



Form DEPLW1999-18
Revised: February 21, 2018

Maine Department of Environmental Protection
Waste Discharge Permit Application

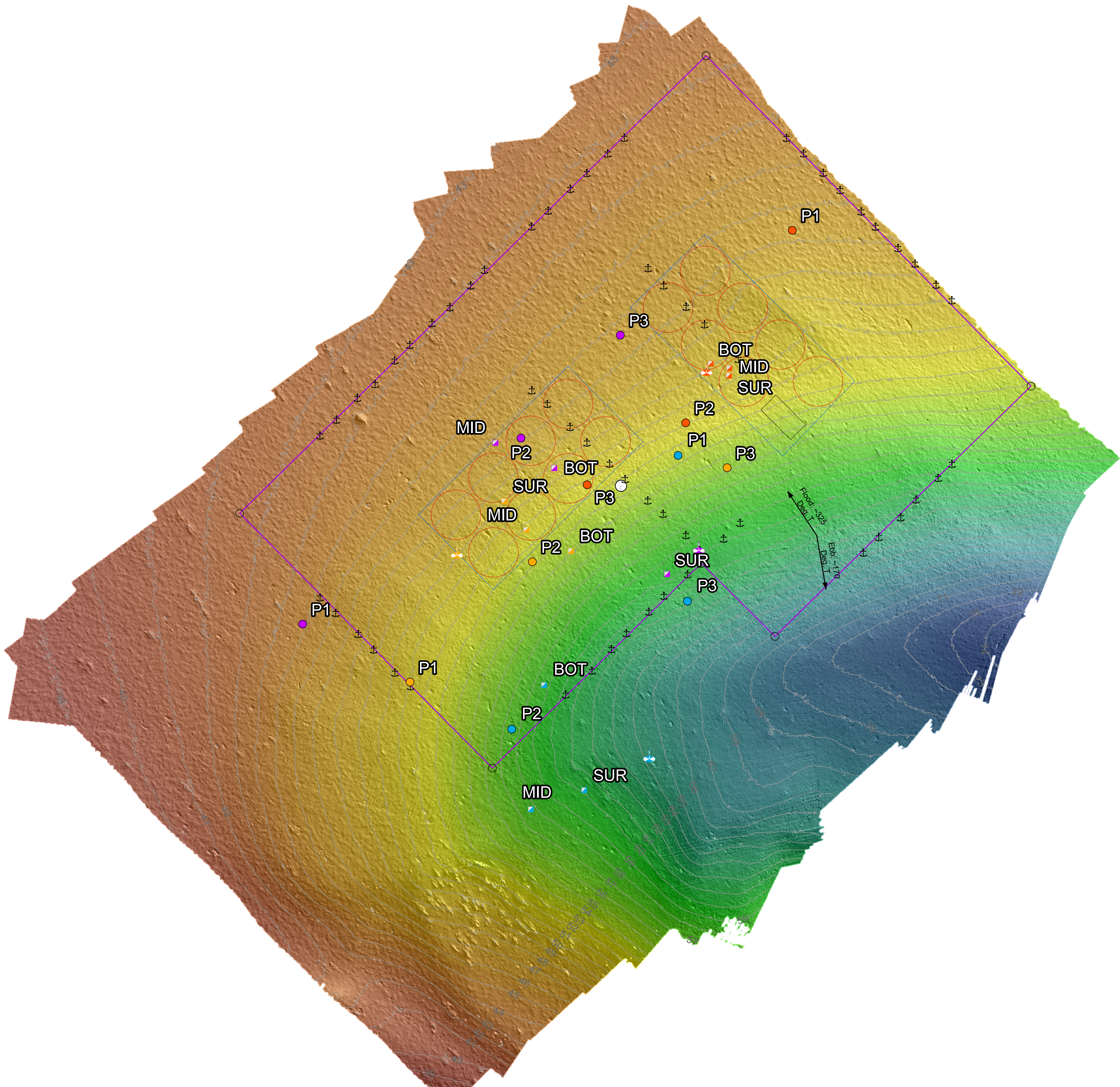
Fish Rearing Facilities

This form must be attached to the General Application for a Waste Discharge License.
(Form DEPLW0105-B2003)

Please answer all questions completely, using additional pages as necessary with responses clearly identified by item number on this form.

1. Facility Name: _____ NPDES #ME _____
2. Source(s) of water supply and average monthly flow of each: _____
3. Is any of the hatching or rearing water heated or cooled by mixing with water from another source, use heat exchangers, etc? _____ If yes, explain listing the volumes and maximum temperatures of each source. _____
4. Type(s) of feed used: _____
5. Amount of feed used. Average: _____ lbs/day Maximum: _____ lbs./day
6. Month(s) of maximum feeding: _____
7. Species of fish raised: _____
8. Maximum quantity of fish at any time.

Brood stock:	Pounds: _____	Number of fish: _____
First Year Fish:	Pounds: _____	Number of fish: _____
Second Year Fish:	Pounds: _____	Number of fish: _____
9. Attach a drawing showing the number, size and arrangement of all rearing tanks.
See Attachment FRF-1.
10. Attach a list of all disinfectants used, giving for each the name, ingredients, frequency of use, concentration of use, and total quantity used per year.
See Attachment FRF-2.
11. Attach a list of drugs and/or therapeutic agents used, giving for each a name, ingredients, frequency of use, concentration of use, and total quantity used per year.
See Attachment FRF-2.



Sample Month and ID	Easting (UTM m)	Northing (UTM m)
Jul, P1	566,903	4,919,001
Jul, P2	566,745	4,918,741
Jul, P3	566,912	4,918,862
Jul, SECCHI	566,875	4,918,715
Jul, BOT	566,775	4,918,783
Jul, MID	566,763	4,918,665
Jul, SUR	566,813	4,918,683
Aug, BOT	566,801	4,918,910
Aug, MID	566,758	4,918,930
Aug, SUR	566,738	4,918,957
Aug, P1	566,648	4,918,786
Aug, P2	566,764	4,918,900
Aug, P3	566,949	4,918,989
Aug, SECCHI	566,693	4,918,908
Sep, BOT	566,785	4,918,989
Sep, MID	566,729	4,919,013
Sep, P1	566,546	4,918,841
Sep, P2	566,754	4,919,017
Sep, P3	566,848	4,919,115
Sep, SUR	566,892	4,918,888
Sep, SECCHI	566,922	4,918,913
Oct, SECCHI	566,930	4,919,082
Oct, BOT	566,933	4,919,088
Oct, MID	566,951	4,919,083
Oct, P1	567,011	4,919,214
Oct, P2	566,910	4,919,031
Oct, P3	566,816	4,918,973
Oct, SUR	566,951	4,919,076

Legend and Notes

Jul 2020 Sampling

Other

Profile

Sample

Secchi

Aug 2020 Sampling

Profile

Sample

Secchi

Sep 2020 Sampling

Profile

Sample

Secchi

Oct 2020 Sampling

Profile

Sample

Secchi

Lease Features

Lease Boundary

Mooring Grid Boundary

Pen Outline

Barge Outline

Lease Corner

Anchor

ADCP Location

Bathy. Contour (m MLLW)

- General Notes:
1. Basemap from NOAA RNC Server.
 2. Some features shown are approximate in location and scale.
 3. GIS data accessed and downloaded from the Maine Office of GIS, NOAA Digital Coast, and/or The National Map.
 4. Pen layout and intake/discharge structure locations based on plans prepared by Aqua Knowledge AS.
 5. Bathymetry from multibeam survey completed by Substructure in Sept, 2020.

Prepared For

American Aquafarms
68 Commercial Street
Portland, Maine

Site Address

Long Porcupine
Frenchman Bay
Gouldsboro, Maine

Orientation and Scale

075150300 Ft

1 inch = 150 feet

Fish Rearing Facilities Form Attachment FRF-2

Chemical use on site

This document is a summary of the therapeutants and compounds used for American Aquafarm's projected Atlantic salmon rearing operation in Frenchman Bay, Maine.

Disinfectants/sanitizers

Compounds intended to be used

The compound listed below will be discharged in the secondary outlet together with the waste processing reject water.

Virkon® Aquatic. A powerful cleaning and disinfecting solution with efficacy against fish viruses, bacteria, fungi, and molds. Virkon® Aquatic is EPA registered for the disinfection of environmental surfaces associated with aquaculture. Active ingredient: Potassium monopersulfate (21.4%). Used in accordance with label as a general cleaner and in footbaths. Working solution strengths normally range from 0.5% - 2.0%. Approx. annual use: 66-88 lbs/year (30-40 kg/year).

Therapeutants

Compounds intended to be used:

The compound listed below will be discharged in the secondary outlet together with the waste processing reject water.

Finquel® or Tricane-S. (Tricaine methanesulfonate). Used periodically during fish health inspection. Typical dose rates of 100-330 mg/L. Approximate annual use: 22 lbs/year (10 kg/year).

Compounds Rarely Used Only in Emergency Situations:

American Aquafarms has to this date no intended use of any therapeutic compounds. However, if any fish is to be treated by any of the compounds listed below it will be performed in an isolated compartment at the well boat. Dewatering units for ingoing and outgoing water, entering, and exiting the well boat, will ensure that the treatment water is kept contained on the well boat. This method of treatment allows American Aquafarms to avoid discharge of therapeutants into bay water if any compounds was to be used for contingency response. All products listed will be used

according to label use or a licensed veterinarian's prescription. There will be no prophylactic use of antibiotics.

Parasite-S, Formalin-F, and Formacide-B. (Formalin). Active ingredient 37% formaldehyde. Used according to the label if needed to alleviate fish health issues due to parasitic copepods, external protozoa and monogenetic trematodes. Typical dose rates from 25ppm to 1,000 ppm. Expected annual use: 0 gallons/year (0 lbs/year).

Halamid® Aqua. (Chloramine-T). Active ingredients N-chloro, p-toluenesulfonamide and sodium salt trihydrate. Used periodically according to the label if needed to alleviate fish health issues due to bacterial gill disease. Typical dose range 12-20 ppm. Expected annual use: 0 lbs/year (0 kg/year).

Praziquantel. Considered as 100% active. Can be used if fish are suffering from trematode/cestode (i.e. flatworm) infections. Typical dose ranges from 5-200 ppm depending on length of standing bath treatment. Used as needed/intermittent or emergency use only according to label use or as prescribed by a licensed veterinarian. Expected annual use: 0 lbs/year (0 kg/year).

Terramycin® 200. (oxytetracycline dehydrate, 44% active): Can be used as an in-feed treatment (maximum of 0.08 g active oxytetracycline/kg fish/day) if fish are suffering from certain bacterial infections. Used as needed/intermittent or emergency use only, according to label use or as prescribed by a licensed veterinarian. Expected annual use: 0 lbs/year (0 kg/year).

Aquaflor®. (florfenicol; 50% active). Can be used as an in-feed treatment (maximum of 15mg/kg fish/day) if fish are suffering from certain bacterial infections. Used as needed/intermittent or emergency use only, according to label use or as prescribed by a licensed veterinarian. Expected annual use: 0 lbs/year (0 kg/year).

Romet® 30/Romet® TC. (sulfadimethoxine/ormetoprim, 30% active or 20% active, respectively). Can be used as an in-feed treatment (maximum of 50 mg/kg fish/day) if fish are suffering from certain bacterial infections. Used as needed/intermittent or emergency use only, according to label use or as prescribed by a licensed veterinarian. Expected annual use: 0 lbs/year (0 kg/year).

Chemical use for ensilage

Chemistry used for ensilage will be used in an enclosed system and will not have contact with bay water at any time. The amount of ensilage chemistry used on site will vary depending on mortality. Thus, the chemical usage is based on a best effort estimate, but could however change after the operation has started.

SoftAcid Aqua MAB+. Main active ingredient formic acid. Product composition: formic acid (85 %), lignosulfonic acid (19.75 %), propyl gallate and citric acid (0.35 %) and BHA (0.16 %). To be used for preserving residual raw material in the fresh fish remains. Used in accordance with label or as described by supplier. Expected annual use 5,000 – 10,000 lbs/year (2,300 – 4,550 kg/year)

Chemicals used for flocculation of waste

A flocculant will be used for coagulating/thickening the solid waste as it is introduced to the waste processing system. As the flocculant is added it binds to the solids and increases the adherence between the particles. Thus, as the flocculant is added it is bound to the waste and the water is being separated from the waste, the flocculant will not be emitted but collected with the dewatered waste. Since the flocculant will be bound to the waste, only a minor portion will escape into the discharge water. The flocculant is composed of the following compounds listed below.

Acetic acid (60 %). Used for dissolving the calcium carbonate in fresh water. Expected annual use 17,650 – 22,050 lbs/year (8-10 MT/year.)

Calcium carbonate. (85-100%). Used for pH correction of waste flow prior to flocculation with sodium alginate. Expected annual use 3,750 – 4,630 lbs/year (1,700 – 2,100 kg/year)

Sodium Alginate. Biopolymer to be used as a waste thickener. Consists of 1,4- β -d-mannuronic (M) and α -l-guluronic (G) acids. Used in accordance with label or as described by supplier. Expected annual use 1874 - 2315 lbs/year (850 – 1,050 kg/year).