STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JANET T. MILLS
GOVERNOR

GERALD D. REID
COMMISSIONER

February 26, 2020

Mr. Todd Langevin
Maine Department of Inland Fisheries & Wildlife
Todd.Langevin@maine.gov

Sent via electronic mail
Delivery confirmation requested

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0001091
Maine Waste Discharge License (WDL) #W002034-6F-F-R
Proposed Draft MEPDES Permit - NEW

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 February 27, 2020 and ends on March 27, 2020. 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, March 27, 2020. Failure to submit comments in a timely fashion will result in the proposed draft/license permit document being issued as drafted.

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

Maine Department of Environmental Protection
Bureau of Water Quality
Division of Water Quality Management
17 State House Station
Augusta, ME 04333-0017
Breanne.Blaisdell@maine.gov

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

Sincerely,

B. Blaisdell

Breanne Blaisdell
Division of Water Quality Management
Bureau of Water Quality
Breanne.Blaisdell@maine.gov
ph: 207-287-1298

Enc.

cc:
Cindy Dionne, MDEP
James Crowley, MDEP
Pamela Parker, MDEP
Barry Mower, MDEP
Lori Mitchell, MDEP
Ellen Weitzer, USEPA
Alex Rosenberg, USEPA
Marelyn Vega, USEPA
Richard Carvalho, USEPA
Shelley Puleo, USEPA
Anna Harris, USFWS
Sean Mahoney, CLF
Maine Dept. Inland Fisheries and Wildlife Environmental Review
Maine Dept. Marine Resources Environmental Review

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
GOVERNOR HILL FISH HATCHERY	)	ELIMINATION SYSTEM PERMIT
AUGUSTA, KENNEBEC COUNTY, MAINE	)	AND
ME0001091	)	WASTE DISCHARGE LICENSE
W-002034-6F-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), the Department has considered the application of the MAINE DEPARTMENT OF INLAND FISHERIES AND WILDLIFE (DIFW), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

On December 4, 2019, the Department of Environmental Protection (Department) accepted as complete for processing an application from DIFW for the renewal of combination Waste Discharge License (WDL) W-002034-6F-E-R/ Maine Pollutant Discharge Elimination System (MEPDES) permit ME0001091, which was issued on March 20, 2015, for a five-year term. The March 20, 2015 permit authorized a monthly average discharge of 1.2 million gallons per day (MGD) of fish hatchery wastewater from the DIFW Governor Hill Hatchery to Spring Brook, Class B, in Augusta, Maine.

PERMIT SUMMARY

This permitting action is carrying forward the terms and conditions of the March 20, 2015 permit except that it:

1. Establishes the use of Halamid Aqua for control of bacterial gill disease.

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CONCLUSIONS

BASED on the findings in the attached and incorporated Fact Sheet dated February 26, 2020, 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)(l)(a) for the direct discharge of pollutants to waters having a drainage area of less than 10 square miles.

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ACTION

THEREFORE, the Department APPROVES the above noted application of the MAINE DEPARTMENT OF INLAND FISHERIES & WILDLIFE to discharge a monthly average of 1.2 MGD of fish hatchery wastewater via Outfall #005A to Spring Brook, Class B, in Augusta, 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) (amended October 19, 2018)].

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

DONE AND DATED AT AUGUSTA, MAINE, THIS ___ DAY OF _____ 20___.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_____
GERALD D. REID, Commissioner

Date of initial receipt of application December 2, 2019
Date of application acceptance December 4, 2019

Date filed with Board of Environmental Protection_____

This Order prepared by Breanne Blaisdell, Bureau of Water Quality

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

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

Effluent Characteristic	**Discharge Limitations**						**Minimum Monitoring Requirements**
	Monthly <u>Average</u> as specified	**Daily <u>Maximum</u>** as specified	**Monthly <u>Average</u>** as specified	**Daily <u>Maximum</u>** as specified	**Daily <u>Minimum</u>** as specified	**Measurement <u>Frequency</u>** as specified	**Sample <u>Type</u>** as specified
Flow *[50050]*	1.2 MGD *[03]*	---	---	---	---	Daily *[01/01]*	Measure *[MS]*
TSS *[00530]*	17 lbs./day *[26]*	100 lbs./day *[26]*	6 mg/L *[19]*	10 mg/L *[19]*	---	1/Month *[01/30]*	Composite[(2)] *[CP]*
Total Phosphorus[(3)] ***(June 1st – September 30th)*** *[00665]*	0.24 lbs./day *[26]*	Report lbs./day *[26]*	Report lbs./day *[26]*	Report lbs./day *[26]*	---	2/Month[(4)] *[02/30]*	Composite[(2)] *[CP]*
Fish on Hand *[45604]*	---	Report lbs./day *[26]*	---	---	---	1/Month *[1/30]*	Calculated *[CA]*
Formalin[(5)] *[51064]*	Report lbs./day *[26]*	95 lbs./day *[26]*	---	---	---	1/Occurrence *[01/OC]*	Calculated *[CA]*
Dissolved Oxygen ***(June 1 – September 30th)*** *[00300]*	---	---	Report mg/L *[19]*	Report mg/L *[19]*	7.5 mg/L *[19]*	1/Week *[01/07]*	Measured *[MS]*

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.

<u>FOOTNOTES</u>: See Pages 5-6 of this permit for applicable footnote

SPECIAL CONDITIONS

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

Footnotes

1. **Sampling**-All effluent monitoring must be conducted at a location following the last treatment unit in the treatment process, as to be representative of end-of-pipe effluent characteristics. Any change in sampling location must be approved by the Department in writing. The permittee must conduct sampling and analysis in accordance with; a) methods approved by 40 Code of Federal Regulations (CFR) Part 136, b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136, or c) as otherwise specified by the Department. Samples that are sent out for analysis must be analyzed by a laboratory certified by the State of Maine's Department of Health and Human Services for wastewater. Samples that are sent to a publicly owned treatment works (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 December 19, 2018). If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report (DMR).

2. **Composite Samples** – Samples must consist of 24-hour composites collected with an automatic composite sampler. Alternatively, when weather conditions and/or equipment prevents automatic compositing and upon 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.

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)

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

SPECIAL CONDITIONS

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

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

1. One hour per day treatment typical of hatchery and rearing facility discharges; and

2. Maximum of up to 24 hours of treatment and discharge for addressing emergency conditions at the facility.

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

For instances when a permittee has not used formalin for an entire reporting period, the permittee must report "N9" for this parameter on the monthly DMR.

B. NARRATIVE EFFLUENT LIMITATIONS

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

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

3. The permittee must not discharge effluent that causes visible discoloration or turbidity in the receiving waters that causes those waters to be unsuitable for the designated uses and characteristics ascribed to their class.

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 4, 2019; 2) the terms and conditions of this permit; and 3) only from Outfall #005A. Discharges of wastewater from any other point source(s) are not authorized under this permit, and must be reported in accordance with Standard Condition D(1)(f), *Twenty-four-hour reporting.*

SPECIAL CONDITIONS

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.

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

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

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

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
17 State House Station
Augusta, Maine 04333-0017

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SPECIAL CONDITIONS

F. OPERATION & MAINTENANCE PLAN

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

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

1. Solids Control

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

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

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

2. Materials Storage

    a. Ensure proper storage of 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.

[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)

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.

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.

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SPECIAL CONDITIONS

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. Drugs identified in the permittee's application: A list of drugs, pesticides and other compounds proposed for use at Maine Department of Inland Fisheries and Wildlife Governor Hill Fish Hatchery during the term of the permit, which was provided by the permittee on Form DEPLW1999-18 included with its December 4, 2019, General Application for Waste Discharge Permit, is included as **Attachment B** of this permit.

Name	Freq. of Use	Concentration	Qty. Used/Year
Parasite-S	As needed	1667 ppm for 15-minute duration 150-250 ppm for 1-hour duration	+/- 150 gal
Tricaine-S	As needed	15 – 330 ppm	< 400 grams
Halamid Aqua	As needed	12-20 ppm	< 10 lbs.

   c. Drugs not identified in the permittee's application: When the need to treat or control diseases requires the use of an FDA-approved drug not identified in the application, or **Attachment B** of the permit, the permittee must notify the Department orally or by electronic mail prior to initial use of the drug.

      1. The notification must include a description of the drug, its intended purpose, the method of application, the amount, the concentration, the duration of the use, and information on aquatic toxicity.

      2. ***Within seven (7) days of*** the initial notification the permittee must submit a written report that includes all of the information outlined in Section G.2.c(1) above.

SPECIAL CONDITIONS

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

3. The Department may require submission of an application for permit modification, including public notice requirements, if the drug is to be used for more than a 30-consecutive day period.

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

3. **Extralabel drug use.** Extralabel drug use is not authorized by this permit, unless in accordance with a specific prescription written for that use by a licensed veterinarian.

   a. Notification. The permittee must notify the Department orally or by e-mail prior to initial extralabel use of a drug.

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

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

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

4. **Investigational New Animal Drug (INAD).** The discharge of drugs authorized by the FDA for use during studies conducted under the INAD program is not authorized by this permit, unless in accordance with specific prior consent given in writing by the Department.

   a. Initial report. The permittee must provide a written report to the Department for the proposed use of an INAD ***within seven (7) days*** of agreeing or signing up to participate in an INAD study. The written report must identify the INAD to be used, method of use, dosage, and disease or condition the INAD is intended to treat.

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SPECIAL CONDITIONS

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

b. Evaluation and monitoring. ***At least ninety (90) days prior to initial use*** of an INAD at a facility, the permittee must submit for Department review and approval a study plan for the use of the drug that:

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

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

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

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

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

Name	Freq. of Use	Concentration	Qty. Used/Year
Aqui-S 20 E	As needed	25-40 ppm	< 1 Liter

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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
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
Sodium Chloride blocks or crystals	As needed	1-2%	< 2000 lbs.

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 an oral report of the spill to the Department within 24 hours of its occurrence and a written report within 5 days to the Department. The report must include the identity and quantity of the material spilled.

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SPECIAL CONDITIONS

J. PROTECTION OF ATLANTIC SALMON

The permittee is required to employ a fully functional Containment Management System (CMS) designed, constructed, operated, and audited so as to prevent the accidental or consequential escape of fish from the facility.

Each CMS plan must include:

1. a site plan or schematic;
2. site plan description;
3. procedures for inventory control, predator control, escape response; unusual event management, and severe weather;
4. provisions for employee training, auditing methods, and record keeping requirements; and
5. the CMS must identify critical control points where escapes could potentially occur, specific control mechanisms for each of these points, and monitoring procedures to verify the effectiveness of controls.

The CMS site specific plan must also describe the use of effective containment barriers appropriate to the life history of the fish. The facility must have in place both a three-barrier system for fish up to 5 grams in size and a two-barrier system for fish 5 grams in size or larger.

The three-barrier system must include one barrier at the incubation/rearing unit, one barrier at the effluent from the hatch house/fry rearing area and a third barrier placed in line with the entire effluent from the facility. Each barrier must be appropriate to the size of fish being contained. The two-barrier system must include one barrier at the individual rearing unit drain and one barrier in line with the total effluent from the facility. Each barrier must be appropriate to the size of fish being contained. Barriers installed in the system may be of the screen type or some other similarly effective device used to contain fish of a specific size in a designated area. Barriers installed in the system for compliance with these requirements must be monitored daily.

Facility personnel responsible for routine operation must be properly trained and qualified to implement the CMS. Prior to any containment system assessment associated with this permit, the permittee must provide to the Department documentation of the employee's or contractor's demonstrated capabilities to conduct such work ***[ICIS code 21599]***.

The permittee must submit the CMS plan to the Department for review and approval on or before six months following the effective date of this permit ***[ICIS code 53799]*** and must maintain a current copy of the plan at the facility.

SPECIAL CONDITIONS

J. PROTECTION OF ATLANTIC SALMON (cont'd)

The CMS must be audited at least once per year and within 30 days of a reportable escape (a reportable escape is more than 50 fish) by a third party qualified to conduct CMS audits and approved by the Department ***[ICIS code 63899]***. A written report of these audits must be provided to the facility and the Department for review and approval within 30 days of the audit being conducted ***[ICIS code 43699]***. Any time that a CMS audit identifies deficiencies, the written report must contain a corrective action plan including a timetable for implementation and provisions for re-auditing, unless waived by the Department, to verify completion of all corrective actions.

Additional third party audits to verify correction of deficiencies must be conducted in accordance with the corrective action plan or upon request of the Department. The facility must notify the Department upon completion of corrective actions.

The permittee must maintain for a period of at least five (5) years complete records, logs, reports of internal and third-party audits and documents related to the CMS for each facility.

Escape reporting. The permittee must notify by electronic mail (e-mail) the Escape Reporting Contact List (provided below, in this subsection) of any known or suspected escape of more than 50 fish within 24 hours of becoming aware of the known or suspected loss to the following persons listed under "Escape Reporting Contact List."

The permittee must include in its e-mail notification the following information: 1) site location (town and waterbody); 2) date of event (or window of possible dates if exact date is unknown); 3) time of event (if known or specify "unknown"); 4) species (including strain); 5) estimated average weight; 6) age of escaped fish; 7) number of escaped fish (or if exact number is not possible, an estimate); 8) medication profile; 9) details of the escape; 10) corrective action(s) taken or planned; 11) and a contact person (including phone number) for the facility which is subject of the known or suspected escape.

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SPECIAL CONDITIONS

J. PROTECTION OF ATLANTIC SALMON (cont'd)

Escape Reporting Contact List:

The agency contacts on this list may be revised by the state and/or federal agencies by provision of written notification to the permittee and the other agencies. Upon notice of any such change the permittee must notify all persons on the revised list in the same manner as provided in this protocol.

Army Corps of Engineers
Maine Project Office; Jay Clement; Jay.L.Clement@usace.army.mil

Maine Department of Environmental Protection
Commissioner, Gerald D. Reid; Jerry.Reid@maine.gov, or current Commissioner

Maine Department Marine Resources
Secretary to the Commissioner, Amy Sinclair; Amy.Sinclair@maine.gov
Sea-Run Fisheries and Habitat Division Director, Sean Ledwin; Sean.M.Ledwin@maine.gov

Maine Department of Inland Fisheries and Wildlife
Commissioner, Judy Camuso; Judy.Camuso@maine.gov, or current Commissioner

National Marine Fisheries Service
Maine Field Station; David Bean, David.bean@noaa.gov

United States Fish & Wildlife Service
Maine Field Office; Anne Harris; Anne_Harris@fws.gov

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SPECIAL CONDITIONS

K. REOPENING OF PERMIT FOR MODIFICATION

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

L. SEVERABILITY

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

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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

Governor Hill Hatchery Disinfectants/Drugs/Theraputic Agents

MEPDES #: ME0001091

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-Iodine Complex---10% Inert Ingredients----------90% Available iodine----------1%	As needed for disinfection of eggs, nets, utensils, boots, stocking trucks,etc.	100 ppm ; (37.8 ml/gal H2O)	+/- 4gal

DRUGS/THERAPEUTIC AGENTS:

PRODUCT NAME	INGREDIENTS	FREQ. OF USE	CONCENTRATION	TOTAL USED/YR
Parasite-S / Formalin	Formaldehyde----------37% Methanol----------6-14% Water & Inert----------49-57%	As needed for fungus control on eggs or fish and parasite control on fish.	1667 ppm 15 min duration 150-250 mg/l 1 hr duration	+/- 150 gals
Tricaine-S (MS 222)	Tricaine methanesulfonate	As needed for anestheizing fish during sampling, fish health/ quality exams, fish marking, etc.	15 to 330 mg/l	< 400 grams
Aqui-S 20 E	10% Eugenol	Same as MS 222, but added in anticipation of FDA approval will take place soon after use.	25- 40 mg/l	Annual anticipated use = 0 Potential use < 1 liter
Sodium Chloride blocks or crystals	NaCl	As needed as a fish stress reduction/osmoregulatory aid post handling/post parasitization	1 - 2%	<2000 lbs
Halamid Aqua	Chloramine-T	Control of bacterial gill disease Used in hatchery for fry	12-20 mg/l Limit of 400.9 grams per day Limit of 24.6 grams/hour	Annual anticipated use = 0 Potential use < 10 lbs Results in max effluent conc of 0.13 mg/l. Based on effluent of 1.2 MGD

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
AND
WASTE DISCHARGE LICENSE

FACT SHEET

DATE: **FEBRUARY 26, 2020**

MEPDES PERMIT: **ME0001091**
WASTE DISCHARGE LICENSE: **W002034-6F-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: **KENNEBEC**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:
MAINE DEPARTMENT OF INLAND FISHERIES &WILDLIFE
GOVERNOR HILL HATCHERY
82 HATCHERY ROAD
AUGUSTA, MAINE 04330

RECEIVING WATER / CLASSIFICATION: **SPRING BROOK RIVER, CLASS B**

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

1. APPLICATION SUMMARY

On December 4, 2019, the Department of Environmental Protection (Department) accepted as complete for processing an application from the MAINE DEPARTMENT OF INLAND FISHERIES AND WILDLIFE (DIFW Governor Hill) for the renewal of combination Waste Discharge License (WDL) W-002034-6F-E-R/ Maine Pollutant Discharge Elimination System (MEPDES) permit ME0001091, which was issued on March 20, 2015, for a five-year term. The March 20, 2015 permit authorized a monthly average discharge of 1.2 million gallons per day (MGD) of fish hatchery wastewater from the DIFW Governor Hill Hatchery to Spring Brook, Class B, in Augusta, Maine.

2. PERMIT SUMMARY

a. This permitting action is carrying forward the terms and conditions of the March 20, 2015 permit except that it:

1. Establishes the use of Halamid Aqua for control of bacterial gill disease.

b. History: This section provides a summary of recent, relevant licensing/permitting actions that have been completed for the DIFW Governor Hill Fish Hatchery.

February 20, 1975-The U.S. Environmental Protection Agency (USEPA) issued National Pollutant Discharge Elimination System (NPDES) Permit #ME0001091 to the Maine Department of Inland Fish and Game for the discharge of an unspecified volume of wastewater from the Governor Hill Fish Hatchery to Spring Brook. The Permit was valid through February 15, 1980.

May 11, 1983-The Maine Board of Environmental Protection issued WDL #2034 for the discharge of a daily maximum of 1.0 MGD of fish hatchery wastewater from the DIFW Governor Hill Fish Hatchery to Spring Brook, Class B-1. The WDL was a renewal of a previously issued license #2034, although it eliminated parameters for suspended solids and eliminated monitoring requirements for all other parameters. The WDL was issued for a five-year term.

July 21, 2000-The Department issued # W-002034-5Q-A-R to the DIFW Governor Hill Fish Hatchery for the discharge of a daily maximum of 1.0 MGD of treated fish hatchery wastewater. The WDL was issued for a five-year term.

January 12, 2001-The Department received authorization from the USEPA to administer the NPDES permitting program in Maine, excluding areas of special interest to Maine Indian Tribes. From this point forward, the program has been referred to as the MEPDES program, and MEPDES permit #ME0101443 has been utilized for this facility. On March 26, 2011, the USEPA authorized the Department to administer the MEPDES program in Indian territories of the Penobscot Nation and Passamaquoddy Tribe.

2. PERMIT SUMMARY (cont'd)

February 2002- On behalf of DIFW, Fishpro Inc. submitted an Alternative Discharge Study report for all nine DIFW 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 DIFW 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 DIFW.

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

July 11, 2003-The Department administratively modified WDL # W-002034-5Q-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.

June 27, 2005 -The Department received a timely application from DIFW for renewal of the WDL for the discharge of fish hatchery wastewater from the Augusta facility. The application was assigned WDL # W-002034-5Q-B-R and MEPDES permit #ME0001091.

July 5, 2006-The Department issued #ME0001091 / #W-002034-5Q-B-R for a five-year term.

October 10, 2008-The Department issued minor revision #ME0001091 / #W-002034-5Q-C-M to amend the formalin limit.

April 23, 2009-The Department issued minor revision #ME0001091 / #W-002034-5Q-D-M to amend the monitoring frequencies for BOD_5 and TSS.

October 1, 2009-The Department issued Field Determination #8101 that concluded that the "stream (Spring Brook) starts below the dam which is approximately 550 feet from the end of the runway structure."

June 2, 2010-The Department ratified a Consent Agreement with DIFW for the violations incurred at several hatchery facilities including the Augusta hatchery.

June 28, 2011 - DIFW submitted a timely and complete General Application to the Department for renewal of the July 5, 2006 MEPDES permit. The application was accepted for processing on June 30, 2011 and was assigned WDL #W002034-6F-E-R / MEPDES #ME0001091.

2. PERMIT SUMMARY (cont'd)

March 20, 2015- The Department issued #ME0001091 / #W-002034-5F-E-R for a five-year term.

December 2, 2019 - DIFW submitted a timely and complete General Application to the Department for renewal of the March 20, 2015 MEPDES permit. The application was accepted for processing on December 4, 2019 and was assigned WDL #W002034-6F-F-R / MEPDES #ME0001091.

c. Source Description: The DIFW Augusta, or Governor Hill State Fish Hatchery, was formerly a private fish hatchery owned by Governor John Hill that was converted to a state aquaculture facility in 1923. The DIFW Governor Hill facility is located on a 180-acre parcel of state-owned land. A map showing the location of the treatment facility is included as Fact Sheet **Attachment A**. The facility consists of a hatchery building, concrete raceways for rearing, and a settling pond.

This Hatchery is a state brook trout, lake trout, and splake hatchery and rearing facility. Fish are hatched and reared at this and other DIFW facilities to appropriate sizes for stocking in Maine waters as part of DIFW's responsibilities in managing fisheries in Maine.

d. Influent Water: Water is supplied to the DIFW Governor Hill facility from two wells and two springs (Spring Pond #1 and Spring Pond #2) located on site. The wells supply source water to the hatchery and early rearing facility and the springs supply source water to the raceways. Well #1 and Well #2 were installed in 1999 and 2000 respectively, with each capable of yielding approximately 200 gallons per minute (gpm). Each well supplies water to the hatchery building via independent 8-inch diameter pipelines. Half of the well water supply is passed through a liquid oxygenation system prior to use in the hatchery building for early rearing, while half consists of non-enhanced flow. The spring ponds are approximately 2.47 million gallons (upper pond), and 1.2 million gallons, (lower pond) and yield flows of approximately 620 gpm, however flows are reduced during summer months. Spring water temperatures range from 39-50 degrees F (4-10 degrees C) through the year. The ponds are dredged approximately every ten years. Each spring has a covered outlet, which contains a coarse screen to exclude large organic matter. The outlet feeds an 8-inch diameter, 100-foot long pipeline, which runs to the head of the raceways. Other artesian flows are collected from small abandoned raceways on site and routed to the raceways via 6-inch and 8-inch diameter lines. The facility provides no physical or chemical treatment of spring water.

Governor Hill is a flow-through facility with flows through its hatchery and rearing facilities discharged to Spring Brook (Class B, less than 10 square mile watershed), followed by Bond Brook (Classes B and C) and the Kennebec River (Class B).

2. PERMIT SUMMARY (cont'd)

e. Broodstock Facilities: Governor Hill maintains brook trout and lake trout broodstock on site in the last two raceway pools. Once brook trout broodstock reach 3 years of age, they are stocked out in various waters. Governor Hill's lake trout brood are generated from on-site brood stock, which are used for approximately ten years, then stocked out in various waters.

f. Hatchery Facilities: Governor Hill's hatchery facilities consist of thirty-nine, 63-inch diameter fiberglass combi-tanks with influent water supplied exclusively by well water. Eggs are brought into the hatchery facility from October through early December. Each line of tanks is typically dedicated to a particular fish strain.

Each strain starts to feed at different times. Generally, eggs "eye-up" in approximately thirty days from the time they are received at Governor Hill, hatch approximately 15 days after eye-up, and begin to feed approximately 15 days after hatching. Fry are moved to the outside rearing structures as those raceways are cleared of fish through stocking in the spring, usually when they reach an approximate size of 250 fish per pound. As lake trout grow better inside in a dark environment than outside, the lake trout are kept inside the hatchery building until September in three to four tanks before they are moved outside. This means that the hatchery facility contains eggs or fry for all but approximately 6 weeks during the year. When tanks become empty, they are cleaned as described below. Hatchery facility flow-through water and cleaning wastewater flow directly to the facility settling pond.

g. Rearing Facilities: Governor Hill's rearing facilities consist of two sizes of covered concrete raceway pools. The first six raceway pools are 5-feet x 50-feet x 2-feet deep (operational depth)(3,740-gallons each) and are referred to as the "six block". These raceway pools are arranged in two sets of three adjacent pools and flow into the next pools. The remaining ten raceway pools are 6-feet x 100-feet x 2-feet deep (operational depth) (8,976-gallons each). These raceway pools are arranged in two parallel lines of 5 pools. Generally, the "six block" is used to house lake trout "production fish" and any future brood fish. The first set of 100-foot pools are used to house splake, the next six pools are used to house brook trout, and the last set of two pools are used for adult brood fish.

Once fish are moved to the outside raceways, they are fed a controlled amount of food per day depending on their body weight and water temperature. Feeding rates are adjusted to either speed up or slow fish growth to address management goals. All fish are hand fed, with auto demand feeders used as a secondary feed. When demand feeders are used, only enough feed is used to meet that day's feed requirement. Brood fish are only fed a maintenance diet. In its 2019 renewal application, Governor Hill indicated using an average of 70 lbs./day and a maximum of 112 lbs./day. The 2019 application also indicated that the months wherein the maximum amount of feeding took place were in September and April.

2. PERMIT SUMMARY (cont'd)

Governor Hill starts each year with approximately 1.2 million eggs for hatching and rearing. In its 2019 renewal application, Governor Hill indicated a maximum quantity of fish on station of: 420,321 first year fish weighing 19,032 pounds, 9,000 second year fish weighing 8,800 pounds, and 1,400 broodstock weighing 5,688 pounds.

h. Wastewater Treatment: Governor Hill hatchery and rearing facility flow-through and cleaning wastewater flows are discharged to the facility's 30-foot x 700-foot x 6-foot deep (942,480 gallons)[1] settling pond. The settling pond is cleaned as needed through dredging, with accumulated materials removed and properly disposed of.

Hatchery combi-tank flow-through water is discharged into hatchery facility effluent piping, which leads to the facility's in-stream settling pond. Hatchery combi-tanks are cleaned daily through removal of a center pipe in each tank, which causes deposited waste material to be discharged into the same common effluent piping that carries flow-through water to the in-stream settling pond. At the end of the hatching season, tanks are cleaned using a scrub brush and a solution of iodine and water, rinsed and left to dry. Seasonal cleaning water is discharged in the same manner as flow-through and daily cleaning wastewater flows. Supply water for any seasonally discontinued tanks is routed to the outside raceways.

Raceway flow-through water enters the in-stream settling pond at the end of the facility. To clean the raceways, DIFW staff has historically scrubbed 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 is located a screened 1.5-foot long "quiescent zone" with a covered discharge pipe routed to a common 10-inch diameter underground raceway cleaning wastewater pipe to the facility in-stream settling pond, described below. 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. The raceway pool cleaning schedule varies through the growing season from every day to once per week, as needed.

A process flow diagram submitted by the permittee is included as Fact Sheet **Attachment B.**

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[1] The dimensions of the settling pond and the corresponding volume are changed from “30-foot x 700-foot x 3-foot” and 472,270 gallons, respectfully.

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 February 16, 2020), and that ensure safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected.

4. RECEIVING WATER QUALITY STANDARDS

Classification of major river basins, 38 M.R.S.§ 467(4)(I) classifies the "Kennebec River, minor tributaries- Class B unless otherwise specified," which includes Spring Brook at the point of discharge. *Standards for classification of fresh surface waters*, 38 M.R.S. § 465(3) describes the standards for Class B waters.

38 M.R.S. § 464 (4)(A) specifies that "Notwithstanding 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 DIFW facilities (including Governor Hill) indicates that there are no reasonable alternatives to the current discharge. DIFW (via email correspondence to the Department dated December 13, 2019) 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 2016 Integrated Water Quality Monitoring and Assessment Report (Report), prepared by the Department pursuant to Sections 303(d) and 305(b) of the Federal Water Pollution Control Act, lists “Spring Brook (Augusta) From Gov. Hill fish hatchery to Mt Vernon Rd, Augusta" (Integrated Report Assessment Unit ID ME0103000324_333R_02) as “Category 5-A: Rivers and Streams Impaired by Pollutants Other Than Those Listed in 5-B Through 5-D (TMDL Required).” This listing is attributed to past benthic macroinvertebrate bioassessments and in-stream total phosphorus levels. The most recent bioassessment (completed in the summer of 2013) data indicated that Spring Brook attained its current Class B aquatic life standards.

5. RECEIVING WATER QUALITY CONDITIONS (cont'd)

The Report lists all of Maine's fresh waters as, "Category 4-A: Waters Impaired by Atmospheric Deposition of Mercury." Impairment in this context refers to a statewide fish consumption advisory due to elevated levels of mercury in some fish tissues. The Report states, "All freshwaters are listed in Category 4A (Total Maximum Daily Load (TMDL) Completed) due to the 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."

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 K, *Reopening of The License For Modifications*, to impose more stringent limitations to meet water quality standards.

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 DIFW Governor Hill facility, the maximum pounds of fish on station as reported for the reporting period of April 2015 – December 2019, at any time consisted of a maximum of 26,649 lbs. The facility's daily maximum of 26,649 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: This permitting action is carrying forward, a monthly average discharge flow limitation of 1.2 MGD based on the design capacity of the treatment facility.

A summary of the discharge flow data as reported on the monthly Discharge Monitoring Reports (DMRs) for the period of April 2015 – December 2019 is as follows:

Flow in Conduit (DMR=55)

Discharge Flow	Minimum	Maximum	Arithmetic Mean
Monthly Average	1.2 MGD	1.2 MGD	1.2 MGD

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

c. Dilution Factors: Dilution factors associated with the permitted discharge flow of 1.2 MGD from the facility and a flow of 0 cubic feet per second (cfs) in Spring Brook (which represents the Governor Hill hatchery facility position in the headwaters of Spring Brook) were derived in accordance with 06-096 CMR 530(4)(A). Previous permitting action utilized a chronic dilution of 1.0:1.0 based on a 7Q10 low flow value of 0 cfs. Accordingly, the Governor Hill discharge constitutes the only flow in that portion of Spring Brook. Based on this information, the Department is carrying forward the acute (1Ql0), chronic (7Ql0) and harmonic mean dilution factors of 1.0:1.0.

d. TSS: This permit is carrying forward, monthly average and daily maximum concentration limits of 6 mg/L and 10 mg/L respectively and monthly average and daily maximum mass limitations of 17 lbs./day and 100 lbs./day respectively. These limits are based on the Department's Best Professional Judgement (BPJ) of Best Practicable Treatment (BPT).

The Department reviewed 54 DMRs that were submitted for the period April 2015 – December 2019. It is noted that the mass monthly average limit of 17 lbs./day was exceeded in June and September of 2018. A review of the data indicates the following:

TSS Mass (DMRs = 54)

Value	Limit (lbs./day)	Range (lbs./day)
Monthly Average	17	0 - 21
Daily Maximum	100	21-100

TSS concentration (DMRs = 54)

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

e. Dissolved Oxygen: The Department reviewed 20 DMRs that were submitted for the period of April 20, 2015 – December 4, 2019. A review of the data indicates the following:

Dissolved Oxygen (DMR=20)

Parameter	Minimum	Maximum	Mean
Monthly Average	9.75	10.53	10.16
Daily Maximum	10.00	10.80	10.34
Daily Minimum	9.40	10.30	9.97

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

As referenced previously, The Class B dissolved oxygen standard is:

> The dissolved oxygen content of Class B waters may not be less than 7 parts per million or 75% of saturation, whichever is higher, except that for the period from October 1st to May 14th, in order to ensure spawning and egg incubation of indigenous fish species, the 7-day mean dissolved oxygen concentration may not be less than 9.5 parts per million and the 1-day minimum dissolved oxygen concentration may not be less than 8.0 parts per million in identified fish spawning areas. 38 M.R.S. § 465(3)(B)

Data indicates that the facility DO was consistently within the Class B water quality standards. This permitting action is carrying forward the seasonal reporting requirement and daily minimum effluent concentration for dissolved oxygen to ensure the discharge does not cause or contribute to nonattainment of Class B dissolved standards.

f. Total Phosphorus: The monthly average mass limitation of 0.24 lbs./day is a water quality-based limit necessary to ensure compliance with Class B water quality standards and is being carried forward in this permitting action. The 3/20/2015 permitting action eliminated the concentration limitation for total phosphorous, but still required concentration data to be reported. This permitting action is carrying that action forward. Monitoring remains limited to June through September.

The Department reviewed 20 DMRs that were submitted for the period April 2015-December 2019. It is noted that the monthly average mass limit was exceeded every month. A review of the data indicates the following:

Total-P Concentration (DMR=20)

Value	Limit	Range (mg/L)	Mean (mg/L)
Monthly Average	Report	0.03 – 0.06	0.05
Daily Maximum	Report	0.04 – 0.06	0.05

Total-P Mass (DMR=20)

Value	Limit (Lbs./day)	Range (Lbs./day)	Mean (Lbs./day)
Monthly Average	0.24	0.34 – 0.63	0.45
Daily Maximum	Report	0.35 – 0.64	0.48

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

g. Fish on Hand: In the March 20, 2015 permit, a 1/Month reporting requirement of daily maximum mass for fish on hand was established. This permit is carrying that action forward. A review of the DMR data for the MDIFW Governor Hill facility for the period of April 2015 through December 2019 indicates the following.

Fish on Hand (DMR=55)

Value	Limit lbs./day	Range lbs./day	Mean lbs./day
Daily Maximum	Report	9,136–26,649	18,391

h. Formalin: Formalin is a drug used to treat fungal infections and external parasites of finfish and finfish eggs. 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.

Water quality-based effluent limitations for formalin are calculated as follows:

45 mg/L (1-hour acute criteria) x 1.0 (effluent dilution) = 45 mg/L formalin limit.
25 mg/L (24-hour acute criteria) x 1.0 (effluent dilution) = 25 mg/L formalin limit.

Mass limits derived from the updated concentration limits, and taking into consideration the settling basin are calculated as such:

Settling basin dimensions: 30' (W) x 700' (L) x 6' (D)= 126,000 cubic feet (ft^3)

126,000 (ft^3) x 7.48 gal/ ft^3 = 942,480 gallons (0.94248 MG)

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

For 1 hr. treatments:
1.2 MGD / 24 = 0.05 MG
0.05 MG + 0.94248 MG = 0.99248 MG

0.99248 MG x 9.03 lbs./gal. x 45 mg/L = 403.29424 lbs./hr. or **403 lbs./hr.**

For 24 hr. treatments:
1.2 MG + 0.94248 MG = 2.14248 MG
2.14248 MG x 9.03lbs./gal. x 25 mg/L = 483.66485 lbs./day or **484 lbs./day**

Since the 2006 permit, mass limits have been carried forward based on the following language from the 2008 revision:

> "Effluent mass limits were previously and remain calculated based on the permittee's projected maximum amount of formalin used per day (10.4-gallons) times the weight of formalin (9.13 lbs./gal), resulting in a value of 95 lbs./day."

Based on the above mass calculations, the 24-hour and 1-hour treatment limits of 484 lbs./day and 403 lbs./hour, respectively, are less stringent than the previously established limit of 95 lbs./day. Therefore, based on the Departments BPJ of AWQC, the mass limit established in the 2006 permit (and carried forward since that time) is being carried forward in this permitting action.

In order to better clarify reporting requirements, the 3/20/15 permit revised formalin monitoring to 1/Occurrence. This permit will carry that action forward. A review of the DMR data for the IFW Governor Hill facility for the period of April 2015 through June 2019 indicates the following.

Formalin Mass (DMR=34)

Value	**Limit lbs./day**	**Range lbs./day**
Monthly Average	Report	2.00 – 37.00
Daily Maximum	95	2.00 – 95.00

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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 Spring Brook to meet standards for Class B classification.

8. PUBLIC COMMENTS

Public notice of this application was made in the Kennebec Journal newspaper on or about 11/27/2019. 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:

Breanne Blaisdell
Division of Water Quality Management
Bureau of Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Telephone: (207) 287-1298
e-mail: Breanne.Blaisdell@maine.gov

10. RESPONSE TO COMMENTS

This section reserved for future comments

ATTACHMENT A

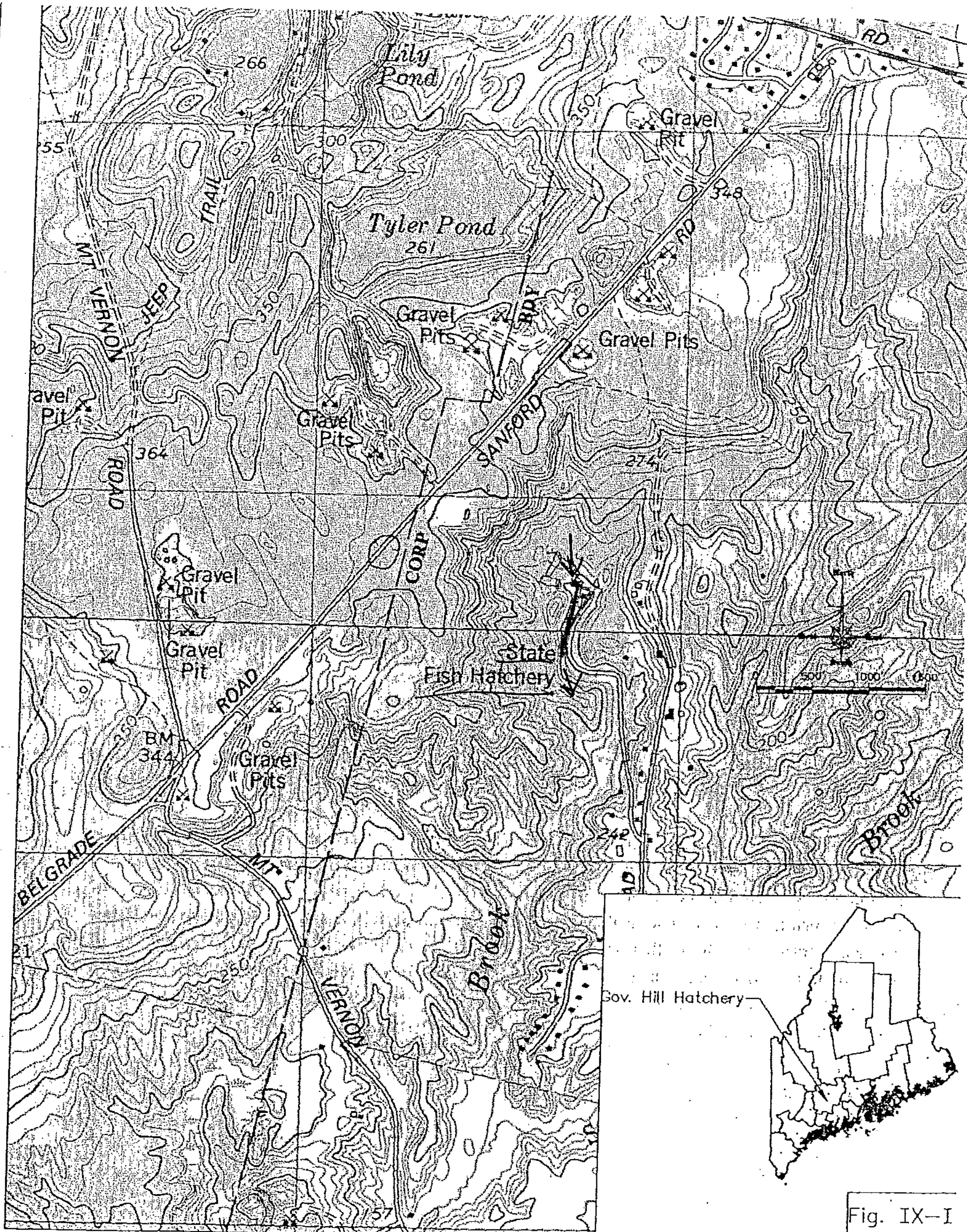
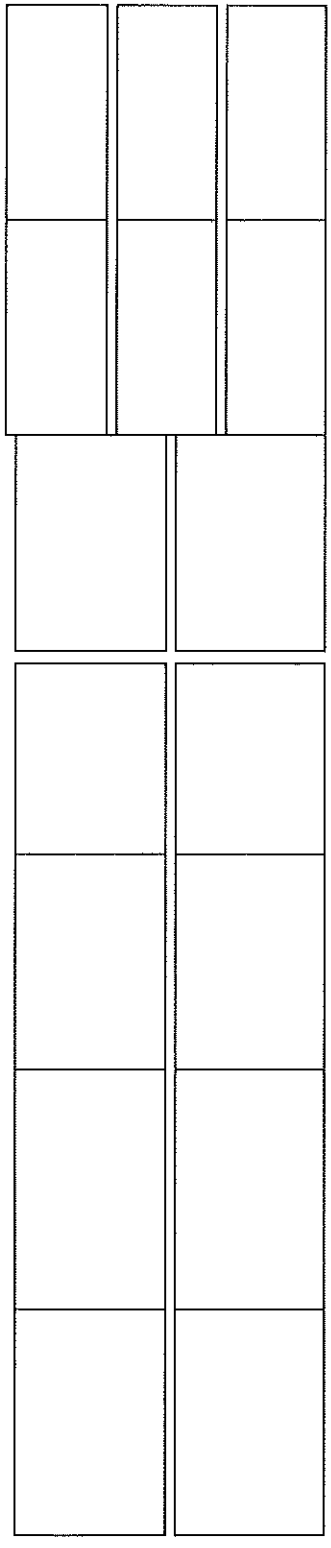

Lily Pond
266
Gravel Pit
300
350
348
Tyler Pond
261
TRAIL
JEEP
MT VERNON
ROAD
364
RD
SANFORD
CORP
BDY
Gravel Pits
274
Gravel Pit
State Fish Hatchery
ROAD
BM 344
BELGRADE
MT VERNON
Brook
500
1000
250
Gov. Hill Hatchery

Fig. IX—I

ATTACHMENT B

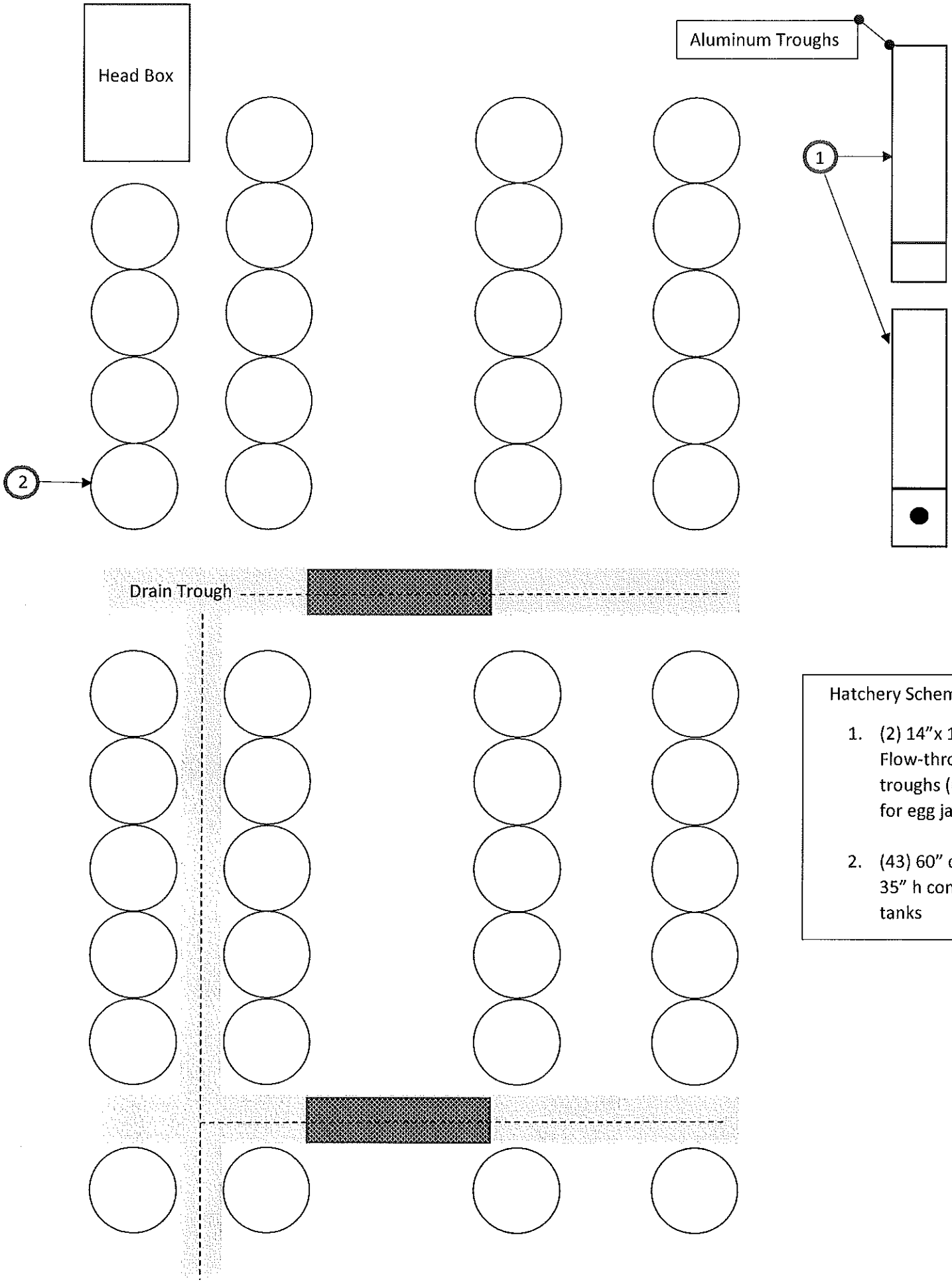
Governor Hill Hatchery – Outdoor Raceway Diagram



5 x 50 foot raceways Pools 1 thru 6

6 x 100 foot raceways Pools 7 thru 16

Governor Hill Hatchery – Hatchery Building Diagram



Hatchery Schematic

1. (2) 14"x 120" Flow-through troughs (used for egg jars)
2. (43) 60" dia x 35" h combi tanks