FDA requirements.

2. ***Within seven (7) days of*** the initial notification the permittee must submit a written report that includes all of the information outlined in Section G.3.a(1) above. Notice must include documentation that a veterinarian has prescribed the drug for the proposed use. A copy of the veterinarian's prescription must be maintained on-site during treatment for Department review.

3. If, upon review of information regarding the extralabel use of a drug pursuant to this section, the Department determines that significant adverse effects are likely to occur, it may deny, restrict or limit use of the drug.

SPECIAL CONDITIONS

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

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 to the Department for review and approval, a study plan for the use of the drug that:

1. Indicates the date the facility agreed or signed up to participate in the INAD study.

2. Demonstrates that the minimum amount of drug necessary to evaluate its safety, efficacy, and possible environmental impacts will be used.

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

c. Notification. The permittee must notify the Department verbally or by electronic mail ***no more than forty-eight (48) hours after*** beginning the first use of the INAD under the approved plan.

d. The following INAD was identified by the permittee and is authorized to be used in accordance with the INAD program:

Name	Freq. of Use	Concentration	Qty. Used/Year
AQUI-S 20E	As needed	20-30 mg/L	< 500 mL

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. 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	Freq. of Use	Concentration	Qty.Used/Year
Sodium Chloride	As needed	<200 mg/L	+/- 1,000 lbs.
Virkon Aquatic	As needed	1.3 oz/gal H_20	+/- 10 lbs.

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

Name	Freq. of Use	Concentration	Qty.Used/Year
Argentyne or Ovadine	As needed	100 ppm	+/- 4 gallons

I. SPILLS

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

SPECIAL CONDITIONS

J. REOPENING OF PERMIT FOR MODIFICATION

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

K. SEVERABILITY

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

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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.

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

ATTACHMENT "B"

Facility Name: Casco (Wade) Hatchery **NPDES #: ME 0001066**

DISINFECTANTS:

PRODUCT NAME	INGREDIENTS	FREQ. OF USE	CONCENTRATION	TOTAL USED/YR
Virkon Aquatic	Potassium peroxymonosulfate---- --21.41% Sodium chloride----------1.50% Other ingredients----------77.09%	As needed for disinfection of nets, utensils, boots, stocking trucks,etc.	1% solution (1.3 oz/gal H2O)	+/- 10 lbs
Argentyne or Ovadine	Polymeric or Povidone Iodine Complex---10% Inert Ingredients----------90% Available Iodine----------1%	As needed for disinfection of nets, utensils, boots, stocking trucks, eggs, etc.	100 ppm ; (37.8 ml/gal H2O)	+/- 4 gals.

DRUGS/THERAPEUTIC AGENTS:

PRODUCT NAME	INGREDIENTS	FREQ. OF USE	CONCENTRATION	TOTAL USED/YR
Tricaine-S (MS 222)	Tricaine methanesulfonate	As needed for anesthetizing fish during sampling, fish health/quality exams, fish marking, spawning, etc.	15 to 330 mg/l	+/- 25 grams
AQUI-S 20E	10% Eugenol	As needed for anesthetizing fish during sampling, fish health/quality exams, fish marking, & spawning, etc.	20 - 30 mg/L eugenol	<500 ml
Parasite-S (Formalin)	Formaldehyde----------37% Methanol----------6-14% Water & Inert----------49-57%	As needed for fish external parasitic control;	1:600 or 1:4000 <1 hr duration	+/- 55 gals
Salt (pellets or blocks)	NaCl	As needed for fish external parasitic control	<200 mg/l	+/- 1000 lbs.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
AND
WASTE DISCHARGE LICENSE

FACT SHEET

Date: **October 23, 2017**

MEPDES PERMIT: **ME0001066**
WASTE DISCHARGE LICENSE: **W002038-6F-F-R**

NAME AND ADDRESS OF APPLICANT:

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

COUNTY: **CUMBERLAND**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

WADE STATE FISH HATCHERY
70 FISH HATCHERY ROAD
CASCO, MAINE 04915

RECEIVING WATER / CLASSIFICATION: **MILE BROOK, CLASS B**

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

1. APPLICATION SUMMARY

On December 10, 2016, the Department of Environmental Protection (Department) accepted as complete for processing an application from the Maine Department of Inland Fisheries and Wildlife (MDIFW) for the renewal of combination Waste Discharge License (WDL) W-002038-6F-E-R/ Maine Pollutant Discharge Elimination System (MEPDES) permit ME0001066, which was issued on May 2, 2012, for a five year term. The May 2, 2012 permit authorized the monthly average discharge of 2.9 million gallons per day (MGD) of fish rearing facility wastewater and 0.052 MGD of hatchery facility wastewater to Mile Brook, Class B, from a state fish rearing facility in Casco, Maine.

2. PERMIT SUMMARY

a. This permitting action is carrying forward the terms and conditions of the May 2, 2012 permit, except that it is:

1. Eliminates the Biochemical Oxygen Demand (BOD_5) limitations and monitoring requirements;

2. Establishes a daily maximum flow rate of 4.752 MGD for the entire facility and amends the monthly average flow limit to report only to reflect the current capacity of the facility;

3. Eliminates Special Condition H. *Settling Basin Cleaning,* from the previous permit;

4. Amends language in the Footnotes section of Special Condition A. *Effluent Limitations And Monitoring Requirements*;

5. Eliminates Special Condition J. *Disinfecting/Sanitizing Agents,* from the previous permit;

6. Eliminates Special Condition K. *Minimum Treatment Technology Requirement,* from the previous permit;

7. Establishes additional requirements to be included in the facility Operations and Monitoring Plan;

8. Establishes Special Condition G. *Use of Drugs for Disease Control;*

9. Establishes Condition H. *Pesticide and Other Compounds* to replace Special Condition I. *Diseases, Pathogens, and Therapeutic Agents* from the 2012 permit;

10. Establishes Special Condition I. *Spills*;

11. Eliminates Special Conditions related to Outfall #006A (hatchery building) as the current facility has combined the two discharges into a single discharge;

PERMIT SUMMARY (cont'd)

12. Eliminates the monthly average reporting requirement for Fish on Hand and revises the daily maximum monitoring from 2/Month to 1/Month to allow for increased monitoring flexibility;

13. Eliminates Footnote #4 (from the previous license) as dissolved oxygen reporting is adequately recorded on the Discharge Monitoring Reports (DMRs).

14. Eliminates Special Condition G. *Alternative Discharge Study* from the previous permit;

15. Establishes a mass limit for phosphorus that combines both Outfall #005A and Outfall #006A from the previous permit; and

16. Establishes combined total suspended solids daily maximum and monthly average mass limits due to the combination of the outfalls (#005A and #006A).

b. History: This section provides a summary of recent, relevant licensing/permitting actions that have been completed by MDIFW for the Wade State Rearing Station wastewater facility.

February 12, 1975 – The Department issued WDL #662 to the Department of Inland Fisheries and Game for the discharge of a daily average of 4.16 MGD and a daily maximum of 5.18 MGD of fish hatchery wastewater from the Casco facility to Mile Brook, Class B-1. The WDL was valid until February 12, 1978.

February 20, 1975 – The USEPA issued National Pollutant Discharge Elimination System (NPDES) Permit #ME0001066 to the Maine Department of Inland Fisheries and Game for the discharge of an unspecified volume of wastewater from the Casco facility to Mile Brook. The Permit was valid through February 15, 1980.

September 28, 1977 – The Maine Board of Environmental Protection ordered WDL #662 amended to eliminate or significantly reduce monitoring requirements for all parameters based on effluent monitoring data conducted since issuance of the WDL.

March 8, 1978 – The Department issued WDL # 2038 to MDIFW for the discharge of a daily maximum of 5.75 MGD of treated fish hatchery wastewater from MDIFW Casco to Mile Brook, Class B-1. The WDL was issued for a five-year term.

May 11, 1983 – The Maine Board of Environmental Protection issued WDL #2038 for the discharge of a daily maximum of 5.75 MGD of treated fish hatchery wastewater from the MDIFW Casco hatchery to Mile Brook, Class B-1. The WDL was issued for a five-year term.

2. PERMIT SUMMARY (cont'd)

July 21, 2000 – The Department issued # W-002038-5Q-A-R to MDIFW Casco for the discharge of a daily maximum of 2.9 MGD of treated fish hatchery wastewater. The WDL was issued for a five-year term.

September 10, 2001 – The Department suspended monitoring requirements established in WDL # W-002038-5Q-A-R for Outfall #001A, designated for effluent discharges from the show pools when not cleaning the show pools. The Department required monitoring for Outfall #001B, designated for effluent discharges from the show pools when cleaning raceways that discharge through the show pools, to be conducted by autocompositer and required monitoring for Outfall #002A, designated for effluent discharges from raceways being cleaned that discharge directly to the receiving water and not through the show pools, to be conducted by hand or by autocompositer. The Department made no mention of Outfall #003A, designated for a summary of the phosphorus mass discharged from Outfalls #001A or #001B and #002A. The Department also made no mention of Outfall #004A, designated for a summary of the flow, mass of fish on hand, and total phosphorus mass values from Outfalls #001A, #001B, and #002A. MDIFW continued to monitor all outfalls.

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

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

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

July 11, 2003 – The Department administratively modified WDL # W-002038-5Q-A-R to extend the 3-year schedule of compliance for BOD, TSS, and phosphorus effluent limits established in the WDL through the life of the WDL.

2. PERMIT SUMMARY (cont'd)

May 8, 2006 - The Department issued MEPDES Permit #ME0001066 / Maine WDL #W-002038-5Q-B-R to MDIFW Casco for the discharge of a monthly average of 2.9 MGD of fish rearing facility wastewater and 0.052 MGD of fish hatchery facility wastewater to Mile Brook, Class B, in Casco. The Permit / WDL was issued for a five-year term.

October 10, 2008 - The Department issued Minor Revision #W-002038-5Q-C-M / MEPDES Permit #ME0001066 to revise effluent formalin limitations based on newly obtained toxicity data and a revision of the Department's best professional judgement of ambient water quality criteria.

April 23, 2009 - The Department issued Minor Revision #W-002038-5Q-D-M / MEPDES Permit #ME0001066 to revise effluent BOD_5 and TSS minimum monitoring frequency requirements from once / 2 weeks to once / month. The Minor Revision also provided guidance for reporting analytical results below detection and/or reporting limits.

May 2, 2012 - The Department issued MEPDES Permit #ME0001066 / Maine WDL #W-002038-6F-E-R to MDIFW Casco for the discharge of a monthly average of 2.9 MGD of rearing facility wastewater and 0.052 MGD of hatchery facility wastewater to Mile Brook, Class B, in Casco. The Permit / WDL was issued for a five-year term.

December 2, 2016 – MDIFW submitted a timely application for renewal of its MEPDES Permit / WDL. The application was assigned MEPDES Permit #ME0001066 / WDL #W-002038-6F-F-R.

c. Source Description: The MDIFW Casco facility, or Wade State Fish Hatchery, was constructed in 1955 as a state aquaculture facility. The facility underwent significant upgrades in 2005, 2011, and 2017. MDIFW Casco is a fish hatchery and rearing station, raising landlocked Atlantic salmon, brook trout, brown trout, and rainbow trout obtained from this and other MDIFW hatchery facilities to appropriate sizes for stocking in Maine waters as part of MDIFW's responsibilities in managing fisheries in Maine.

Source water for the MDIFW Casco facility is obtained from Pleasant Lake (1,077-acres) through two18-inch diameter HDPE intake pipes. The intakes are located at two different locations that can draw either deep water (51-feet) or shallow water (15-feet) depending on fish growth temperature requirements. The intake is fitted with a coarse (4-inch) screen on the lake end of the pipe to prevent fish or large debris from entering the station. The intake water is passed through an aeration box on each line and then through one of three ultraviolet disinfection units for pathogen inactivation. Prior to contact with fish on station, excess influent water from the aeration boxes, UV disinfection units, or raceways headboxes can be discharged directly to Mile Brook through either a 12-inch diameter or 24-inch diameter overflow pipe.

2. PERMIT SUMMARY (cont'd)

Influent water is piped to the head of both of two sets of raceways after passing through a set of mixing boxes that allows for a different temperature regime through each set. A separate 8-inch diameter supply line provides influent water from the UV building to the facility hatchery building. The hatchery building incorporates nylon stockings on each tank inlet for filtration and exclusion of freshwater organisms. MDIFW Casco is a flow-through facility with flows through each of two parallel raceway lines to Mile Brook (Class B, less than 10 square mile watershed), which in turn flows to the Crooked River (Class AA, tributary to GPA water) and Sebago Lake (Class GPA). A map showing the location of the treatment facility is included as Fact Sheet **Attachment A**.

Hatchery Facilities: MDIFW Casco's hatchery facilities consist of eight, 10-foot long by 1.2-feet wide by 6-inches deep (operational depth) aluminum egg/fry troughs. The troughs have a flow-through rate of 6 gallons per minute (gpm) per set of two troughs. The troughs are arranged so that four adjacent troughs flow into another four adjacent troughs downgradient for a total discharge flow of 24 gpm or 34,560 gallons per day as used. Salmon eggs are brought into the MDIFW Casco hatch house in November. Eggs are placed on trays and eventually into hatching baskets using the aluminum egg/fry troughs. Salmon eggs hatch in the spring. After the swim-up stage, the baskets are removed. MDIFW Casco also has six, 5-foot diameter by 3-feet deep (440-gallon) combi-tanks with a flow through rate of (2-10 gpm through each tank for a maximum total of 60 gpm (86,400 gpd) for all combi tanks). Combi tanks are used for egg hatching and initial rearing of fry until they are transferred to facility raceways for rearing. From November through April, through the egg incubation, hatching, and non-feeding fry stages, no feeding occurs. Fry begin being fed in May of each year for 4-6 weeks with automatic fish feeders. In June when they are approximately 1-2 inches in length the salmon are moved to raceway pools for rearing. Hatch house wastewater is combined with flow from the raceways prior to effluent treatment. The hatchery building is typically not operated from July through October each year after fry are moved to the raceways.

Rearing Facilities: MDIFW Casco's rearing facilities consist of two lines of covered concrete raceways referred to as the east side and west side raceways because of their orientation on the site. Fry are reared in the raceways until they achieve appropriate sizes for stocking. Both sets of raceways consist of three rows of four, 5-foot wide by 100-foot long pools (raceway series A-D, total 24 pools) followed by two rows of two, 8-foot wide by 100-foot long pools (raceway series E-F, total 8 pools) for a total of 32 raceway pools. Each pool is operated at a depth of 24-inches. A 16-foot wide by 8-foot long showpool is located at the end of each of the two raceway lines. Feeding is conducted by hand and also automatically through demand feeders. MDIFW Casco indicates using an average of 118 pounds of food per day, a maximum of 185 lbs./day, and a period of peak feeding during July through October.

MDIFW Casco indicates a maximum quantity of fish on station of 1425 broodstock weighing 3875 lbs., 110,000 first year fish weighing 20,625 lbs., and 30,000 second year fish weighing 25,000 lbs. for a total of approximately 141,425 fish weighing 42,625 lbs.

2. PERMIT SUMMARY (cont'd)

d. Wastewater Treatment: All flow-through and cleaning flows leaving the hatchery and the rearing facilities (raceways) are routed to a 60-micron drum filter for filtration prior to discharge to the receiving water. Cleaning activities are conducted as described below.

To clean the raceways, MDIFW staff has a two-step process involving a vacuum system and traditional scrubbing. Prior to scrubbing, the fish waste collected in the quiescent zone is removed using a vacuum. A vacuum hose is located at the bottom of each row of three raceways and each vacuum is connected to common wastewater pipeline. The vacuum pipeline connects to a pump in the effluent building. The pump moves the fish waste directly to the facility clarifier. MDIFW Casco indicates that it takes 15 minutes to clean a row of quiescent zones. After the quiescent zones have been vacuumed, MDIFW staff scrub the sides and bottoms from the top end of the raceway pool moving down-flow toward the bottom end. At the bottom of all raceway pools, a screened 10-foot long "quiescent zone" is located along with a covered discharge pipe. After a raceway is cleaned, the discharge pipe "plug" is removed, sending cleaning flows via a common wastewater pipeline to the effluent microscreen drum filter. After the raceway pool and quiescent zone screen are cleaned, the quiescent zone plug is replaced and the cleaners move to the next raceway pool.

Raceways are cleaned once per week in a single day during the summer and once every 2-3 weeks as needed during the winter when numbers of fish are reduced. MDIFW Casco indicates that it takes approximately 15-30 minutes to clean each raceway pool. MDIFW Casco indicates that raceways housing fall yearling brown trout are not cleaned due to stress on the fish and because the fish appear to "self-clean" the raceways they inhabit as they stir up and re-suspend any settled material through increased activity.

All raceway cleaning wastewaters, vacuum wastewaters, and the backwash of captured solids from the microscreen filter are routed via the common wastewater pipe to an approximately 20-foot by 20-foot by 16-foot (48,000-gallon) clarifier, during which time excess clarifier water (supernatant) is routed back to the microscreen filter for filtration and discharge. Solids in the clarifier are constantly or intermittently raked and automatically or manually pumped to an adjoining approximately 20-foot by 20-foot by 16-foot (48,000-gallon) sludge storage/dewatering tank designed to provide a minimum of 6-months of storage capacity. During the fall of 2011, MDIFW installed a rake arm to assist in clarifier solids removal as well as a building over the clarifier. Sludge tank supernatant is routed back to the clarifier unit for additional treatment; however this rarely occurs as accumulated sludge is removed for proper disposal as needed.

2. PERMIT SUMMARY (cont'd)

After it exits the drum filter, MDIFW Casco's-treated rearing facility wastewater is discharged through Outfall #005A, a 36-inch diameter pipe. However, MDIFW has designed for a bypass of the facility drum filter in the event of routine filter maintenance or in the case of unforeseen filter equipment malfunction and necessary major repairs. During such times, MDIFW will not clean or feed its fish so that all effluent discharges will consist of flow-through water only. Regardless of the scenarios described, MDIFW Casco's discharges are at all times subject to the effluent limitations and monitoring requirements established in this permitting action. A process flow diagram submitted by the permittee is included as Fact Sheet **Attachment B**.

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 CMR 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 CMR 584 (effective July 29, 2012), and that ensure safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected.

4. RECEIVING WATER QUALITY STANDARDS

Classifications of major river basins, 38 M.R.S. § 467(9)(B)(4) classifies Mile Brook as a Class B waterway. *Standards for classification of fresh surface waters*, 38 M.R.S. § 465(3) describes the standards for Class B waters.

The Department has previously determined that Mile Brook, at the point of discharge, has a watershed of 7.75 square miles. *Classification of Maine waters* 38 M.R.S. § 464 (4)(A) specifies that "Nothwithstanding section 414-A, the department may not issue a water discharge license for any of the following discharges: (1) Direct discharge of pollutants to waters having a drainage area of less than 10 square miles, except that: (A) Discharges into these waters that were licensed prior to January 1, 1986 are allowed to continue only until practical alternatives exist…"

Prior to issuing a discharge license, the Department requires the applicant to objectively demonstrate to the Department's satisfaction that the discharge is necessary and that there are no other reasonable alternatives available. An Alternative Discharge Study performed by Fishpro for multiple MDIFW facilities (including Casco) indicates that there are no reasonable alternatives to the current discharge. MDIFW (via email correspondence to the Department dated January 30, 2017) confirmed that the 2002 Fishpro conclusions that there are no practical alternatives to the discharge is valid for purposes of this permitting action.

5. RECEIVING WATER QUALITY CONDITIONS

The State of Maine 2014 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 Mile Brook (AU ID ME0106000101_605R01) as, "Category 4-B, Rivers and Streams Impaired by Pollutants – Pollution Control Requirements Reasonably Expected to Result in Attainment." The listing identifies the cause of impairment as Benthic-Macroinvertebrate Bioassessments (Streams). The comment field states that macroinvertebrate sampling attained Class B standards in 2013.

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

However, because it is impossible for someone consuming a fish to know whether the mercury level exceeds the action level, the Maine Department of Health and Human Services decided to establish a statewide advisory for all freshwater fish that recommends limits on consumption. Maine has already instituted statewide programs for removal and reduction of mercury sources." Pursuant to 38 M.R.S. § 420(1-B)(B), "a facility is not in violation of the ambient criteria for mercury if the facility is in compliance with an interim discharge limit established by the Department pursuant to section 413 subsection 11." However, pursuant to *Interim Effluent Limitations and Controls for the Discharge of Mercury*, 06-096 CMR 519, the Department has made a best professional judgment determination to exempt fish hatcheries from applicability of the mercury rule.

The Department has made a best professional judgment determination based on information gathered to date, that as permitted, the discharge will not cause or contribute to the failure of the receiving water to meet the standards of its ascribed classification and the designated uses of the waterbody will continue to be maintained and protected. If future modeling determines that at full permitted discharge limits, the discharge is causing or contributing to the non-attainment, this permit will be re-opened per Special Condition J, *Reopening of The License For Modifications*, to impose more stringent limitations to meet water quality standards.

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6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

a. Applicability of National Effluent Guidelines: The USEPA has promulgated national effluent guidelines for the *Concentrated Aquatic Animal Production Point Source Category* at 40 CFR 451 Subpart A, *Flow-Through and Recirculating Systems Subcategory*. This subpart is applicable to discharges from a concentrated aquatic animal production facility that produces 100,000 lbs. or more per year of aquatic animals in a flow-through or recirculating system. For the MDIFW Casco facility, the maximum pounds of fish on station as reported for the reporting period of June 2012 – December 19, 2016, at any time consisted of a maximum of 38,618 lbs. The facility's daily maximum of 38,618 lbs./day is less than the 100,000 lbs. per year applicable threshold, and is therefore not categorically subject to regulation under this subpart.

b. Flow: The previous permitting action established monthly average discharge limits of 2.9 MGD for the rearing facility (Outfall #005A) and 0.052 MGD for the hatchery facility (Outfall #006A). The July 21, 2000 WDL renewal stated that the 2.9 MGD flow was a daily maximum limit and the monthly average limit was report only. Prior to the 7/21/00 renewal the daily maximum limit was 5.75 MGD with no monthly average limit. There was no explanation in the 2000 WDL as to why the limit was reduced, however, given the recent upgrades to the facility, and installation of new intake structures, this permitting action is re-establishing the daily maximum limit of 4.752 MGD with a report only monthly average.

A review of the Discharge Monitoring Report (DMR) data for the MDIFW Casco facility for the period of June 2012 through December 19, 2016 indicates the following:

Flow - Outfall #005A (Rearing Facility)

Value	Limit (MGD)	Minimum (MGD)	Maximum (MGD)	Average (MGD)
Monthly Average	2.9	2.6	2.9	2.7

Flow - Outfall #006A (Hatchery Building)

Value	Limit (MGD)	Minimum (MGD)	Maximum (MGD)	Average (MGD)
Monthly Average	0.052	0.02	0.05	0.02

c. Dilution Factors: Dilution factors associated with wastewater discharges are derived in accordance with *Surface Water Toxics Control Program* 06-096 CMR 530 (effective date March 21, 2012), and methods for low flow calculation contained in *Estimating Monthly, Annual, and Low 7-day, 10-year Streamflows for Ungauged Rivers in Maine,* Scientific Investigations Report 2004-5026, US Department of Interior, US Geological Survey (USGS). The Department utilizes the receiving water's available dilution during low flow conditions.

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

To calculate potential effects from a facility's effluent discharge, the Department utilizes the receiving water's available dilution during low flow conditions. The MDIFW Casco facility discharges its treated effluent via a discharge pipe into the side of Mile Brook. Typically, these types of discharges do not achieve rapid and complete mixing with the receiving water since initial dilution is based on mixing resulting from the momentum of a discharge as it exits a discharge pipe (jet effect) as well as the dispersion of the effluent plume as it rises to the surface of the receiving water. 06-096 CMR 530.4.B(1) states that analyses using numeric acute criteria for aquatic life must be based on ¼ of the 1Q10 stream design flow to prevent substantial acute toxicity within any mixing zone. The regulation goes on to say that where it can be demonstrated that a discharge achieves rapid and complete mixing with the receiving water by way of an efficient diffuser or other effective method, analyses may use a greater proportion of the stream design, up to including all of it.

As noted in the previous permitting action, the dam on Pleasant Lake, which feeds Mile Brook, is privately owned. There is a formal water level order for Pleasant Lake, dated August 15, 1978, but there is no formal requirement specifying a minimum flow that must be passed over or through the dam to Mile Brook. MDIFW Casco reports that upper portions of Mile Brook are significantly or completely dewatered on occasion. At those times, the MDIFW Casco discharge constitutes the only flow in that portion of Mile Brook. Based on this information, in the previous permitting action, the Department assumed a seasonal low flow of 0 cubic feet per second in Mile Brook and acute (1Q10), chronic (7Q10) and harmonic mean dilution factors of 1:1, representative of the fact that the MDIFW Casco discharge sometimes constitutes the only river flow. The Department's Division of Environmental Assessment (DEA) has reviewed the conditions described and verified the 1:1 dilution factors. If a guaranteed minimum flow from the Pleasant Lake dam is established in the future, this determination may be revisited.

d. BOD_5 and TSS: The previous permitting action established monthly average and daily maximum concentration limits of 6 mg/L and 10 mg/L respectively for BOD_5 and TSS based on Department BPJ of Best Practicable Treatment (BPT).

Therefore, to calculate applicable mass limits for BOD and TSS, the Department utilized the previous WDL monthly average concentration limits of 2 mg/L (ppm), the previous maximum flow limit of 2.9 MGD, and a conversion factor of 8.34 lbs./gallon to yield a total facility monthly average mass limit of 48 lbs./day. To allocate this mass limit between the rearing facility discharge (Outfall #005A) and the hatchery facility discharge (Outfall #006A), the Department used the hatchery discharge flow limit of 0.052 MGD in the above formula to calculate a monthly average mass limit of 0.9 lbs./day. The rearing facility discharge was then allocated the remaining 47.1 lbs./day as a monthly average limit. This permit is combining the separate outfall discharges to establish a total monthly average mass limit of 48 lbs./day for the entire facility.

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

The daily maximum mass limits were based on the newly established daily maximum concentration limits of 10 mg/L, new monthly average flow limits of 2.9 MGD and 0.052 MGD, and a conversion factor of 8.34 lbs./gallon to yield 242 lbs./day and 4.3 lbs./day daily maximum limits for Outfalls #005A and #006A, respectively. This permit is combining the separate outfall discharges to establish a total daily maximum mass limit of 246 lbs./day for the entire facility.

The Department anticipated that the monthly average mass limits would be limiting factors for the MDIFW Casco discharge, thus meeting the provisions of 38 M.R.S., §464.4.A(1) and (2) noted above.

A summary of the BOD_5 and TSS data as reported on the monthly DMRs for the period of for the period of June 2012 through December 19, 2016, is as follows:

OUTFALL #005A (REARING STATION)

BOD_5 Mass (DMRs = 49)

Value	Limit (lbs./day)	Range (lbs./day)	Mean (lbs./day)
Monthly Average	47.1	0 – 70	4
Daily Maximum	242	48 – 242	227

BOD_5 Concentration (DMRs = 49)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	6	1 – 2.9	2
Daily Maximum	10	<2 – 2.9	2

TSS Mass (DMRs = 49)

Value	Limit (lbs./day)	Range (lbs./day)	Mean (lbs./day)
Monthly Average	47.1	0 – 53	6
Daily Maximum	242	48 – 242	223

TSS Concentration (DMRs = 49)

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

There were three recorded excursions above the monthly average mass limit for BOD. There were four recorded excursions above the monthly average mass limit for TSS.

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

OUTFALL #006A (REARING STATION)

BOD_5 Mass (DMRs = 28)

Value	Limit (lbs./day)	Range (lbs./day)	Mean (lbs./day)
Monthly Average	0.9	0 – 0	0
Daily Maximum	4.3	<4.3 – <4.3	<4.3

BOD_5 Concentration (DMRs = 28)

Value	Limit (lbs./day)	Range (lbs./day)	Mean (lbs./day)
Monthly Average	6	<2 – <2	<2
Daily Maximum	10	<2 – <2	<2

TSS Mass (DMRs = 28)

Value	Limit (lbs./day)	Range (lbs./day)	Mean (lbs./day)
Monthly Average	0.9	0 – 0	0
Daily Maximum	4.3	<4.3 – <4.3	<4.3

TSS Concentration (DMRs = 28)

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

The Department's Division of Environmental Assessment (DEA) reviewed hatchery information in consideration of using TSS as a surrogate for BOD_5. TSS is more closely related to problems most commonly encountered at aquatic animal facilities such as phosphorus enrichment and solids control. After reviewing approximately 6 years' worth of TSS and BOD_5 data, the Department concluded that the results of the two parameters showed a strong correlation. Therefore, the Department concluded that TSS could be relied upon to reflect BOD_5 conditions.

This permitting action is carrying forward mass and concentration limits for TSS. This permit is also carrying forward with the previously established monitoring frequency of 1/Month for TSS.

BOD can cause depressed DO in the receiving waters and increased carbon levels may create a favorable environment for nuisance bacterial/fungal growth such as *Sphaerotilus natans* that may result in non-attainment of narrative water quality standards. The Department has not observed nuisance bacterial and fungal growth below the discharges from the Casco hatchery in quantities that would constitute a violation of narrative water quality standards. Therefore, the Department concludes that Mile Brook does not exhibit BOD-related impacts.

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

Given that 1) the hatchery operations and processes are not likely to change; 2) that the Department has a statistically significant BOD_5 data set from this and multiple similar hatcheries; 3) that neither the USEPA nor Department have promulgated numeric effluent guidelines for BOD_5 for Concentrated Aquatic Animal Production (CAAPs) facilities (including fish hatcheries); 4) that this permitting action contains effluent monitoring for dissolved oxygen; and 5) that in the best professional judgment of the Department's Division of Environmental Assessment effluent limitations for BOD_5 are not necessary to ensure compliance with water quality standards, this permitting action is eliminating the effluent limitations and monitoring requirements for BOD_5 based on this new information that was not available at the time the previous permit was issued.

Section 402(o) of the Clean Water Act contains prohibitions for anti-backsliding. Generally, antibacksliding prohibits the issuance of a renewed permit with less stringent limitations than were established in the previous permit. The Clean Water Act contains certain exceptions to antibacksliding in Section 402(o)(2). Section 402(o)(2)(B)(i) of the Clean Water Act contains an exception to anti-backsliding for information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance. Therefore, this permitting action is eliminating the limitations for BOD_5. [It is noted that anti-backsliding prohibitions and exceptions are mirrored in Chapter 523 of the Department's rules at 40 CFR 122.44(1)(2)(i)(B)(l).]

e. Dissolved Oxygen: The previous permit established, and this permitting action is carrying forward the daily minimum limit of 7.5 mg/L, as well as the monthly average and daily maximum reporting requirements for dissolved oxygen. The previous permit revised the minimum monitoring frequency to twice per month based on the discharge monitoring data. This permitting action is carrying forward the monitoring frequency of 2/Month as well as the requirement that MDIFW maintains copies of all data from effluent dissolved oxygen monitoring at the facility for a period of five years and must make available copies of data to the Department upon request.

The Department reviewed 17 DMRs that were submitted for the period of June 2012 – December 19, 2016. The data indicates the following:

Outfall #005A
Dissolved Oxygen

Parameter	Minimum	Maximum	Mean
Monthly Average	7.6	8.1	7.8
Daily Maximum	7.8	9.1	8.2
Daily Minimum	7.5	8.0	7.7

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

Outfall#006A

Dissolved Oxygen

Parameter	Minimum	Maximum	Mean
Monthly Average	7.9	8.4	8.1
Daily Maximum	8.0	9.2	8.4
Daily Minimum	7.8	8.3	8.0

f. Total Phosphorus: Phosphorus concerns for the MDIFW Casco facility are two-fold in that the facility discharges to Mile Brook (Class B) which is a tributary to Crooked River (Class AA), which is a tributary to Sebago Lake (Class GPA). This section is divided to address each resource separately.

Sebago Lake - The previous permit established an annual maximum mass limit of 280 pounds, which is considered to be protective of the Class GPA standard that "Class GPA waters must have a stable or decreasing trophic state, subject only to natural fluctuations and must be free of culturally induced algal blooms that impair their use and enjoyment." 38 M.R.S. §465-A(1)(B). The facility is also required to report the monthly mass discharge. Both the annual maximum mass limit and the monitoring frequency are being carried forward in this permitting action. Since the outfalls have been combined, the maximum mass limit of 280 pounds is being applied to the newly combined Outfall #005A. The Department reviewed 49 DMRs that were submitted for the period June 2012 – October 2016. A review of data indicates the following:

Total-P Mass from Outfall 005A

Year	Limit (lbs./year)	Annual Total (lbs.)
2012	274.5	236.8
2013		241.9
2014		235.3
2015		237.5
Through 6/30/2016		69.6

Total-P Mass from Outfall 006A

Year	Limit (lbs./year)	Annual Total (lbs.)
2012	5.5	0.298
2013		0.203
2014		0.231
2015		0.213
Through 5/31/2016		0.15

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

Mile Brook – Previous permitting action established a concentration limit for total phosphorous. The annual daily max mass limitation of 280 lbs./year is a water quality-based limit necessary to ensure compliance with Class GPA water quality standards and is being carried forward in this permitting action. The monthly average concentration limit of 0.035 mg/L for total phosphorus was established based on BPJ of BPT for this discharge. Based on BPJ a monthly average mass limit (as established in other MDIFW permits) is appropriate and necessary to ensure compliance with Class B water quality standards and is being carried forward in this permit.

It should be noted that the monthly average mass limit and annual mass limit are calculated based on different receiving waters. Compliance with the established monthly average mass limit will not necessarily result in compliance with the established annual mass limit. The permittee will need to actively manage its phosphorus discharge to achieve compliance and prevent adverse impacts in the receiving waters.

The Department reviewed 25 DMRs that were submitted for the period June 2012 – December 19, 2016. A review of data indicates the following:

Total-P Concentration from Outfall 005A

Value	Limit (lbs./day)	Range (lbs./day)	Mean (lbs./day)
Monthly Average	0.035	0.009 – 0.060	0.04
Daily Maximum	Report	0.009 – 0.070	0.04

Total-P Concentration from Outfall 006A

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	0.035	0.007 – 0.023	0.01
Daily Maximum	Report	0.007 – 0.041	0.02

g. Fish on Hand: Previous permitting action established a 2/Month reporting requirement for daily maximum and monthly average mass. After review of the data, the Department believes that a 1/Month daily maximum mass reporting requirement is appropriate. Therefore, this permit is eliminating the monthly average mass reporting requirement and establishing a 1/Month daily maximum mass reporting requirement for Fish on Hand. A review of the DMR data for the MDIFW Casco facility for the period of June 2012 through December 19, 2016 indicates the following:

Fish on Hand (DMR=49) from Outfall 005A

Value	Limit (lbs./day)	Range (lbs./day)	Mean (lbs./day)
Monthly Average	Report	16,417 – 38,618	26,923
Daily Maximum	Report	16,417 – 38,618	26,923

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

Fish on Hand (DMR=27) from Outfall 006A

Value	Limit (lbs./day)	Range (lbs./day)	Mean (lbs./day)
Monthly Average	Report	0 – 201	12
Daily Maximum	Report	0 – 201	12

h. Formalin: Formalin is a drug used to treat fungal infections and external parasites of finfish and finfish eggs. The previous permitting action established daily maximum concentration and mass effluent limitations of 45 mg/L and 7.3 lbs./day, respectively, for 1-hour formalin treatments and 25 mg/L and 7.3 lbs./day, respectively, for 24-hour formalin treatments. Formalin limits were based on the amount of formalin the facility was using at the time of the 2008 WDL modification. Due to upgrades at the facility and the combining of the two outfalls, MDIFW has requested that the Department consider amending the formalin limit. Since formalin is already in use at the facility, it is not considered a new discharge of pollutants to the receiving water.

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

Given the flow-through style of the facility as well as formalin concentration limits based on the ambient water quality criteria (AWQC) of 25 mg/L and 45 mg/L for a 24-hour application and a 1-hour application, respectively, multiplied by the acute dilution factor of 1.0, the concentration limits are calculated as such:

25 mg/L x 1 (effluent dilution) = 25 mg/L 24-hour treatment
45 mg/L x 1 (effluent dilution) = 45 mg/L 1-hour treatment

Mass limits derived from the concentrations limits, taking into consideration the facility flow are calculated as such:

For 1 hour treatments:
4.752 / 24 = 0.198 MG
0.198 MG x 9.03 lbs./gal. x 45 mg/L = 80 lbs./hour

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

For 24 hour treatments:
4.752 x 9.03 lbs./gal. x 25 mg/L = 1,073 lbs./day.

The permittee has requested that the Department consider a daily maximum formalin limit of 75 lbs./day given the species of the fish on station, recent upgrades to the facility, as well as efficacy of each application. Therefore, based on the Department's BPJ of AWQC, this permit is establishing a daily maximum mass limit of 75 lbs./day.

The Department is identifying in this permitting action that the concentration limit is not necessary to ensure water quality standards are achieved and that the limitation was established in error. Section 402(0) of the Clean Water Act contains prohibitions for anti-backsliding. Generally, anti-backsliding prohibits the issuance of a renewed permit with less stringent limitations than were established in the previous permit. The Clean Water Act contains certain exceptions to anti-backsliding at Section 402(o)(2). In the case of MIFW's Casco facility and the concentration limitation for formalin, the Department has determined that establishing a concentration limitation for formalin constitutes a technical mistake in issuing the permit. Section 402(o)(2)(B)(ii) of the Clean Water Act contains an exception to anti-backsliding for this reason. Therefore, this permitting action is eliminating the concentration limitation for formalin. (It is noted that anti-backsliding prohibitions and exceptions are mirrored in Chapter 523 of the Department' s rules).

This permitting action is carrying forward the minimum monitoring frequency requirement of once per occurrence for formalin. A review of the DMR data for the MDIFW Casco facility for the period of March 2013 through December 13, 2016 indicates the following:

Formalin Mass (DMR=4)

Value	Limit lbs./day	Range lbs./day
Monthly Average	Report	0.0 – 0.0
Daily Maximum	7.3	0.1 – 0.1

Formalin concentration (DMR=4)

Value	Limit (mg/L)	Range (mg/L)
Monthly Average	Report	0.6 – 0.6
Daily Maximum	45	0.6 – 0.6
24-Hour Maximum	25	N/A

7. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

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

8. PUBLIC COMMENTS

Public notice of this application was made in the *Sun Journal* newspaper on or about December 5, 2016. The Department receives public comments on an application until the date a final agency action is taken on the application. Those persons receiving copies of draft permits must have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to *Application Processing Procedures for Waste Discharge Licenses*, 06-096 CMR 522 (effective January 12, 2001).

9. DEPARTMENT CONTACTS

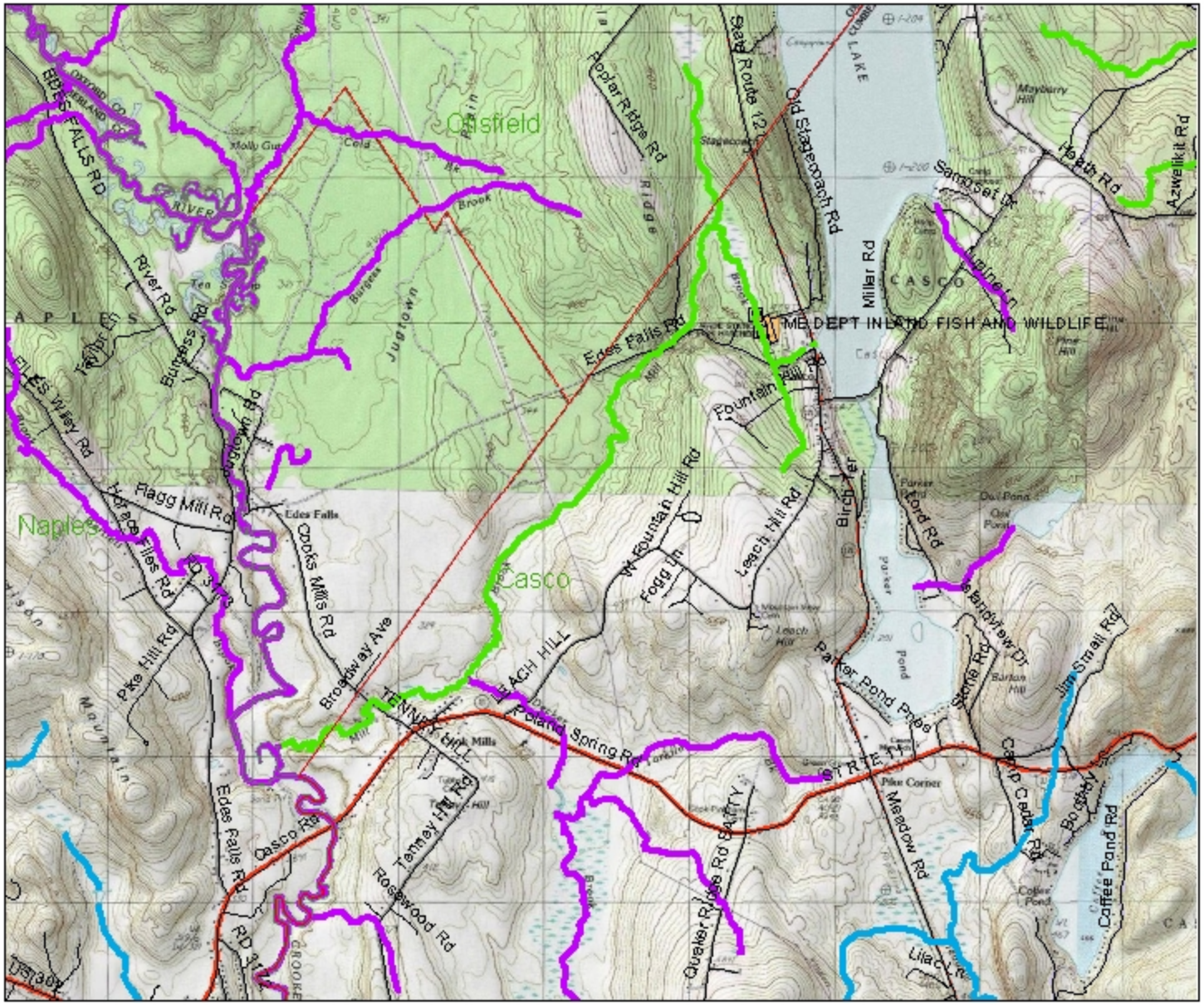
Additional information concerning this permitting action may be obtained from, and written comments sent to:

Cindy Dionne
Division of Water Quality Management
Bureau of Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Telephone: (207) 557-5950
e-mail: Cindy.L.Dionne@maine.gov

10. RESPONSE TO COMMENTS

Reserved until the end of the comment period.

ATTACHMENT A



Legend

River_polygons

RIVCLASS

- AA
- A
- B
- C
- AA
- A
- B
- C
- SA
- SB
- SC
- Roads_E911
- Wastewater_Outfalls
- Railroads

Roads

JURISDICTION

- Town Road
- Town Road - Summer
- Town Road - Winter
- State-aided Highway
- State Highway
- Toll Highway
- Private Road
- Reservation Road
- Seasonal Parkway

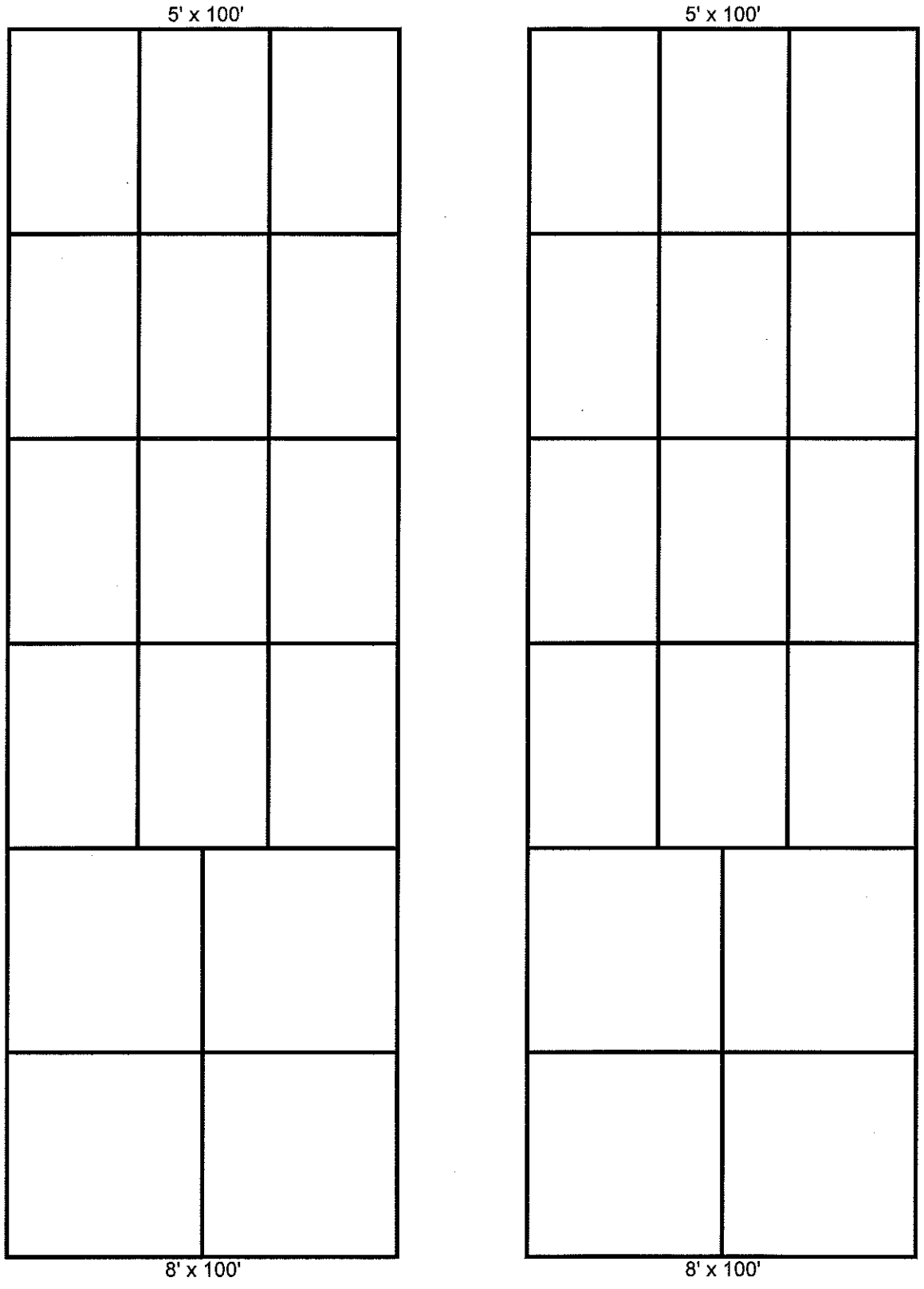
MDIFW Wade State Hatchery and Rearing Station Casco, ME

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

DEPARTMENT OF ENVIRONMENTAL PROTECTION · STATE OF MAINE ·

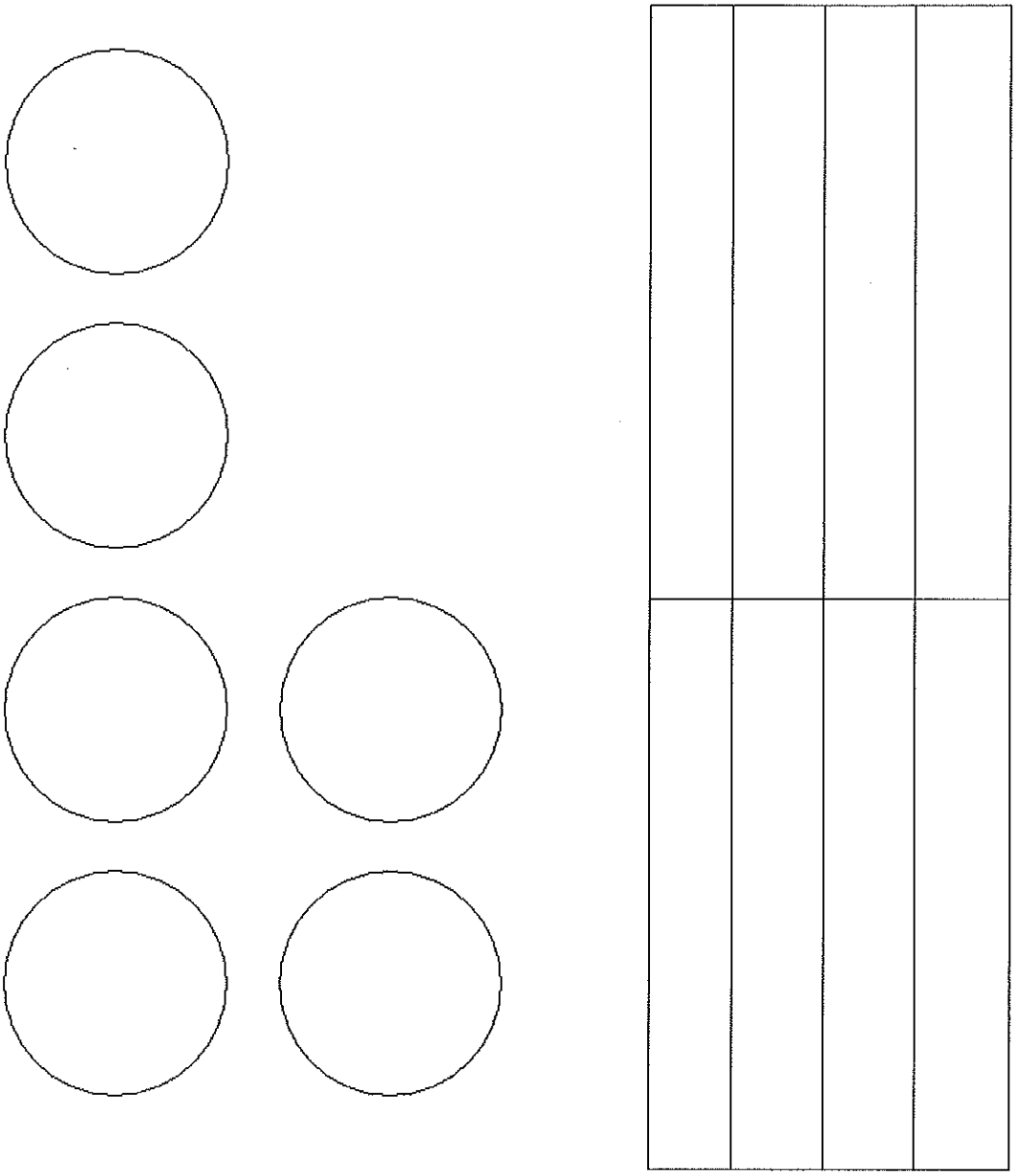
ATTACHMENT B

CASCO RACEWAY POOL SETUP



Raceways
(24) 5x100 ft pools
(8) 8x100 ft pools

CASCO HATCH HOUSE SETUP



(8) troughs (120"L x 13.5"W x 7.5"D)
(6) 5ft tanks (~28" deep)