STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

PAUL MERCER
COMMISSIONER

April 8, 2016

Mr. Steve Eddy
University of Maine
Center for Cooperative Aquaculture Research
stephen.eddy@umit.maine.edu

Sent via electronic mail
Delivery confirmation requested

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0110183
Maine Waste Discharge License (WDL) # W007642-6F-I-R
Proposed Draft MEPDES Permit

Dear Mr. Eddy:

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 April 8, 2016 and ends on May 9, 2016. All comments on the proposed draft permit must be received in the Department of Environmental Protection office on or before the close of business Monday, May 9, 2016. 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
RAY BLDG., HOSPITAL ST.

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 04679-2094
(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:

bill.hinkel@maine.gov

OR

Maine Department of Environmental Protection
Bureau of Water Quality
Division of Water Quality Management
17 State House Station
Augusta, ME 04333-0017

Sincerely,

Bill Hinkel
Division of Water Quality Management
Bureau of Water Quality
bill.hinkel@maine.gov
ph: 207.485.2281

Enc.

ec: Tanya Hovell, MDEP
Angela Brewer, MEDEP
Pam Parker, MEDEP
Gregg Wood, MEDEP
Lori Mitchell, MEDEP
Dave Webster, USEPA
Dave Pincumbe, USEPA
Alex Rosenberg, USEPA
Olga Vergara, USEPA
Marelyn Vega, USEPA
Richard Carvalho, USEPA
Laury Zicari, USFWS
Sean Mahoney, CLF
Kathleen Leyden, DACF
MEDMR Environmental Review

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

DEPARTMENT ORDER

IN THE MATTER OF

UNIVERSITY OF MAINE CENTER FOR	) MAINE POLLUTANT DISCHARGE
COOPERATIVE AQUACULTURE RESEARCH	) ELIMINATION SYSTEM PERMIT
FRANKLIN, HANCOCK COUNTY, MAINE	) AND
#ME0110183	) WASTE DISCHARGE LICENSE
#W007642-6F-I-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 *et seq.*, and applicable rules of the Department of Environmental Protection (Department), the Department has considered the application of the UNIVERSITY OF MAINE CENTER FOR COOPERATIVE AQUACULTURE RESEARCH (CCAR), with its supportive data, agency review comments, and other related materials on file, and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

On July 24, 2015, the Department accepted as complete for processing, a renewal application from CCAR for Waste Discharge License (WDL) #W007642-6F-H-R/ Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0110183, which was issued on October 4, 2010 for a five-year term. The October 4, 2010 permit authorized CCAR to discharge a monthly average of 1.27 million gallons per day (MGD) of fish hatchery and rearing wastewater from CCAR's marine research facility in Franklin, Maine to the Taunton Bay, Class SB, in Franklin, Maine.

PERMIT SUMMARY

This permitting action is carrying forward all the terms and conditions of the October 4, 2010 permitting action.

1. Eliminating the effluent limitations and monitoring requirements for biochemical oxygen demand (BOD_5) based on new information;

2. Eliminating the daily maximum mass limitation for total inorganic nitrogen and the monitoring requirements for total nitrogen based on new information;

3. Eliminating the monthly average reporting requirement for fish on hand;

4. Eliminating the daily maximum concentration limitations for formalin based on new information;

5. Eliminating the pH limitation and monitoring requirements based on new information;

6. Revising Special Condition F, *Operation and Maintenance (O&M) Plan*, to include specific best practicable control technology currently available (BPT) practices pursuant to 40 CFR 451.11;

PERMIT SUMMARY (cont'd)

7. Eliminating previous Special Condition G, *Settling Basin Cleaning*, based on revisions to Special Condition F, *Operation and Maintenance (O&M) Plan*;

8. Restructuring and consolidating previous Special Condition H, *Disease and Pathogen Control and Reporting*, Special Condition I, *Therapeutic Agents*, and Special Condition J, *Disinfecting/Sanitizing Agents*, as new Special Condition G, *Use of Drugs for Disease Control*, and Special Condition H, *Pesticides and Other Compounds*, for consistency with the conditions established in other MEPDES permits;

9. Eliminating previous Special Condition K, *Minimum Treatment Technology Requirement*, as best practicable control technology currently available (BPT) is incorporated into the reissued permit as Special Condition F;

10. Restructuring and consolidating previous Special Condition L, *Salmon Genetic Testing and Escape Prevention*, to for consistency with the conditions established in other MEPDES permits; and

11. Eliminating previous Special Condition M, *Facility Operational Agreement*.

CONCLUSIONS

Based on the findings summarized in the attached and incorporated Fact Sheet dated April 8, 2016, and subject to the special and standard conditions that follow, the Department makes the following CONCLUSIONS:

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

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

3. The provisions of the State's antidegradation policy, *Classification of Maine waters,* 38 M.R.S. § 464(4)(F), will be met, in that:

   (a) Existing in-stream water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected;

   (b) Where high quality waters of the State constitute an outstanding natural resource, that water quality will be maintained and protected;

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

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

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

4. The discharges will be subject to effluent limitations that require application of best practicable treatment as defined in *Conditions of license,* 38 M.R.S. § 414-A(1)(D).

ACTION

Based on the findings and conclusions as stated above, the Department APPROVES the above noted application of UNIVERSITY OF MAINE CENTER FOR COOPERATIVE AQUACULTURE RESEARCH to discharge a monthly average of 1.27 MGD of fish hatchery and rearing wastewater to Taunton Bay, Class SB, in Franklin, Maine, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations including:

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

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

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

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

DONE AND DATED AT AUGUSTA, MAINE, THIS _____ DAY OF _____ 2016.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_____
PAUL MERCER, Commissioner

Date filed with Board of Environmental Protection _____

Date of initial receipt of application: July 23, 2015
Date of application acceptance: July 24, 2014

This Order prepared by Bill Hinkel, BUREAU OF WATER QUALITY

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. The permittee is authorized to discharge **fish hatchery and rearing wastewater from Outfall #001B** to Taunton Bay in Franklin, Maine. 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	Measurement Frequency	Sample Type
Flow *[50050]*	1.27 MGD *[03]*	---	---	---	Daily *[01/01]*	Measured *[MS]*
TSS *[00530]*	318 lbs./day *[26]*	530 lbs./day *[26]*	30 mg/L *[19]*	50 mg/L *[19]*	2/Month *[02/30]*	Composite[(2)] *[CP]*
Fish on Hand *[45604]*	---	Report lbs./day *[26]*	---	---	1/Week *[01/07]*	Calculate *[CA]*
Formalin[(3)] *[51064]*	Report lbs./day *[26]*	38.6 lbs./day *[26]*	---	---	1/Occurrence *[01/OC]*	Calculate *[CA]*
Total Residual Chlorine[(4)] *[00665]*	---	---	0.11 mg/L *[19]*	0.16 mg/L *[19]*	1/Occurrence *[01/OC]*	Grab *[GR]*

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

FOOTNOTES: See Pages 6-7 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

FOOTNOTES

1. **Sampling** – All effluent monitoring must be conducted at a location following the last treatment unit in the treatment process, as to be representative of end-of-pipe effluent characteristics. Any change in sampling location must be approved by the Department in writing. The permittee must conduct sampling and analysis in accordance with; a) methods approved by 40 Code of Federal Regulations (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 C.M.R. 263 (effective date April 1, 2010). 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** – Composite sample means a sample consisting of a minimum of four grab samples collected at two-hour intervals during the working day at the facility. Alternatively, upon approval by the Department's compliance inspector, the permittee may use 24-hour composites collected with an automatic composite sampler.

3. **Formalin –** Formalin monitoring must be conducted when in use at the facility and must consist of a calculated effluent mass value. Therefore, the following calculation must be applied to assess the total mass of formalin discharged per day (lbs./day):

   Formalin applied (gallons) x 9.03[1] (lbs./gallon) = Total formalin in effluent (lbs./day)

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

   1. One hour per day treatment typical of hatchery and rearing facility discharges; and
   2. Maximum of up to 24 hours of treatment and discharge for addressing emergency conditions at the facility.

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

   For instances when a permittee has not used formalin for an entire reporting period, the permittee must report "NODI-9" for this parameter on the monthly DMR or "N9" if the submittal is an electronic DMR.

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

SPECIAL CONDITIONS

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

FOOTNOTES

4. **Total residual chlorine (TRC)** – Limitations and monitoring requirements are applicable whenever elemental chlorine or chlorine based compounds are being used at the facility in such a manner that TRC may be present in the effluent. The permittee must utilize approved test methods that are capable of bracketing the limitations in this permit.

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 the permittee's General Application for Waste Discharge Permit, accepted for processing on July 24, 2015 and the terms and conditions of this permit; and only from Outfall #001B. Discharges of wastewater from any other point source(s) are not authorized under this permit, and must be reported in accordance with Standard Condition D(1)(f), *Twenty-four hour reporting*, of this permit.

D. NOTIFICATION REQUIREMENTS

In accordance with Standard Condition D, the permittee must notify the Department of the following:

1. Any substantial change in the volume or character of pollutants being introduced into the wastewater collection and treatment system.

2. For the purposes of this section, adequate notice must include information on:
   a. The quality or quantity of wastewater introduced to the wastewater collection and treatment system; and
   b. Any anticipated impact of the change in the quantity or quality of the wastewater to be discharged from the treatment system.

SPECIAL CONDITIONS

E. MONITORING AND REPORTING

Monitoring results obtained during the previous month must be summarized for each month and reported on separate DMR forms provided by the Department and **postmarked on or before the thirteenth (13th) day of the month or hand-delivered to the Department's Regional Office such that the DMRs are received by the Department on or before the fifteenth (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 inspector (unless otherwise specified by the Department) at the following address:

Department of Environmental Protection
Bureau of Water Quality
Division of Water Quality Management
106 Hogan Road
Bangor, Maine 04401

Alternatively, if the permittee submits an electronic DMR (DMR), the completed DMR must be electronically submitted to the Department by a facility authorized DMR Signatory not later than close of business on the **15th day of the month** following the completed reporting period. Hard copy documentation submitted in support of the DMR must be postmarked on or before the **thirteenth (13th) day of the month or hand-delivered** to the Department's Regional Office such that it is received by the Department on or before the fifteenth (15th) day of the month following the completed reporting period. Electronic documentation in support of the DMR must be submitted not later than close of business on the 15th day of the month following the completed reporting period.

F. OPERATIONS AND MAINTENANCE (O&M) PLAN

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

1. Solids Control

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

    b. In order to minimize the discharge of accumulated solids from the settling basin, settling tanks, and production systems, identify and implement procedures for routine cleaning of rearing units 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.

SPECIAL CONDITIONS

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

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

2. Materials Storage

a. Ensure proper storage of drugs[1], pesticides[2], feed, and any petroleum and/or hazardous waste products in a manner designed to prevent spills that may result in the discharge of drugs, pesticides, or feed to waters of the State.

b. Implement procedures for properly containing, cleaning, and disposing of any spilled material that has the potential to enter waters of the State.

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 made to ensure the proper operation of the treatment system.

5. Training

a. In order to ensure the proper clean-up and disposal of spilled material adequately, train all relevant personnel in spill prevention and how to respond in the event of a spill.

b. Train staff on the proper operation and cleaning of production and wastewater treatment systems including training in feeding procedures and proper use of equipment to prevent unauthorized discharges.

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

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

SPECIAL CONDITIONS

F. OPERATIONS AND MAINTENANCE (O&M) 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. Discharges may occur through direct application of a drug or indirectly through feed, injection, ingestion, or immersion at the facility.

    b. FDA-approved drugs identified in the permittee's application that may be used in accordance with label at the CCAR facility during the term of the permit.

        1. Formalin (Parasite-S®) – In accordance with label, up to 250 ppm
        2. Tricaine methanesulfonate (Finquel® or Tricane-S) – Maximum of 750 parts per million as needed in bath treatment

    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, 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 use of a drug pursuant to this section, the Department determines that significant adverse effects are likely to occur, it may 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.

b. Extralabel drug use identified in the permittee's application proposed for use at the CCAR facility during the term of the permit subject to all approval terms and conditions specified in this section.

1. Hydrogen peroxide 35%, (PEROX-AID®) – Maximum of 1,800 parts per million as needed by bath / immersion treatment
2. Oxytetracycline dehydrate (Terramycin® 200 for Fish) – Maximum of 25 mg/kg fish body mass as needed as intramuscular injection
3. Neomycin sulfate – Maximum of 3.3 g/kg feed

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

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

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

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

   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. INADs identified in the permittee's application proposed for use at the CCAR facility during the term of the permit subject to all approval terms and conditions specified in this section.

      1. Emmamectin benzoate (Slice®) – Maximum of 0.00005 g/kg feed as needed in feed.

Drugs, hormones, anesthetics, and euthanasia chemicals or compounds not specified in this Special Condition and anticipated to be present in the discharge require separate review by the Department prior to discharge. Chemicals or compounds specified as "Potential Use" on the list included as Attachment A of this permit may be approved under this permit on a case-by-case basis if the permittee demonstrates to the Department's satisfaction that the discharge will not cause or contribute to a violation of an applicable water quality standard.

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-S	Daily	10g /footbath (not discharged)	60 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
Hydrogen Peroxide (Perosan)	Daily	588 ppm	2 gallons
Sodium hypochlorite	1/Week	120 ppm	60 gallons
Copper sulfate (Cupramine®)	As needed	up to 0.5 mg/L	

I. 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 Atlantic salmon from the facility. This condition applies only to Atlantic salmon held or raised at the CCAR 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 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.

SPECIAL CONDITIONS

I. PROTECTION OF ATLANTIC SALMON (cont'd)

The permittee must maintain a current copy of the plan at the facility.

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 contractor's demonstrated capabilities to conduct such work.

The CMS must be audited at least once per year and within 30 days of a reportable escape (more than 50 fish) by a party other than the facility operator or owner qualified to conduct such audits and approved by the Department. 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. 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 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."

SPECIAL CONDITIONS

I. PROTECTION OF ATLANTIC SALMON (cont'd)

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.

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.

Maine Department of Environmental Protection
Environmental Specialist IV Clarissa.Trasko@maine.gov

Maine Department of Marine Resources
Secretary to the Commissioner; Jessica McKay; Jessica.mckay@maine.gov
Sea-Run Fisheries and Habitat Division Director; Oliver Cox; Oliver.n.cox@maine.gov

Maine Department of Inland Fisheries and Wildlife
Commissioner, Chandler Woodcock; Chandler.Woodcock@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; Wende Mahaney; Wende_mahaney@fws.gov

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

Personnel from the Department, the MeDMR, the USEPA, and the Services, may inspect the facility during normal operation hours. Upon request by the permittee, government officials will provide credentials attesting to their position and will follow the facility's biosecurity procedures. Operational records regarding compliance with this condition must be made available to personnel from the Department, the MeDMR, the USEPA, and the Services for inspection upon request.

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

L. SEVERABILITY

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

ATTACHMENT A

Subject to Approval under terms of MEPDES permit #

Compound or Chemical	trade name	permit status	According to the Guide	purpose	method	dosage	
Formalin	Parasite-S	approved	FDA Approved	parasite/algal/fungus treatment	bath/immersion	250 mg/l	
Chlorine		approved	FDA Approved	water and surface disinfectant	diluted and applied	120 ppm	
Sodium hypochlorite		approved	FDA Approved	water and surface disinfectant	diluted and applied	150 ppm	
Sodium thiosulfate			Not regulated	neutralize chlorine	added to water in proportion to chlorine used	up to 300 ppm	
Hydrogen peroxide 35%	Perox-Aid	approved, extralabel	FDA Approved	parasites	bath/immersion	1,800 ppm	
Hydrogen peroxide	Perosan	approved	FDA Approved	surface disinfectant	spray	588 ppm	
Emmamectin Benzoate	Slice	approved, INAD	INAD	sea lice control	oral through feed	0.00005 g/kg feed	
Potassium peroxymonosulfate and sodium chloride	Virkon-S	approved	FDA Approved	sanitary footbath	footbath	10 g /footbath	
Copper sulfate	Cupramine	approved	INAD	parasite/algal/fungus treatment	bath/immerison	0.5 mg/l	
Immersion vaccines		extralabel, veterinary prescription	FDA Approved	vaccine consisting of killed bacterial cells, formalin and adjuvant	bath/immersion		
Oxytetracycline dehydrate	Liquamycin	extralabel, veterinary prescription	Extra-label	bacterial infections	intramuscular injection	200 mg/ml	25 mg/kg body weight
Neomycin sulfate		extralabel, veterinary prescription	Extra-label	bacterial infections	oral feed	3.3 g/kg feed	
Tricaine methanesulfonate (MS-222)	Tricaine-S	Approved	FDA Approved	fish anesthetic and euthenasia	bath/immersion	25 ppm up to 750 ppm	
Sodium bicarbonate			LRP	Ph control		up to 50 kg per day	
Sodium carbonate (Soda ash)			Not regulated	Ph control		up to 50 kg per day	
Clove oil	Eugenol	POTENTIAL USE	FDA Approved	fish anesthetic and euthenasia	bath/immersion	stock solution (100mg/ml in 95% ethanol) dosage 40-100 mg/l.	
2-phenoxyethanol		POTENTIAL USE	Not regulated	fish anesthetic and euthenasia	bath/immersion	200 - 300 ul/l	
Benzocaine	Americaine, Anbesol, Benzodent	POTENTIAL USE	INAD	fish anesthetic and euthenasia	bath/immersion	50 - 100 mg/L	
Metomidate hydrochloride	Aquacalm	POTENTIAL USE	Not regulated	fish anesthetic and euthenasia	bath/immersion	0.1 - 10 mg/l	
Estradiol		POTENTIAL USE	INAD	feminization of eels	oral feed	25 mg/kg feed	
Genistein		POTENTIAL USE	Not regulated	feminization of eels	oral feed	2 mg/kg feed	
Salmon Gonadotropin (sGnRHa) - Releasing Hormone salmon gonadotropin releasing hormone analogue 20 ug/ml + domeperidone 10 mg/ml	Ovaplant	POTENTIAL USE	INAD	spawning induction of female fish	injected pellet (time release)	1 implant/fish/season	
	Ovaprim	POTENTIAL USE	INAD	induced maturation of male and female fish	injected	0.5 ml/kg body weight	
Luteinizing Hormone-Releasing Hormone analog (LHRHa)	LHRHa	POTENTIAL USE	INAD	induced maturation of male and female fish	injected	1 implant/fish/season	
Synthetic analogue of Salmon GnRH	Ova RH	POTENTIAL USE	INAD	induced maturation of male and female fish	injected	1 implant/fish/season	
Chloramine T dihydrate	Halamid Aqua	POTENTIAL USE	FDA Approved	bacterial gill disease and freshwater external columnaris disease	bath/immersion	10 - 20 mg/l	
PVP iodine	Ovadine	POTENTIAL USE	LRP	fish egg disinfectant	bath/immersion	50 - 100 ppm	

FDA Approved
Extralabel
INAD
LRP (Low regulatory priority)
No regulation

D

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.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
MAINE WASTE DISCHARGE LICENSE

FACT SHEET

DATE: **APRIL 8, 2016**

PERMIT NUMBER: **#ME0110183**
WASTE DISCHARGE LICENSE: **#W007642-6F-I-R**

NAME AND ADDRESS OF APPLICANT: **UNIVERSITY OF MAINE CENTER FOR COOPERATIVE AQUACULTURE RESEARCH**
33 SALMON FARM ROAD
FRANKLIN, MAINE 04634

COUNTY: **HANCOCK**

NAME AND ADDRESS WHERE DISCHARGE(S) OCCUR(S):
UNIVERSITY OF MAINE CENTER FOR COOPERATIVE AQUACULTURE RESEARCH
33 SALMON FARM ROAD
FRANKLIN, MAINE 04634

RECEIVING WATER CLASSIFICATION: **ATLANTIC OCEAN at TAUNTON BAY / CLASS SB**

COGNIZANT OFFICIAL CONTACT INFORMATION:
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1. APPLICATION SUMMARY

Application: On July 24, 2015, the Department of Environmental Protection (Department) accepted as complete for processing, a renewal application from the University of Maine Center for Cooperative Aquaculture Research (CCAR) for Waste Discharge License (WDL) #W007642-6F-H-R/ Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0110183, which was issued on October 4, 2010 for a five-year term. The October 4, 2010 permit authorized CCAR to discharge a monthly average of 1.27 million gallons per day (MGD) of fish hatchery and rearing wastewater from CCAR's marine research facility in Franklin, Maine to the Taunton Bay, Class SB, in Franklin, Maine.

2. PERMIT SUMMARY

a. Terms and Conditions: This permitting action is carrying forward all the terms and conditions of the October 4, 2010 permitting action except that it is:

1. Eliminating the effluent limitations and monitoring requirements for biochemical oxygen demand (BOD_5) based on new information;

2. Eliminating the daily maximum mass limitation for total inorganic nitrogen and the monitoring requirements for total nitrogen based on new information;

3. Eliminating the monthly average reporting requirement for fish on hand;

4. Eliminating the daily maximum concentration limitations for formalin based on new information;

5. Eliminating the pH limitation and monitoring requirements based on new information;

6. Revising Special Condition F, *Operation and Maintenance (O&M) Plan*, to include specific best practicable control technology currently available (BPT) practices pursuant to 40 CFR 451.11;

7. Eliminating previous Special Condition G, *Settling Basin Cleaning*, based on revisions to Special Condition F, *Operation and Maintenance (O&M) Plan*;

8. Restructuring and consolidating previous Special Condition H, *Disease and Pathogen Control and Reporting*, Special Condition I, *Therapeutic Agents*, and Special Condition J, *Disinfecting/Sanitizing Agents*, as new Special Condition G, *Use of Drugs for Disease Control*, and Special Condition H, *Pesticides and Other Compounds*, for consistency with the conditions established in other MEPDES permits;

9. Eliminating previous Special Condition K, *Minimum Treatment Technology Requirement*, as best practicable control technology currently available (BPT) is incorporated into the reissued permit as Special Condition F;

10. Restructuring and consolidating previous Special Condition L, *Salmon Genetic Testing and Escape Prevention*, to for consistency with the conditions established in other MEPDES permits; and

11. Eliminating previous Special Condition M, *Facility Operational Agreement*.

b. History: This section provides a summary of recent/significant licensing and permitting actions and other significant regulatory actions completed for the CCAR facility. The fact sheet associated with the October 4, 2010 permit contains additional history for this facility.

2. PERMIT SUMMARY (cont'd)

March 21, 1990 – The U.S. Environmental Protection Agency (USEPA) accepted as complete a National Pollutant Discharge Elimination System (NPDES) permit application from the Penobscot Salmon Co. Inc. for the discharge of fish hatchery wastewater to Taunton Bay in Franklin, Maine. The application was assigned NPDES #ME0110183. For the 2005 permitting action, the Department inquired but received no information from USEPA pertaining to subsequent USEPA actions.

May 25, 1990 – The Department issued WDL #W007642-WA-A-N to the Penobscot Salmon Co., Inc. for the discharge of a monthly average of 0.288 MGD of fish hatchery wastewater from a new recirculating commercial Atlantic salmon and Rainbow trout hatchery and rearing facility to Taunton Bay in Franklin. The WDL was issued for a five-year term.

December 20, 2000 – The Department issued WDL #W007642-5Q-B-R for the renewal and transfer of WDL #W007642-WA-A-N to CCAR for the discharge of a monthly average of 0.288 MGD of fish hatchery wastewater from a multi-species research fish hatchery and rearing facility. The WDL was issued for a five-year term.

January 12, 2001 – The Department received authorization from the USEPA to administer the NPDES permit program in Maine, excluding areas of special interest to Maine Indian Tribes. From that point forward, the program has been referred to as the Maine Pollutant Discharge Elimination System (MEPDES) program, and MEPDES permit #ME0110183 has been utilized for this facility.

June 1, 2005 – The Department issued MEPDES Permit #ME0110183 / Maine WDL #W007642-5Q-D-R to CCAR for a five-year term for a multiphase discharge from the research fish hatchery and rearing facility of 0.634 MGD for the UMCCAR facility and 1.27 MGD following construction and start-up of the USDA National Cold Water Marine Aquaculture Research Center.

October 10, 2008 – The Department issued Minor Revision #W007642-5Q-E-M / MEPDES Permit #ME0110183 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.

June 2, 2009 – The Department issued Minor Revision #W007642-6F-E-M / MEPDES Permit #ME0110183 for a one-time, seven-day use of the therapeutant SLICE (emamectin benzoate) for control of sea lice in salmon smolts raised at the facility. The Minor Revision should have been labeled as #W007642-6F-F-M.

July 29, 2009 – The Department issued Minor Revision #W007642-6F-G-M / MEPDES Permit #ME0110183 to revise effluent BOD_5 and TSS minimum monitoring frequency requirements from once / week to twice / month and to provide guidance for reporting analytical results below detection and/or reporting limits.

2. PERMIT SUMMARY (cont'd)

January 25, 2010 – The Department authorized CCAR to allow Sea and Reef Aquaculture to raise tropical ornamental marine fish, shrimp, and corals at the CCAR facility following review of the proposal by the Maine Department of Marine Resources, NOAA Fisheries, and the USFWS. The Department determined that the above noted activity could be undertaken at CCAR without requiring modification or revision of the MEPDES Permit / Maine WDL.

October 4, 2010 – The Department issued WDL #W007642-6F-H-R to CCAR for a five-year term.

November 7, 2013 – The Department issued a letter authorizing the discharge of neomycin sulphate (99.5% pure) as an extralabel use therapeutant.

December 6, 2013 – The Department issued a letter authorizing the discharge of oxytetracycline dehydrate, 200 mg/ml, as an extralabel use therapeutant.

December 15, 2014 – The Department issued a letter authorizing the discharge of Cupramine® (copper sulfate) as a therapeutant for parasite/algae/fungus treatment.

July 23, 2015 – CCAR submitted a timely and complete General Application to the Department for renewal of the October 4, 2010 permit. The application was accepted for processing on July 24, 2015 and was assigned WDL #W007642-6F-I-R / MEPDES #ME0110183.

c. Source Description: CCAR is a multi-species marine research fish hatchery and rearing facility located on the shore of Taunton Bay in Franklin, Maine. A map showing the location of the facility is included as Attachment A of this fact sheet. CCAR is used for aquaculture research and development, training, and demonstration projects for a variety of existing and "alternative" aquaculture species. Co-located on the adjacent property and sharing the same effluent discharge pipe into Taunton Bay is the National Cold Water Marine Aquaculture Research Center (NCWMAC) operated by the US Department of Agriculture's (USDA) Agriculture Research Service (ARS). The NCWMAC performs research that develops and improves aquaculture farming methods for cold water marine species.

The two facilities share a common seawater supply pumped from Taunton Bay through two, 6-inch diameter HDPE intake pipes that extend 2,900 feet into Taunton Bay to a depth of 55 feet at mean low tide. All of the seawater supply pumped from Taunton Bay is filtered through a series of five sand filters to 35 microns and then disinfected with ultraviolet radiation. The sand filters are backwashed as needed (typically once every 3-4 weeks) and the backwash effluent passes through a series of two 1,000-gallon settling tanks to capture solids before entering the effluent discharge pipe. After filtration and UV disinfection, the seawater is pumped up to a set of three storage tanks located on the CCAR site and fed by gravity to the two facilities as needed. The three storage tanks each have a capacity of 22,500 gallon. One tank holds fresh water, while the other two are designed to hold seawater.

Both facilities have ground water wells for their domestic freshwater supply, and as needed for fish culture. The NCWMAC has a total of twelve drilled wells, although not all are used.

2. PERMIT SUMMARY (cont'd)

A list of species cultured at the facility, as provided in CCAR's July 24, 2015 application, is included as Attachment B of this fact sheet.

d. Wastewater Treatment: CCAR has four main sources of discharge water: 1) solids removed from the recirculating systems and discharged down a sludge line; 2) overflow water from the recirculating systems that is discharged down an overflow line; 3) overflow from the reservoirs; and 4) floor drains. The solids are comprised primarily of uneaten fish feed and fish wastes, and are filtered from the recirculating systems as previously described. The overflow water from the recirculating systems has been treated within the systems as previously described, but contains nitrates and varying low levels of suspended solids. The overflow water from the reservoirs consists of a clean mixture of unused excess well water and unused filtered seawater from the seawater supply. The water from the floor drains consists of spillage from tanks in the facility and/or fresh water used to rinse the floors clean.

The waste solids, system overflows, and floor drains are all routed to one of two underground settling tank systems. Each tank system consists of a series of three, 3,000-gallon concrete tanks in series connected by pipe baffles. An additional 1,500-gallon settling tank is utilized for wastewater from greenhouse 3. The settling tanks are pumped of bio-solids two times per year (or when the solids level reaches 20% of the total depth) by a local contractor and disposed of off-site in accordance with federal and state regulations. Reservoir overflow, consisting of clean unused water that has not passed through any rearing system, does not enter the settling tanks but is discharged directly into the facility wastewater stream.

With the exception of the two egg incubation systems all water overflowing the NCWMAC's fish culture systems and all flows resulting from routine flushing of the fish culture system sumps and pipes is combined and piped to the NCWMAC's Wastewater Treatment Building. The two egg incubation systems overflow into NCWMAC's septic system. The Wastewater Treatment Building treats the fish culture system discharge using a 40-micron or 60-micron microscreen drum filter to capture larger particulate matter, UV radiation to disinfect the water, and an inclined traveling belt screen with 1.0 mm openings to exclude from the discharge all eggs or fish that may have escaped into the water entering the Wastewater Treatment Building. The discharge flow exiting the treatment building is monitored using an ultrasonic flow meter, for use in the discharge monitoring report calculation. At times the total flow to the Wastewater Treatment Building during flushing events can approach 700 gpm but is of relatively short duration (2-3 hours or less). To account for these variations in discharge flows, the microscreen drum filter and inclined traveling belt filter/self-cleaning band screen were sized to treat in excess of 1,000 gpm and the UV irradiation unit was sized to dose 45,000 μw-sec/cm2 to a flow of 715 gpm at a UV transmittance of 80%, a level that will inactivate most known fish pathogens.

A relatively small flow (approximately 20-40 gpm) containing concentrated (500-1,200 mg/L TSS) waste biosolids, e.g., waste feed and fecal matter, is produced by the frequent backwash of seven microscreen drum filters and the intermittent flushing of captured solids from the twenty settling units located in the NCWMAC's fish culture systems. This flow of waste biosolids is piped to the NCWMAC's Wastewater Treatment Building via separate lines from the fish culture system overflows and pipe/sump flushing flows. Inside the Wastewater Treatment Building, the waste biosolids are dewatered using chemical coagulation / flocculation followed by filtration across an

2. PERMIT SUMMARY (cont'd)

inclined traveling belt filter installed with a 100 μm filter cloth. The inclined traveling belt filter is expected to dewater the biosolids to approximately 10% solids. Dewatered biosolids are then pumped to a covered 20-foot diameter x 20-foot tall slurry storage tank providing six months of storage capacity. The biosolids are stored until they can be removed by a contract hauler and taken off-site to a compost facility or to a POTW where the biosolids can be anaerobically digested.

Following treatment, the process wastewater streams from each facility are combined in an effluent manhole located near the new saltwater intake pump station at UMCCAR. The effluent streams combine into a 14-inch diameter 1,900-foot long pipe that discharges into Taunton Bay at a water depth of 5-feet at mean low tide.

3. CONDITIONS OF PERMIT

Conditions of licenses, 38 M.R.S. § 414-A, requires that the effluent limitations prescribed for discharges, including, but not limited to, effluent toxicity, require application of best practicable treatment (BPT), be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System. In addition, *Certain deposits and discharges prohibited*, 38 M.R.S. § 420 and *Surface Water Toxics Control Program,* 06-096 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

Classification of estuarine and marine water, 38 M.R.S. § 469 classifies Taunton Bay at the point of discharge as Class SB. *Standards for classification of estuarine and marine water*, 38 M.R.S. § 465-B(2) prescribes the standards for Class SB waters.

5. RECEIVING WATER QUALITY CONDITIONS

The State of Maine 2012 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*, concludes that Taunton Bay is not listed for any impairments, except that that all estuarine and marine waters of the State are listed as, *"Category 5-D: Estuarine and Marine Waters Impaired by Legacy Pollutants."* Impairment in this context refers to the estuarine and marine waters partially supporting the designated use of fishing and harvesting of shellfish due to elevated levels of mercury, PCBs, dioxin, and other persistent bioaccumulating substances in tissues of some fish and in lobster tomalley.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

a. Applicability of National Effluent Guidelines: The USEPA has promulgated national effluent guidelines for the *Concentrated Aquatic Animal Production Point Source Category* at 40 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 pounds or more per year of aquatic animals in a flow-through or recirculating system. The CCAR facility produces 100,000 pounds or more per year of aquatic animals in a flow-through or recirculating system and is therefore subject to regulation under this subpart.

40 CFR 451.11 states that any existing point source subject to the *Flow-Through and Recirculating Systems Subcategory* must meet the following requirements, expressed as practices, representing the application of best practicable control technology currently available (BPT): 1) solids control; 2) materials storage; 3) structural maintenance; 4) recordkeeping; and 5) training. While 40 CFR 451.11 does not establish numeric technology-based effluent limitation guidelines for this subcategory, it does provide that the permitting authority may require any modification to the BPT guidelines based on its exercise of its best professional judgment. The BPT requirement identified in #1-5 on this paragraph are incorporated into the permit as Special Condition F. The basis statement for all other effluent limitations and monitoring requirements is explained in this section of this fact sheet.

The previous permitting action established Special Condition K, *Minimum Treatment Technology Requirement*, to specify that the permittee must provide treatment equal to or better than 60-micron microscreen filtration. The Department is not prescribing the type of treatment that the permittee must provide. The permittee is responsible for ensuring compliance with the technology-based and water quality-based effluent limitations established in this permit. Therefore, the Department concludes that previous Special Condition K is not necessary and it is being eliminated in this permitting action.

b. Flow: The previous permitting action established, and this permitting action is carrying forward, a monthly average discharge flow limitation of 1.27 million gallons per day (MGD). The following table summarizes effluent data reported on Discharge Monitoring Reports (DMRs) for the period of November 2010 through October 2015.

Flow (DMRs=59) Outfall #001B

Value	Limit (MGD)	Range (MGD)	Mean (MGD)
Monthly Average	1.27	0.25– 0.43	0.33

c. Dilution Factors: 06-096 CMR 530(4)(A)(2)(a) states that, *"For discharges to the ocean, dilution must be calculated as near-field or initial dilution, or that dilution available as the effluent plume rises from the point of discharge to its trapping level, at mean low water level and slack tide for the acute exposure analysis, and at mean tide for the chronic exposure analysis using appropriate models determined by the Department such as MERGE, CORMIX or another predictive model."* Based on the configuration of Outfall #001B and a monthly average discharge flow design criterion of 1.27 million gallons per day (MGD), dilution factors associated with the discharge are as follows:

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

Acute = 12.5:1 Chronic = 15:1 Harmonic mean[1] = 45:1

d. Biochemical Oxygen Demand (BOD_5) and Total Suspended Solids (TSS): Neither the USEPA nor Department has promulgated effluent limitation guidelines for BOD_5 or TSS that are applicable to the discharge from the CCAR facility. The previous permitting action established monthly average and daily maximum concentration limitations of 30 mg/L and 50 mg/L, respectively, for BOD_5 and TSS based on best professional judgment (BPJ) of best practicable treatment (BPT). The previous permit also established corresponding monthly average and daily maximum mass limitations of 318 lbs./day and 530 lbs./day, respectively, for BOD_5 and TSS.

A summary of the effluent BOD_5 data as reported on the DMRs submitted to the Department for the period November 2010 through May 2015 follows.

BOD_5 Mass (DMRs=59)

Value	Limit (lbs./day)	Range (lbs./day)	Mean (lbs./day)
Monthly Average	318	4 – 112	15
Daily Maximum	530	4.3 – 165	23

BOD_5 Concentration (DMRs=55)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	30	1 – 40	5
Daily Maximum	50	2 – 54	8

A summary of the effluent TSS data as reported on the DMRs submitted to the Department for the period November 2010 through October 2015 follows.

TSS Mass (DMRs=59)

Value	Limit (lbs./day)	Range (lbs./day)	Mean (lbs./day)
Monthly Average	318	3.3 – 148	22
Daily Maximum	530	6.2 – 275	33

TSS Concentration (DMRs=55)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	30	1.5 – 50	8
Daily Maximum	50	2.5 – 92	11

With a long-term average BOD_5 effluent concentration of 5 mg/L and a near-field dilution factor of 1,500:1 (see subsection 6.e. of this fact sheet for more information on near-field dilution), the estimated in-stream increase in BOD_5 in Taunton Bay resulting from CCAR's discharge is not measureable.

[1] The harmonic mean dilution factor is approximated by multiplying the chronic dilution factor by three (3). This multiplying factor is based on guidelines for estimation of human health dilution presented in the U.S. EPA publication, "*Technical Support Document for Water Quality-Based Toxics Control"* (Office of Water; EPA/505/2-90-001, page 88), and represents an estimation of harmonic mean flow on which human health dilutions are based in a riverine 7Q10 flow situation.

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

In-stream BOD_5 increase = $\frac{5 \text{ mg/L}}{1{,}500}$ = 0.003 mg/L

After reviewing approximately 6 years of BOD_5 and TSS and data from hatcheries, 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. Whereas: 1) CCAR operations and processes are not likely to change significantly from the previous five year period; 2) the Department has a statistically significant BOD_5 data set from this facility; 3) neither the USEPA nor Department have promulgated numeric effluent guidelines for BOD_5 for the *Flow-Through and Recirculating Systems Subcategory*; and 4) in the best professional judgment of the Department, 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, 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 CCAR and the concentration and mass limitations for BOD_5, the Department has determined that these limitations would not have been established at the time the previous permit was issued based on the new information that has been obtained since issuance of the previous permit. 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 and at 40 CFR 122.44(l)(2)(i)(B)(1).]

This permitting action is carrying forward the monthly average and daily maximum mass limitations of 318 lbs./day and 530 lbs./day, respectively, for TSS, and the monthly average and daily maximum concentration limits of 30 mg/L and 50 mg/L, respectively, for TSS, based on best professional judgment of limitations that are technologically achievable and protective of receiving water quality. This permitting action is carrying forward the minimum monitoring frequency requirement of twice per month for TSS based on Department BPJ.

e. Nitrogen: The previous permitting action established seasonal daily maximum total inorganic nitrogen mass limitations of 96.1 lbs./day (Oct 1 – May 31) and 50 lbs./day (Jun 1 – Sept 30), as well as monthly average and daily maximum concentration reporting requirements. The previous permitting action also established year-round monthly average and daily maximum concentration reporting requirements for total nitrogen. CCAR has conducting effluent total nitrogen monitoring since it acquired the facility and transferred the waste discharge license in December 2000. The Department is evaluating whether the discharge has a reasonable potential to cause or contribute to non-attainment of applicable water quality standards in marine waters, namely dissolved oxygen (DO) and marine life support, as a result of the effluent nitrogen concentrations.

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

A summary of the effluent total nitrogen data as reported on the DMRs submitted to the Department for the monitoring period from November 2010 through September 2015 (n=56) indicates that total nitrogen has ranged from 1.4 mg/L to 6.8 mg/L with an arithmetic mean of 3.4 mg/L.

As of the date of this permitting action, the State of Maine has not promulgated numeric ambient water quality criteria for total nitrogen. According to several studies in USEPA's Region I, numeric total nitrogen criteria have been established for relatively few estuaries but the criteria that have been set typically fall between 0.35 mg/L and 0.50 mg/L to protect marine life using dissolved oxygen as the indicator. While the thresholds are site-specific, nitrogen thresholds set for the protection of eelgrass habitat range from 0.30 mg/L to 0.39 mg/L.

Extrapolating estuarine criteria to an exposed coastal marine environment may result in thresholds that are not appropriate given the lower ambient nutrient concentrations expected in the open ocean. Based on studies in USEPA Region I and the Department's best professional judgment of thresholds that are protective of Maine water quality standards, the Department is utilizing a threshold of 0.45 mg/L for the protection of aquatic life in marine waters using dissolved oxygen as the indicator, and 0.32 mg/L for the protection of eelgrass in the vicinity of discharge outfalls. There is eelgrass habitat in the immediate vicinity of the outfall. The Department has data from Taunton Bay collected in 1996 demonstrating that the ambient total nitrogen concentration for the waterbody is 0.23 mg/L. This value will be used in the reasonable potential analysis.

With the exception of ammonia, nitrogen is not acutely toxic. The Department is considering a far-field dilution to be more appropriate when evaluating impacts of total nitrogen to the marine environment. The CCAR facility has a chronic near-field dilution of 15:1. Far-field dilutions are significantly higher than the near-field dilution, ranging from 100 - 10,000 times higher depending on the location of the outfall pipe. With outfalls located in protected coves or small embayments without significant flushing, far-field dilution factors would tend to be on the order of 100 times the near-field dilution. With open ocean discharges, far-field dilutions would tend to be 1,000 – 10,000 times the near-field dilution. The CCAR facility discharges to an embayment; thus, the Department is utilizing an assumed estimated far-field dilution factor of 100:1 in its reasonable potential analysis.

Total nitrogen concentrations in effluent = 3.4 mg/L
Chronic dilution factor = 15:1

In-stream concentration after dilution: $\frac{3.4 \text{ mg/L}}{1{,}500} = 0.002 \text{ mg/L}$

After reasonable opportunity for far-field mixing, the increase in the concentration of total nitrogen in the receiving water due to the discharge from CCAR is not measurable based on typical laboratory detection limits. Thus, the in-stream concentration of total nitrogen will remain at 0.23 mg/L, which is lower than the Department's and USEPA's best professional judgment of a critical threshold of 0.32 mg/L to protect eelgrass. Therefore, the Department is making a best professional judgment determination that the discharge of total nitrogen from the

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

permittee's facility does not exhibit a reasonable potential to exceed applicable water quality standards for Class SB waters.

This permitting action is eliminating the effluent limitations and monitoring requirements for total inorganic nitrogen and the monitoring and reporting requirements for total nitrogen based on the reasonable potential analysis. This action is consistent with the exceptions to anti-backsliding in Chapter 523 of the Department's rules and at 40 CFR 122.44(l)(2)(i)(B)(1).

f. Fish on Hand: The previous permitting action established daily maximum and monthly average fish on hand mass reporting requirements. The fact sheet associated with the previous permit states, that the fish on hand monitoring and reporting requirement "is intended to enable both the Department and the permittee in evaluating management practices at the facility and trends in effluent quality and receiving water impacts."

A summary of the fish on hand data as reported on the DMRs submitted to the Department for the period November 2010 through September 2015 follows.

Fish on Hand Mass (DMRs=59)

Value	Limit (lbs./day)	Range (lbs./day)	Mean (lbs./day)
Monthly Average	Report	20,740 – 57,992	39,514
Daily Maximum	Report	25,792 – 59,242	41,329

The permittee is required to maintain records for fish rearing units documenting the feed amounts and estimates of the numbers and weight of fish pursuant to Special Condition F of the permit. The Department considers direct reporting of fish on hand data on monthly Discharge Monitoring Reports valuable for purposes of assisting in the diagnosis of operational/effluent problems and ultimately to effectively and efficiently respond to compliance problems at fish hatcheries, when they occur. However, after review of the data, the Department believes that a once per month daily maximum mass reporting requirement is sufficient for purposes of assisting in compliance evaluations. Therefore, the daily maximum fish on hand mass reporting requirement is being carried forward in this permitting action and the monthly average reporting requirement is being eliminated.

g. 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 250 mg/L and 38.6 lbs./day, respectively, for 1-hour and 24-hour formalin treatments. The concentration limit was established based on the maximum dose CCAR anticipated at the time the previous permit was written.

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 thresholds for formalin may be calculated as follows:

45 mg/L (1-hour acute criteria) x 15 (effluent dilution) = 675 mg/L formalin limit
25 mg/L (24-hour acute criteria) x 15 (effluent dilution) = 375 mg/L formalin limit

This permitting action is carrying forward the daily maximum mass limitation of 38.6 lbs./day for formalin to ensure the discharge does not violate receiving water quality standards. The Department is identifying in this permitting action that the concentration limitations are not necessary to ensure water quality standards are achieved and has determined that these limitations would not have been established at the time the previous permit was issued based on the new information that has been obtained since issuance of the previous permit. 40 CFR 122.44(l)(2)(i)(B)(1) 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 concentration limitations for formalin.

This permitting action is carrying forward the minimum monitoring frequency requirement of once per occurrence for formalin.

The effluent quantity of formalin, as reported on the DMRs submitted to the Department for the period November 2010 through September 2015, ranged from 2.3 lbs./day to 12.3 lbs./day with a mean of 6.4 lbs./day (n = 5).

h. Total Residual Chlorine (TRC): The previous permitting action established, and this permitting action is carrying forward, monthly average and daily maximum water quality-based effluent limitations of 0.11 mg/L and 0.16 mg/L, respectively, for TRC. Limitations on TRC are specified to ensure that ambient water quality standards are maintained and that BPT is being applied to the discharge. The previous permit established and this permitting action is carrying forward the BPT limit. With acute and chronic dilution factors associated with the discharge water quality-based concentration thresholds the discharge may be calculated as follows:

			Calculated	
Acute (A) Criterion	Chronic (C) Criterion	A & C Acute Dilution Factors	Acute Threshold	Chronic Threshold
0.013 mg/L	0.0075 mg/L	12.5:1 (A) 15:1 (C)	0.16 mg/L	0.11 mg/L

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

The Department has established a daily maximum BPT limitation of 1.0 mg/L for facilities that disinfect their effluent with elemental chlorine or chlorine-based compounds. For facilities that must dechlorinate the effluent in order to consistently achieve compliance with water quality based thresholds, the Department has established daily maximum and monthly average BPT limits of 0.3 mg/L and 0.1 mg/L.

A summary of the fish on hand data as reported on the DMRs submitted to the Department for the period November 2010 through September 2015 follows.

Total Residual Chlorine (DMRs=20)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	0.11	0.01 – 0.10	0.02
Daily Maximum	0.16	0.01 – 0.13	0.02

i. pH: The previous permitting action established a pH range limitation of 6.0 – 8.5 standard units (SU), pursuant to 38 M.R.S. § 464(4)(A)(5), which states that the Department may not issue a waste discharge permit for a discharge that causes the pH of estuarine or marine waters to fall outside of the 7.0 to 8.5 range.

The effluent pH, as reported on the DMRs submitted to the Department for the period November 2010 through September 2015, ranged from 7.2 SU to 8.2 SU (n = 59). CCAR does not actively control the pH of wastewater through chemical addition or other methods.

Based on the recent pH data summarized above, the Department is making a best professional judgment determination that the discharge does not exhibit a reasonable potential to exceed the pH range established by 38 M.R.S. § 464(4)(A)(5). Whereas CCAR does not actively control the pH of wastewater, this permitting action is eliminating the pH limitation and monitoring requirements based on this new information (recent compliance data). This action complies with the anti-backsliding provision at 40 CFR 122.44(l)(2)(i)(B)(1).

7. OPERATIONS AND MAINTENANCE (O&M) PLAN

The previous permitting action established Special Condition F, *Operation and Maintenance (O&M) Plan*, which is contained in the majority of MEPDES permits and all fish hatchery permits. In this permitting action, the Department is revising the condition to incorporate and require inclusion of specific best practicable control technology currently available (BPT) practices pursuant to 40 CFR 451.11. In addition to the previous requirements of the O&M Plan, the revised O&M Plan must ensure the following items are adequately addressed: 1) solids control; 2) materials storage; 3) structural maintenance; 4) recordkeeping; and 5) training.

The previous permitting action established Special Condition G, *Settling Basis Cleaning*. Through inclusion of the revised O&M Plan the need for a separate condition for settling basin cleaning is redundant and is therefore being eliminated.

8. USE OF DRUGS FOR DISEASE CONTROL AND PESTICIDES AND OTHER COMPOUNDS

The previous permitting action established Special Condition H, *Disease and Pathogen Control and Reporting*, Special Condition I, *Therapeutic Agents*, and Special Condition J, *Disinfecting/Sanitizing Agents*. The Department is restructuring and consolidating conditions for drugs, pesticides, and chemicals or compounds not registered as pesticides under two new Special Conditions in the permit. Restructuring of the conditions is consistent with the conditions established in other MEPDES permits for fish rearing facilities.

Special Condition G, *Use of Drugs for Disease Control*, contains conditions for U.S. Food and Drug Administration (FDA)-approved drugs, extralabel drug use, and investigational new animal drugs (INADs).

CCAR provided, on Form DEPLW1999-18 included with its July 24, 2015 General Application for Waste Discharge Permit, a list of drugs, pesticides, and chemicals or compounds proposed for use at the facility during the term of the permit. The discharge of drugs associated with treatment is subject to all terms and conditions of Special Condition G of the permit. Only FDA-approved drugs that are identified in CCAR's July 24, 2015 General Application for Waste Discharge Permit may be used without additional written approval from the Department.

Special Condition H, *Pesticides and Other Compounds*, contains conditions for the use of pesticides registered with both the United States Environmental Protection Agency (USEPA) and Maine Board of Pesticides Control (BPC) and other chemicals and compounds that are neither defined as drugs nor pesticides, but are used, primarily, for cleaning and disinfection. Any chemical or compound proposed for use at the facility during the term of the permit not identified in the application or authorized in the permit must be reported to the Department in accordance with Special Condition D, *Notification Requirements* of the permit.

9. PROTECTION OF ATLANTIC SALMON

The U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration National Marine Fisheries Service (collectively, the Services) issued a final rule listing Atlantic salmon populations in certain Maine rivers and streams as "endangered" under the federal Endangered Species Act. In that decision, the Gulf of Maine Distinct Population Segment (DPS) encompassed all naturally reproducing remnant populations of Atlantic salmon downstream of the former Edwards Dam site on the Kennebec River up to the Rangeley River and northward to the mouth of the St. Croix River. The watershed structure, available Atlantic salmon habitat, and abundance of Atlantic salmon at various life stages were best known for the following eight rivers: Dennys River, East Machias River, Machias River, Pleasant River, Narraguagus River, Ducktrap River, Sheepscot River, and Cove Brook. On June 15, 2009, the Services expanded the Gulf of Maine DPS to include salmon in the Penobscot River, two significant issues of concern regarding the rearing of salmon in Maine involve the genetic integrity of the salmon and escape prevention to avoid impacts on native fish.

9. PROTECTION OF ATLANTIC SALMON (cont'd)

On December 4, 2000, in regard to the Department's pending delegation to administer the NPDES Permit Program, USEPA Region I informed the Department that "*permits issued to freshwater hatcheries raising salmon will require that the facility be designed or modified to achieve zero escapement of fish from the facility.*" The USEPA also stated, "*The information contained in the Services' listing documents indicates that a remnant population of wild Atlantic salmon is present in…*" Maine waters "*…and that salmon fish farms and hatcheries are activities having a significant impact on the…*" Gulf of Maine Distinct Population Segment (DPS) of Atlantic salmon "*…through, among other things, the escape of farmed and non-North American strains of salmon which may interbreed with the wild Maine strains, compete for habitat, disrupt native salmon redds, and spread disease." "Based on this information, the Services have concluded that the escape of farm-raised salmon from fish farms and hatcheries is likely to significantly impair the growth, reproduction and habitat of wild salmon, thereby impairing the viability of the DPS." "EPA has analyzed current information, including these findings, and based on this information believes that this remnant population constitutes an existing instream use of certain Gulf of Maine rivers and considers that the above-described impacts to the population would be inconsistent with Maine's water quality standards. Assuming the information discussed above does not significantly change, EPA will utilize its authorities to ensure compliance with Maine water quality standards by ensuring that conditions to protect the remnant population of Atlantic salmon are included in NPDES permits for salmon fish farms and hatcheries, which are subject to regulation as concentrated aquatic animal production facilities." "In view of the substantial danger of extinction to the DPS described by the Services, it is EPA's view that proposed permits authorizing activities that would adversely affect the population, as described earlier in this letter, would be inconsistent with Maine's water quality standards and objectionable under the CWA.*"

The previous permitting action established Special Condition L, *Salmon Genetic Testing and Escape Prevention*. The Department is restructuring and consolidating conditions for Atlantic salmon protection in the permit as Special Condition I, *Protection of Atlantic Salmon*. Restructuring of the conditions is consistent with the conditions established in other MEPDES permits, namely *Net Pen Aquaculture General Permit* #MEG130000, April 10, 2014.

10. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

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

11. PUBLIC COMMENTS

Public notice of this application was made in the *Ellsworth American* newspaper on or about July 22, 2015. The Department receives public comments on an application until the date a final agency action is taken on the application. Those persons receiving copies of draft permits shall have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to *Application Processing Procedures for Waste Discharge Licenses,* 06-096 CMR 522 (effective January 12, 2001).

12. DEPARTMENT CONTACTS

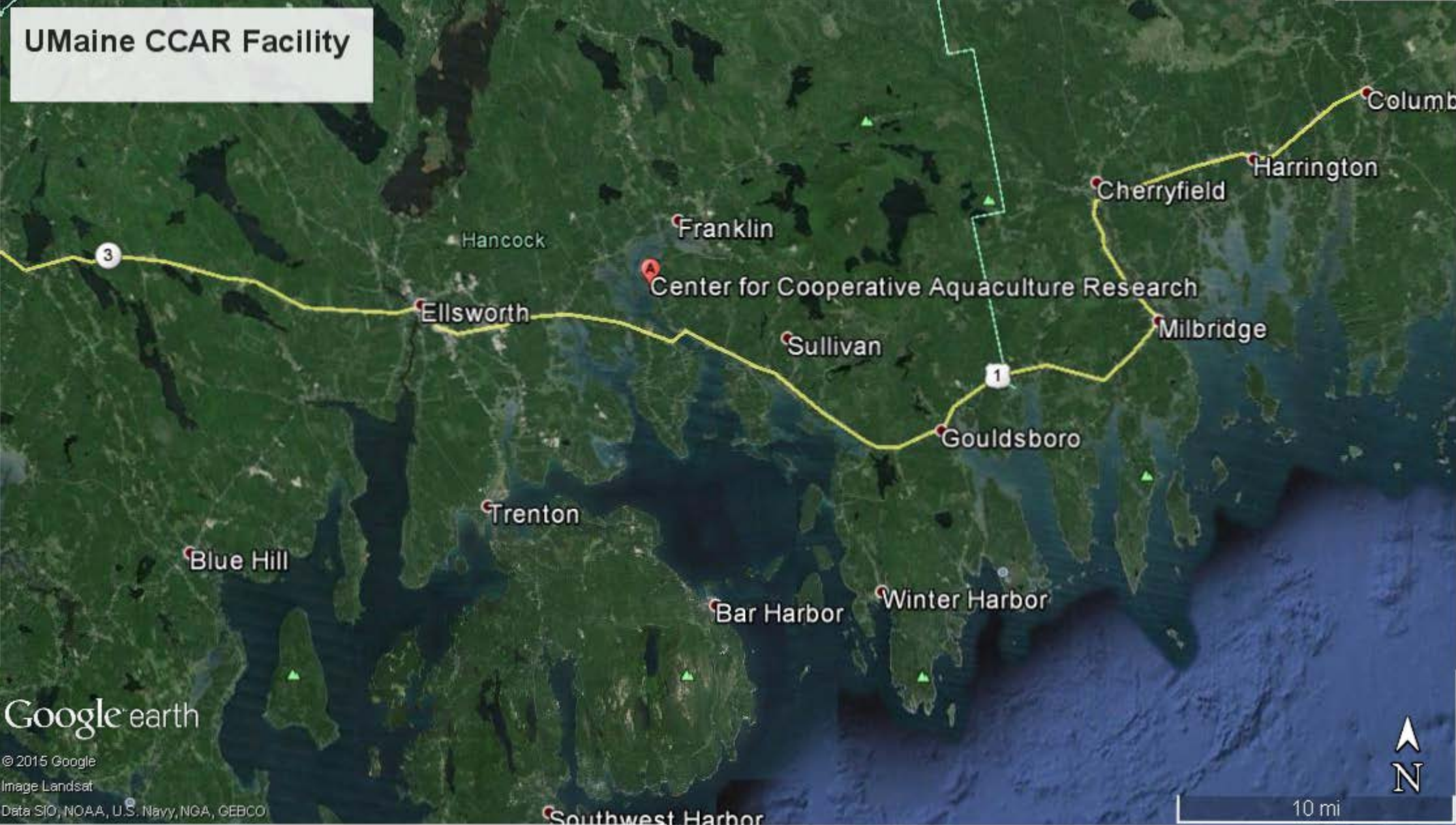
Additional information concerning this permitting action may be obtained from, and written comments sent to:

Bill Hinkel
Division of Water Quality Management
Bureau of Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017
Telephone: (207) 485-2281
e-mail: bill.hinkel@maine.gov

13. RESPONSE TO COMMENTS

Reserved.

ATTACHMENT A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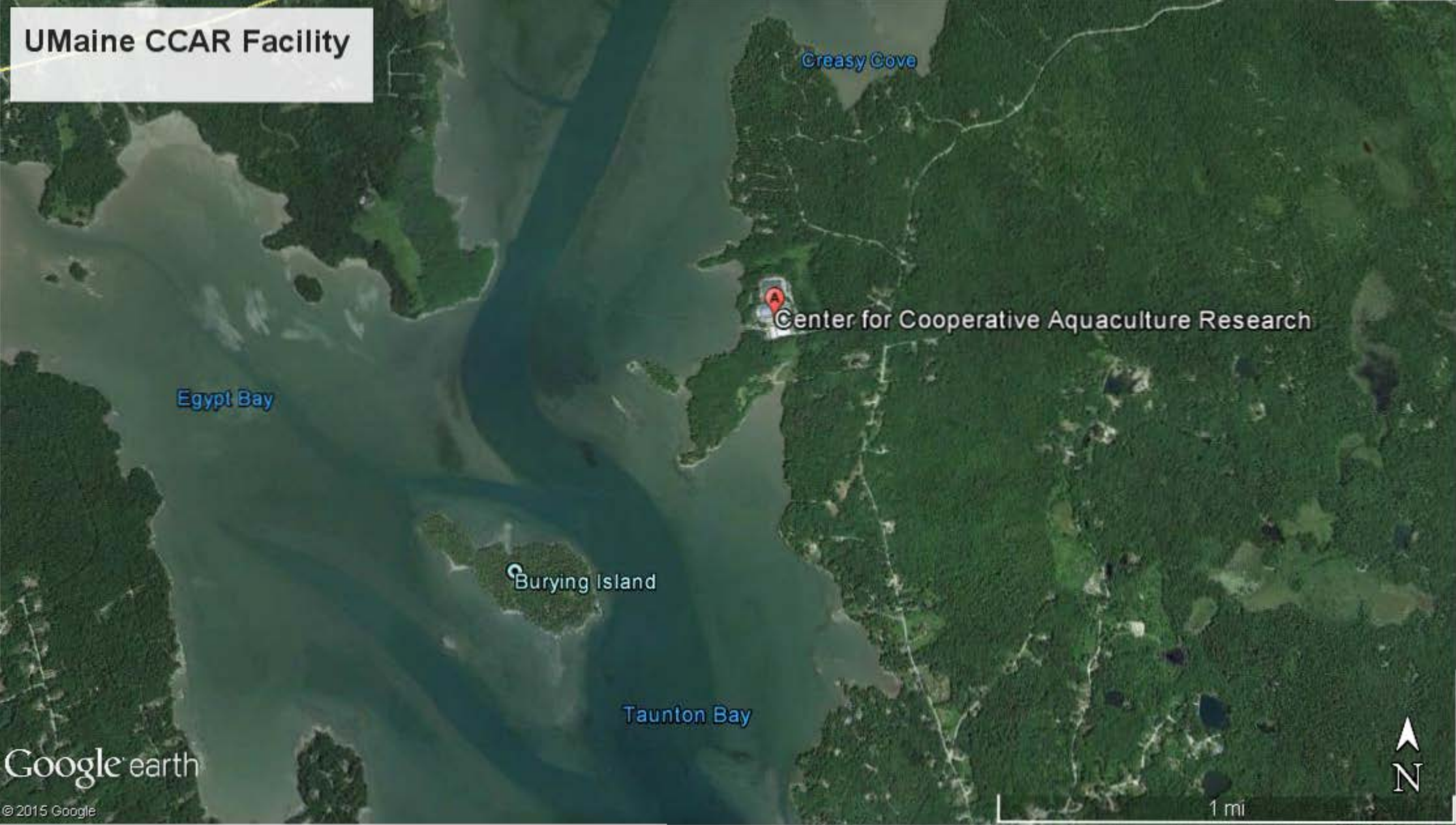
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Center for Cooperative Aquaculture Research
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ATTACHMENT B

could be 2,200 lbs/day, with a year round average of 750 lbs/day. **Total maximum feed levels between the USDA and CCAR facilities could thus be 2,350 lbs per day in the months of Oct. – Dec.**

Item 7, species of fish currently or potentially reared at the USDA and CCAR facilities

Facility	*Common name*	*Latin name*
USDA	Atlantic salmon	*Salmo salar*
USDA	Rainbow trout	*Oncorhynchus mykiss*
USDA	Arctic charr	*Salvelinus alpinus*
CCAR	Atlantic halibut	*Hippoglossus hippoglossus*
CCAR	Atlantic cod	*Gadus morhua*
CCAR	California yellowtail	*Seriola lalandi*
CCAR	Black sea bass	*Centropristis striata*
CCAR	American eel	*Anguilla rostrata*
CCAR	Bluefin tuna	*Thunnus thynnus*
CCAR	Shortnose sturgeon	*Acipenser brevirostrum*
CCAR	Atlantic sturgeon	*Acipenser oxyrinchus*
Sea & Reef Aquaculture	Ocellaris clownfish	*Amphiprion ocellaris*
Sea & Reef Aquaculture	Percula clownfish	*Amphiprion percula*
Sea & Reef Aquaculture	Tomato clownfish	*Amphiprion frenatus*
Sea & Reef Aquaculture	Cinnamon clownfish	*Amphiprion melanopus*
Sea & Reef Aquaculture	Red saddle clownfish	*Amphiprion ephippium*
Sea & Reef Aquaculture	Clarki clownfish	*Amphiprion clarki*
Sea & Reef Aquaculture	Barrier reef clownfish	*Amphiprion akindynos*
Sea & Reef Aquaculture	Bluelip clownfish	*Amphiprion latezonatus*
Sea & Reef Aquaculture	Two banded clownfish	*Amphiprion bicinctus*
Sea & Reef Aquaculture	McCulloch's clownfish	*Amphiprion mccullochi*
Sea & Reef Aquaculture	Orange skunk clownfish	*Amphiprion sandaracinos*
Sea & Reef Aquaculture	Pink skunk clownfish	*Amphiprion periderion*
Sea & Reef Aquaculture	Fiji barberi clownfish	*Amphiprion barberi*
Sea & Reef Aquaculture	Three striped clownfish	*Amphiprion tricinctus*
Sea & Reef Aquaculture	Maroon clownfish	*Premnas biaculeatus*
Sea & Reef Aquaculture	Orchid dottyback	*Pseudochromis fridmani*
Sea & Reef Aquaculture	Neon dottyback	*Pseudochromis aldabrensis*
Sea & Reef Aquaculture	Splendid dottyback	*Pseudochromis splendens*
Sea & Reef Aquaculture	Sunrise dottyback	*Pseudochromis flevivertex*
Sea & Reef Aquaculture	Elegant dottyback	*Pseudochromis elongatus*
Sea & Reef Aquaculture	Stripped dottyback	*Pseudochromis sankeyi*
Sea & Reef Aquaculture	Banggai cardinal fish	*Pterpogon kauderni*
Sea & Reef Aquaculture	Spotted cardinal fish	*Sphaeramia nematoptera*
Sea & Reef Aquaculture	Yellow assessor fish	*Assessor flavissimus*
Sea & Reef Aquaculture	Flame angelfish	*Centropyge loricula*
Sea & Reef Aquaculture	Japanese pygmy angelfish	*Centropyge interruptus*
Sea & Reef Aquaculture	Joculator angelfish	*Centropyge joculator*
Sea & Reef Aquaculture	Swissguard basslet	*Liopropoma rubre*

1. Lumpfish *Cyclopterus lumpus*
2. African long finned eel *Anguilla mossambica*

marine ornamental species list update

Latin name	Common name
Dottybacks (*Pseudochromis*)	
Pseudochromis springeri	Springer's dottyback
Wrasses (Serranidae)	
Liopropoma carmabi	Candy basslet
Gobies (Gobidae)	
Elacatinus oceanops	Neon goby
Elacatinus Figaro	Yellow-line Goby
Gobiodon citrinus	Citrinis clown goby
Discordipinna Griessingeri	Spike fin goby
Trimma cana	Red striped goby
Seahorses (Hippocampus)	
Hippocampus kelloggi	Great seahorse
Hippocampus erectus	Common seahorse
Hippocampus barbouri	Barbour's seahorse
Hippocampus kuda	Yellow seahorse
Hippocampus reidi	Brazilian seahorse
Jaw fish (Opistognathus)	
Opistognathus rosenblatti	Blue-spotted jaw fish
Shrimp (Lysmata)	
Lysmata amboinensis	Scarlet skunk cleaner shrimp
Lysmata wurdemanni	Peppermint shrimp
Lysmata debelius	Fire shrimp
Corals (*Cnidaria*)	
Alcynacea sp	soft corals
Acroporidae sp.	Small polyp stony corals
Sea anemones	
Entacmaea quadricolor	Bubble tip anemone

Non-fish species currently reared at the CCAR facility

Facility	***Common name***	***Latin name***
CCAR	marine sand worm	*Nereis virens*
CCAR	marine blood worm	*Glycera dibranchiata*
CCAR	American oyster	*Crassostrea virginica*
CCAR	European oyster	*Ostrea edulis*
CCAR	green sea urchin	*Strongylocentrotus droebachiensis*
CCAR	skinny kelp	*Saccharina latissima f. angustissima*
CCAR	sugar kelp	*Saccharina latissima*
CCAR	alaria	*Alaria esculenta*
CCAR	dulse	*Palmaria palmata*
CCAR	laver	*Porphyra umbilicalis*
CCAR	gracilaria	*Graciliaria tikvahiae*
Sea & Reef Aquaculture	chaetomorpha	*Chaetomorpha sp.*

USDA ARS NCWMAC Intake and Effluent Discharge