



Cooke Aquaculture Pacific

PO Box 669 Anacortes, WA 98221

Phone: (360) 293-9448

Fax: (360) 293-0558

Ms. Laurie Niewolny
WA Department of Ecology
Southwest Regional Office
PO Box 47775
Olympia, WA 98504-7775

January 29, 2020

Re: Original signature pages of Mr. Rodney Gould- Cooke Aquaculture, of the permit modification application forms submitted to Ecology October 16th 2019.

Ms. Niewolny:

Please find the original signature pages from Mr. Rodney Gould, dated October 16, 2019 with each associated application form for Ecology's files.

If there is any further information you may need please feel free to contact me.

Regards,

Kevin Bright, Permit Coordinator
Cooke Aquaculture Pacific, LLC

RECEIVED

JAN 31 2020

WA State Department
of Ecology (SWRO)



"Refusing to go with the flow"



Rodney D. Gould
Chief Legal Officer
Cooke Aquaculture Inc.
Tel: 506-694-4922
Email: rgould@cookeaqua.com

October 16, 2019

Via Courier

Mr. Kevin Bright
Permit Coordinator
Cooke Aquaculture Pacific
PO Box 669
Anacortes, WA 98221

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JAN 31 2020

WA State Department
of Ecology (SWRO)

Dear Kevin:

Re: NPDES Forms

As requested, enclosed please find the originally signed NPDES Forms.

If you have any questions regarding the above, please do not hesitate to contact the undersigned.

Yours truly,

COOKE AQUACULTURE INC.

Rodney D. Gould

RDG/sav

Encl.



| For Office Use Only | |
|------------------------|-------|
| Date Received | _____ |
| Application/Permit No. | _____ |
| Waterbody No. | _____ |
| SIC | _____ |

**MARINE/FRESHWATER SALMONID NET-PEN
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
WASTE DISCHARGE PERMIT APPLICATION FORM**

The following information is required to be submitted on this form to the Department of Ecology, in order for the applicant to obtain a waste discharge permit in accordance with RCW 90.48.160, Chapter 173-220 and Title 33 USC, Section 1251 et seq. 33. Ecology may require that the applicant submit other information as determined necessary by Ecology. All questions must be answered completely and accurately. If a question does not apply, answer with NA.

SECTION A. GENERAL INFORMATION

1. Name of Facility: Fort Ward-Saltwater II

2. Operator Name and Mailing Address:
Cooke Aquaculture Pacific, LLC
Name
PO Box 79003
Street
Seattle WA 98119
City State Zip

3. Facility Location: Rich Passage near Fort Ward and adjacent to Bainbridge Island
Approximate coordinates Lat. 47 degrees 34' 30" N and Lon. 122 degrees 31' 30" W
Note: Provide a brief description of the location of the facility: name of the waterbody, nearest town or city, and Latitude/Longitude. Enclose a vicinity map showing the net-pen location in relation to local geographic land marks (Minimum Scale 1" = 1000' or USGS 7.5 minute map) and diagram of the site plan.

4. Owner Name and Mailing Address (If different from the operator):
Same as above
Name

Street

City State Zip

5. Primary Contact Person:
Jim Parsons General Manager (206) 200-0768
Name Title Phone Number

6. Alternate Contact Person:
Kevin Bright Permit Coordinator (360) 391-2409
Name Title Phone Number

Ecology is an Equal Opportunity and Affirmative Action Employer. For special accommodation needs, contact the Water Quality Program at (360) 407-6600, TDD (360) 407-6006.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Rodney Gould
Printed Name of Person Signing

Secretary
Title

[Signature]
Signature of Applicant

Oct 15, 2019
Date Applicant Signed

NOTE: Federal regulations require this application to be signed as follows: A.) for corporation, by a principal executive officer of at least the level of vice president; B.) For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or C.) For a municipality, State, Federal, or other public facility, by either a principal executive officer or ranking elected official.

SECTION B. BACKGROUND INFORMATION

1. LOCATION

- 1.1 Waterbody: Rich Passage NW of Beans Point, WA-15-0030
- 1.2 County: Kitsap
- 1.3 Latitude: 47° 34' 30" N
- 1.4 Longitude: 122° 31' 30" W
- 1.5 Section, Township, Range: Sect. 15, T 24, R 2E

2. FACILITY

- 2.1 Is this facility (check one): ☒ Existing? ☐ Proposed?

2.2 Species of fish raised: Atlantic Salmon (*Salmo salar*) and all-female, triploid (sterile) Rainbow trout/steelhead (*Oncorhynchus mykiss*). The company is requesting a modification to the current NPDES permits for the Cooke marine net pen sites to include Rainbow trout/steelhead (*O. mykiss*) to the list of species to be raised in the facilities. Currently the Fort Ward facility is permitted for cultivating Atlantic salmon. The site is fallow and would be restocked with the native all-female triploid steelhead stock once all the necessary approvals are achieved. The site would continue to cultivate native finfish stocks into the future.

- 2.3 Date facility was (or will be) constructed: Approx. 1988

The existing Cooke Aquaculture net pens have previously obtained the necessary facility construction permits as well as Marine Finfish Aquaculture Permits for Atlantic salmon, Clean Water Act Section 402 NPDES Waste Discharge Permits, and State-owned Aquatic Land Leases. There is no site selection or construction permits required to implement the species conversion proposal at the existing facilities from raising Atlantic salmon to raising all-female triploid Rainbow trout/steelhead.

Cooke has requested approval of a new Marine Finfish Aquaculture Permit (WAC 220-370-100) from the Washington Department of Fish and Wildlife (WDFW) that will allow the company to start growing domesticated stocks of a mono-sex (all-female) sterile (triploid) Rainbow trout/steelhead (*Oncorhynchus mykiss*) at their marine farms. Cooke received the renewal of the Marine Finfish Permit from WDFW on March 19, 2019 to continue raising Atlantic salmon at the four farm sites with a valid Aquatic Use Permit from WDNR (Clam Bay, Fort Ward, Orchard Rocks and Hope Island). Other than transitioning to the commercial cultivation of a different species of fish, the company is not planning any alteration to the existing fish pen physical structures, locations, supporting equipment, or general current practices, methods, maintenance and cultivation techniques currently used for growing Atlantic Salmon in net pens.

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2.4 Note the Final SEPA action taken:

EIS ☐

DNS ☒

Mitigated DNS ☐

Date: 06/07/96 SEPA action for issuance of marine net pen NPDES permits. SEPA determination for issuance of a new Marine Aquaculture Permit to cultivate sterile all-female triploid *O. mykiss* is described below.

Attach copy of the Final SEPA determination, checklist and EIS.

(See Attachment F *WDFW MDNS 19-056. October 1, 2019*) SEPA determination for proposal to raise sterile all-female triploid Rainbow trout/steelhead at existing marine net pen sites in Puget Sound and associated Marine Aquaculture Permit.

After review and comment by WDFW, a revised SEPA Checklist, dated July 23, 2019, was prepared by Cooke Aquaculture Pacific and submitted to WDFW, WDOE and WDNR along with the SEPA Additional Information documents, a Threatened and Endangered Species Effects Analysis, and other permit application supporting information are listed below and attached to this document.

On October 1st 2019, the Washington Department of Fish and Wildlife issued a Mitigated Determination of Non-significance (MDNS 19-056) for the proposal to raise all-female triploid steelhead trout (Attachment F) and proposes to issue a 5 year Marine Aquaculture Permit to Cooke to culture all-female triploid steelhead trout at the existing marine net pen facilities.

Finfish Aquaculture Plan of Operations, All-Female Triploid Rainbow Trout (Oncorhynchus mykiss). Cooke Aquaculture Pacific, LLC (updated January 18, 2019).

Fish Escape Prevention, Response & Reporting Plan. Cooke Aquaculture Pacific, LLC (updated October 12, 2018).

Regulated Finfish Pathogen Reporting Plan, Cooke Aquaculture Pacific, LLC (updated January 25, 2017).

SEPA Checklist Attachment A: Troutlodge Triploid Testing Results (2018).

SEPA Checklist Attachment B: Additional Information: Response to WDFW Questions (July 23, 2019).

SEPA Checklist Attachment C: Rainbow Trout Net Pen Aquaculture Annotated Bibliography (July 23, 2019).

SEPA Checklist Attachment D: Threatened and Endangered Species: 1990 PEIS Update (July 23, 2019).

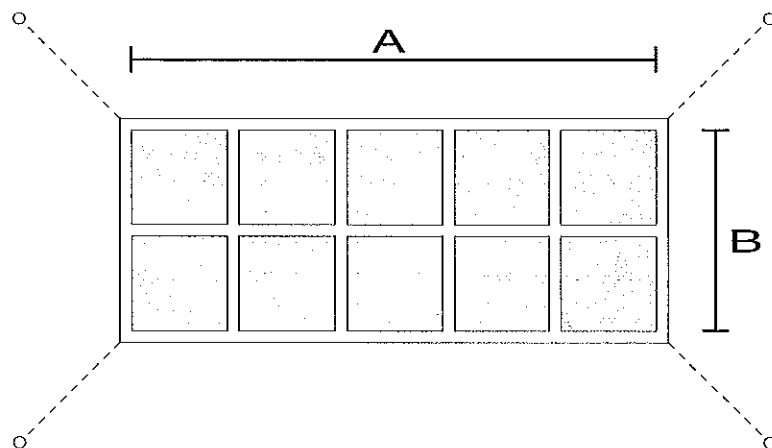
SEPA Checklist Attachment E: Curriculum Vitae for Don Weitkamp, Ph.D. and Walton Dickhoff, Ph.D., Technical Experts who Prepared the Annotated Bibliography, Contributed to the Additional Information Document, and Prepared the Threatened and Endangered Species Effects Analysis (July 23, 2019).

SEPA MDNS Attachment F: WDFW MDNS 19-056: Raising Sterile All-Female Triploid Rainbow Trout/Steelhead at Existing Marine Net Pen Sites in Puget Sound. (October 1, 2019).

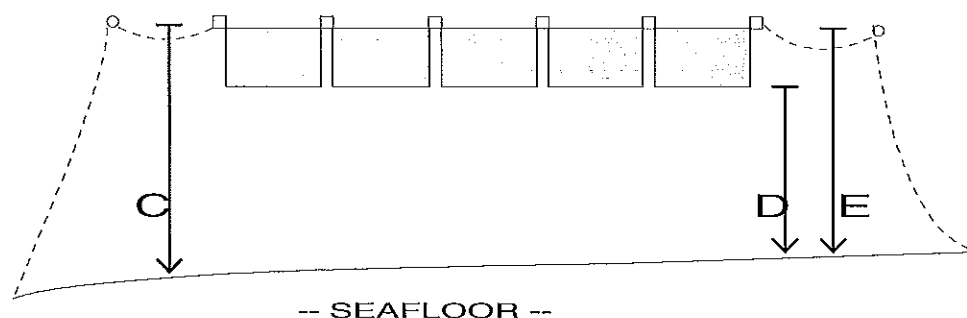
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- 2.5 Has a shoreline permit been issued for this project? ☒ yes ☐ no
If yes, what is the permit number? 502 Date of permit? 06/13/88
Shoreline permit issuing agency: Kitsap County Dept. of Community Development
- 2.6 Is this facility sited on state owned tidelands? yes ☒ no ☐ N/A ☐
If yes, provide the following: DNR lease number 20-B10237
Lease expiration date 11/10/2022
If no, provide the legal owners name: _____
- 2.7 Has an Army Corps of Engineers Section 10 Permit been applied for or secured?
yes ☒ no ☐ N/A ☐
If yes, provide the following: Permit number OYB-1-005647 and OYB-1-011933
- 2.8 Has a Department of Fish and Wildlife Hydraulic Project Approval been applied for or secured?
yes ☒ no ☐ N/A ☐
If yes, provide the following: HPA number B1-1193304
Expiration date N/A
- 2.9 Provide the measurements requested below (Refer to site characterization survey performed to obtain local, state, or federal permits for the facility):

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PLAN VIEW



SECTION VIEW

- A Length of aggregate net-pen rearing area in feet: 650'
- B Width of aggregate net-pen rearing area in feet: 185'
- C Minimum distance between bottom of net-pens and sea floor at MLLW in feet: 45'
- D Minimum distance between bottom of net-pens and sea/lake floor at MLLW in feet: ... 10'
- E Minimum depth at site (at MLLW for marine) in feet: 45'
- F Distance to nearest shoreline (at MLLW for marine) in feet: 750'
- G Direction of dominant current from the net-pen(s): West
- H Estimated mean current speed (midway between the bottom of the net-pen and the sea/lake floor in cm/sec): 40
- I Maximum current speed (midway between the bottom of the net-pen and the sea/lake floor in cm/sec): 125

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3.1 Number of months per year when fish are reared at facility:12

3.2 Estimates of the amount of fish on hand and amount of food fed per month for the calendar year of maximum production over the next five years.

3.3 Maximum net pounds of annual fish production: 3,400,000

3.4 Month of maximum feeding: May

3.5 Maximum monthly feed (lbs): 480,000

3.6 Method of feeding (check all that apply) and estimate percent of food fed using that method:

3.7 List feed additives, disease control chemicals and medications that may be used in the net-pen operation. Include active ingredient(s), intended use rates and treatment concentrations (attach additional sheets if more room is necessary).

Canthaxanthin and/or Astaxanthin – Are naturally derived and/or synthetically produced compounds of two types of carotenoid pigments that may be added to the fish feed in levels ranging from 30 ppm to 70 ppm. Both Canthaxanthin and Astaxanthin are approved by the USDA for use in fish and chicken feeds to enhance the coloration of flesh and poultry eggs. In the animal kingdom, carotenoids are heavily utilized as a source for pigmentation, a vitamin A precursor, for improving intercellular communication, enhancing immune responses, and as antioxidants. Canthaxanthin is a potent lipid-soluble antioxidant. The biological functions of canthaxanthin are related to its ability to function as an antioxidant in animal tissues and salmonid fish species derive some physiological benefits from storing the pigment in their tissue and ova.

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Antioxidants - Antioxidants are added to the fish feed mixture to stabilize the vitamin supplements and increase the shelf life of the feed. Antioxidants that are used in the fish feeds are Ethoxyquin (in the fish meal), BHA (in the fish oil), and Vitamin E.

- **Medications**

Medicated feed may be periodically used to treat bacterial disease at the marine net pen sites. The use of medicated feeds is infrequent and used only to treat specific disease events.

Romet 30 (Sulfadimethoxine-ormetoprim) - Romet 30 is the trade name for an aquatic animal premix containing a sulfadimethoxine-ormetoprim antibiotic used to treat specific bacterial diseases. When medicated feed is prescribed, the premix is added by the feed manufacturer during the feed milling process. Romet 30 is used to treat Furunculosis, Vibrio, Myxobacterial and other bacterial pathogens if they occur in the cultivated fish stocks. Disease treatments are prescribed by a veterinarian and the Romet 30 medicated feed is manufactured at a concentration of 2.27 grams of active ingredient per one (1) pound of fish feed. The medicated feed is fed to the fish to achieve a dosage rate of approximately 50 mg of active ingredients per one (1) kilogram of fish per day, for a treatment period of five (5) consecutive days.

Terramycin TM 200 (Oxytetracycline HCL) – TM 200 is the trade name of for an aquatic animal antibiotic premix that is used to treat Furunculosis, Vibrio, Myxobacteria and other bacterial diseases. The TM 200 pre-mix is added to the feed by the manufacturer when prescribed by a veterinarian to treat a specific disease event. TM 200 is mixed to achieve a concentration of 5 grams of active ingredient per one (1) pound of fish feed. The medicated feed treatment is fed to achieve a dosage rate of approximately 75 mg active ingredient per one (1) kilogram of fish per day, for a period of ten (10) consecutive days.

Aquaflor- (Florfenicol) – Aquaflor is the trade name for the premix containing the antibiotic Florfenicol, and is approved by the USFDA for use in freshwater food fish to treat bacterial disease. In marine finfish aquaculture, Aquaflor can be used under the Investigational New Animal Drug (INAD) system administered by the USFWS and

USFDA. When prescribed, Aquaflor medicated feed is used to treat bacterial disease and is mixed into the feed by the feed manufacturer at the active ingredient concentration rate of 0.302 grams per one (1) pound of fish feed. Aquaflor medicated feed is fed to the fish to achieve a dosage of 10 mg of active ingredients per one (1) kilogram of fish per day, for a period of ten (10) consecutive days.

- **Disease Control Chemicals**

Other disease control chemicals that may be used at the farm sites are Finquel MS 222, Iodophor disinfectants and sodium hypochlorite (chlorine bleach) disinfectant solutions.

Finquel MS222 – Finquel (MS222) is a USFDA approved fish anesthetic that is periodically used when the fish are sampled for weight and condition factors. A small number of fish are periodically captured by dip net from a pen and then immersed in a tote

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of seawater with a small amount of MS222 mixed in. The MS 222 anesthetizes the fish so that they can be safely handled, inspected, weighed and then returned unharmed back to the fish pen. The fish quickly recover when returned to ambient seawater.

Chlorine Bleach Solution and/or Argentyne Iodophor Solution – These surface disinfectants are used as a bio-security measure in footbaths at the farm sites and occasionally to sterilize equipment used between the different sites. Argentine Iodophor solutions are used in foot baths at the farm sites during the entire year. Estimated average consumption rates for each farming area of Iodophor solutions at the Bainbridge Island and Hope Island farm sites is approximately 30 gallons per facility per year. The use of sodium hypochlorite or chlorine bleach solutions at the net pen sites is infrequent.

- 3.8 Describe how the nets will be cleaned, the land disposal or treatment of net foulants, the frequency of cleaning. (Note: The use of any antifoulants to prevent net fouling is prohibited).

Cleaned or new fish containment nets (stock nets) are installed into the net pen site just prior to transfer of fish into the pens. No antifoulant are used on the netting materials. Approximately every 14 days the stock net walls are rinsed in-situ with pressurized seawater to clean bio-fouling growth. A net hygiene maintenance program is used to track the cleanliness of stock nets. The program includes a weekly underwater net hygiene assessment carried out by experienced divers. A Weekly Net Scoring Report and a Weekly Net Washing log tracks the condition of the nets, the most recent date the net walls or the net floors were cleaned and the effectiveness of the cleaning process. The Weekly Net Score Reports for the farm sites are then compiled into one report which shows individual net scores as well as an average net hygiene score for each farm site. This report is sent out each week to all Site Managers, the Permit Coordinator and the General Manager and a copy is sent to the WDNR Aquatic Lands Lease Manager. The report includes individual net scores and the running average net score for each farm site which allows net hygiene trends to be watched closely. If the average net score for a facility begins to climb, the frequency of net cleaning can be increased to reduce the level of bio-fouling. During the spring/summer peak bio-fouling growth periods, the goal is to clean all the stock net walls frequently. This keeps fouling growth to a minimum in the location where the most rapid bio-fouling growth can occur. Net floors do not experience the same level of bio-fouling growth and the time between cleaning can be 2 months or longer. Cleaning frequency on the nets walls and floors can be reduced during the winter months as seasonal drops in water temperature and the reduced light level begins to limit bio-fouling growth. Clean or new stock nets can also be rotated into position to replace a stock net during the growing cycle. This is accomplished by installing the clean net underneath the existing stock net and subsequently pulling the existing stock net out of the water with a crane. Currently this is an infrequent procedure with the existing Atlantic salmon single stocking plan and the proposed all-female triploid trout single cohort production plans.

After harvesting of a pen is completed, the empty stock nets are removed from the farm site and transported to a land-based net cleaning and net repair facility. Once at the net

repair facility, the nets are sterilized in 160-degree water, washed and repaired. The strength of the netting material is tested at the repair facility and nets are ID numbered to maintain a service history record for each net. Clean nets are bundled, wrapped and shipped back to the farm site for reinstallation prior to the next stocking event. The predation barrier nets can be maintained in position between generations by in-situ washing or they may also be removed, shipped to the net repair facility and serviced.

Typically, the predator barrier nets will be completely replaced after 6 to 8 years depending on the site. Brand new stock nets and predation barrier nets are periodically added to the net inventory as older nets are retired from service. All netting material are either disposed of at a land-based solid waste handling facility or have also been sent to recycling facilities in the past.

All-female triploid Rainbow/steelhead trout production change-

Cooke is proposing to transition from raising Atlantic salmon to raising sterile all-female triploid native Rainbow/steelhead trout. Growth projections for the triploid steelhead stock and the smaller targeted average harvest size may shorten the saltwater growth cycle by several months in comparison to Atlantic salmon. This could in turn shorten the amount of time that a stock net is deployed at the net pen site before the pen is harvested and the net is pulled out of the water. The fallowing frequency between cohorts would also increase over a given period of time because of the anticipated shorter production cycle. This would tend to reduce the amount of time between removal, sterilization, cleaning and repair for the stock nets. Increasing the frequency of fallowing periods would increase the number of resting periods for marine sediments when there is no or very low biomass levels. This is farming however, and variable growing conditions can influence actual growth rates, while sales and market conditions can influence the production schedules.

- 3.9 Describe any chemicals or toxic materials used. Include all chemicals including gasoline/oil, disease control chemicals, medications, anesthetics, therapeutics, antifoulants, disinfectants, pesticides, etc.

The Cooke Aquaculture Pacific Spill Prevention Control and Response Plans are on file with WDOE and WDNR and contain lists of chemicals and petroleum products that may be used at the site and the approximate quantities kept in inventory. The NPDES permits for the Hope Island, Fort Ward, Orchard Rocks and Clam Bay facilities were re-issued on July 11, 2019 and became effective August 10, 2019. Cooke is in the process of updating the PPP, SPCR and Fish Escape Prevention Plans and will be submitting draft plans to Ecology and WDFW.

A brief list of the disease control chemicals that may be used is described below.

Iodophor solution and chlorine bleach. Disinfectant used in footbaths and to disinfect farm equipment. Small quantities are used through-out the year.

Finquel MS222. A fish anesthetic used infrequently during the production cycle while performing size and condition sampling of the juvenile fish (See response 3.7 above).

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Medications-

Romet 30- (See response 3.7 above)

Terramycin-TM 200- (See response 3.7 above)

Aquaflor- (See response 3.7 above)

- 3.10 Describe the solid waste disposal practices for the facility. Include specific descriptions on collection, storage and disposal of fish mortalities, how sanitary wastes are collected and disposed, and how feed bags and other solid wastes are collected, stored and disposed. Include the average amount generated on a monthly basis for each of the above items (use appropriate units).

Fish Mortalities- Fish mortalities are collected from each pen a minimum of three (3) times per week. The frequency of fish mortality collection can be increased depending on mortality levels at the farm sites. Fish mortalities (morts) are routinely collected by divers and brought to the surface in dive bags. Fish mortalities are removed from the water and put into large plastic fish totes which also have a single use, plastic tote liner placed inside of them. The tote liners are an additional barrier against leakage and make cleaning the totes easier after the contents are disposed of. The totes containing fish mortalities are removed frequently from the sites and transported to a land-based support facility where they are picked up and transported by truck to either a soil composting facility or a rendering facility. The fish totes are emptied at the receiving facility, the plastic liner is removed and disposed of at a solid waste handling facility, and the plastic totes are steam rinsed and cleaned. Clean totes are returned to their designated facilities for reuse.

The average monthly weight of fish mortalities removed from a site varies at different times of the year depending on what part of the growth cycle the fish population is in (new smolts (small biomass) or harvest sized fish (large biomass)). Other factors can cause variances in mortality rates such a harmful plankton bloom or a disease event. Estimated average amounts of fish mortality biomass for a single generation of fish grown at the sites is given below.

| | | |
|---------------------|---------|-------------------|
| Hope Island Site 4- | Approx. | 5,000 lbs. /month |
| Fort Ward Site- | Approx. | 5,000 lbs. /month |
| Orchard Rocks Site- | Approx. | 8,000 lbs. /month |
| Clam Bay Site- | Approx. | 8,000 lbs. /month |

Sanitary Waste and Operational Debris- The farm sites use chemical toilets (Port-a-Potties) for the handling of sanitary wastes. The rented chemical toilets are routinely serviced on land by the company which provides them and rotated out to the farm site by a work vessel. Operational and household waste products generated by the net pen facilities are collected, stored in appropriate containment and then routinely transported to the shore support facilities by a work vessel for appropriate disposal and/or recycling. Fish feed is transported to the site in large one (1) ton nylon bulk container bags. After the feed is removed from the nylon bags the bags are compiled and taken back to the land-based support facility to be picked up for recycling. Wooden pallets are brought back to the land-based support facility, stored and shipped back to a pallet repurposing facility for reuse.

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Used oil and other hazardous materials are collected and transported to the associated land-based support facility for eventual pickup and proper disposal by hazardous waste handling service.

Waste collection and recycling collection services are provided to the following land-based support facilities:

Fort Ward dock facility (Fort Ward, Orchard Rocks, Clam Bay net pens)
Anacortes dock facility (Hope Is. Site)

The volume of solid refuse collected from each of these three locations is estimated at approximately 10 to 15 cubic yards per month.

4. ENVIRONMENTAL MONITORING

Ecology must receive enough information about the environmental conditions at the location of your facility to adequately characterize the impact of the discharge on the receiving water. If available, attach copies of the following:

- 4.1 Site characterization survey performed to obtain local, state, or federal permits for the facility. Note: Proposed facilities need to contact Ecology for survey requirements.

Site characterization and baseline studies were completed at the sites at the time of the original permitting process for the substantial development/shoreline conditional use permits/ Army Corps of Engineers Permits/ WDFW Hydraulic Permits/ and other related and necessary construction and operational permits. This application is for modification to the current NPDES permits for the eventual change of species from Atlantic salmon to the all-female triploid Rainbow/steelhead trout. The original NPDES/Waste Discharge Permits for the facilities was issued in 1996. Cooke Aquaculture Pacific and the previous owners utilize the services of a third-party consultant to conduct the required benthic monitoring and analysis. The required reports have all been previously submitted to Ecology and WDNR as required by the conditions of the NPDES permits.

- 4.2 Baseline surveys performed to obtain local, state, or federal permits for the facility. Existing and previously permitted facility.

- 4.3 Summaries of annual benthic monitoring results performed to meet DNR lease or other local, state, or federal permit requirements for the facility. Previous monitoring reports were submitted to WDOE and WDNR as per NPDES permit requirements.

- 4.4 Summaries of any water quality or sediment monitoring results. Give dates of sediment monitoring. Routine summer sediment sampling performed in 2007, 2010, 2013, 2015, 2017.

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Water Permits Division



Application Form 1

General Information

NPDES Permitting Program

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JAN 31 2020

WA State Department
of Ecology (SWRO)

Note: All applicants to the National Pollutant Discharge Elimination System (NPDES) permits program, with the exception of publicly owned treatment works and other treatment works treating domestic sewage, must complete Form 1. Additionally, all applicants must complete one or more of the following forms: 2B, 2C, 2D, 2E, or 2F. To determine the specific forms you must complete, consult the "General Instructions" for this form.

Paperwork Reduction Act Notice

The U.S. Environmental Protection Agency estimates the average burden to collect information and complete Form 1 to be 2.9 hours for new applicants and 0.9 hours for applicants renewing existing permits. This estimate includes time to review instructions, search existing data sources, gather and maintain the needed data, and complete and review the collection of information. New respondents must also prepare a topographic map. Send comments about the burden estimate or any other aspect of this collection of information to the Chief, Information Policy Branch (PM-223), U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, Washington, DC 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW, Washington, DC 20503, marked "Attention: Desk Officer for EPA."

| DESCRIPTION OF NPDES PERMIT APPLICATION FORMS | CONTENTS OF FORM 1 PACKAGE |
|---|--|
| <p>The application forms for individual National Pollutant Discharge Elimination System (NPDES) permits include the following:</p> <p>Form 1—General Information (<i>included in this package</i>).</p> <p>Form 2—Forms Based on Facility or Activity Type (<i>not included in this package</i>):</p> <p>2A. New and Existing Publicly Owned Treatment Works</p> <p>2B. Concentrated Animal Feeding Operations and Concentrated Aquatic Animal Production Facilities</p> <p>2C. Existing Manufacturing, Commercial, Mining, and Silvicultural Operations</p> <p>2D. New Manufacturing, Commercial, Mining, and Silvicultural Operations That Have Not Yet Commenced Discharge of Process Wastewater</p> <p>2E. Manufacturing, Commercial, Mining, and Silvicultural Facilities Which Discharge Only Nonprocess Wastewater</p> <p>2F. Stormwater Discharges Associated with Industrial Activity</p> <p>2S. New and Existing Treatment Works Treating Domestic Sewage</p> | <p>Form 1—General Instructions</p> <p>Form 1—Line-by-Line Instructions</p> <p>Form 1—Activities That Do Not Require Permits</p> <p>Form 1—Glossary</p> <p>Form 1—Application</p> |

FORM 1—GENERAL INSTRUCTIONS

Who Must Apply for an NPDES Permit?

With the exceptions described in "Form 1—Activities That Do Not Require Permits," the federal Clean Water Act (33 U.S.C. 1251 *et seq.*) prohibits any person from discharging pollutants into waters of the United States without first having been issued a permit under the NPDES program.

Who Must Complete Form 1?

All applicants, other than publicly owned treatment works (POTWs) and treatment works treating domestic sewage (TWTDS), must submit Form 1. If you operate one of the following facilities, you must submit Form 1: concentrated animal feeding operations and aquatic animal production facilities; manufacturing, commercial, mining, and silvicultural operations; or other industrial facilities.

At the state level, either the U.S. Environmental Protection Agency (EPA) or an approved state agency administers the NPDES permit program. If you are located in a jurisdiction in which an EPA regional office administers the NPDES permit program, you should use Form 1 and all other applicable forms described in these instructions. If you are located in a jurisdiction where a state administers the NPDES permit program, contact the state to determine the forms you should complete. States often develop their own application forms rather than use the federal forms. See <http://www.epa.gov/npdes/npdes-state-program-information> for a list of states that have approved NPDES permit programs and those that do not.

Exhibit 1-1 (see end of this section) provides contact information for each of EPA's 10 regional offices. Since the exhibit's content is subject to change, consult EPA's website for the latest information: <http://www.epa.gov/aboutepa#regional>.

Upon your request, and based on information supplied by you, EPA or the authorized NPDES state will determine whether you are required to obtain a permit for a particular facility or activity. Be sure to contact EPA or your state if you have a question.

Form 1 collects general information only. You must also complete a more detailed application based on your proposed discharge activity, as follows:

- If your facility is a **concentrated animal feeding operation** or a **concentrated aquatic animal production facility**, you must also complete Form 2B.
- If your facility is an **existing** manufacturing, commercial, mining, or silvicultural facility that currently discharges process wastewater, you must also complete Form 2C.
- If your facility is a **new** manufacturing, commercial, mining, or silvicultural facility that has yet to commence discharge of process wastewater, you must also complete Form 2D.
- If your facility is a **new or existing facility** (including manufacturing, commercial, mining, and silvicultural facilities) that discharges **only nonprocess wastewater**, you must also complete Form 2E.
- If your facility is a **new or existing facility** whose discharge is composed entirely of stormwater associated with industrial activity—excluding discharges from construction activity under 122.26(b)(14)(x) or (b)(15)—you must also complete Form 2F. If the discharge is composed of stormwater *and* non-stormwater, you must complete Form 2F *and* you must also complete Forms 2C, 2D, and/or 2E, as appropriate. See Form 2F's instructions for further details.

FORM 1—GENERAL INSTRUCTIONS CONTINUED

Where to File Your Completed Form

- If you are in a jurisdiction with an approved state NPDES permit program, file according to the instructions on the state forms.
- If you are in a jurisdiction where EPA is the NPDES permitting authority (i.e., the state is *not* an NPDES-authorized state), mail the completed application forms to the EPA regional office that covers the state in which your facility is located (see Exhibit 1–1).

When to File Your Completed Form

Because of statutory and regulatory requirements, the deadlines for filing applications vary according to your facility or activity type and the type of permit you need. The various permit application deadlines are listed in Exhibit 1–2 at the end of this section.

Fees

EPA does not require applicants to pay a fee for applying for NPDES permits. However, states that administer the NPDES permit program may charge fees. Consult with state officials for further information.

Public Availability of Submitted Information

EPA will make information from NPDES permit application forms available to the public for inspection and copying upon request. You may not claim any information on Form 1 (or related attachments) as confidential.

You may make a claim of confidentiality for any information that you submit to EPA that goes beyond the information required by Form 1. If you do not assert a claim of confidentiality at the time you submit your information to the NPDES permitting authority, EPA may make the information available to the public without further notice to you. EPA will handle claims of confidentiality in accordance with the Agency's business confidentiality regulations at Part 2 of Title 4 of the *Code of Federal Regulations* (CFR).

Completion of Forms

Print or type in the specified areas only. If you do not have enough space on the form to answer a question, you may continue on additional sheets, as necessary, using a format consistent with the form.

The NPDES permitting authority could consider your application incomplete if you do not provide an answer (or indicate "NA" for "not applicable") for all questions on Form 1 and the applicable Form 2.

Provide your EPA Identification Number from the Facility Registry Service, NPDES permit number, and facility name at the top of each page of Form 1 and any attachments. If your facility is new (i.e., not yet constructed), write or type "New Facility" in the space provided for the EPA Identification Number and NPDES number. If you do not know your EPA Identification Number, contact your NPDES permitting authority. See Exhibit 1–1 for contact information.

Do not leave any response areas blank unless the form directs you to skip them. If the form directs you to respond to an item that does not apply to your facility or activity, enter "NA" for "not applicable" to show that you considered the item and determined a response was not necessary for your facility.

The NPDES permitting authority will consider your application complete when it and any supplementary material are received and completed according to the authority's satisfaction. The NPDES permitting authority will judge the completeness of any application independently of the status of any other permit application or permit for the same facility or activity.

FORM 1—GENERAL INSTRUCTIONS CONTINUED

Exhibit 1–1. Addresses of EPA Regional Contacts and Covered States

| | |
|---|--|
| REGION 1 U.S. Environmental Protection Agency, Region 1 5 Post Office Square, Suite 100, Boston, MA 02109-3912 Phone: (617) 918-1111; toll free: (888) 372-7341 Fax: (617) 918-0101 Website: http://www.epa.gov/aboutepa/epa-region-1-new-england Covered states: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont | REGION 6 U.S. Environmental Protection Agency, Region 6 1445 Ross Avenue, Suite 1200, Dallas, TX 75202-2733 Phone: (214) 665-2200; toll free: (800) 887-6063 Fax: (214) 665-7113 Website: http://www.epa.gov/aboutepa/epa-region-6-south-central Covered states: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas |
| REGION 2 U.S. Environmental Protection Agency, Region 2 290 Broadway, New York, NY 10007-1866 Phone: (212) 637-3000; toll free: (877) 251-4575 Fax: (212) 637-3526 Website: http://www.epa.gov/aboutepa/epa-region-2 Covered states: New Jersey, New York, Virgin Islands, and Puerto Rico | REGION 7 U.S. Environmental Protection Agency, Region 7 11201 Renner Boulevard, Lenexa, KS 66219 Phone: (913) 551-7003; toll free: (800) 223-0425 Website: http://www.epa.gov/aboutepa/epa-region-7-midwest Covered states: Iowa, Kansas, Missouri, and Nebraska |
| REGION 3 U.S. Environmental Protection Agency, Region 3 1650 Arch Street, Philadelphia, PA 19103-2029 Phone: (215) 814-5000; toll free: (800) 438-2474 Fax: (215) 814-5103 Website: http://www.epa.gov/aboutepa/epa-region-3-mid-atlantic Covered states: Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia | REGION 8 U.S. Environmental Protection Agency, Region 8 1595 Wynkoop Street, Denver, CO 80202-1129 Phone: (303) 312-6312; toll free: (800) 227-8917 Fax: (303) 312-6339 Website: http://www.epa.gov/aboutepa/epa-region-8-mountains-and-plains Covered states: Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming |
| REGION 4 U.S. Environmental Protection Agency, Region 4 Sam Nunn Atlanta Federal Center 61 Forsyth Street, SW, Atlanta, GA 30303-8960 Phone: (404) 562-9900; toll free: (800) 241-1754 Fax: (404) 562-8174 Website: http://www.epa.gov/aboutepa/about-epa-region-4-southeast Covered states: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee | REGION 9 U.S. Environmental Protection Agency, Region 9 75 Hawthorne Street, San Francisco, CA 94105 Phone: (415) 947-8000; toll free: (866) EPA-WEST Fax: (415) 947-3553 Website: http://www.epa.gov/aboutepa/epa-region-9-pacific-southwest Covered states: Arizona, California, Hawaii, Nevada, Guam, American Samoa, and Trust Territories |
| REGION 5 U.S. Environmental Protection Agency, Region 5 77 West Jackson Boulevard, Chicago, IL 60604-3507 Phone: (312) 353-2800; toll free: (800) 621-8431 Fax: (312) 353-4135 Website: http://www.epa.gov/aboutepa/epa-region-5 Covered states: Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin | REGION 10 U.S. Environmental Protection Agency, Region 10 1200 Sixth Avenue, Suite 900, Seattle, WA 98101 Phone: (206) 553-1200; toll free: (800) 424-4372 Fax: (206) 553-2955 Website: http://www.epa.gov/aboutepa/epa-region-10-pacific-northwest Covered states: Alaska, Idaho, Oregon, and Washington |

Exhibit 1–2. Filing Dates for NPDES Permit Applications

| Permit Application | When to File |
|--------------------|--|
| 2A | 180 days before your present NPDES permit expires or, if you are a new discharger, 180 days before the date on which the discharge is to commence unless the NPDES permitting authority has granted permission for a later date. |
| 2B | 180 days before your present NPDES permit expires or 180 days prior to startup if you are a new facility. |
| 2C | 180 days before your present NPDES permit expires. |
| 2D | 180 days prior to startup. |
| 2E | 180 days before your present NPDES permit expires, or 180 days prior to startup if you are a new facility. |
| 2F | Construction: 90 days prior to date construction is to commence. Nonconstruction: 180 days before your present NPDES permit expires or 180 days prior to startup if you are a new facility. |
| 2S | 180 days before your present NPDES permit expires or 180 days prior to startup if you are a new facility. |

FORM 1—LINE-BY-LINE INSTRUCTIONS

Section 1. Activities Requiring an NPDES Permit

Item 1.1. Review the questions in Item 1.1 to determine if you are required to submit Form 1. Be sure to check the Form 1—Glossary for the legal definitions of any key terms.

If you answer "Yes" to a question in Item 1.1, then you do *not* need to complete Form 1, but you *must* comply with the application requirements specified.

Item 1.2. Respond to the questions in Items 1.2.1 to 1.2.5. If you answer "Yes" to any question, you must complete Form 1 *and* the Form 2 application specified. See Exhibit 1–2 for filing deadlines.

If you answer "No" to every question in Items 1.1 and 1.2, then you do *not* need an NPDES permit, and you do *not* need to complete and return any of the NPDES application forms.

Section 2. Name, Mailing Address, and Location

Item 2.1. Enter the facility's official or legal name. Do not use a colloquial name.

Item 2.2. Provide your EPA Identification Number from the Facility Registry Service if you have an existing facility. If you do not know your EPA Identification Number, contact your NPDES permitting authority. If your facility is new (i.e., not yet constructed), write or type "New Facility."

Item 2.3. Give the name (first and last), title, work telephone number, and email address of the person who is thoroughly familiar with the operation of the facility and with the facts reported in this application. The NPDES permitting authority will contact the person listed if they have questions on the material submitted.

Item 2.4. Give the complete mailing address of the office to which the NPDES permitting authority should send correspondence. This often is *not* the address used to designate the location of the facility or activity.

Item 2.5. Give the address or location of the facility identified under Item 2.1. If the facility lacks a street name or route number, give the most accurate, alternative geographic information (e.g., section number or quarter section number from county records or "at intersection of Routes 425 and 22"). Also provide the county name, county code (if known), city or town, state, and zip code.

For concentrated aquatic animal production facilities, provide the address or location of the production area (i.e., the location where the animals are contained, grown, or held).

Section 3. SIC and NAICS Codes

Items 3.1 and 3.2. List, in descending order of significance, up to four 4-digit standard industrial classification (SIC) codes and North American Industrial Classification System (NAICS) codes that best describe your facility in terms of the principal products or services it produces or provides. If the SIC or NAICS codes do not adequately describe your facility's products or services, you have the option to provide additional descriptive information.

You can find SIC code numbers and descriptions in the 1987 *Standard Industrial Classification Manual*, prepared by the Executive Office of the President, Office of Management and Budget. This document is available from the Government Printing Office, Washington, D.C. An online version of the manual is also available courtesy of the Occupational Safety and Health Administration at http://www.osha.gov/pls/imis/sic_manual.html.

You can find NAICS code numbers and descriptions in the *North American Industrial Classification System Manual* prepared by the Executive Office of the President, Office of Management and Budget. This document is available from the National Technical Information Service (NTIS) in Alexandria, Virginia. It is also available online at <http://www.census.gov/eos/www/naics/>.

Use the latest edition of the manuals. If you have any questions about the appropriate SIC or NAICS codes for your facility, contact your NPDES permitting authority.

Section 4. Operator Information

Item 4.1. Give the legal name of the person, firm, public organization, or other entity that operates the facility described in this application. This may or may not be the same as the facility's name. The operator of the facility is the legal entity that controls the facility's operation rather than the plant or site manager. Do not use a colloquial name.

Item 4.2. Indicate whether the entity listed in response to Item 4.1 also owns the facility by marking the appropriate box.

Item 4.3. Indicate the ownership status of the operator of the facility by marking the appropriate box. If the facility is a federal facility (i.e., owned by the U.S. government), check the box for "Public—federal." If the facility is owned by a state government, check the box for "Public—state." If the facility is owned by a county government, municipal (e.g., city or town) government, tribal government, school district, water district, or other local government entity, check the box for "Other public" and specify the type of government entity. If the facility is owned by a corporation or other private entity, check the box for "Private." If the facility has mixed ownership (e.g., public/private) or is not owned by an entity of the types previously listed, check the box for "Other" and specify the type of entity.

Items 4.4 to 4.6. Enter the telephone number, address, and email address of the operator identified in Item 4.1.

Section 5. Indian Land

Item 5.1. Indicate whether the facility is located on Indian Land.

Section 6. Existing Environmental Permits

Item 6.1. Check the appropriate boxes and provide the permit numbers for all relevant federal, state, and local environmental permits or construction approvals received or applied for under any of the programs listed below. If you have more than one currently effective permit under a particular permit program for your facility, list the additional permit numbers on the application form or on a separate sheet of paper.

FORM 1—LINE-BY-LINE INSTRUCTIONS CONTINUED

- Hazardous waste management program under the Resource Conservation and Recovery Act (RCRA).
- Underground Injection Control (UIC) program under the Safe Drinking Water Act (SDWA).
- NPDES program under the Clean Water Act (CWA).
- Prevention of Significant Deterioration (PSD) program under the Clean Air Act (CAA).
- Nonattainment program under the CAA.
- National Emission Standards for Hazardous Pollutants (NESHAPs) preconstruction approval under the CAA.
- Ocean dumping permits under the Marine Protection Research and Sanctuaries Act (MPRSA).
- Dredge or fill permits under Section 404 of the CWA.
- Other federal, state, or local environmental permits.

Section 7. Map

Unless the facility is a concentrated animal feeding operation, provide a topographic map(s) of the area extending at least one mile beyond the property boundaries of the facility that clearly shows the following:

- The legal boundaries of the facility.
- The location and serial number of each of your existing and proposed intake and discharge structures.
- All hazardous waste management, storage, and disposal facilities.
- Each well where you inject fluids underground.
- All wells, springs, surface water bodies, and drinking water wells that are in the public record or otherwise known to you and that are located in the map area.

If the facility has associated water intakes, discharge structures, hazardous waste disposal sites, or injection wells and these items are located more than one mile from the facility, include them on the map if possible. If you cannot, attach additional sheets describing the location of the structures, disposal site(s), or well(s) and identify the U.S. Geological Survey (USGS) or other map corresponding to the location(s).

On each map, include the map scale, a meridian arrow showing north, and latitude and longitude to the nearest second. Latitude and longitude coordinates may be obtained in a variety of ways, including use of hand held devices (e.g., a GPS enabled smartphone), internet mapping tools (e.g., <https://mynasadata.larc.nasa.gov/latitude/longitude-finder/>), geographic information systems (e.g., ArcView), or paper maps from trusted sources (e.g., USGS).

On all maps of rivers, show the direction of the current. In tidal waters, show the directions of ebb and flow tides.

You may develop your map by going to USGS's National Map website at <http://nationalmap.gov/>. (For a map from this site, use the traditional 7.5-minute quadrangle format. If none is available, use a USGS 15-minute series map.) You may also use a plat or other appropriate map. Briefly describe land uses in the map area

(e.g., residential, commercial). An example of an acceptable location map is shown as Exhibit 1–3 at the end of these instructions. **Note:** Exhibit 1–3 is provided for illustration only; it does not show an actual facility.

If the facility is a concentrated animal feeding operation, you are not required to provide the topographic map required by this section of Form 1. Instead, you are required to provide a topographic map as specified in Section 4 of Form 2B.

Item 7.1. Note that you have completed your topographic map and attached it to the application.

Section 8. Nature of Business

Briefly describe the nature of your business (e.g., products produced or services provided). See Examples 1 and 2.

Example 1

Facilities Subject to 40 CFR 426, Subparts F and G

Industry A is an auto tempered and auto laminated glass manufacturing facility subject to effluent limitation guidelines (ELGs) for the "Automotive Glass Tempering" and "Automotive Glass Laminating" subcategories of the "Glass Manufacturing" point source category at 40 CFR 426, subparts F and G. At the facility, glass is cut and then passed through a series of processes that grind and polish the edges, bend the glass, and then temper the glass to produce side and back windows for automobiles. Tempering involves heating the glass near the melting point, then rapidly cooling it to increase its mechanical and thermal endurance. The facility also produces automobile windshields and undertakes processes that laminate a plastic sheet between two layers of glass and that prepare the glass for lamination (e.g., cutting, bending, and washing).

Example 2

Facility Not Subject to ELGs

Industry B undertakes batch-type resin manufacturing operations. It has aboveground storage tanks for raw materials and finished goods, resin loading operations, and warehouses for 55-gallon drums of finished product. Industry B manufactures alkyd, saturated and unsaturated polyester resins in batches using reactor vessels and mix tanks. Most of the feedstock liquids are pumped from storage tanks to the kettles and mixers via a closed piping system. Additional feedstocks are added manually as solids from bags and sacks via manways, which are located on top of the kettles. The resin is then chemically reacted in the kettles. After the reaction step finishes, the resin is transferred from the kettles to the mix tanks, where solvents are added to thin it. The primary byproduct of the reaction is water vapor containing condensed soluble organics. The byproduct flows to an isolation tank where the vapors are directed to an onsite thermal oxidizer. The finished resin is then pumped through one of three types of filtration systems into finished goods storage tanks, 55-gallon drums, 350-gallon intermediate bulk container totes, or directly into tanker trucks. A typical batch takes about 30 hours to complete.

FORM 1—LINE-BY-LINE INSTRUCTIONS CONTINUED

Section 9. Cooling Water Intake Structures

Item 9.1. Indicate whether the facility uses cooling water. If yes, continue to Item 9.2. If no, skip to Item 10.1.

Item 9.2. Identify the source of the cooling water. For example, indicate whether the cooling water is from a surface water, groundwater well, public water system, or treated effluent that would otherwise be discharged to a water of the U.S.

If the facility uses a cooling water intake structure as described in 40 CFR 125, Subparts I and J, the facility may have additional application requirements under 40 CFR 122.21(r). Note that the information required by 40 CFR 122.21(r) is not requested as part of Form 1. Contact your NPDES permitting authority to determine the specifics of what you should provide and when.

Section 10. Variance Requests

An applicant (other than a POTW) may request a variance from otherwise applicable effluent limitations under certain conditions described at 40 CFR 122.21(m).

Item 10.1. If known at the time of application, check all of the authorized variances that you plan to request or renew. Note that you are not being asked to submit any other information at this time. Contact your NPDES permitting authority to determine the specifics of what you should provide and when. The ability to request a variance is not limited to the time of application, and an applicant may request a variance consistent with statutory and regulatory requirements.

Section 11. Checklist and Certification

Item 11.1. Review the checklist provided. In Column 1, mark the sections of Form 1 that you have completed and are submitting with your application. In Column 2, indicate for each section whether you are submitting attachments.

Item 11.2. The Clean Water Act provides for severe penalties for submitting false information on this application form. CWA Section 309(c)(2) provides that, "Any person who knowingly makes any false statement, representation, or certification in any application, ...shall upon conviction, be punished by a fine of no more than \$10,000 or by imprisonment for not more than six months, or both."

FEDERAL REGULATIONS AT 40 CFR 122.22 REQUIRE THIS APPLICATION TO BE SIGNED AS FOLLOWS:

- A. For a corporation, by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (1) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (2) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- B. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively.
- C. For a municipality, state, federal, or other public facility, by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a federal agency includes: (1) The chief executive officer of the agency, or (2) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

This is a detailed topographic map of the Central Processing Co. area in Ohio. The map is oriented with North at the top. It shows the following features:

- Central Processing Co.:** A large industrial facility outlined in black, containing an "Injection Well" and two "Waste Area" labels.
- Central City:** A residential area to the west of the industrial site, with a "Waste Area" label near its edge.
- Aquatic Creek:** A water feature flowing from the north towards the industrial site.
- Topography:** Contour lines indicating elevation, with peaks reaching over 1000 feet.
- Infrastructure:** Roads, including a "Highway" and a "Railroad", and a "Water Line".
- Map Details:**
 - Scale:** 1:24,000.
 - Projection:** NAD 83.
 - Coordinates:** UTM Zone 18N, with Easting and Northing values.
 - Legend:** Symbols for "Waste Area", "Injection Well", "Water Line", "Road", "Railroad", "Contour", "Spot Elevation", "Spot Height", "Spot Depression", "Spot Elevation", "Spot Height", "Spot Depression".
 - Metadata:**
 - Produced by:** The United States Geological Survey.
 - Map Date:** 1987.
 - Map Title:** Central Processing Co. and Vicinity.
 - Map Sheet:** 24000.
 - Map Scale:** 1:24,000.
 - Map Projection:** NAD 83.
 - Map Datum:** NAD 83.
 - Map Units:** Feet.
 - Map Contour Interval:** 20 feet.
 - Map Spot Elevation Interval:** 5 feet.
 - Map Spot Height Interval:** 5 feet.
 - Map Spot Depression Interval:** 5 feet.
 - Map Spot Elevation Accuracy:** ± 3 feet.
 - Map Spot Height Accuracy:** ± 3 feet.
 - Map Spot Depression Accuracy:** ± 3 feet.
 - Map Spot Elevation Accuracy:** ± 3 feet.
 - Map Spot Height Accuracy:** ± 3 feet.
 - Map Spot Depression Accuracy:** ± 3 feet.

FORM 1—ACTIVITIES THAT DO NOT REQUIRE PERMITS

You are not required to obtain an NPDES permit if your discharge is in one of the following categories, as provided by the CWA and NPDES regulations at 40 CFR 122 to 125. (However, under CWA Sections 510 and 312, some discharges exempted from the federal NPDES requirements may still be regulated by a state permitting authority.)

- Any discharge of sewage from vessels and any effluent from properly functioning marine engines, laundry, shower, and galley sink wastes, or any other discharge incidental to the normal operation of a vessel, including vessels of the Armed Forces within the meaning of section 312 of the CWA and recreational vessels within the meaning of section 502(25) of the CWA. None of these exclusions apply to rubbish, trash, garbage, or other such materials discharged overboard; nor to other discharges when the vessel is operating in a capacity other than as a means of transportation such as when used as an energy or mining facility, a storage facility or a seafood processing facility, or when secured to a storage facility or a seafood processing facility, or when secured to the bed of the ocean, contiguous zone or waters of the United States for the purpose of mineral or oil exploration or development.
- Discharges of dredged or fill material into waters of the United States that are regulated under CWA Section 404.
- The introduction of sewage, industrial wastes, or other pollutants into publicly owned treatment works by indirect dischargers. Plans or agreements to switch to this method of disposal in the future do not relieve dischargers of the obligation to have and comply with permits until all discharges of pollutants to waters of the United States are eliminated. (See also 40 CFR 122.47(b).) This exclusion does not apply to the introduction of pollutants to privately owned treatment works or to other discharges through pipes, sewers, or other conveyances owned by a state, municipality, or other party not leading to treatment works.
- Any discharge in compliance with the instructions of an On-Scene Coordinator pursuant to 40 CFR 300 (The National Oil and Hazardous Substances Pollution Contingency Plan) or 33 CFR 153.10(e) (Pollution by Oil and Hazardous Substances).
- Any introduction of pollutants from non point-source agricultural and silvicultural activities, including stormwater runoff from orchards, cultivated crops, pastures, range lands, and forest lands, but not discharges from concentrated animal feeding operations as defined in 40 CFR 122.23, discharges from concentrated aquatic animal production facilities as defined in 40 CFR 122.23, discharges from concentrated aquatic animal production facilities as defined in 40 CFR 122.24, discharges to aquaculture projects as defined in 40 CFR 122.25, and discharges from silvicultural point sources as defined in 40 CFR 122.27. **Note:** Per 40 CFR 122.26(b)(14)(ii), facilities classified within SIC 24, Industry Group 241, that are rock crushing, gravel washing, log sorting, or log storage facilities operated in connection with silvicultural activities defined in 40 CFR 122.27(b)(2)–(3) and Industry Groups 242 through 249; 26 (except 265 and 267), 28 (except 283), 29, 311, 32 (except 323), 33, 3441, and 373 (not included are all other types of silviculture facilities) are considered stormwater discharges associated with industrial activity, and are required to obtain an NPDES permit.
- Return flows from irrigated agriculture.
- Discharges into a privately owned treatment works, except as the NPDES permitting authority may otherwise require under 40 CFR 122.44(m).
- Discharges from a water transfer. "Water transfer" means an activity that conveys or connects waters of the United States without subjecting the transferred water to intervening industrial, municipal, or commercial use. This exclusion does not apply to pollutants introduced by the water transfer activity itself to the water being transferred.

FORM 1—GLOSSARY

Note: This glossary includes terms used in the various NPDES application forms, including Form 1. The definitions are from the NPDES regulations at 40 CFR 122.2 unless otherwise specified. If you have any questions concerning the meaning of any of these terms, contact your NPDES permitting authority.

ANIMAL FEEDING OPERATION (defined at § 122.23) means a lot or facility (other than an aquatic animal production facility) where the following conditions are met;

- Animals (other than aquatic animals) have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period; and
- Crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility.

APPLICATION means the EPA standard national forms for applying for a permit, including any additions, revisions, or modifications to the forms; or forms approved by EPA for use in approved states, including any approved modifications or revisions.

APPROVED PROGRAM or **APPROVED STATE** means a State or interstate program which has been approved or authorized by EPA under part 123.

AQUACULTURE PROJECT (defined at § 122.25) means a defined managed water area which uses discharges of pollutants into that designated area for the maintenance or production of harvestable freshwater, estuarine, or marine plants or animals. **DESIGNATED PROJECT AREA** means the portions of the waters of the United States within which the permittee or permit applicant plans to confine the cultivated species, using a method or plan or operation (including, but not limited to, physical confinement) which, on the basis of reliable scientific evidence, is expected to ensure that specific individual organisms comprising an aquaculture crop will enjoy increased growth attributable to the discharge of pollutants, and be harvested within a defined geographic area.

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 that month divided by the number of daily discharges measured during that month.

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 United States. BMPs include treatment requirements, operation procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

BIOSOLIDS (*see sewage sludge*).

BYPASS (defined at § 122.41(m)) means the intentional diversion of waste streams from any portion of a treatment facility.

COMBINED SEWER OVERFLOW (CSO) means a discharge from a combined sewer system (CSS) at a point prior to the Publicly Owned Treatment Works (POTW) Treatment Plant (defined at § 403.3(r)).

COMBINED SEWER SYSTEM (CSS) means a wastewater collection system owned by a State or municipality (as defined by section 502(4) of the CWA) which conveys sanitary wastewaters (domestic, commercial and industrial wastewaters) and storm water through a single-pipe system to a Publicly Owned Treatment Works (POTW) Treatment Plant (as defined at § 403.3(r)).

CONCENTRATED ANIMAL FEEDING OPERATION (defined at § 122.23) means an animal feeding operation that is defined as a Large CAFO or as a Medium CAFO by the terms of (A) or (B) below, or that is designated as a CAFO in accordance with 40 CFR 122.23(c). Two or more AFOs under common ownership are considered to be a single AFO for the purposes of determining the number of animals at an operation, if they adjoin each other or if they use a common area or system for the disposal of wastes.

A. **LARGE CONCENTRATED ANIMAL FEEDING OPERATION (LARGE CAFO)** means an AFO that stables or confines as many as or more than the numbers of animals specified in any of the following categories:

1. 700 mature dairy cows, whether milked or dry;
2. 1,000 veal calves;
3. 1,000 cattle other than mature dairy cows or veal calves. Cattle includes but is not limited to heifers, steers, bulls and cow/calf pairs;
4. 2,500 swine each weighing 55 pounds or more;
5. 10,000 swine each weighing less than 55 pounds;

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6. 500 horses;
 7. 10,000 sheep or lambs;
 8. 55,000 turkeys;
 9. 30,000 laying hens or broilers, if the AFO uses a liquid manure handling system;
 10. 125,000 chickens (other than laying hens), if the AFO uses other than a liquid manure handling system;
 11. 82,000 laying hens, if the AFO uses other than a liquid manure handling system;
 12. 30,000 ducks (if the AFO uses other than a liquid manure handling system); or
 13. 5,000 ducks (if the AFO uses a liquid manure handling system).
- B. **MEDIUM CONCENTRATED ANIMAL FEEDING OPERATION (MEDIUM CAFO)** means any AFO with the type and number of animals that fall within any of the ranges listed below and which has been defined or designated as a CAFO. An AFO is defined as a Medium CAFO if:
1. The type and number of animals that it stables and confines falls within any of the following ranges:
 - a. 200 to 699 mature dairy cows, whether milked or dry;
 - b. 300 to 999 veal calves;
 - c. 300 to 999 cattle other than mature dairy cows or veal calves. Cattle includes but is not limited to heifers, steers, bulls and cow/calf pairs;
 - d. 750 to 2,499 swine each weighing 55 pounds or more;
 - e. 3,000 to 9,999 swine each weighing less than 55 pounds;
 - f. 150 to 499 horses;
 - g. 3,000 to 9,999 sheep or lambs;
 - h. 16,500 to 54,999 turkeys;
 - i. 9,000 to 29,999 laying hens or broilers, if the AFO uses a liquid manure handling system;
 - j. 37,500 to 124,999 chickens (other than laying hens), if the AFO uses other than a liquid manure handling system;
 - k. 25,000 to 81,999 laying hens, if the AFO uses other than a liquid manure handling system;
 - l. 10,000 to 29,999 ducks (if the AFO uses other than a liquid manure handling system); or
 - m. 1,500 to 4,999 ducks (if the AFO uses a liquid manure handling system); and
 2. Either one of the following conditions are met:
 - a. Pollutants are discharged into waters of the United States through a man-made ditch, flushing system, or other similar man-made device; or
 - b. Pollutants are discharged directly into waters of the United States which originate outside of and pass over, across, or through the facility or otherwise come into direct contact with animals confined in the operation.
- CONCENTRATED AQUATIC ANIMAL PRODUCTION FACILITY** (defined at § 122.24) means a hatchery, fish farm, or other facility which contains, grows, or holds aquatic animals in either of the following categories, or which the Director designates as such on a case-by-case basis:
- A. Cold water fish species or other cold water aquatic animals including, but not limited to, the *Salmonidae* family of fish (e.g., trout and salmon) in ponds, raceways, or other similar structures which discharge at least 30 days per year but does not include:
 1. Facilities which produce less than 9,090 harvest weight kilograms (approximately 20,000 pounds) of aquatic animals per year; and
 2. Facilities which feed less than 2,272 kilograms (approximately 5,000 pounds) of food during the calendar month of maximum feeding.
 - B. Warm water fish species or other warm water aquatic animals including, but not limited to, the *Ameiuridae*, *Cetrarchidae*, and *Cyprinidae* families of fish (e.g., respectively, catfish, sunfish, and minnows) in ponds, raceways, or other similar structures which discharge at least 30 days per year, but does not include:
 1. Closed ponds which discharge only during periods of excess runoff; or
 2. Facilities which produce less than 45,454 harvest weight kilograms (approximately 100,000 pounds) of aquatic animals per year.

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CWA means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Public Law 92–500, as amended by Public Law 95–217, Public Law 95–576, Public Law 96–483 and Public Law 97–117, 33 U.S.C. 1251 *et seq.*

CWA AND REGULATIONS means the Clean Water Act (CWA) and applicable regulations promulgated thereunder. In the case of an approved State program, it includes State program requirements.

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.

DIRECT DISCHARGE means the “discharge of a pollutant.”

DIRECTOR means the Regional Administrator or the State Director, as the context requires, or an authorized representative. When there is no “approved State program,” and there is an EPA administered program, “Director” means the Regional Administrator. When there is an approved State program, “Director” normally means the State Director. In some circumstances, however, EPA retains the authority to take certain actions even when there is an approved State program. (For example, when EPA has issued an NPDES permit prior to the approval of a State program, EPA may retain jurisdiction over that permit after program approval, see § 123.1.) In such cases, the term “Director” means the Regional Administrator and not the State Director.

DISCHARGE (OF A POLLUTANT) means:

- Any addition of any pollutant or combination of pollutants to waters of the United States from any point source; or
- Any addition of any pollutant or combination of pollutants to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation.

This definition includes discharges into waters of the United States from: surface runoff which is collected or channelled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. This term does not include an addition of pollutants by any “indirect discharger”.

DISCHARGE MONITORING REPORT 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.

DRAFT PERMIT means a document prepared under § 124.6 indicating the Director’s tentative decision to issue or deny, modify, revoke and reissue, terminate, or reissue a “permit.” A notice of intent to terminate a permit, and a notice of intent to deny a permit, as discussed in § 124.5, are types of “draft permits.” A denial of a request for modification, revocation and reissuance, or termination, as discussed in § 124.5, is not a “draft permit.” A “proposed permit” is not a “draft permit.”

EFFLUENT LIMITATION means any restriction imposed by the Director on quantities, discharge rates, and concentrations of “pollutants” which are “discharged” from “point sources” into “waters of the United States,” the waters of the “contiguous zone,” or the ocean.

EFFLUENT LIMITATIONS GUIDELINES means a regulation published by the Administrator under section 304(b) of the CWA to adopt or revise “effluent limitations.”

ENVIRONMENTAL PROTECTION AGENCY (EPA) means the United States Environmental Protection Agency.

FACILITY or ACTIVITY means any NPDES “point source” or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the NPDES program.

GENERAL PERMIT means an NPDES “permit” issued under § 122.28 authorizing a category of discharges under the CWA within a geographical area.

HAZARDOUS SUBSTANCE means any substance designated under 40 CFR part 116 pursuant to section 311 of the CWA.

INDIAN COUNTRY (or INDAN LANDS) means:

- All land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation;
- All dependent Indian communities with the borders of the United States whether within the originally or subsequently acquired territory thereof, and whether within or without the limits of a state; and
- All Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same.

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INDIAN TRIBE means any Indian Tribe, band, group, or community recognized by the Secretary of the Interior and exercising governmental authority over a Federal Indian reservation.

INDIRECT DISCHARGE means a nondomestic discharger introducing "pollutants" to a "publicly owned treatment works."

LARGE MUNICIPAL SEPARATE STORM SEWER SYSTEM (defined at § 122.26(b)(4)) means all municipal separate storm sewers that are either:

(i) Located in an incorporated place with a population of 250,000 or more as determined by the 1990 Decennial Census by the Bureau of the Census (Appendix F of 40 CFR 122); or

(ii) Located in the counties listed in appendix H of 40 CFR 122, except municipal separate storm sewers that are located in the incorporated places, townships or towns within such counties; or

(iii) Owned or operated by a municipality other than those described in paragraphs (i) or (ii) and that are designated by the Director as part of the large or medium municipal separate storm sewer system due to the interrelationship between the discharges of the designated storm sewer and the discharges from municipal separate storm sewers described under paragraphs (i) or (ii). In making this determination the Director may consider the following factors:

(A) Physical interconnections between the municipal separate storm sewers;

(B) The location of discharges from the designated municipal separate storm sewer relative to discharges from municipal separate storm sewers described in paragraph (i);

(C) The quantity and nature of pollutants discharged to waters of the United States;

(D) The nature of the receiving waters; and

(E) Other relevant factors; or

(iv) The Director may, upon petition, designate as a large municipal separate storm sewer system, municipal separate storm sewers located within the boundaries of a region defined by a storm water management regional authority based on a jurisdictional, watershed, or other appropriate basis that includes one or more of the systems described in paragraphs (i), (ii), (iii).

LOG SORTING AND LOG STORAGE FACILITIES (defined at § 122.27) means facilities whose discharges result from the holding of unprocessed wood, for example, logs or roundwood with bark or after removal of bark held in self-contained bodies of water (mill ponds or log ponds) or stored on land where water is applied intentionally on the logs (wet decking). (See 40 CFR 429, subpart I, including the effluent limitations guidelines.)

MAJOR FACILITY means any NPDES "facility or activity" classified as such by the Regional Administrator, or, in the case of "approved State programs," the Regional Administrator in conjunction with the State Director.

MAXIMUM DAILY DISCHARGE LIMITATION means the highest allowable "daily discharge."

MEDIUM MUNICIPAL SEPARATE STORM SEWER SYSTEM (defined at § 122.26(b)(7)) means all municipal separate storm sewers that are either:

(i) Located in an incorporated place with a population of 100,000 or more but less than 250,000, as determined by the 1990 Decennial Census by the Bureau of the Census (appendix G of 40 CFR 122); or

(ii) Located in the counties listed in appendix I of 40 CFR 122, except municipal separate storm sewers that are located in the incorporated places, townships or towns within such counties; or

(iii) Owned or operated by a municipality other than those described in paragraph (i) or (ii) and that are designated by the Director as part of the large or medium municipal separate storm sewer system due to the interrelationship between the discharges of the designated storm sewer and the discharges from municipal separate storm sewers described under paragraph (i) or (ii). In making this determination the Director may consider the following factors:

(A) Physical interconnections between the municipal separate storm sewers;

(B) The location of discharges from the designated municipal separate storm sewer relative to discharges from municipal separate storm sewers described in paragraph (i);

(C) The quantity and nature of pollutants discharged to waters of the United States;

(D) The nature of the receiving waters; or

(E) Other relevant factors; or

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(iv) The Director may, upon petition, designate as a medium municipal separate storm sewer system, municipal separate storm sewers located within the boundaries of a region defined by a storm water management regional authority based on a jurisdictional, watershed, or other appropriate basis that includes one or more of the systems described in paragraphs (i), (ii), (iii) of this section.

MUNICIPALITY means a city, town, borough, county, parish, district, association, or other public body created by or under State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA.

MUNICIPAL SEPARATE STORM SEWER (defined at § 122.26(b)(8)) means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

- Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States.
- Designed or used for collecting or conveying stormwater.
- Which is not a combined sewer; and
- Which is not part of a POTW as defined at 40 CFR 122.2.

MUNICIPAL SLUDGE (*see sewage sludge*)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of the CWA. The term includes an "approved program."

NEW DISCHARGER means any building, structure, facility, or installation:

- From which there is or may be a "discharge of pollutants;"
- That did not commence the "discharge of pollutants" at a particular "site" prior to August 13, 1979;
- Which is not a "new source;" and
- Which has never received a finally effective NPDES permit for discharges at that "site."

This definition includes an "indirect discharger" which commences discharging into "waters of the United States" after August 13, 1979. It also means any existing mobile point source (other than an offshore or coastal oil and gas exploratory drilling rig or a coastal oil and gas developmental drilling rig) such as a seafood processing rig, seafood processing vessel, or aggregate plant, that begins discharging at a "site" for which it does not have a permit; and any offshore or coastal mobile oil and gas exploratory drilling rig or coastal mobile oil and gas developmental drilling rig that commences the discharge of pollutants after August 13, 1979, at a "site" under EPA's permitting jurisdiction for which it is not covered by an individual or general permit and which is located in an area determined by the Regional Administrator in the issuance of a final permit to be an area of biological concern. In determining whether an area is an area of biological concern, the Regional Administrator shall consider the factors specified in 40 CFR 125.122(a)(1) through (10).

An offshore or coastal mobile exploratory drilling rig or coastal mobile developmental drilling rig will be considered a "new discharger" only for the duration of its discharge in an area of biological concern.

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:

- After promulgation of standards of performance under section 306 of the CWA which are applicable to such source, or
- After proposal of standards of performance in accordance with section 306 of the 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.

OWNER OR OPERATOR means the owner or operator of any "facility or activity" subject to regulation under the NPDES program.

PERMIT means an authorization, license, or equivalent control document issued by EPA or an "approved State" to implement the requirements of this part and parts 123 and 124. "Permit" includes an NPDES "general permit" (§ 122.28). 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."

PESTICIDE DISCHARGES TO WATERS OF THE UNITED STATES FROM PESTICIDE APPLICATION means the application of biological pesticides, and the application of chemical pesticides that leave a residue, from point sources to waters of the United States. In the context of this definition of pesticide discharges to waters of the United States from pesticide application, this does not include

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agricultural storm water discharges and return flows from irrigated agriculture, which are excluded by law (33 U.S.C. 1342(l); 33 U.S.C. 1362(14)).

PESTICIDE RESIDUE for the purpose of determining whether a NPDES permit is needed for discharges to waters of the United States from pesticide application, means that portion of a pesticide application that is discharged from a point source to waters of the United States and no longer provides pesticidal benefits. It also includes any degradates of the pesticide.

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, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff. (See § 122.3).

POLLUTANT means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 *et seq.*)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. It does not mean:

- Sewage from vessels; or
- Water, gas, or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil and gas production and disposed of in a well, if the well used either to facilitate production or for disposal purposes is approved by authority of the State in which the well is located, and if the State determines that the injection or disposal will not result in the degradation of ground or surface water resources. Note: Radioactive materials covered by the Atomic Energy Act are those encompassed in its definition of source, byproduct, or special nuclear materials. Examples of materials not covered include radium and accelerator-produced isotopes. See *Train v. Colorado Public Interest Research Group, Inc.*, 426 U.S. 1 (1976).

PRIMARY INDUSTRY CATEGORY means any industry category listed in the NRDC settlement agreement (*Natural Resources Defense Council et al. v. Train*, 8 E.R.C. 2120 (D.D.C. 1976), modified 12 E.R.C. 1833 (D.D.C. 1979)); also listed in appendix A of part 122.

PRIVATELY OWNED TREATMENT WORKS means any device or system which is (1) used to treat wastes from any facility whose operator is not the operator of the treatment works and (2) not a "POTW."

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.

PROPOSED PERMIT means a state NPDES "permit" prepared after the close of the public comment period (and, when applicable, any public hearing and administrative appeals) which is sent to EPA for review before final issuance by the State. A "proposed permit" is not a "draft permit."

PUBLICLY OWNED TREATMENT WORKS or POTW (defined at § 403.3) means a treatment works as defined by CWA Section 212, which is owned by a state or municipality (as defined by CWA Section 502(4)). This definition includes any devices or systems used in the storage, treatment, recycling, and reclamation) of municipal sewage or industrial wastes of a liquid nature. This definition also includes sewers, pipes, and other conveyances only if they convey wastewater to a POTW. The term also means the municipality as defined in CWA Section 502(4), which has jurisdiction over the indirect discharges to and the discharges from such a treatment works.

REGIONAL ADMINISTRATOR means the Regional Administrator of the appropriate Regional Office of the Environmental Protection Agency or the authorized representative of the Regional Administrator.

ROCK CRUSHING AND GRAVEL WASHING FACILITIES (defined at § 122.27) means facilities which process crushed and broken stone, gravel, and riprap (See 40 CFR 436, subpart B, including the effluent limitations guidelines).

SCHEDULE OF COMPLIANCE means a schedule of remedial measures included in a "permit", including an enforceable sequence of interim requirements (for example, actions, operations, or milestone events) leading to compliance with the CWA and regulations.

SECONDARY INDUSTRY CATEGORY means any industry category which is not a primary industry category.

SEWAGE FROM VESSELS means human body wastes and the wastes from toilets and other receptacles intended to receive or retain body wastes that are discharged from vessels and regulated under section 312 of the CWA, except that with respect to commercial vessels on the Great Lakes this term includes graywater. For the purposes of this definition, "graywater" means galley, bath, and shower water.

SEWAGE SLUDGE means any solid, semi-solid, or liquid residue removed during the treatment of municipal waste water or domestic sewage. Sewage sludge includes, but is not limited to, solids removed during primary, secondary, or advanced waste water treatment, scum, septage, portable toilet pumpings, type III marine sanitation device pumpings (33 CFR 159), and sewage sludge products. Sewage sludge does not include grit or screenings, or ash generated during the incineration of sewage sludge.

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SILVICULTURAL POINT SOURCE (defined at § 122.27) means any discernible, confined, and discrete conveyance related to rock crushing, gravel washing, log sorting, or log storage facilities which are operated in connection with silvicultural activities and from which pollutants are discharged into waters of the United States. This term does not include non-point source silvicultural activities such as nursery operations, site preparation, reforestation and subsequent cultural treatment, thinning, prescribed burning, pest and fire control, harvesting operations, surface drainage, or road construction and maintenance from which there is natural runoff. However, some of these activities (such as stream crossing for roads) may involve point source discharges of dredged or fill material which may require a CWA Section 404 permit (see 33 CFR 209.120 and part 233).

SITE means the land or water area where any "facility or activity" is physically located or conducted, including adjacent land used in connection with the facility or activity.

SLUDGE-ONLY FACILITY means any "treatment works treating domestic sewage" whose methods of sewage sludge use or disposal are subject to regulations promulgated pursuant to section 405(d) of the CWA and is required to obtain a permit under § 122.1(b)(2).

STANDARDS FOR SEWAGE SLUDGE USE OR DISPOSAL means the regulations promulgated pursuant to section 405(d) of the CWA which govern minimum requirements for sludge quality, management practices, and monitoring and reporting applicable to sewage sludge or the use or disposal of sewage sludge by any person.

STATE means any of the 50 States, the District of Columbia, Guam, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, the Commonwealth of the Northern Mariana Islands, the Trust Territory of the Pacific Islands, or an Indian Tribe as defined in these regulations which meets the requirements of § 123.31 of this chapter.

STATE DIRECTOR means the chief administrative officer of any State or interstate agency operating an "approved program," or the delegated representative of the State Director. If responsibility is divided among two or more State or interstate agencies, "State Director" means the chief administrative officer of the State or interstate agency authorized to perform the particular procedure or function to which reference is made.

STORMWATER (or STORM WATER) (defined at § 122.26(b)(13)) means stormwater runoff, snow melt runoff, and surface runoff and drainage.

STORMWATER DISCHARGE ASSOCIATED WITH INDUSTRIAL ACTIVITY (defined at § 122.26(b)(14)) means the discharge from any conveyance that is used for collecting and conveying stormwater and that is directly related to manufacturing, processing or raw materials storage areas at an industrial plant. The term does not include discharges from facilities or activities excluded from the NPDES program under this part 122. For the categories of industries identified in this section, the term includes, but is not limited to, stormwater discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters (as defined at 40 CFR 401); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and final products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to stormwater. For the purposes of this paragraph, material handling activities include storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product, by-product or waste product. The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with stormwater drained from the above described areas. Industrial facilities (including industrial facilities that are federally, State, or municipally owned or operated that meet the description of the facilities listed in paragraphs 1 through 14 below) include those facilities designated under the provisions of 40 CFR 122.26(a)(1)(v). The following categories of facilities are considered to be engaging in "industrial activity" for purposes of 40 CFR 122.26(b)(14):

1. Facilities subject to stormwater effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards under 40 CFR Subchapter N (except facilities with toxic pollutant effluent standards which are exempted under paragraph 11 below);
2. Facilities classified as Standard Industrial Classification 24, Industry Group 241 that are rock crushing, gravel washing, log sorting, or log storage facilities operated in connection with silvicultural activities defined in 40 CFR 122.27(b)(2)–(3) and Industry Groups 242 through 249; 26 (except 265 and 267), 28 (except 283), 29, 311, 32 (except 323), 33, 3441, 373; (not included are all other types of silvicultural facilities);
3. Facilities classified as Standard Industrial Classifications 10 through 14 (mineral industry) including active or inactive mining operations (except for areas of coal mining operations no longer meeting the definition of a reclamation area under 40 CFR 434.11(1) because the performance bond issued to the facility by the appropriate SMCRA authority has been released, or except for areas of non-coal mining operations which have been released from applicable State or Federal reclamation requirements after December 17, 1990) and oil and gas exploration, production, processing, or treatment operations, or transmission facilities that discharge stormwater contaminated by contact with or that has come into contact with, any overburden, raw material, intermediate products, finished products, byproducts or waste products located on the site of such operations; (inactive mining operations are mining sites that are not being actively mined, but which have an identifiable owner/operator; inactive mining sites do not include sites

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- where mining claims are being maintained prior to disturbances associated with the extraction, beneficiation, or processing of mined materials, nor sites where minimal activities are undertaken for the sole purpose of maintaining a mining claim);
4. Hazardous waste treatment, storage, or disposal facilities, including those that are operating under interim status or a permit under subtitle C of RCRA;
 5. Landfills, land application sites, and open dumps that receive or have received any industrial wastes (waste that is received from any of the facilities described under this subsection) including those that are subject to regulation under subtitle D of RCRA;
 6. Facilities involved in the recycling of materials, including metal scrapyards, battery reclaimers, salvage yards, and automobile junkyards, including but limited to those classified as Standard Industrial Classification 5015 and 5093;
 7. Steam electric power generating facilities, including coal handling sites;
 8. Transportation facilities classified as Standard Industrial Classifications 40, 41, 42 (except 4221–25), 43, 44, 45, and 5171 which have vehicle maintenance shops, equipment cleaning operations, or airport deicing operations. Only those portions of the facility that are either involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, airport deicing operations, or which are otherwise identified under paragraphs 1–7 or 9–11 are associated with industrial activity;
 9. Treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that are located within the confines of the facility, with a design flow of 1.0 mgd or more, or required to have an approved pretreatment program under 40 CFR 403. Not included are farm lands, domestic gardens or lands used for sludge management where sludge is beneficially reused and which are not physically located in the confines of the facility, or areas that are in compliance with section 405 of the CWA;
 10. Construction activity including clearing, grading and excavation, except operations that result in the disturbance of less than five acres of total land area. Construction activity also includes the disturbance of less than five acres of total land area that is a part of a larger common plan of development or sale if the larger common plan will ultimately disturb five acres or more;
 11. Facilities under Standard Industrial Classifications 20, 21, 22, 23, 2434, 25, 265, 267, 27, 283, 285, 30, 31 (except 311), 323, 34 (except 3441), 35, 36, 37 (except 373), 38, 39, and 4221–25.

TOXIC POLLUTANT means 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.


TREATMENT WORKS TREATING DOMESTIC SEWAGE (TWTDS) means a POTW or any other sewage sludge or waste water treatment devices or systems, regardless of ownership (including federal facilities), used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated for the disposal of sewage sludge. This definition does not include septic tanks or similar devices. For purposes of this definition, "domestic sewage" includes waste and waste water from humans or household operations that are discharged to or otherwise enter a treatment works. In States where there is no approved State sludge management program under section 405(f) of the CWA, the Regional Administrator may designate any person subject to the standards for sewage sludge use and disposal in 40 CFR 503 as a "treatment works treating domestic sewage," where he or she finds that there is a potential for adverse effects on public health and the environment from poor sludge quality or poor sludge handling, use or disposal practices, or where he or she finds that such designation is necessary to ensure that such person is in compliance with 40 CFR 503.

UPSET (defined at § 122.41(n)) 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.

VARIANCE means any mechanism or provision under section 301 or 316 of the CWA or under 40 CFR 125, or in the applicable "effluent limitations guidelines" which allows modification to or waiver of the generally applicable effluent limitation requirements or time deadlines of the CWA. This includes provisions which allow the establishment of alternative limitations based on fundamentally different factors or on sections 301(c), 301(g), 301(h), 301(i), or 316(a) of the CWA.

WATERS OF THE UNITED STATES as defined at § 122.2.

WHOLE EFFLUENT TOXICITY (WET) means the aggregate toxic effect of an effluent measured directly by a toxicity test.

| | | | | | | | |
|--|---|------------------------------------|--|--|------------------------------|---|--|
| EPA Identification Number | | NPDES Permit Number WA-003153-4 | | Facility Name Fort Ward Saltwater II | | Form Approved 03/05/19 OMB No. 2040-0004 | |
| Form 1 NPDES |  | | U.S. Environmental Protection Agency Application for NPDES Permit to Discharge Wastewater GENERAL INFORMATION | | | | |
| SECTION 1. ACTIVITIES REQUIRING AN NPDES PERMIT (40 CFR 122.21(f) and (f)(1)) | | | | | | | |
| Activities Requiring an NPDES Permit | 1.1 Applicants <i>Not Required</i> to Submit Form 1 | | | | | | |
| | 1.1.1 Is the facility a new or existing publicly owned treatment works? If yes, STOP. Do NOT complete Form 1. Complete Form 2A. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | | 1.1.2 Is the facility a new or existing treatment works treating domestic sewage? If yes, STOP. Do NOT complete Form 1. Complete Form 2S. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | | |
| | 1.2 Applicants <i>Required</i> to Submit Form 1 | | | | | | |
| | 1.2.1 Is the facility a concentrated animal feeding operation or a concentrated aquatic animal production facility? <input checked="" type="checkbox"/> Yes → Complete Form 1 and Form 2B. <input type="checkbox"/> No | | | 1.2.2 Is the facility an existing manufacturing, commercial, mining, or silvicultural facility that is currently discharging process wastewater? <input type="checkbox"/> Yes → Complete Form 1 and Form 2C. <input checked="" type="checkbox"/> No | | | |
| | 1.2.3 Is the facility a new manufacturing, commercial, mining, or silvicultural facility that has not yet commenced to discharge? <input type="checkbox"/> Yes → Complete Form 1 and Form 2D. <input checked="" type="checkbox"/> No | | | 1.2.4 Is the facility a new or existing manufacturing, commercial, mining, or silvicultural facility that discharges only nonprocess wastewater? <input type="checkbox"/> Yes → Complete Form 1 and Form 2E. <input checked="" type="checkbox"/> No | | | |
| | 1.2.5 Is the facility a new or existing facility whose discharge is composed entirely of stormwater associated with industrial activity or whose discharge is composed of both stormwater and non-stormwater? <input type="checkbox"/> Yes → Complete Form 1 and Form 2F unless exempted by 40 CFR 122.26(b)(14)(x) or (b)(15). <input checked="" type="checkbox"/> No | | | | | | |
| SECTION 2. NAME, MAILING ADDRESS, AND LOCATION (40 CFR 122.21(f)(2)) | | | | | | | |
| Name, Mailing Address, and Location | 2.1 Facility Name Fort Ward-Saltwater II Net Pen Site | | | | | | |
| | 2.2 EPA Identification Number | | | | | | |
| | 2.3 Facility Contact | | | | | | |
| | Name (first and last) Kevin Bright | | Title Permit Coordinator | | Phone number 360-391-2409 | | |
| | Email address Kevin.Bright@CookeAqua.com | | | | | | |
| | 2.4 Facility Mailing Address | | | | | | |
| Street or P.O. box PO Box 79003 | | | | | | | |
| City or town Seattle | | State WA | | ZIP code 98119 | | | |

| | | | | | | | |
|--|--|---|------------------------|---|-------------------|---|--|
| EPA Identification Number | | NPDES Permit Number WA-003153-4 | | Facility Name Fort Ward Saltwater II | | Form Approved 03/05/19 OMB No. 2040-0004 | |
| Name, Mailing Address, and Location Continued | 2.5 | Facility Location | | | | | |
| | Street, route number, or other specific identifier Rich Passage adjacent to Bainbridge Island, WA Lat. N47.57773 Lon. W122.52749 | | | | | | |
| | County name Kitsap | | County code (if known) | | | | |
| | City or town Winslow | | State WA | | ZIP code 98110 | | |
| SECTION 3. SIC AND NAICS CODES (40 CFR 122.21(f)(3)) | | | | | | | |
| SIC and NAICS Codes | 3.1 | SIC Code(s) | | Description (optional) | | | |
| | | 0273 | | Animal Aquaculture | | | |
| | | | | | | | |
| | | | | | | | |
| | 3.2 | NAICS Code(s) | | Description (optional) | | | |
| | | 112511 | | | | | |
| | | | | | | | |
| | | | | | | | |
| SECTION 4. OPERATOR INFORMATION (40 CFR 122.21(f)(4)) | | | | | | | |
| Operator Information | 4.1 | Name of Operator | | | | | |
| | Cooke Aquaculture Pacific, LLC | | | | | | |
| | 4.2 | Is the name you listed in Item 4.1 also the owner? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | | | | |
| | 4.3 | Operator Status <input type="checkbox"/> Public—federal <input type="checkbox"/> Public—state <input type="checkbox"/> Other public (specify) _____ <input checked="" type="checkbox"/> Private <input type="checkbox"/> Other (specify) _____ | | | | | |
| Operator Information Continued | 4.4 | Phone Number of Operator (360) 391-2409 | | | | | |
| | 4.5 | Operator Address Street or P.O. Box PO Box 79003 City or town State ZIP code Seattle WA 98119 Email address of operator Kevin.Bright@CookeAqua.com | | | | | |
| SECTION 5. INDIAN LAND (40 CFR 122.21(f)(5)) | | | | | | | |
| Indian Land | 5.1 | Is the facility located on Indian Land? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | | | |

| | | | |
|---------------------------|------------------------------------|---|---|
| EPA Identification Number | NPDES Permit Number WA-003153-4 | Facility Name Fort Ward Saltwater II | Form Approved 03/05/19 OMB No. 2040-0004 |
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SECTION 6. EXISTING ENVIRONMENTAL PERMITS (40 CFR 122.21(f)(6))

| | | | | |
|--------------------------------|-----|--|---|--|
| Existing Environmental Permits | 6.1 | Existing Environmental Permits (check all that apply and print or type the corresponding permit number for each) | | |
| | | <input checked="" type="checkbox"/> NPDES (discharges to surface water) WA-003152-6 | <input type="checkbox"/> RCRA (hazardous wastes) | <input type="checkbox"/> UIC (underground injection of fluids) |
| | | <input type="checkbox"/> PSD (air emissions) | <input type="checkbox"/> Nonattainment program (CAA) | <input type="checkbox"/> NESHAPs (CAA) |
| | | <input type="checkbox"/> Ocean dumping (MPRSA) | <input type="checkbox"/> Dredge or fill (CWA Section 404) | <input type="checkbox"/> Other (specify) |

SECTION 7. MAP (40 CFR 122.21(f)(7))

| | | |
|-----|-----|---|
| Map | 7.1 | Have you attached a topographic map containing all required information to this application? (See instructions for specific requirements.) |
| | | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> CAFO—Not Applicable (See requirements in Form 2B.) |

SECTION 8. NATURE OF BUSINESS (40 CFR 122.21(f)(8))

| | | |
|--------------------|-----|--|
| Nature of Business | 8.1 | Describe the nature of your business. Existing floating marine net pen aquaculture facility cultivating marine finfish species for the purposes of producing seafood to the U.S. seafood marketplace. |
| | | |

SECTION 9. COOLING WATER INTAKE STRUCTURES (40 CFR 122.21(f)(9))

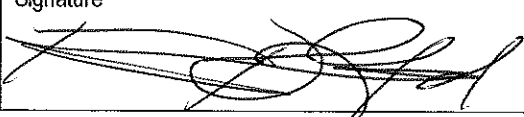
| | | |
|---------------------------------|-----|---|
| Cooling Water Intake Structures | 9.1 | Does your facility use cooling water? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Item 10.1. |
| | 9.2 | Identify the source of cooling water. (Note that facilities that use a cooling water intake structure as described at 40 CFR 125, Subparts I and J may have additional application requirements at 40 CFR 122.21(r). Consult with your NPDES permitting authority to determine what specific information needs to be submitted and when.) |

SECTION 10. VARIANCE REQUESTS (40 CFR 122.21(f)(10))

| | | | |
|-------------------|------|---|---|
| Variance Requests | 10.1 | Do you intend to request or renew one or more of the variances authorized at 40 CFR 122.21(m)? (Check all that apply. Consult with your NPDES permitting authority to determine what information needs to be submitted and when.) | |
| | | <input type="checkbox"/> Fundamentally different factors (CWA Section 301(n)) | <input type="checkbox"/> Water quality related effluent limitations (CWA Section 302(b)(2)) |
| | | <input type="checkbox"/> Non-conventional pollutants (CWA Section 301(c) and (g)) | <input type="checkbox"/> Thermal discharges (CWA Section 316(a)) |
| | | <input checked="" type="checkbox"/> Not applicable | |

| | | | |
|---------------------------|------------------------------------|---|---|
| EPA Identification Number | NPDES Permit Number WA-003153-4 | Facility Name Fort Ward Saltwater II | Form Approved 03/05/19 OMB No. 2040-0004 |
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SECTION 11. CHECKLIST AND CERTIFICATION STATEMENT (40 CFR 122.22(a) and (d))

| | | | |
|---------------------------------------|---|--|--|
| Checklist and Certification Statement | 11.1 | In Column 1 below, mark the sections of Form 1 that you have completed and are submitting with your application. For each section, specify in Column 2 any attachments that you are enclosing to alert the permitting authority. Note that not all applicants are required to provide attachments. | |
| | | Column 1 | Column 2 |
| | <input checked="" type="checkbox"/> | Section 1: Activities Requiring an NPDES Permit | <input type="checkbox"/> w/ attachments |
| | <input checked="" type="checkbox"/> | Section 2: Name, Mailing Address, and Location | <input type="checkbox"/> w/ attachments |
| | <input checked="" type="checkbox"/> | Section 3: SIC Codes | <input type="checkbox"/> w/ attachments |
| | <input checked="" type="checkbox"/> | Section 4: Operator Information | <input type="checkbox"/> w/ attachments |
| | <input type="checkbox"/> | Section 5: Indian Land | <input type="checkbox"/> w/ attachments |
| | <input checked="" type="checkbox"/> | Section 6: Existing Environmental Permits | <input type="checkbox"/> w/ attachments |
| | <input type="checkbox"/> | Section 7: Map | <input type="checkbox"/> w/ topographic map <input type="checkbox"/> w/ additional attachments |
| | <input checked="" type="checkbox"/> | Section 8: Nature of Business | <input type="checkbox"/> w/ attachments |
| | <input type="checkbox"/> | Section 9: Cooling Water Intake Structures | <input type="checkbox"/> w/ attachments |
| | <input type="checkbox"/> | Section 10: Variance Requests | <input type="checkbox"/> w/ attachments |
| | <input checked="" type="checkbox"/> | Section 11: Checklist and Certification Statement | <input type="checkbox"/> w/ attachments |
| | 11.2 | Certification Statement <i>I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.</i> | |
| | Name (print or type first and last name) | Official title | |
| | Rodney Gould | Secretary | |
| | Signature | Date signed | |
| |  | Oct 15, 2019 | |



Application Form 2B

Concentrated Animal Feeding Operations and Concentrated Aquatic Animal Production Facilities

NPDES Permitting Program

Note: Complete this form *and* Form 1 if your facility is a new or existing concentrated animal feeding operation or concentrated aquatic animal production facility.

Paperwork Reduction Act Notice

The U.S. Environmental Protection Agency (EPA) estimates the average burden for concentrated animal feeding operation respondents to collect information and complete Form 2B to be 9.2 hours (8.7 hours to complete and submit the application and 0.5 hours to complete and submit a nutrient management plan). EPA estimates the average burden for concentrated aquatic animal production respondents to collect information and complete Form 2B to be 5.5 hours. These estimates include time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the collection of information. Send comments about the burden estimates or any other aspect of this collection of information to the Chief, Information Policy Branch (PM-223), U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, Washington, DC 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW, Washington, DC 20503, marked "Attention: Desk Officer for EPA."

FORM 2B—INSTRUCTIONS

General Instructions**Who Must Complete Form 2B?**

You must complete Form 2B if you answered "Yes" to Item 1.2.1 on Form 1—that is, if you are a concentrated animal feeding operation (CAFO) or a concentrated aquatic animal production (CAAP) facility.

Where to File Your Completed Form

Submit your completed application package (Forms 1 and 2B) to your National Pollutant Discharge Elimination System (NPDES) permitting authority. Consult Exhibit 1–1 of Form 1's "General Instructions" to identify your NPDES permitting authority.

Public Availability of Submitted Information

The U.S. Environmental Protection Agency (EPA) will make information from NPDES permit application forms available to the public for inspection and copying upon request. You may not claim any information on Form 2B (or related attachments) as confidential.

You may make a claim of confidentiality for any information that you submit to EPA that goes beyond the information required by Form 2B. Note that NPDES authorities will deny claims for treating any effluent data as confidential. If you do not assert a claim of confidentiality at the time you submit your information to the NPDES permitting authority, EPA may make the information available to the public without further notice to you. EPA will handle claims of confidentiality in accordance with the Agency's business confidentiality regulations at Part 2 of Title 40 of the *Code of Federal Regulations* (CFR).

Completion of Forms

Print or type in the specified areas only. If you do not have enough space on the form to answer a question, you may continue on additional sheets, as necessary, using a format consistent with the form.

Provide your EPA Identification Number from the Facility Registry Service, NPDES permit number, and facility name at the top of each page of Form 2B and any attachments. If your facility is new (i.e., not yet constructed), write or type "New Facility" in the space provided for the EPA Identification Number and NPDES permit number. If you do not know your EPA Identification Number, contact your NPDES permitting authority. See Exhibit 1–1 of the "General Instructions" of Form 1 for contact information.

Do not leave any response areas blank unless the form directs you to skip them. If the form directs you to respond to an item that does not apply to your facility or activity, enter "NA" for "not applicable" to show that you considered the item and determined a response was not necessary for your facility.

The NPDES permitting authority will consider your application complete when it and any supplementary material are received and completed according to the authority's satisfaction. The NPDES permitting authority will judge the completeness of any application independently of the status of any other permit application or permit for the same facility or activity.

Definitions

The legal definitions of all key terms used in these instructions and Form 2B are in the "Glossary" at the end of the "General Instructions" in Form 1.

Line-by-Line Instructions**Section 1. General Information**

Item 1.1. Mark whether your facility/business type is a CAFO or a CAAP.

- For a CAFO, you must complete Sections 1 through 6 and Section 8.
- For a CAAP, you must complete Sections 1, 7, and 8.

Item 1.2. Indicate whether your facility is an existing or proposed facility. Mark "Proposed Facility" if your facility is presently not in operation or is expanding to meet the definition of a CAFO in accordance with the regulations at 40 CFR 122.23.

Section 2. CAFO Owner/Operator Contact Information

Item 2.1. Provide the name, title, telephone number, and email address of the owner/operator of the facility/business.

Item 2.2. Provide the complete mailing address of the owner/operator of the facility/business.

Section 3. CAFO Location and Contact Information

Item 3.1. Provide the legal name and location (complete mailing address) of the facility. Also indicate whom the NPDES permitting authority should contact about the application, including a telephone number and email address.

Item 3.2. Provide the latitude and longitude of the entrance to the production area (i.e., the part of the operation that includes the animal confinement area, the manure storage area, the raw materials storage area, and the waste containment areas). Latitude and longitude coordinates may be obtained in a variety of ways, including use of hand held devices (e.g., a GPS enabled smartphone), internet mapping tools (e.g., <https://mynasadata.larc.nasa.gov/latitudelongitude-finder/>), geographic information systems (e.g., ArcView), or paper maps from trusted sources (e.g., U.S. Geological Survey or USGS). For further guidance, refer to <http://www.epa.gov/geospatial/latitudelongitude-data-standard>.

Item 3.3. If the facility uses a contract grower, provide the name and complete mailing address of the integrator.

Section 4. CAFO Topographic Map

Item 4.1. Provide a topographic map of the geographic area in which the facility is located, showing the specific location of the production area(s). You are not required to provide the topographic map required by Section 7 of Form 1.

On each map, include the map scale, a meridian arrow showing north, and latitude and longitude to the nearest second. Latitude and longitude coordinates may be obtained in a variety of ways, including use of hand held devices (e.g., a GPS enabled smartphone), internet mapping tools (e.g., <https://mynasadata.larc.nasa.gov/latitudelongitude-finder/>),

FORM 2B—INSTRUCTIONS CONTINUED

geographic information systems (e.g., ArcView), or paper maps from trusted sources (e.g., USGS).

On all maps of rivers, show the direction of the current. In tidal waters, show the directions of ebb and flow tides.

You may develop your map by going to the United States USGS's National Map website at <http://nationalmap.gov/>. (For a map from this site, use the traditional 7.5-minute quadrangle format. If none is available, use a USGS 15-minute series map.) You may also use a plat or other appropriate map. Briefly describe land uses in the map area (e.g., residential, commercial.). Note that you have completed your topographic map and attached it to the application.

Section 5. CAFO Characteristics

Supply all information in Section 5 if you checked "Existing facility" in response to Item 1.2.

Item 5.1. Provide the maximum number of each type of animal in open confinement or housed under roof (either partially or totally) that are held at your facility for a total of 45 days or more in any 12-month period. Provide the total number of animals confined at the facility.

Item 5.2. Identify the applicable types of containment and storage for manure, litter, and process wastewater at the facility and indicate the capacity of storage in days and gallons or tons.

Item 5.3. Indicate the total number of acres that are drained and collected in the containment and storage structure(s).

Item 5.4. Specify the tons of manure or litter and the gallons of process wastewater generated at the facility on an annual basis.

Item 5.5. Indicate whether the manure, litter, and/or process wastewater is land applied. If yes, continue to Item 5.6. If no, skip to Item 5.8.

Item 5.6. Indicate the number of acres of land under the control of the applicant that are available for land application of the manure, litter, or process wastewater.

Item 5.7. Check any of the identified best management practices that are being implemented at the facility to control runoff and protect water quality.

Item 5.8. Indicate if the manure, litter, and/or process wastewater is transferred to any other persons. If yes, continue to Item 5.9. If no, skip to Item 5.10.

Item 5.9. Specify the tons of manure or litter or the gallons of process wastewater transferred annually to other people.

Item 5.10. Describe any alternative uses of manure, litter, or process wastewater, if any (e.g., composting, pelletizing, energy generation).

Section 6. CAFO Nutrient Management Plans

Item 6.1. Indicate if you have submitted a nutrient management plan that satisfies the requirements at 40 CFR 122.42(e) and, if applicable, the requirements at 40 CFR 412.4(c).

Item 6.2. If you have not yet submitted a nutrient management plan, explain why not.

Item 6.3. Indicate if a nutrient management plan is being implemented at the CAFO. If not land applying, describe the alternative uses of the manure, litter, and wastewater (e.g., composting, pelletizing, energy generation).

Item 6.4. Indicate the date of the last review or revision of the nutrient management plan.

Note: A permit application is not complete until a nutrient management plan is submitted to the NPDES permitting authority.

Section 7. CAAP Facility Characteristics

Item 7.1. Indicate if the CAAP facility is located on land. If the facility is located in water (e.g., a net pen or submerged cage system), check "No" and skip to Item 7.3. If yes, continue to Item 7.2.

Item 7.2. Provide the maximum daily and maximum average monthly discharge at the CAAP facility by outfall number. Outfall numbers should correspond with the outfall numbers provided on the map submitted in Section 7 of Form 1. Values given for flow should be representative of your normal operation. The maximum daily flow is the maximum measured flow occurring over a calendar day. The maximum average monthly flow is the average of measured daily flow over the calendar month of highest flow.

Item 7.3. Indicate the number of ponds, raceways, net pens, submerged cages, or similar structures at your facility that result in discharges to waters of the United States. Describe each type and provide the name of the associated receiving water and intake water source.

Item 7.4. List the species of fish or aquatic animals held and fed at your facility. Distinguish between cold-water and warm-water species. The names of fish species should be proper, common, or scientific names as given in Special Publication 34 of the American Fisheries Society, *Common and Scientific Names of Fishes from the United States, Canada, and Mexico*.

For each species, provide the total harvestable weight in pounds (lbs.) for a typical calendar year. Also indicate the maximum weight present at any one time at your facility.

Item 7.5. Indicate the maximum monthly pounds of food given at your facility. Also indicate the month given. The amounts should be representative of your normal operations.

Section 8. Checklist and Certification Statement

Item 8.1. Review the checklist provided. In Column 1, mark the sections of Form 2B that you have completed and are submitting with your application. For each section in Column 2, indicate whether you are submitting attachments.

Item 8.2. The Clean Water Act provides for severe penalties for submitting false information on this application form. CWA Section 309(c)(2) provides that, "Any person who knowingly makes any false statement, representation, or certification in any application, ...shall upon conviction, be punished by a fine of no more than \$10,000 or by imprisonment for not more than six months, or both."

FORM 2B—INSTRUCTIONS CONTINUED


FEDERAL REGULATIONS AT 40 CFR 122.22 REQUIRE THIS APPLICATION TO BE SIGNED AS FOLLOWS:

- A. For a corporation, by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (1) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (2) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- B. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively.
- C. For a municipality, state, federal, or other public facility, by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a federal agency includes: (1) The chief executive officer of the agency, or (2) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

END

**Submit your completed Form 1, Form 2B, and
all associated attachments
(and any other required NPDES application forms)
to your NPDES permitting authority.**

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| | | | | |
|--|---|--|-------------------------------------|---|
| EPA Identification Number | | NPDES Permit Number WA-003153-4 | Facility Name Fort Ward Net Pens | Form Approved 03/05/19 OMB No. 2040-0004 |
| Form 2B NPDES |  | U.S. Environmental Protection Agency Application for NPDES Permit to Discharge Wastewater CONCENTRATED ANIMAL FEEDING OPERATIONS and CONCENTRATED AQUATIC ANIMAL PRODUCTION FACILITIES | | |
| SECTION 1. GENERAL INFORMATION (40 CFR 122.21(i)(1)) | | | | |
| General Information | 1.1 | Indicate the facility/business type. (Check only one response.) <input type="checkbox"/> CAFO → Complete Sections 1 through 6 and Section 8. <input checked="" type="checkbox"/> CAAP → Complete Sections 1, 7, and 8. | | |
| | 1.2 | Indicate the operational status of the facility. (Check one.) <input checked="" type="checkbox"/> Existing facility <input type="checkbox"/> Proposed facility | | |
| SECTION 2. CAFO OWNER/OPERATOR CONTACT INFORMATION (40 CFR 122.21(f)(2) and (4) and 122.21(i)(1)(ii)) | | | | |
| CAFO Owner/Operator Contact Information | 2.1 | Owner/Operator Contact | | |
| | | Name (first and last) | | Title |
| | | Phone number | | Email address |
| | 2.2 | Owner/Operator Mailing Address | | |
| | Street or P.O. box | | | |
| | City or town | | State | Zip code |
| SECTION 3. CAFO LOCATION AND CONTACT INFORMATION (40 CFR 122.21(i)(1)(ii and iii)) | | | | |
| CAFO Location and Contact Information | 3.1 | CAFO Location and Contact | | |
| | | Name | | |
| | | Address (street, route number, or other specific identifier) | | County |
| | | City or town | State | Zip code |
| | | Facility contact name | Phone number | Email address |
| | 3.2 | Latitude/Longitude of Entrance to Production Area (see instructions) | | |
| | Latitude | | Longitude | |
| | ° ' " | | ° ' " | |

| | | | |
|---------------------------|------------------------------------|-------------------------------------|---|
| EPA Identification Number | NPDES Permit Number WA-003153-4 | Facility Name Fort Ward Net Pens | Form Approved 03/05/19 OMB No. 2040-0004 |
|---------------------------|------------------------------------|-------------------------------------|---|

| | | | | |
|--|------------|------------------------------------|-------|----------|
| CAFO Location and Contact Information Continued | 3.3 | Integrator Name and Address | | |
| | | Name | | |
| | | Street address | | |
| | | City or town | State | Zip code |

SECTION 4. CAFO TOPOGRAPHIC MAP (40 CFR 122.21(i)(1)(iv))

| | | |
|-----------------------------|------------|--|
| CAFO Topographic Map | 4.1 | Have you attached a topographic map containing all required information to this application? (See instructions for specific requirements.) <input type="checkbox"/> Yes → SKIP to Section 5. <input type="checkbox"/> No |
|-----------------------------|------------|--|

SECTION 5. CAFO CHARACTERISTICS (40 CFR 122.21(i)(1)(v ix))

| | | | | | | | |
|-----------------------------|------------|---|----------------------------|--|--|----------------------------|--|
| CAFO Characteristics | 5.1 | Provide information on the type and number of animals in the table below. | | | | | |
| | | Animal Type | Number in Open Confinement | Number Housed Under Roof | Animal Type | Number in Open Confinement | Number Housed Under Roof |
| | | <input type="checkbox"/> Mature dairy cows | | | <input type="checkbox"/> Sheep or lambs | | |
| | | <input type="checkbox"/> Dairy heifers | | | <input type="checkbox"/> Chickens (broilers) | | |
| | | <input type="checkbox"/> Veal calves | | | <input type="checkbox"/> Chickens (layers) | | |
| | | <input type="checkbox"/> Cattle (not dairy or veal calves) | | | <input type="checkbox"/> Ducks | | |
| | | <input type="checkbox"/> Swine (55 lbs. or more) | | | <input type="checkbox"/> Other (specify) | | |
| | | <input type="checkbox"/> Swine (under 55 lbs.) | | | <input type="checkbox"/> Other (specify) | | |
| | | <input type="checkbox"/> Horses | | | <input type="checkbox"/> Other (specify) | | |
| | | <input type="checkbox"/> Turkeys | | | Total Animals | | |
| | 5.2 | Indicate the type of containment and storage, total number of days, and total capacity for manure, litter, and process wastewater storage in the table below. | | | | | |
| | | Type of Containment and Storage | Total Number of Days | Total Capacity (specify gallons or tons) | Type of Containment and Storage | Total Number of Days | Total Capacity (specify gallons or tons) |
| | | <input type="checkbox"/> Anaerobic lagoon | | | <input type="checkbox"/> Belowground storage tanks | | |
| | | <input type="checkbox"/> Evaporation | | | <input type="checkbox"/> Roofed storage shed | | |
| | | <input type="checkbox"/> Aboveground storage tanks | | | <input type="checkbox"/> Concrete pad | | |
| | | <input type="checkbox"/> Storage pond | | | <input type="checkbox"/> Impervious soil pad | | |
| | | <input type="checkbox"/> Underfloor pit | | | <input type="checkbox"/> Other (specify) | | |
| | 5.3 | Indicate the total number of acres drained and collected in the containment and storage structure(s) reported under Item 5.2. _____ acres | | | | | |

| | | | |
|---------------------------|------------------------------------|-------------------------------------|---|
| EPA Identification Number | NPDES Permit Number WA-003153-4 | Facility Name Fort Ward Net Pens | Form Approved 03/05/19 OMB No. 2040-0004 |
|---------------------------|------------------------------------|-------------------------------------|---|

| | | | |
|---------------------------------------|---|---|---------|
| CAFO Characteristics Continued | Manure, Litter, and/or Process Wastewater Production and Use | | |
| | 5.4 | How many tons of manure or litter and gallons of process wastewater are generated annually at the CAFO? | |
| | | Manure | tons |
| | | Litter | tons |
| | | Process wastewater | gallons |
| | 5.5 | Is manure, litter, and/or process wastewater generated at the CAFO land applied? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 5.8. | |
| | 5.6 | How many acres of land under the control of the applicant are available for applying the CAFO's manure, litter, or process wastewater? _____ acres | |
| | 5.7 | Check all land application best management practices that are being implemented. <input type="checkbox"/> Buffers <input type="checkbox"/> Infiltration field <input type="checkbox"/> Setbacks <input type="checkbox"/> Grass filter <input type="checkbox"/> Conservation tillage <input type="checkbox"/> Terrace <input type="checkbox"/> Constructed wetlands <input type="checkbox"/> Other (specify) | |
| | 5.8 | Is manure, litter, and/or process wastewater transferred to any other persons? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 5.10. | |
| | 5.9 | How many tons of manure or litter and gallons of process wastewater, produced by the CAFO, are transferred annually to other people? | |
| | Manure | tons | |
| | Litter | tons | |
| | Process wastewater | gallons | |
| 5.10 | Describe alternative use(s) of manure, litter, or process wastewater, if any. | | |

| | | |
|---|-----|---|
| SECTION 6. CAFO NUTRIENT MANAGEMENT PLANS (40 CFR 122.21(i)(1)(x)) | | |
| CAFO Nutrient Management Plans | 6.1 | Has the applicant attached a nutrient management plan that satisfies the requirements at 40 CFR 122.42(e) and, if applicable, the requirements at 40 CFR 412.4(c)? Note: A permit application is not complete until a nutrient management plan is submitted to the NPDES permitting authority. <input type="checkbox"/> Yes → SKIP to Item 6.3. <input type="checkbox"/> No |
| | 6.2 | Explain why a nutrient management plan is not attached to the application. |
| | 6.3 | Is a nutrient management plan being implemented at the CAFO? <input type="checkbox"/> Yes <input type="checkbox"/> No |
| | 6.4 | What was the date of the last review or revision of the nutrient management plan? Date _____ |

| | | | | | | |
|---|--|---|---|-----------------------------------|----------------------|------------------------|
| EPA Identification Number | NPDES Permit Number WA-003153-4 | Facility Name Fort Ward Net Pens | Form Approved 03/05/19 OMB No. 2040-0004 | | | |
| SECTION 7. CAAP FACILITY CHARACTERISTICS (40 CFR 122.21(i)(2)) | | | | | | |
| CAAP Facility Characteristics | 7.1 | Is the CAAP facility located on land? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Item 7.3. | | | | |
| | 7.2 | Provide the maximum daily and maximum average monthly discharge at CAAP by outfall. | | | | |
| | | Outfall Number | Discharge | | | |
| | | | Maximum Daily Discharge | Maximum Average Monthly Discharge | | |
| | | | gpd | gpd | | |
| | | | gpd | gpd | | |
| | | | gpd | gpd | | |
| | 7.3 | Indicate the type and number of discharge structures at the CAAP. Provide a brief description of each structure. Also note the name of the receiving water and the source of the intake water for each structure. | | | | |
| | | Structure Type | Number of Each | Description | Receiving Water Name | Source of Intake Water |
| | | Ponds | | | | |
| | | Raceways | | | | |
| | | Net pens | 12 pens | 1 raft of 12 pens | Rich Passage | Not applicable |
| | | Submerged cages | | | | Not applicable |
| | | Similar structures (specify) | | | | |
| | 7.4 | List the cold-water and/or warm-water aquatic species raised/produced in the table below. For each species listed, indicate the total yearly and maximum harvestable weight (in pounds). | | | | |
| | Cold Water Species | | | Warm Water Species | | |
| | Species | Harvestable Weight | | Species | Harvestable Weight | |
| | | Total Yearly | Maximum | | Total Yearly | Maximum |
| | Salmo salar | 3,400,000 lbs. | 3,400,000 lbs. | | lbs. | lbs. |
| | Oncorhynchus mykiss | 3,400,000 lbs. | 3,400,000 lbs. | | lbs. | lbs. |
| | | lbs. | lbs. | | lbs. | lbs. |
| | | lbs. | lbs. | | lbs. | lbs. |
| 7.5 | Indicate the calendar month of maximum feeding and the total mass of food fed (in pounds) during that month. | | | | | |
| | Month of Maximum Feeding | | | Total Mass of Food Fed | | |
| | Estimated month is May | | | 480,000 lbs. | | |

| | | | |
|--|--|--|---|
| EPA Identification Number | NPDES Permit Number WA-003153-4 | Facility Name Fort Ward Net Pens | Form Approved 03/05/19 OMB No. 2040-0004 |
| SECTION 8. CHECKLIST AND CERTIFICATION STATEMENT (40 CFR 122.22(a) and (d)) | | | |
| Checklist and Certification Statement | 8.1 | In Column 1, below, mark the sections of Form 2B that you have completed and are submitting with your application. For each section, specify in Column 2 any attachments that you are enclosing to alert the permitting authority. Note that not all applicants are required to provide attachments. | |
| | | Column 1 | Column 2 |
| | <input checked="" type="checkbox"/> Section 1: General Information | <input type="checkbox"/> w/ attachments | |
| | <input type="checkbox"/> Section 2: CAFO Owner/Operator Contact Information | <input type="checkbox"/> w/ attachments | |
| | <input type="checkbox"/> Section 3: CAFO Location and Contact Information | <input type="checkbox"/> w/ attachments | |
| | <input type="checkbox"/> Section 4: CAFO Topographic Map | <input type="checkbox"/> w/ topographic map <input type="checkbox"/> w/ additional attachments | |
| | <input type="checkbox"/> Section 5: CAFO Characteristics | <input type="checkbox"/> w/ attachments | |
| | <input type="checkbox"/> Section 6: CAFO Nutrient Management Plans | <input type="checkbox"/> w/ nutrient management plan <input type="checkbox"/> w/ attachments | |
| | <input checked="" type="checkbox"/> Section 7: CAAP Facility Characteristics | <input checked="" type="checkbox"/> w/ attachments | |
| | <input checked="" type="checkbox"/> Section 8: Checklist and Certification Statement | <input type="checkbox"/> w/ attachments | |
| 8.2 | Certification Statement <i>I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.</i> | | |
| | Name (print or type first and last name) <i>Rodney Gould</i> | Official title <i>Secretary</i> | |
| | Signature <i>[Signature]</i> | Date signed <i>Oct 15, 2019</i> | |



Operations and Maintenance Manual

Fort Ward, Orchard Rocks, Clam Bay, and Hope Island Net Pen

January 27, 2020

Revised: February 25, 2020

List of Revisions

This manual must be reviewed annually and updated as needed. If staff make changes to the Plan, it must be submitted to the Washington State Department of Ecology (Ecology) for review and approval. Initial plan is due to Ecology by January 31, 2020.

[illegible]

Cross Reference of Regulatory Requirements Between Plans and NPDES Permits

| NPDES Permit Condition | NPDES Permit Condition Subject | Addressed by Cooke Plan | Cooke Plan Section |
|------------------------|---|-----------------------------|--------------------|
| S.4.A | Operation and Maintenance Manual | O & M Manual | 1.0 |
| S.4.A.1.a | O &M Update Submittal | O & M Manual | 1.0 |
| S.4.A.1.b | O &M Changes | O & M Manual | 1.0 |
| S.4.A.1.c | O & M Copies | O & M Manual | 1.0 |
| S.4.A.1.d | Compliance | O & M Manual | 1.0 |
| S.4.A.2.a | Noncompliance Corrective Action | O & M Manual | 4.0 |
| S.4.A.2.b | Emergency Procedures | O & M Manual | 3.0 |
| S.4.A.2.c | Critical Components | O & M Manual | 5.0 |
| S.4.A.2.d | Directions to Staff | O & M Manual | 2.0 |
| S.4.A.2.e | Minimum Staffing Requirements | O & M Manual | 6.0 |
| S.4.A.3.a | Fish Feeding | Pollution Prevention Plan | 4.0 |
| S.4.A.3.b | Size of Feed | Pollution Prevention Plan | 4.1.1 |
| S.4.A.3.c | Excessive Fines and High Digestibility | Pollution Prevention Plan | 4.1.2 |
| S.4.A.3.d | Data | O & M Manual | 7.2 |
| S.4.A.3.e | Fish Carcasses | Pollution Prevention Plan | 6.0 |
| S.4.A.3.f | Fish Carcass Storage and Disposal | Pollution Prevention Plan | 6.1 |
| S.4.A.3.g | Disposal of Fish Mortalities, Harvest Blood, and Leachate | Pollution Prevention Plan | 6.3 |
| S.4.A.3.h | Maintenance of Net Pens | Fish Escape Prevention Plan | 9.0 |
| S.4.A.3.i | Net Cleaning | Fish Escape Prevention Plan | 9.1 |
| S.4.A.3.j | Storage and Secondary Containment of Daily Materials | Pollution Prevention Plan | 3.2 and Appendix A |
| S.4.A.3.k | Prohibited Discharges | O & M Manual | 9.0 |
| S.4.A.3.l | Toxic Discharges | O & M Manual | 9.1 |
| S.4.A.3.m | Soaps, Detergents, and Disinfectants | O & M Manual | 9.2 |
| S.4.A.3.n | Pressure Washing | Pollution Prevention Plan | 3.0 |
| S.4.A.3.o | Debris Prevention | Fish Escape Prevention Plan | 9.3 |
| S.4.A.3.p | Floating Debris | Fish Escape Prevention Plan | 9.3 |
| S.4.A.3.q | Use of Tributyl tin | O & M Manual | 10.0 |
| S.4.A.3.r | Dropped or Lost Nets | O & M Manual | 7.4.4 |
| S.8.A.2 | Pollution Prevention Plan Changes or Updates | Pollution Prevention Plan | 1.0 |
| S.8.A.3 | Annual Review | Pollution Prevention Plan | 1.0 |
| S.8.A.4 | Pollution Prevention Plan Changes | Pollution Prevention Plan | 1.0 |
| S.8.A.5 | Adherence to the Pollution Prevention Plan | Pollution Prevention Plan | 1.0 |
| S.8.B | Pollution Prevention Plan and Components | Pollution Prevention Plan | 1.0 |
| S.8.B.1 | List of All Materials Stored on site | Pollution Prevention Plan | Appendix A |
| S.8.B.2 | Description of Preventative Measures | Pollution Prevention Plan | Appendix A |
| S.8.B.3 | Reporting System | Pollution Prevention Plan | 2.0 |
| S.8.B.4 | Description of Response and Procedures | Pollution Prevention Plan | 2.0 |
| S.8.B.5 | Staff Training | Pollution Prevention Plan | 9.0 |
| S.8.B.6 | Fish Feeding | Pollution Prevention Plan | 4.0 |
| S.8.B.7 | Disease Control Chemical Use | Pollution Prevention Plan | 5.0 |
| S.8.B.8 | Disease Control Chemical Disposal | Pollution Prevention Plan | 5.4 |
| S.8.B.9 | Solid and Biological Wastes | Pollution Prevention Plan | 6.0 |
| S.8.B.10 | Inspection Schedule | Fish Escape Prevention Plan | 7.0 |

| NPDES Permit Condition | NPDES Permit Condition Subject | Addressed by Cooke Plan | Cooke Plan Section |
|-------------------------------|---|---|---------------------------|
| S.8.B.11 | Stormwater | Pollution Prevention Plan | 8.0 |
| S.8.B.12 | Routine Maintenance | Pollution Prevention Plan | 3.0 |
| S.9. | Fish Escape Plan | Fish Escape Prevention Plan | 1.0 |
| S.9.A | Technology to Minimize Fish Escape | Fish Escape Prevention Plan | 9.4 |
| S.9.B | Normal Daily Operations | Fish Escape Prevention Plan | 5.0 |
| S.9.C | Net Pen and Repair | Fish Escape Prevention Plan | 4.0 |
| S.9.D | Inspection Schedule | Fish Escape Prevention Plan | 7.0 |
| S.9.E | Routine Repairs and Emergencies | Fish Escape Prevention Plan | 4.0 |
| S.9.F | Ecology Notification | Fish Escape Prevention Plan | 2.0 |
| S.9.G | Stocking and Harvesting | Fish Escape Prevention Plan | 6.0 |
| S.9.H | Pen Stabilization | Fish Escape Prevention Plan | 2.3 |
| S.9.I | Training | Fish Escape Prevention Plan | 8.0 |
| S.9.J | Net Cleaning | Fish Escape Prevention Plan | 9.1 |
| S.9.K | Holes in Nets | Fish Escape Prevention Plan | 9.2 |
| S.9.L | Fish Tracking | Fish Escape Prevention Plan | 10.0 |
| S.10.A | Emergency Contact List | Fish Escape Response and Reporting Plan | 2.0 |
| S.10.B | 24-Hr Notification and Reporting | Fish Escape Response and Reporting Plan | 2.0 |
| S.10.C | Emergency Procedures | Fish Escape Response and Reporting Plan | 5.0 |
| S.10.D | Technology to Minimize Fish Escape | Fish Escape Response and Reporting Plan | 6.0 |
| S.10.E | Personnel Training Unified Command System | O & M Manual | 7.1 |
| S.10.F | Unified Command, Incident Command, and Preparedness | O & M Manual | 7.1 |
| S.10.G | Fish Recapture | Fish Escape Response and Reporting Plan | 4.0 |
| S.10.H | Antibiotics | Fish Escape Response and Reporting Plan | 3.1 |
| S.10.I | Antibiotic Reporting | Fish Escape Response and Reporting Plan | 3.1 |
| S.10.J | Annual Fish Release Report | Fish Escape Response and Reporting Plan | 8.0 |

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1. Overview

Cooke Aquaculture Pacific Inc. (Cooke) owns and operates several marine net pen aquaculture operations in Washington State. Juvenile fish are raised to smolt-size at a land-based facility, then transported to the net pens. These net pens raise Atlantic salmon (*Salmo salar*) to market size, then the fish are removed from the pens and transferred via boat to a land-based processing facility. In 2019, Washington State Department of Ecology (Ecology) issued a new National Pollution Discharge Elimination System (NPDES) general permit for the operation of the net pen facilities. These permits clearly identify the operating requirements, current regulations, and water quality standards. Each facility is issued an individual NPDES permit, shown in Table 1 below.

Table 1: Facility NPDES Permit Numbers

| Facility | NPDES Permit Number |
|---------------|---------------------|
| Fort Ward | WA0031534 |
| Orchard Rocks | WA0031542 |
| Clam Bay | WA0031526 |
| Hope Island | WA0031593 |

This Operations and Maintenance Manual (O&M Manual), together with the Pollution Prevention Plan, Fish Escape Prevention Plan, and Fish Escape Response and Reporting Plan (the Plans), satisfy the requirements of the 2019 NPDES individual facility permits for the Fort Ward, Orchard Rocks, Clam Bay, and Hope Island net pen facilities. The Plans describe the proper operation and maintenance of each facility to ensure compliance with the permits. Staff at each facility must follow the instructions and procedures of this manual and Plans. The Permit Coordinator reviews and updates the Plans annually and as needed. If the Plans are changed or updated, the Permit Coordinator will submit them to Ecology for review and approval. The facility's NPDES permits and the Plans will be posted at the facilities.

2. Directions to Staff

The Pollution Prevention Plan, Fish Escape Prevention Plan, Fish Escape Response and Reporting Plan, and this Operation and Maintenance Manual are used in conjunction with each other, and function collectively as directions to staff. The most effective way to find applicable directions is to use the regulatory cross reference at the beginning of this manual.

This Operations and Maintenance Manual contains directions to staff on:

- Emergency procedures (Section 3)
- Responding to and correcting actual or potential permit non-compliance (4)
- Actions required to maintain critical components (5)
- Minimum staffing levels required for operation (6)
- Requirements for normal operation and maintenance (7)
- Net pen maintenance, cleaning, dropped or lost nets, and debris (7.4)
 - Net cleaning roles are:
 - Site staff inspect and report on status of machines
 - Site Managers ensure machines are maintained adequately and communicate need for additional machines before one breaks down
 - Permit Coordinator or Business Support Analyst ensures an extra machine is provided when needed
- Material storage and secondary containment (8)

The Pollution Prevention Plan contains directions to staff on:

- Emergency spill response and reporting (Section 2)
- Facility site maps and spill kit locations and contents (3)
- Procedures for routine maintenance to prevent pollutants from entering the water (4)
- Fish feeding procedures (5)
- Disease control chemical use, storage, and disposal (6)
- Handling and disposing of fish mortality and biological wastes (7)
- Procedures to Identify new or potential stormwater pollution (10)

The Fish Escape Prevention Plan includes directions to staff on:

- Notifying Ecology of major or emergency repairs or structural problems (Section 2)
- Net pen stabilization (4)
- Routine procedures and best management practices to reduce fish escapes (5)
- Stocking and harvesting fish (6)
- Procedures to reduce escapements during repairs (8)
- Inspection schedules and procedures (9)
- Additional information on net cleaning, repairs, or debris prevention (11)

The Fish Escape Response and Reporting Plan contains directions to staff on:

- Reporting Procedures in case of fish escape (Section 3)
- Fish recapture procedures (4)
- Emergency procedures to limit the further escape of fish (5)

3. Emergency Procedures

3.1 Accidental Release of Oil or Hazardous Material

The Pollution Prevention Plan, describes emergency procedures for responding to spills of oil and hazardous materials. In the event of an accidental oil, petroleum product, or hazardous material spill at the facility, staff must identify the spill source, stop the release, and contain the impacted area. Additionally, facility staff must initiate the call tree located in the Pollution Prevention Plan- Emergency Spill Response Procedures, Section 2. Spill containment and cleanup efforts take priority over all other work activities. After the spill is cleaned up, the Site Manager performs a full site inspection. Facility staff must record the incident on the spill documentation form (Pollution Prevention Plan, Appendix C) and must label and properly dispose of used cleanup materials.

3.2 Accidental Release of Fish

The Fish Escape Response and Reporting Plan describes emergency procedures for responding to the accidental release of fish. Staff must notify all appropriate Cooke and agency contacts in the event of an accidental release of fish using the Emergency Contact List call tree, located in Section 2 of the Fish Escape Response and Reporting Plan. Staff must take quick action to minimize or cease the escapement of fish, keeping the safety of staff and the

containment and recovery of fish at the forefront of decision-making. Fish removal and re-inventory processes will be initiated as soon as practicable after the discovery of an accidental release of fish.

3.3 Structural Integrity

Emergency procedures for responding to and reporting structural instability or collapse of the net pen structure or mooring system are described in the Fish Escape Prevention Plan. In the event the net pen structure or mooring system becomes substantially damaged, Cooke management must work quickly to stabilize the structure and notify the state agencies of the situation. Actions to reduce or eliminate the likelihood of escaped fish must be immediately enacted.

4. Noncompliance Corrective Actions

Cooke employees must follow all company plans and procedures and take immediate action to correct any condition that is noncompliant with the NPDES permit issued to the facility. This includes the release of fish and exceedances of the water quality standards. Procedures for addressing the accidental release of fish can be found in the Fish Escape Response and Reporting Plan. Any noncompliance that endangers health or the environment must be reported to Ecology within 24 hours. Appropriate and proportional corrective actions must be taken to address the noncompliance identified.

The Permit Coordinator must submit a written report within five days that contains a description of the noncompliance and its cause, the exact period of noncompliance, the estimated time the noncompliance is expected to continue if not already rectified, and steps taken or planned to reduce, eliminate, or prevent a recurrence.

4.1 Sediment Management Standards and Water Quality Criteria

The NPDES permits require that discharges of waste from permitted net pen facilities comply with Washington's Sediment Management Standards (Chapter 173-204 WAC) and Surface Water Quality Criteria (Chapter 173-210A WAC) to protect biological resources and human health. Those standards are outlined in Table 2, below.

Table 2: Sediment Management Standards and Water Quality Criteria

| Parameter | Standard |
|----------------------------|--|
| total organic carbon (TOC) | 0.5-2.6 % dry weight, as a function of silt-clay % dry weight |
| zinc | 410 mg/kg dry weight |
| copper | 390 mg/kg dry weight |
| dissolved oxygen | Record high, low, and average at each corner and the center of the pens. May not cause a decrease in dissolved oxygen over 0.2 mg/L. |
| benthic infaunal | Statistically different from the reference sample, meaning a t-test p value less than or equal to 0.05. |

The NPDES permits require that Cooke sample and analyze sediment, water quality, and benthic infaunal quality at each facility annually during the critical summer period (August 15 to September 30). Cooke does not use copper anti-fouling agents on the nets or cage systems. The sediment, water quality, and benthic infaunal quality sampling and analysis is also required whenever the peak biomass for a generation (considered to be within 45 days of the first harvest of each generation) falls outside of the critical summer period.

Cooke assesses compliance with the Sediment Management Standards and Water Quality Criteria by implementing Sampling and Analysis Plans (SAPs) in accordance with condition S2 of the NPDES permits. Cooke contracts an aquatic sciences consultant to develop the SAPs, perform the sampling and analysis activities, and prepare the Sediment Data Reports required by the permit. The analysis report compares sediment total organic carbon (TOC) and zinc against the Sediment Management Standards.

If the Sediment Data Reports indicate that sediments fail to meet the standards, Cooke will work with Ecology and the third party consultant to perform Exceedance and Enhanced Monitoring.

4.1.1 Exceedance Monitoring Procedure

1. A third-party consultant collects additional samples at permit-specific locations.
2. The Permit Coordinator reviews and submits an SAP to Ecology by January 31 for sampling between August 15 and September 30, and no less than 90 days before the next estimated peak biomass period. Ecology needs 45 days to review and approve the SAP.

4.1.2 Enhanced Monitoring Procedure

1. If the exceedance monitoring results are above permit limits, a third-party contractor collects additional samples.
2. The Permit Coordinator submits an SAP to Ecology by January 31 for sampling between August 15 and September 30, and no less than 90 days before the next estimated peak biomass period. Ecology needs 60 days to review and approve the SAP.

4.1.3 Exceedance of the Sediment Management Standards for TOC Procedure

1. The Permit Coordinator notifies the Cooke General Manager.
2. Site Managers ensure feed wastage is not occurring at the site by providing additional oversight of the feeding process.
3. The Permit Manager follows up with the Site Manager to ensure that feeding levels have been correct, checks that feed conversion rates fall within the expected levels, and checks on feed delivery methods to ensure the feed process is occurring correctly.
4. The Site Managers, in consultation with the Permit Manager, consider whether a full or partial removal of biomass from the net pens is required to reduce the amount of feed. This step could be employed as a method to correct the noncompliance with the Sediment Management Standards.

4.1.4 Exceedance of the Sediment Management Standards for Zinc Procedure

1. The Site Managers and the Permit Coordinator will request that the feed suppliers measure their supplemental zinc levels and submit sample splits to an independent lab work to ensure there is the correct amount of supplemental zinc in the fish food. If the results of this analysis show that the amount of supplemental zinc exceeds the expected zinc metabolism rates of the fish, the composition of the feed will be corrected.
2. Site Managers provide additional oversight of the feeding process by ensuring feed wastage is not occurring at the site, as uneaten feed accumulation in the benthic environment may cause zinc levels to increase. The zinc supplement added to the feed is a highly digestible form and easily metabolized by the fish, but uneaten feed pellets have un-metabolized zinc, potentially increasing zinc levels in the sediments if allowed to accumulate.
3. The Permit Coordinator follows up with the Site Manager to ensure that feeding levels have been correct, to check that feed conversion rates fall within the expected levels, and to check on feed delivery methods to ensure the feed process is occurring correctly.
4. The Site Managers, in consultation with the Permit Manager, consider whether a full or partial removal of biomass from the net pens is required to reduce the amount of zinc discharged. This step could be employed as a method to correct the noncompliance with the Sediment Management Standards.

4.2 Release of Atlantic Salmon

The procedures for a fish escape are detailed in the Fish Escape Response and Reporting Plan.

5. Review of Critical Structural Components

Floating marine net pen cage systems consist of a semi-rigid steel or plastic floating structure held in place by a series of external mooring lines attached around the perimeter of the structure. The fish containment nets (stock nets) attach to the floating cage structure above the surface of the water. The bottom of each square stock net attaches to sinker tubes or other types of weighting systems that submerge and hold the net in place. The combination of the semi-rigid floating structure and the net weighting system creates the open growing space (fish pen) in which the fish can be reared. Additional netting materials cover the surface of each fish pen to prevent avian predation and surround the perimeter of the submerged stock nets to protect against marine mammal predation.

The Fort Ward, Orchard Rocks, and Clam Bay marine net pen systems are Ocean Catamaran cages built by ProOcean. They are constructed on a series of large steel pontoons sections that provide the floatation of the structure. The steel pontoons and crossbeams attach with series of steel hinges. Walkway structures welded to each pontoon and crossbeam section create the working platform for employees and the surface attachment points for containment nets, predator nets, and mooring line. The perimeter of the steel structure has a series of attachment points where each mooring line connects.

The Hope Island site marine net pen was constructed by Wavemaster and consists of hinged galvanized steel walkways that have numerous plastic foam-filled floats attached underneath. These foam floats provide buoyancy for the steel walkways structure and cage system. The walkways create the working platform for the employees and the attachment points for the stock nets, predator nets, and support for other fish-growing equipment. Hinged mooring plates are located around the outside perimeter of the walkways for the attachment of the mooring lines.

Table 3, below, details critical components common to the net pen systems at each facility, their most probable mode of failure, and the Best Management Practices (BMPs) implemented to ensure their continued structural integrity.

Table 3: Critical Structural Components and BMPs

| Component | Most Probable Mode of Failure | Best Management Practices |
|-------------------------------|---|---|
| Steel Cage Structure | Metal fatigue. Excessive corrosion/loss of material. Mooring failure. | <ul style="list-style-type: none"> ■ Maintenance and repair reporting and recordkeeping through Weekly Surface Inspection Reports. ■ Inspections every two years by marine engineering firm assessing structural integrity, mooring analysis, and analysis of risk. |
| Steel Flotation Pontoons | Excess corrosion or mechanical damage leading to loss of airtight chambers in steel pontoons. | <ul style="list-style-type: none"> ■ Maintenance and repair reporting and recordkeeping through Weekly Surface Inspection Reports. ■ Annual below-surface inspections. ■ Ultrasonic survey of metal thickness of steel pontoons every two years. ■ Inspections every two years by marine engineering firm assessing structural integrity, mooring analysis, and analysis of risk. |
| Foam-filled Plastic Flotation | Mechanical damage | <ul style="list-style-type: none"> ■ Maintenance and repair reporting and record keeping through Weekly Surface Inspection Reports. ■ Annual below surface inspections. ■ Inspections every two years by marine engineering firm assessing structural integrity, mooring analysis, and analysis of risk. |

| Component | Most Probable Mode of Failure | Best Management Practices |
|--|---|---|
| Surface Mooring Line Attachment Point System and Connections | Metal fatigue. Excessive corrosion/loss of material. Exceeding safety factor of the Ultimate Limit State (ULS) or Accident Limit State (ALS). | <ul style="list-style-type: none"> ■ Maintenance and repair reporting and recordkeeping through Weekly Surface Inspection Reports. ■ Inspections every two years by marine engineering firm assessing structural integrity, mooring analysis, and analysis of risk. ■ Mooring components sized correctly to meet recommended safety factor. ■ Repair and maintenance to keep components in good working order. |
| Mooring lines | Mechanical damage. Exceeding safety factor of ULS or ALS. | <ul style="list-style-type: none"> ■ Weekly Surface Inspections Reports ■ Daily observation by facility staff to identify mooring line failure. ■ Inspections every two years by marine engineering firm assessing structural integrity, mooring analysis, and analysis of risk. ■ Mooring components sized correctly to meet recommended safety factor. ■ Mooring components inspected from surface to anchor on an annual basis, noting the condition of components. Conditions noted in the annual inspections dictate repair and maintenance. |
| Mooring Chains | Excessive corrosion/loss of material. Exceeding safety factor of ULS or ALS. | <ul style="list-style-type: none"> ■ Weekly Surface Inspections Reports ■ Daily observation by facility staff to identify mooring line failure. ■ Inspections every two years by marine engineering firm assessing structural integrity, mooring analysis, and analysis of risk. ■ Mooring components correctly sized to meet recommended safety factor. ■ Mooring chains inspected from surface to anchor on an annual basis, noting the condition of components. Conditions noted in the annual inspections dictate repair and maintenance. |
| Mooring Shackles | Excessive corrosion/loss of material. Exceeding ULS or ALS. | <ul style="list-style-type: none"> ■ Weekly Surface Inspections Reports ■ Daily observation by facility staff to identify mooring shackle failure. ■ Inspections every two years by marine engineering firm assessing structural integrity, mooring analysis, and analysis of risk. ■ Mooring components correctly sized to meet recommended safety factor. ■ Mooring components inspected from surface to anchor on an annual basis, noting the condition of components. Conditions noted in the annual inspections dictate repair and maintenance. |

| Component | Most Probable Mode of Failure | Best Management Practices |
|---|---|--|
| Fish Stock Nets | Mechanical damage. Reduced material strength from repeated use. | <ul style="list-style-type: none"> ■ Heavy polypropylene twine netting used with chafe panel (layer of extra netting) incorporated into surface perimeter of stock nets to approximately three feet in depth. ■ Outer predator barrier net around outside perimeter of farm to protect interior stock nets from floating debris, logs, and marine mammal predation. ■ Stock nets are removed after each growing cycle and sent to net maintenance facility for cleaning, repair, and break strength testing. ■ Stock nets are retired from service when break strength testing average reaches 50% of original break strength (typically retired after 2-3 growth cycles). New stock nets can be rotated in during planned production breaks or during the growing cycle. ■ Divers enter the fish pen to retrieve fish mortalities three or more times per week. Divers are trained to be observant for signs of chaffing or holes in the net walls and floor while they are retrieving fish mortalities. Workers on the surface are to be observant of their surrounding work environment including nets, anchor lines, walkways, and other equipment on the farm. |
| Stock Net Attachment Points, Hand-rails, Net Tie Rail | Excessive corrosion/loss of material. | <ul style="list-style-type: none"> ■ Weekly Surface Inspections Reports ■ Daily observation by facility staff to identify potential problems. ■ Inspections every two years by marine engineering firm assessing structural integrity, mooring analysis, and analysis of risk. The condition of components is noted in marine engineer inspection reports. Repairs or replacement of materials are scheduled accordingly. |
| Fuel and oil containment devices | Mechanical damage. Human error. | <ul style="list-style-type: none"> ■ Include fuel, fuel holding, transfer hoses, and equipment in the monthly Stormwater Prevention Inspection report. ■ Only double-walled fuel cells or tanks with secondary containment are used for the diesel generators and air compressors at the facility. ■ Spill containment kits are located in areas where fuel tanks for the machinery is located. ■ Diesel fuel transfer into the equipment fuel tanks is carried out by personnel that have been trained on safe fuel handling techniques. Farm sites have several employees that have HAZWOPER training. |

6. Minimum Staffing

Table 4 below details the minimum staffing needed for proper operation and maintenance of the facility, broken down by task. These tasks apply to all Cooke facilities.

Table 4: Minimum Staffing per Task

| Task | Minimum Staff | Details |
|-----------------|---------------|--|
| Fish feeding | 1 | Standard operating procedures require one person to feed the fish. |
| Dive operations | 3 | Dive operations are described in the Cooke Dive Safety Handbook. Normal mortality retrieval dives are a minimum of three times per week, with the exception of adverse weather conditions. |
| Supply delivery | 2 | Cooke-operated supply vessels must have two persons onboard for operating the vessel. This is standard operating procedure. |

| Task | Minimum Staff | Details |
|--------------------------------|---------------|---|
| Harvesting | 4 | Standard operating procedures for harvest operations require four people. |
| Net cleaning | 1 | One person required to operate or monitor a net cleaning machine. |
| Net rotation | 7 | Standard operating procedures state that net rotations require a dive team (3 people), a Cooke-operated supply vessel (2 people), and a surface crew (2 people) in order to carry out the task. |
| Facility structure maintenance | 2 | Typically carried out by the Cooke-operated supply vessel crew. |
| Mooring maintenance | 2 | The Cooke-operated supply vessel crew performs routine mooring maintenance. |
| No activity | 0 | Normal operations are seven days a week during work hours. Provided that the facility is operating normally, as indicated by regular and thorough inspections, there are times, e.g., during fallow periods, lunch breaks, when the minimum number of people required to operate and maintain the facilities is temporarily zero. Cooke management emergency contact information is posted at each facility and upland farm office. Company management and key employees are provided with company cell phones. Staff members can arrive at the net pen sites within an hour of emergency notification. |

7. Operating Requirements

Operating requirements are set by Cooke to ensure the safe and compliant operation of net pen facilities. Cooke requires that all staff follow these requirements in the performance of their duties.

7.1 Fish Feeding

Cooke Site Managers and fish feeding staff must perform fish feeding according to the procedures in the Pollution Prevention Plan, Section 4.0. This section of the Pollution Prevention Plan addresses the Operating Requirements of fish feeding regulated by Permit conditions S4.A.3 a-d.

7.2 Collecting Data

Environmental and biological factors influence the feeding rate of the fish. The total amount of feed fed to each net pen, and the rate at which it is distributed, is adjusted on a daily basis to ensure compliance with the permit and optimize feed conversion rates. The type of data collected, and the biological affect are presented in the Pollution Prevention Plan, Section 4.1.3.

The fish feeding stops when fish are observed to be less interested in the food. The daily feeding rate is compared to the expected feeding rate for signs of over or underfeeding. Periodic size samples of the fish population allow for comparison of actual growth and feed conversion rates to the projected growth and feed conversion rate. Site Managers and feeding technicians use this information to adjust daily feed amounts to the individual pens, the feed start and stop times, and specific feed rates.

7.3 Biological Waste Control

The containment and disposal of biological wastes including fish carcasses, harvest blood, leachate, and other solid and liquid wastes are addressed in the Pollution Prevention Plan, Section 6.0.

7.4 Net Pens

7.4.1 Maintenance

A dive team regularly inspects nets for holes and biofouling. The divers carry net needles, make small repairs where needed, and inspect the nets against the Net Scoring Chart. This Net Scoring Chart was developed in collaboration with the Washington State Department of Natural Resources (DNR). Nets must not impede current

flow or tidal exchange, and must not be stored on the seafloor. More information on the maintenance of the nets can be found in the Fish Escape Prevention Plan, Section 9.0.

7.4.2 Cleaning

Nets are washed in-situ using pressurized seawater and net-washing machines. A minimum of one (1) net washing machine is located and maintained in operating condition at each farm facility during the entire growing cycle or when stock nets are in place. The net washing and hygiene report describes the functional status of each net washing machine located at the facility. Additional net washing machines will be brought in as necessary. Specific roles are defined in Section 2, Directions to Staff. No anti-foulant paint is used on the nets. More information on net washing can be found in the Fish Escape Prevention Plan, Section 9.1.

7.4.3 Net Pen Structural Integrity Report

Approximately every two years, when the farm site is fallow, Cooke contracts a licensed engineering firm to conduct inspections and assess structural integrity of the net pens. Inspections include environmental data and projections for the farm location, cage component, and mooring assessments related to escapement potential, structural integrity, permit compliance, and operations. The net pen structural integrity assessment reports are certified by a licensed professional engineer and submitted to Ecology within 60 days.

7.4.4 Dropped or Lost Nets

Any net accidentally dropped or lost during a storm event and not recovered immediately will be marked by GPS coordinates, a buoy, and reported to Ecology within 24 hours. The net will be recovered within 30 days and Ecology will be notified on the date it is recovered. Additional information on dropped or lost nets, major repair, or structural issues, can be found in the Fish Escape Prevention Plan, Sections 3 and 4. For more information on Emergency Structural Problems, notifications, and reporting, see the Fish Escape Prevention Plan, Section 2.

7.4.5 Debris

Items stored on the walkways and structural components of the net pens shall be secured in such a way as to not allow them to fall into the water. Debris that is discovered in the water shall be removed. More information on floating debris prevention and recovery are located in the Fish Escape Prevention Plan, Section 9.3.

8. Storage and Secondary Containment of Materials

Chemicals, petroleum products, and other substances that could be harmful to the environment must be stored in labelled leak-proof containers in areas that provide secondary containment. Additional information on storage, use, and disposal procedures can be found in the Pollution Prevention Plan, Section 3, 4, 5, 6 and Appendix A.

9. Discharges

No discharges are allowed of sanitary waste, floating solids, visible foam (other than in trace amounts), or oily wastes that produce sheen on the surface of the receiving water.

9.1 Toxic Discharges Prohibited

No toxic discharges in toxic amounts shall be allowed to occur.

9.2 Soaps, Detergents, and Disinfectants

Discharging soaps, detergents, or disinfectants to the receiving water is prohibited. Soaps and detergents are not used at the facilities. More information on disinfectant use is located in the Pollution Prevention Plan, section 6.0.

10. Use of Tributyl Tin Prohibited

Tributyl tin is prohibited and not used at any of the facilities.



Pollution Prevention Plan

Cooke Aquaculture Pacific

January 27, 2020

List of Revisions

This Pollution Prevention Plan (PPP) must be reviewed and updated annually. If the Permit Coordinator makes changes to the Plan, it must be submitted to the Washington State Department of Ecology (Ecology) for review and approval of any changes made to the Plan.

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1. Overview

This Pollution Prevention Plan and Spill Prevention, Response, and Control Plan (the Pollution Prevention Plan), together with Operation and Maintenance Manual, Fish Escape Prevention Plan, and Fish Escape Reporting and Response Plan (the Plans) fulfill the planning requirements of the National Pollutant Discharge Elimination System (NPDES) Permits authorizing the Cooke Aquaculture (Cooke) facilities that they cover to discharge pollutants to federal waters. Requirements of the individual facility's NPDES permits are incorporated in these plans by reference.

The purpose of this plan is to establish procedures and methods for preventing the discharge of oil, petroleum products or other hazardous pollutants into the water. The fish escape prevention, response and reporting procedures are covered separately in the Cooke Fish Escape Prevention Plan and the Cooke Fish Escape Response and Reporting Plan.

2. Emergency Spill Response Procedures

In the event of a spill, facility staff shall immediately implement the Emergency Spill Response Procedures detailed below. Spill containment and spill clean-up efforts will take precedence over all other work activities. All spills shall be immediately reported by facility staff to a member of the Cooke Management Team. The Cooke Management Team consists of: Site Managers, the General Manager, Permit Coordinator, and Business Support Analyst. Cooke provides cell phones to their Management Team; these individuals shall keep their cell phones with them at all times. Cooke Management Personnel shall notify others if they may be unavailable for any reason and will identify other company contacts in the event of an emergency. The Cooke Management Team is authorized to initiate, secure and mobilize resources necessary to respond to an emergency. This includes calling and securing the services of third-party contractors to facilitate the proper response, containment and clean up as needed. Cooke is committed to operating in a responsible manner and using the necessary resources in case of an emergency.

2.1 Immediate Spill Response Procedures

In the event of an accidental oil, petroleum product or hazardous material spill at the facility:

1. Locate the source of the spill.
2. Attempt to stop and contain the spill with absorbent materials or other measures.
3. Immediately notify Cooke Management Team using the Internal Emergency Reporting Call Tree shown in Table 1, below.

In the event that the first person on the list does not answer their cell phone, the employee must continue down the call list until they make verbal contact with at least one of the following Cooke Management Personnel.

Table 1: Internal Emergency Reporting Call Tree

| Cooke Management Team | | | |
|-------------------------------|--|------------------|----------------|
| Position | | Name | Phone |
| Cooke Pacific General Manager | | Jim Parsons | (206) 200-0768 |
| Bainbridge Island | Orchard Rocks / Fort Word Site Manager | Randy Hodgkin | (360) 461-3694 |
| | Clam Bay Site Manager | Derek Atkinson | (360) 298-8078 |
| Hope Island Site Manager | | Tom Glaspie | (360) 391-9504 |
| Permit Coordinator | | Kevin Bright | (360) 391-2409 |
| Business Support Analyst | | Nichole Robinson | (360) 391-9506 |
| Cooke VP Saltwater Operations | | Michael Szemerda | (506) 755-0988 |

4. The Cooke Management Team member responding to the notification shall assess the situation and determine whether additional resources are required to stop, contain, and clean up the spill. Natural

Resources Corporation (NRC) Environmental Services provides 24-hour spill response and may be contacted at (800) 337-7455.

5. Once contained, clean up the spill and perform a full site inspection. Document the time of incident, estimated amount of material spilled and the actions taken to contain and clean-up the spill.
6. Used oil absorbent cleanup materials must be disposed of properly in leak-proof containers and transported to the land-based support facility for disposal. Licensed hazardous material handling services are to be used for disposal of hazardous materials. Label all used oil, oil absorbents, oil filters and other hazardous material containers clearly with their contents, date and the name of the facility.

2.2 Spill Reporting Procedures

The Cooke Management Team is responsible for beginning the emergency spill notification process by contacting the appropriate agencies. Oil, petroleum products, and other hazardous material spills that enter the water must be immediately reported to the federal and state agencies listed in Table 2.1.

1. The Site Manager and/or General Manager are to notify the appropriate authorities using the Spill Emergency Contact Notification List, shown in Table 2.1 State Agency Emergency Contact and Call Down List, and State Agency Emergency Contact Lists, shown also in Table 2.1 =.
2. The responding Site Manager or General Manager shall document the agency notification on the Emergency Spill Notification Form is located in Appendix C. Records of contacts, date and call times, and other relevant information are retained by Cooke Management.

Table 2: State Agency Emergency Contact and Call Down List

Contact Instructions: State agency contacts are listed in order of contact. If the first person cannot be contacted directly (verbally) then go to the secondary contacts until you speak with someone from each agency directly.

| Agency | Phone Number |
|--|----------------|
| U.S. Coast Guard National Response Center (24 hr.) | 1-800-442-8802 |
| Department of Ecology Spill Line (24 hr.) | 1-800-258-5990 |
| Washington Dept. of Ecology | |
| 24 Hour Spill Line | (800) 258-5990 |
| WDOE NW Regional Office 24 Hour Line | (425) 649-7000 |
| WDOE SW Regional Office 24 Hour Line | (360) 407-6300 |

| Washington Department of Fish & Wildlife (WDFW) | | |
|--|--------------|--------------|
| | Work Phone | Cell Phone |
| 1. Eric Kinne, Hatchery Division Manager | 360-902-2418 | 360-601-1301 |
| 2. Ken Warheit, Fish Health. | 360-902-2595 | 360-999-7889 |
| 3. Amy Windrope, Deputy Director | 360-298-2278 | 206-488-8072 |
| 4. Captain Alan Myers, DFW Region 4 Enforcement | | 360-489-5715 |

| Washington Department of Ecology (WDOE) | | |
|--|--------------|--------------|
| | Work Phone | Cell Phone |
| 1. Laurie Niewolny, Aquaculture Specialist | 360-407-7666 | 360-584-8852 |
| 2. Andrew Kolosseus, SW Region Water Quality Section Manager | 360-407-6271 | 360-529-7641 |
| 3. Dept. of Ecology 24 Hour Line NW Region | | 425-649-7000 |
| 4. Dept. of Ecology 24 Hour Line SW Region | | 360-407-6300 |

| Washington Department of Natural Resources (WDNR) | | |
|---|---------------------|---------------------|
| | Work Phone | Cell Phone |
| 1. Dennis Clark, Assistant Division Manager | 360-708-7357 (cell) | 206-383-8977 |
| 2. Katrina Lassiter, Aquatic Resources Division Manager | 360-902-1081 (cell) | 360-791-9814 (home) |
| 3. WDNR (24 Hour Line-Washington Dept. of Emergency Management) | 800-562-6010 | |

Large Mortality Event (5% mortality in one week) Reported to Washington Dept. of Health and State Agencies

| Washington Department of Health (WDOH) | | |
|--|----------------|--------------|
| 1. Washington Department of Health | 24-hour line | 877-539-4344 |
| 2. WDOH Shellfish Program | business hours | 360-236-3330 |
| 3. WDOH Shellfish Program | after hours | 360-789-8962 |

2.2.2 24 Hour Oil Spill Cleanup Contractor – Natural Resources Corporation

Natural Resources Corporation (NRC)- Environmental Services (800) 337-7455

2.2.3 Facility Site Maps and Spill Kits

Each facility is equipped with spill kits to aid in the containment and cleanup of spills of oil and other chemicals. Spill kit site maps are prominently posted at each facility. A map of each site with the location of the Spill Kits at the facilities will be posted at each site and in the general employee break room areas. Spill kits are located onboard F/V Elsie Em and F/V Clam Digger, and in the areas near fuel holding areas (fuel cells, fuel tanks, and 50-gallon drums). Spill Kit Maps for each facility are included in Appendix D.

Spill kits contain, at a minimum:

1. One package of 50 oil absorbent pads- Oil absorbent pads are 24 inches square and are used to contain small spills and leaks.
2. Fifty feet of oil absorbent boom material. Oil absorbent booms are approximately 6 inches in diameter and either 25 or 50 feet in length. The booms can be easily transported by hand to the spill location, and rapidly deployed to help absorb and contain small to medium spills. Oil booms can be linked together to create larger boom structures. The small works skiffs maintained at each farming site can be used to deploy booms.

Site Managers or other employees designated by the Site Manager will be responsible for the maintenance, inspection and periodic restocking of the Spill Kits.

3. Pollution Prevention during Routine Maintenance

3.1 Machinery Maintenance

Machinery maintenance activities such as oil changes shall be conducted at an upland facility. If the machinery is fixed to the net pen structure or associated support barges and cannot be moved to an upland facility for maintenance, or if no upland facility exists at the site, then secondary containment structures must be implemented before performing the maintenance.

Secondary containment structures include hard plastic trays, plastic barrier dams, or containers that would eliminate the possibility of material or debris from entering the water. Additional spill absorbent materials must be easily accessible.

Pressure washing or scraping barges, docks, walkways and vessels while on or over the water is prohibited.

3.2 Oil, Petroleum, and Hazardous Material Storage

Chemicals, petroleum products and other substances that could be harmful to the environment must be stored in areas that provide secondary containment. Surplus chemicals or petroleum products must be stored at the

appropriate land-based facility, in designated areas that have the necessary spill prevention and spill containment safeguards. If no land-based facility exists, they must be stored within secondary containment. Appendix A contains a list of oil, petroleum products and other chemicals used or stored at each facility and their associated Best Management Practices (BMPs).

Petroleum products and other hazardous materials needed for the efficient daily operations at the net pens must be stored within secondary containment in durable containers that are clearly labeled as to their contents. Fuel storage tanks are double walled or have other secondary containment that prevents this material from entering the water.

3.3 Fuel Transfers

Cooke-operated work vessels deliver fuel to each farm area. The F/V Elsie Em services the Bainbridge sites and the F/V Clam Digger services the Hope Island site. Designated vessel operators transfer diesel fuel from the internal fuel tanks of the work vessels to double-walled fuel cells located at the facilities or into fuel tanks built into the feed barge. The fuel cells and fuel tanks are located near the machinery they service.

Designated vessel operators shall implement the following procedure when transferring fuel from the vessel to fuel cells at the facilities:

1. Visually inspect fuel holding tanks, hoses and transfer equipment before, during, and after use for leaks or spills.
2. Repair or replace worn pieces of fuel handling equipment before use.
3. Use only equipment designed for the purpose of handling petroleum products and other hazardous materials
4. Visually observe the pump operation during the entire fueling process. Never leave the fuel filling location while the fuel is being pumped.
5. Record each fuel delivery including date, location and quantity in the daily ship log.

Smaller quantities of gas and diesel, used to operate boat engines and net washing machines, are transported to the farms in 50-gallon steel barrels. These barrels are stored in fuel containment areas that provide secondary containment and shelter from precipitation. The procedures for filling small capacity engines and machines is as follows:

1. Visually inspect the fuel holding drums and receiving container before, during, and after use for leaks and spills.
2. Repair any worn pieces of fuel handling equipment before use.
3. In an area of secondary containment, use the small pump to dispense the fuel into smaller workboats, or into five-gallon fuel containers.
4. Carry the small container to receiving equipment, and ensure secondary containment is in place before filling the engine or machine.
5. Inspect the area for leaks and spills.
6. Store the small container in an area of secondary containment when not in use.

Trained employees will transfer fuel at the facilities. Cooke will complete a fuel and material handling training class by March 30, 2020 for all employees. The class will cover specifics of fuel transfer equipment inspection, safe handling practices, spill prevention and spill response procedures, spill kit locations and other safe handling practices and procedures. This training will occur annually for current employees, and within the three month probationary period for all new hires. The Site Manager will maintain and update an employee training log for each specific location. Send updates to the training log to the Permit Coordinator and Business Support Analyst for proper record keeping.

3.4 Boat Maintenance

Small boats and farm skiffs are hauled out of the water and transported to a land-based facility for oil changes and maintenance. Oil changes are performed on the F/V Clam Digger and the F/V Elsie Em on the water. Secondary containment is provided by the hull of the boat. The engine compartments in the F/V Clam Digger and the F/V Elsie Em do not have a bilge pump installed in them that could discharge oil over the side. Used oil is kept in a container located inside the hull of the boat, until the boat delivers the container to the shore facility for disposal.

4. Fish Feeding

Fish food is one of the highest costs in the process of rearing fish, and successfully maximizing the conversion of fish food into fish biomass is critical to the successful operation of Cooke's fish farms. Over 30 years of experience and industry research into the most efficient feeding methods, feed ingredients and even the shape and size of the pellets being fed to the salmon stocks have been used to develop the feeding strategies used by Cooke. The feeding strategies prioritize the minimization of uneaten food, thus minimizing the amount of food that falls through the cages and onto the ocean floor below. Cooke has developed Feeding Strategies to provide standards for the initial startup feeding of new smolts when they arrive on site, the size of the feed pellets, the duration time of the feeding process and the types of feed diets. As the fish grow, the Site Managers will adjust the feeding schedules based on the feed response of the fish populations, the size of the fish, the length of daylight, water temperatures, tidal cycles, oxygen levels and other factors.

4.1 Developing and Maintaining Fish Feeding Plan

The Site Manager is responsible for developing and maintaining feeding plans for each generational cohort of fish, as well as overseeing the feeding process each day. A Feeding Plan predicts the quantity of food the fish will eat and the rate at which they will consume it. The Feeding Plan is optimized to maximize the growth rate of the fish and minimize the amount of uneaten feed.

The Site Manager uses the Feeding Strategy developed by Cooke as a starting point and adjusts the plan throughout the life of the cohort based on the Specific Feeding Rate (SFR, or actual feeding rate), and the expected Feed Conversion Rate (FCR). The expected FCR is based on the growth stage of the fish and environmental conditions that could affect the appetite of the fish such as water temperature, Dissolved Oxygen (DO), day length, tidal cycles, and weather.

The FCR's and SFRs are closely monitored for signs of over feeding or under feeding. Growth is measured periodically to ensure that the amount of feed fed is converting into growth at normal, expected feed conversion rates.

During periods of poor water quality conditions or other conditions that may affect the appetite of the fish, the feeding process will be modified with respect to the anticipated reduction of feed consumption by the fish.

Seasonal monitoring for harmful plankton species ensures the health of the fish stocks and determines feeding strategy in the event of adverse water conditions.

4.1.1 *Selecting Properly Sized Feed*

When fish reach certain size benchmarks, the feed is increased to next larger feed size. This decision is based on the feed manufacturers' recommendations, and Site Manager's experience. During feed size changes, the larger sized feed pellets are blended into the existing size of feed the fish have been previously eating to transition the fish to the new size. The Site Manager manages the transition period to larger feed sizes carefully to detect any reduction in feed response including fish rejecting the larger feed pellets, and any reduction in overall feed consumption. Switching feed sizes too early can cause a reduction in the feed response and overall feed consumption. The Feeding Strategies for selecting properly sized feed were developed to account for the fish being at the larger end of the size range prior to making the feed size transition.

Properly sized, highly digestible feeds with a minimum of fines will be used to feed the fish.

4.1.2 Measures to Reduce Feed Breakage and Fines

Cooke uses feed designed and produced by feed manufacturers to be both durable and highly digestible. Provisions in the feed procurement contracts stipulate a maximum level of allowable fines or breakage.

Cooke's specifically designed feeding equipment delivers feed pellets in good condition to the pens. The feed machines use smooth walled pipes and air blowers to distribute the feed pellets out into the pens.

Managers and Feeding Technicians observe, from either the surface or using underwater cameras, pellets during the feeding process and can see whether feed pellets are being dispersed in good condition. They can make corrections to the feed, the delivery equipment or the delivery process in the event broken feed pellets are being observed during the feeding process.

4.1.3 Data Collection

Water temperature, dissolved oxygen, fish health, time of year and the size of fish all affect the daily feed response of the fish population. Cooke collects data on the environmental conditions listed in Table 3 Environmental Condition and Biological Response, below, to manage this process.

Table 3: Environmental Condition and Biological Response

| Type of Data | Biological Response |
|------------------|--|
| Day Length | Estimate amount and rate of feeding to minimize uneaten food and maximize fish growth |
| Tidal Cycle | |
| Weather | |
| Dissolved Oxygen | Fish appetite and metabolism rate |
| Temperature | Fish appetite and metabolism rate, expected feed rate, feed conversion rate, and growth rate |
| Plankton Species | Health of fish stocks and feeding strategy in the event of adverse water conditions. |

During periods of poor water quality conditions or other conditions that may affect the appetite of the fish, the feeding rate will be reduced proportionately to the expected reduction in appetite and feed consumption by the fish stocks.

4.2 Procedures for feeding

Cooke Feeding Technicians shall implement the following procedures when feeding fish:

1. Review the feeding strategy and adjust it based on the following factors:
 - a. Water temperature and dissolved oxygen, measured using a handheld meter
 - b. Weather, tidal cycles, or other conditions that could affect fish appetite
2. Start feeding operations.
3. Monitor the feeding process using underwater cameras and/or other types of feed monitoring devices. Specifically note the following and adjust accordingly:
 - a. Condition of feeding pellets. If broken feed pellets or excessive fines are observed adjust the feed and/or the delivery equipment or the delivery process to correct it.
 - b. Amount of uneaten feed falling through the pens. Adjust the feeding rate to minimize the amount of uneaten food that falls through the pens.
4. Stop the feeding when the fish are no longer interested in the food.
5. Record the feed distributed per day per pen.

4.3 Training and Experience Requirements for Fish Feeders

A trained Fish Feeding Technician will carry out the fish feeding process. The training program is described in Section 9.0.

5. Disease Control Chemical Use Storage, and Disposal

The use of Disease Control Chemicals in the form of medicated feed are periodically required to control outbreaks of disease among the fish populations at the farm sites. A licensed veterinarian, working in conjunction with the Site Managers, diagnose and treat outbreaks of disease according to the specific needs of the fish in a manner designed to minimize the amount of disease control chemicals discharged into the environment.

Cooke uses the following practices to prevent disease and reduce the need to use disease control chemicals:

1. Single generation stocking of fish at the marine farming areas has been incorporated into the production plans. At the end of the production cycle, the population of fish is harvested out and the facility will be fallowed before restocked with the next group of fish. This stocking method halts the potential for fish pathogens or parasites to travel intergenerationally.
2. Smolts entering the facility are vaccinated against specific fish pathogens prior to being transported to the net pen facilities.
3. Proper biosecurity practices are followed to interrupt vectors that could introduce pathogens to the facilities.
4. Site Managers, Fish Health Technicians, and Farm Technicians observe the population's health, performance and behavior through the growth cycle.

5.2 Diagnosis and Treatment Selection

A licensed veterinarian monitors the health of the fish stocks raised at the facilities. The veterinarian is used to identify the type of pathogen causing disease and the effective course of management to control the pathogen. The veterinarian and Cooke consider disease management strategies, past health history and growing cycle status of the fish stocks prior to prescribing a medicated feed treatment. If a medicated feed treatment is determined to be the best course of action to a disease occurrence, the veterinarian prescribes an antimicrobial. USFDA regulations set the dosage level and the duration of treatment for each type of antimicrobial treatment. The veterinarian uses the percentage body weight fed to the fish population each day to determine the amount of medicated feed to prescribe to achieve the correct dosage level for the period of the treatment.

5.3 Administering Medicated Feed

Site Managers are responsible for the administration and keeping records of disease control chemicals used at the facilities. Site Managers work closely with the attending veterinarian to ensure that medicated feed is administered appropriately and used in a manner that minimizes the discharge of uneaten medicated feed into the environment.

Records of the disease control chemical or medicated feed type, treatment dates and the amount fed to each pen are recorded in the biological database.

Site Managers shall follow the general procedures, below, for administering medicated feed as prescribed by the veterinarian:

1. Calculate the Specific Feeding Rate for medicated feed based on the quantity of medication and duration of treatment prescribed by the veterinarian.
2. Order the total amount of medicated feed needed for the treatment from the feed manufacturer.
3. Quarantine the net pens being treated with medicated feed from harvest.

4. Administer the medicated feed according to veterinarian's instructions and the SFR calculated for the treatment. Ensure that feeding is monitored closely for signs of uneaten feed loss and adjust the SFR accordingly.
5. Lift the harvest quarantine when the appropriate withdrawal period has been met.

Medicated Feed Storage Requirements

1. Medicated feed shall be clearly labeled on the outside of the feed containment bags with the name of the medication.
2. When medicated feed is being used at the net pen site, the feed shall be stored in containers that keep the feed dry and prevent the feed from spilling into the water.

5.4 Disease Control Chemical Disposal

If any unused medicated feed remains after the treatment period ends, the unused medicated feed will be removed from the net pen site and transported back to an upland facility for covered storage. Any medicated feed that has not been used prior to the expiration date of the feed will be disposed of at a solid waste handling facility.

5.5 Disease Control Chemical Disinfectant Use

Iodine-based disinfectants are used daily in footbaths and for sanitizing mortality retrieval dive bags at each of the facilities when they are actively growing fish at the site. Other disinfectants are sometimes used to sanitize equipment shared between facilities.

The disinfectant should be minimized and reused as much as possible. Disinfectant to be discarded is taken to the shore facility for proper disposal into the sanitary sewer system. Any additional inventory of disinfectant will be kept in good condition leak-proof containers at the upland facility for each farm area.

5.6 Tricaine-S Use, Storage and Recordkeeping

Tricaine-S (MS-222) is used for the temporary immobilization of fish to perform periodic weight and condition sampling. Site Managers and/or fish technicians are to record the date of the use and the total amount of Tricaine-S used in the site's Disease Control Chemical log or on the Fish Talk database.

Weight sampling typically occurs during the first eight months of rearing time when the fish are of smaller sizes and easier to handle. For weight sampling a pen of fish, staff capture a small sub-sample with a seine net, remove them from the net pen and immerse the fish in a container of water with MS-222. The fish quickly become sedated enough to be handled safely for weight sampling and other observations. The sedated fish quickly recover when released back into the net pen.

Keep MS-222 in a dry, covered place either at an associated upland facility or in a storage locker on one of the associated feed barges. MS-222 shall not be stored on the net pens. Site Managers and/or Fish Technicians shall bring a small container of MS-222 out to the facility on the day that they are performing weight samples and remove the container from the facility when they are finished sampling.

6. Fish Mortality, Biological, and Solid Waste Removal

Fish mortality, harvest blood water, leachate, and solid waste are contained and transported from the facility to an approved disposal facility.

6.1 Mortality Disposal

During normal operating conditions, fish mortalities are collected from each pen three times per week. Fish mortalities are brought to the surface by either divers or by using fish pumps and are then transferred into leak proof plastic fish totes or other sealed containment devices. Plastic tote liners are used inside the totes. The fish totes are transported from the net pens to the land-based support facilities on a frequent basis. These totes are

6.2 Reporting Large Mortality Events

WDOH Reporting Phone Numbers

6.3 Carcass and Leachate Disposal During Harvesting

6.4 Solid Waste Storage and Disposal Practices

7. Inspecting Exposed Surface Mooring and Below Surface Anchoring and Pen Structure Components

8. Procedures to Identify New or Potential Sources of Storm Water Pollution

Storm water pollution occurs when liquid, powdered, or loose materials are exposed to precipitation. Areas where solid waste, dusts, petroleum products or hazardous materials are stored, used, or transferred are to be periodically evaluated for spills, leaks, drips and residues that could be washed away by precipitation. Best management practices, such as the use of permanent shelters and tarps over material storage areas, secondary containment devices, and drip pans, will be used to prevent precipitation from coming into contact with pollutants that could impact stormwater.

Facility staff will evaluate material handling locations and procedures on a monthly basis to identify new or potential sources of storm water pollution. These evaluations must be documented using the Monthly Environmental Compliance Checklist in Appendix B.

A copy of the completed Monthly Compliance Checklist shall be sent to the Environmental Health and Safety Department, the Cooke Permit Manager and Cooke Business Support Analyst at the beginning of each month by email. Monthly Environmental Compliance Checklists are kept by the Site Manager, Permit Coordinator and Business Support Analyst for two years.

9. Training

Cooke facility staff and Site Managers will be trained on the policies, procedures, and practices contained in the Plans. Staff training will occur annually for current employees and within the first 3-month probationary period for a new employee. If the plans are updated or changed, staff will be provided training on the new material. Annual training will occur by March 30th of each calendar year. The Site Manager will maintain an employee training log for each specific location and provide an updated copy of that log to the General Manager, Permit Coordinator and Business Support Analyst as updates or new training activities are made.

The annual training will cover safe handling practices, spill prevention and spill response procedures, review the locations of spill kits and contents, and emergency notification procedures. The training will include a full review of each facility's O & M Manual, Pollution Prevention Plan, Fish Escape Prevention and Fish Escape Response and Reporting Plans. The instructor will determine whether an employee understands the plan as it relates to their job duties and can competently perform the tasks described in the Plans. The Employee Training Log will include the instructors' name and signature, the employees' name and signature, the date of instruction and determination of competency.

The Fish Feeding Technicians are trained on the job through an apprenticeship. This Fish Feeding Technician's main duty is to supervise the feeding process to ensure the maximize ingestion of feed by the fish stocks and to reduce the occurrence of feed loss. Site Managers and employees receive periodic training on the latest feeding science research by outside professionals and researchers, and Cooke corporate staff.

Appendix A

Facility Oil, Petroleum Products, and Hazardous Chemical Inventory List

Description of materials used or stored at Hope Island Site 4 (PERMIT No. WA-003159-3)

| Material | Size and Quantity | BMP | Location |
|---------------------------------|-------------------|---|--|
| Portable Diesel Fuel Cell | 500 gallons (1) | Double walled | SW corner of walkway structure during spring and summer, secured with chain binders or lines |
| Portable Gasoline Fuel Cell | 260 gallons (1) | Double walled | NE corner of walkway structure, secured with chain binders or lines |
| Diesel Gen-set | 180 gallons (1) | Double walled built in tank | Gen-set located on concrete feed barge, secured with chain binders or lines |
| Used Oil Container | 5 gallons (1) | Plastic containment tote | North end main walkway |
| Gas cans | 5 gallons (2) | Plastic containment tote | NE corner of walkway structure |
| Diesel can | 5 gallons (1) | Plastic containment tote | Concrete barge |
| Motor oil | 5 gallons (1) | Plastic containment tote | Concrete barge |
| Hydraulic oil | 5 gallons | Plastic containment tote | Concrete barge |
| Iodine Disinfectant Concentrate | 5 gallons (1) | Plastic containment tote | North end main walkway |
| Propane Tanks | 23 gallons (2) | Strapped to wall | Concrete barge |
| Oil-based Paints | 5 gallons (1) | Metal Flammable Liquids Cabinet on concrete barge | Concrete barge |
| Acetone | 1 gallon (1) | Metal Flammable Liquids Cabinet on concrete barge | Concrete barge |
| Antifreeze | 2 gallons (1) | Metal Flammable Liquids Cabinet on concrete barge | Concrete barge |
| WD-40 and rust preventers | Spray Can (5-6) | Metal Flammable Liquids Cabinet on concrete barge | Concrete barge |
| 12-v batteries | 8 | Plastic battery box | Concrete barge |
| Gasoline in work skiff tanks | 10 to 20 gallons | Spill kit nearby, plastic or built in fuel tanks are located inside of work skiff hull. | USCG-approved small craft fuel tanks |

Description of materials used or stored at Fort Ward (PERMIT No. WA-003153-4)

| Material | Size and Quantity | BMP | Location |
|---------------------------------|-------------------|---|--------------------------------------|
| 12-v batteries | 4 | Plastic battery box | Main walkway |
| Iodine Disinfectant concentrate | 5 gallons (1) | Plastic containment totes | Main walkway |
| Gasoline in work skiff tanks | 10 to 20 gallons | Spill kit nearby, plastic or built in fuel tanks are located inside of work skiff hull. | USCG-approved small craft fuel tanks |

Other chemicals that may be used at this facility (e.g., paints, solvents, lube oils) are stored at the Fort Ward Pier and not stored out on the fish pens. Hazardous materials are kept in labelled flammable liquid safety lockers and other double containment systems in the Fort Ward Pier shop area.

Description of materials used or stored at Clam Bay (PERMIT No. WA-003152-6)

| Material | Size and Quantity | BMP | Location |
|---------------------------------|--|---|---|
| Diesel fuel tank | 1000 gallons (1) | Double walled | Steel tank inside concrete hull of barge. Feed barge is curbed, drain holes can be blocked, and inlet is protected. |
| Portable diesel fuel cell | 260 gallons (4) | Double walled | Outer walkway structure during spring and summer, secured with chain binders or lines. |
| Portable gasoline fuel cell | 260 gallons (1) | Double walled | Concrete barge building, secured with chain binders or lines |
| Iodine Disinfectant Concentrate | 5 gallons (1) | Plastic containment totes | Curbed concrete barge building. |
| Motor oil Hydraulic oils | Motor oil (8 gallons) Hydraulic oil (6 gallons) | Secondary containment | Curbed concrete barge building. |
| Antifreeze | 2 gallons (1) | Secondary containment | Curbed concrete feed barge building. |
| Propane Tanks | 30 gallons (3) | Propane storage area | Curbed concrete feed barge building. |
| Paint | Spray Cans (4-5) 5 gallons Black Paint (2) | Secondary containment Secondary containment | Curbed concrete feed barge building. |
| Gasoline in work boats tanks | 10- 20 gallons | Spill kit nearby, plastic or built in fuel tanks are located inside of work skiff hull. | USCG-approved small craft fuel tanks |

Description of materials used or stored at Orchard Rocks (PERMIT No. WA-003154-2)

| Material | Size and Quantity | BMP | Location |
|----------------------------------|--------------------------|---|--|
| Portable Diesel Fuel Cell | 260 gallons (3) | Double walled | West side of walkway structure during spring and summer, one used year-round for a diesel gen-set, secured with chain binders or lines |
| 12-v batteries | Plastic battery box | Plastic Battery box | Main walkway |
| Motor oil | 1 gallon (1) | Plastic containment tote | Near genset |
| Antifreeze | 1 gallon (1) | Plastic containment tote | Near genset |
| Propane tanks | 23 gallons (2) | Refilled off site at land-based facility | Main Walkways, secured with chain binders or lines |
| Iodine disinfectant concentrate | 5 gallons | Secondary containment | Main walkway, secured with chain binders or lines |
| Gasoline in work boat fuel tanks | 10 -20 gallons | Spill kit nearby, plastic or built in fuel tanks are located inside of work skiff hull. | USCG-approved small craft fuel tanks |

Appendix B

Monthly Inspection Form

Monthly Compliance Checklist

Spill Control and Stormwater Inspections

Month and Year:

Completed by:

Date:

| Item | Requirements | Requirement met? Yes/ N/ NA | Comments |
|------|---|--------------------------------|----------|
| 1 | Are secondary containment structures maintained for all petroleum and chemical storage containers? | | |
| 2 | Have newly delivered petroleum (or chemical) drums and containers been moved to secondary containment immediately upon arrival? | | |
| 3 | Have routine visual inspections of area beneath mobile equipment parking areas for leaks or spills been conducted? | | |
| 4 | Have all spills and leaks in outside areas been absorbed and cleaned as soon as possible following a spill event? | | |
| 5 | Are spill kits appropriately stocked and positioned in appropriate locations for emergency use? | | |
| 6 | Are emergency communications including alarms and sirens operating properly? | | |
| 7 | Are emergency response contacts, phone numbers, and site-specific instructions posted near all communication devices? | | |
| 8 | Were fuel system inspections documented prior to fuel transfer operations? | | |
| 9 | Were monthly visual inspections of fuel system tanks, hoses, valves and piping conducted? | | |

Appendix B

Monthly Inspection Form

Monthly Compliance Checklist

Waste Management

Month and Year:

Completed by:

Date:

| Item | Requirement | Requirement Met? Yes/No/N/A | Comments |
|------|--|--------------------------------|----------|
| 1 | Designated employees have current HAZWOPER training. | | |
| 2 | All waste storage drums, and universal waste containers are in good condition and have closed tight-fitting lids. | | |
| 3 | Drums are stored on or within secondary containment. | | |
| 4 | Waste storage area secondary containment structures are dry and free of cracks or other failures. | | |
| 5 | All waste containers are properly labeled and clearly visible and readable. | | |
| 6 | Wastes of different contents are not mixed in the same container. | | |
| 7 | Hazardous waste drum labels include a major risk label. | | |
| 8 | The waste storage area is orderly and free of trash or debris. | | |
| 9 | The waste inventory is documented and up to date. | | |
| 10 | Waste manifests or bills of lading are on file and available for inspection. Manifests must be kept on file for three years. | | |

Appendix C

Emergency Spill Notification Form

Date:

Time:

Material Spilled:

Amount:

Impacted Media (water, walkways, etc.):

Immediate Actions Taken:

Cooke Management Call log:

Agency Call Log:

| Agency | Phone Number |
|--|----------------|
| U.S. Coast Guard National Response Center (24 hr.) | 1-800-442-8802 |
| Department of Ecology Spill Line (24 hr.) | 1-800-258-5990 |
| Washington Dept. of Ecology | |
| 24 Hour Spill Line | (800) 258-5990 |
| WDOE NW Regional Office 24 Hour Line | (425) 649-7000 |
| WDOE SW Regional Office 24 Hour Line | (360) 407-6300 |

| Washington Department of Fish & Wildlife (WDFW) | | |
|--|--------------|--------------|
| | Work Phone | Cell Phone |
| 4. Eric Kinne, Hatchery Division Manager | 360-902-2418 | 360-601-1301 |
| 5. Ken Warheit, Fish Health. | 360-902-2595 | 360-999-7889 |
| 6. Amy Windrope, Deputy Director | 360-298-2278 | 206-488-8072 |
| 7. Captain Alan Myers, DFW Region 4 Enforcement | | 360-489-5715 |

| Washington Department of Ecology (WDOE) | | |
|--|--------------|--------------|
| | Work Phone | Cell Phone |
| 8. Laurie Niewolny, Aquaculture Specialist | 360-407-7666 | 360-584-8852 |
| 9. Andrew Kolosseus, SW Region Water Quality Section Manager | 360-407-6271 | 360-529-7641 |
| 10. Dept. of Ecology 24 Hour Line NW Region | 425-649-7000 | |
| 11. Dept. of Ecology 24 Hour Line SW Region | 360-407-6300 | |

| Washington Department of Natural Resources (WDNR) | | |
|--|---------------------|---------------------|
| | Work Phone | Cell Phone |
| 12. Dennis Clark, Assistant Division Manager | 360-708-7357 (cell) | 206-383-8977 |
| 13. Katrina Lassiter, Aquatic Resources Division Manager | 360-902-1081 (cell) | 360-791-9814 (home) |
| 14. WDNR (24 Hour Line-Washington Dept. of Emergency Management) | 800-562-6010 | |

Large Mortality Event (5% mortality in one week) Reported to Washington Dept. of Health and State Agencies

| Washington Department of Health (WDOH) | | |
|---|----------------|--------------|
| 15. Washington Department of Health | 24-hour line | 877-539-4344 |
| 16. WDOH Shellfish Program | business hours | 360-236-3330 |
| 17. WDOH Shellfish Program | after hours | 360-789-8962 |

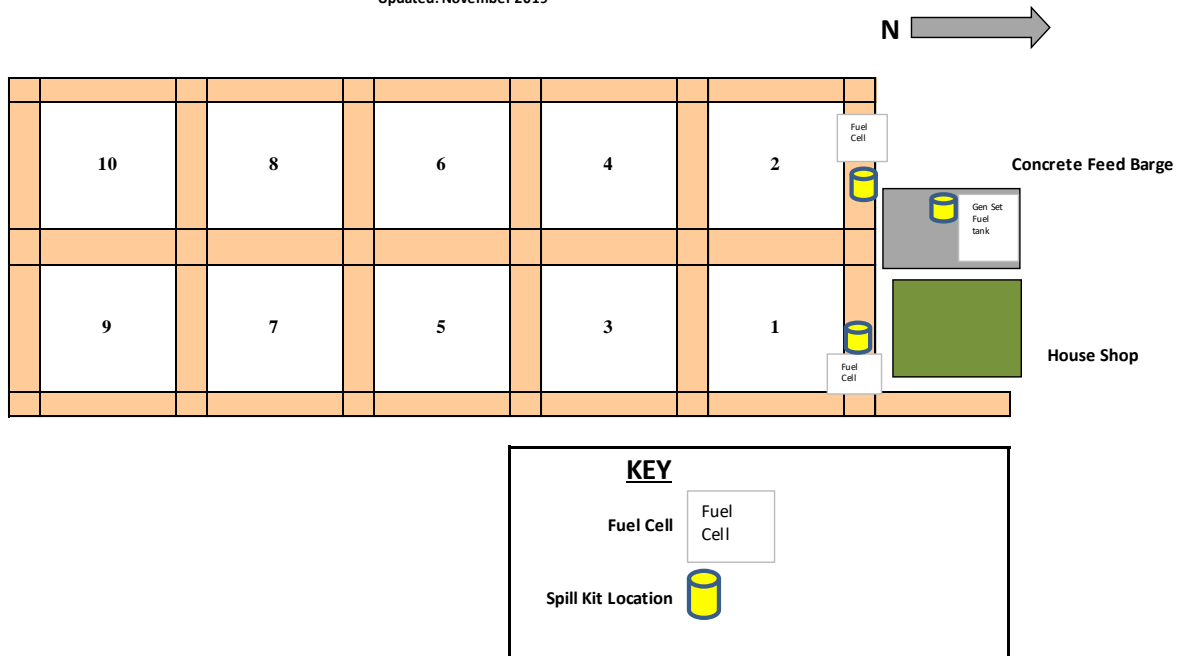
Natural Resources Corp- Environmental Services- Spill response contractor (800) 337-7455

Appendix D

Facility Site Maps

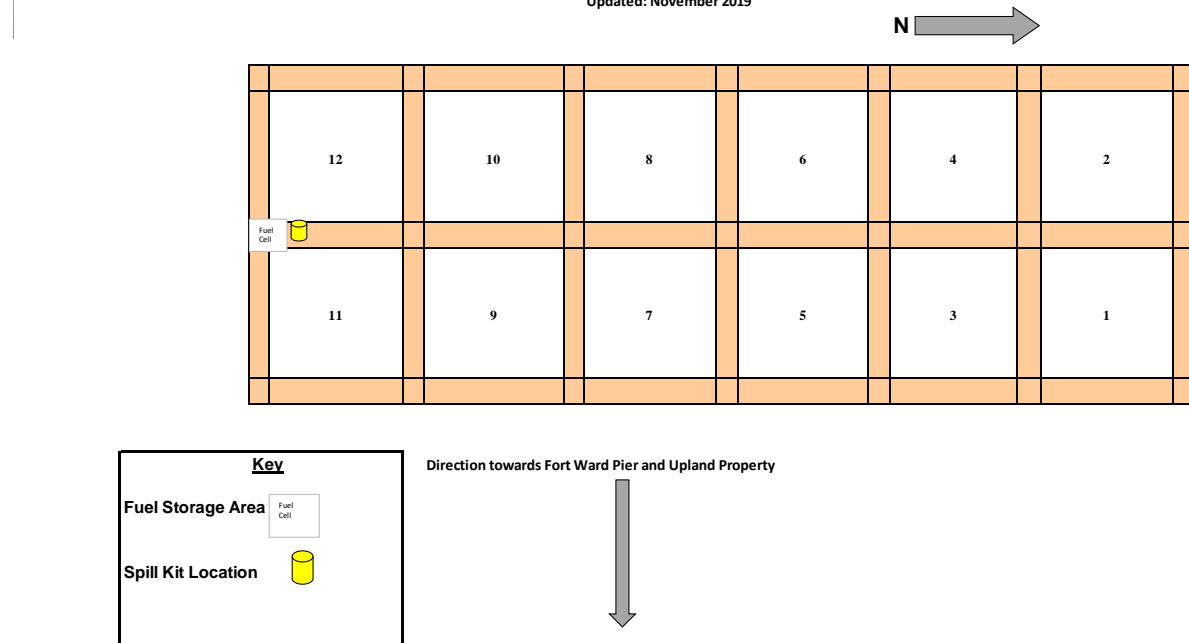
HOPE ISLAND SITE PLAN FUEL STORAGE AND SPILL KIT LOCATIONS

Updated: November 2019



FORT WARD SITE PLAN FUEL STORAGE AND SPILL KIT LOCATIONS

Updated: November 2019

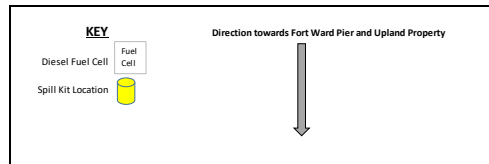
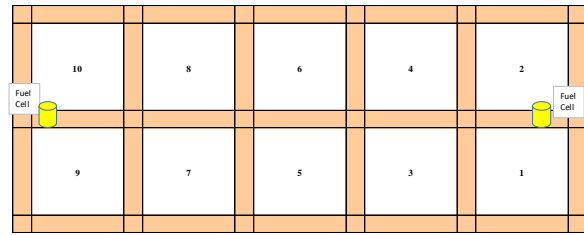
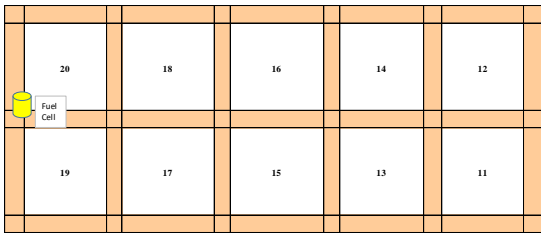


ORCHARD ROCKS SITE PLAN FUEL STORAGE AND SPILL KIT LOCATIONS

Updated: November 2019

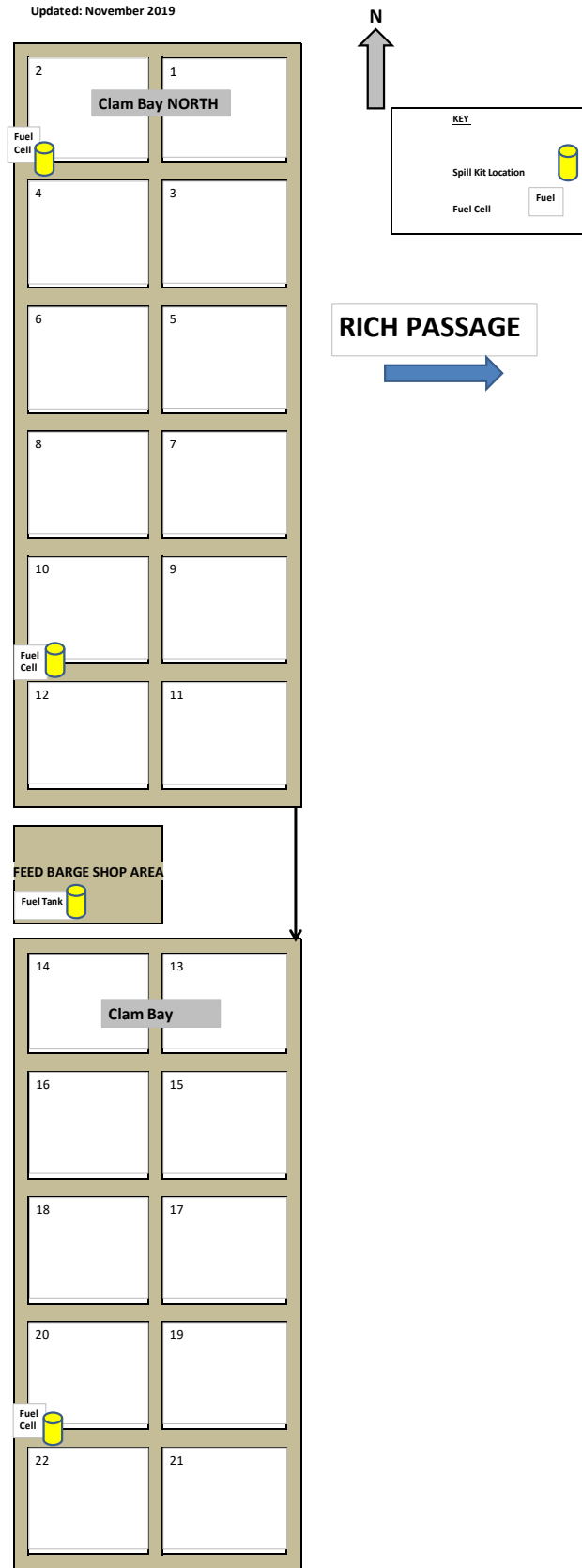
Orchard Rocks South

Orchard Rocks North



CLAM BAY SITE PLAN FUEL STORAGE AND SPILL KIT LOCATIONS

Updated: November 2019





Fish Escape Prevention Plan

Cooke Aquaculture Pacific

January 27, 2020

List of Revisions

This Pollution Prevention Plan (PPP) must be reviewed and updated annually. If the Permit Coordinator makes changes to the Plan, it must be submitted to the Washington State Department of Ecology (Ecology) for review and approval of any changes made to the Plan.

[illegible]

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1. Overview

This Fish Escape Prevention Plan, together with the Pollution Prevention Plan, Operations and Maintenance Manual, and Fish Escape Response and Reporting Plan (the Plans), satisfy the requirements of the 2019 NPDES individual facility permits for the Fort Ward, Orchard Rocks, Clam Bay, and Hope Island net pen facilities.

This Fish Escape Prevention Plan, in addition to the Cooke Operations and Maintenance Manual and Pollution Prevention Plan, describes the policies, practices, and procedures implemented by Cooke to minimize and control the risk of fish escapement from net pen rearing facilities operated in Washington State. These plans must be posted at all facilities and will be used for periodic employee training and review.

This plan will be reviewed and updated annually, and submitted for approval by Washington State Department of Ecology (Ecology) within 30 days of finalizing the revised plan. The plan must be initially submitted by January 31, 2020.

2. Responding to Structural Integrity Emergencies

2.1 Emergency Identification & Internal Reporting

Cooke facility staff who observe an actual or potential structural integrity issue that poses an imminent risk of structural collapse and the release of fish into the environment shall implement the following procedure:

1. Immediately notify others onboard the net pen facility and nearby watercraft of the potential hazards.
2. Assess the situation.
3. Take all steps necessary to protect the safety of staff, up to and including immediate evacuation of the facility.
4. Immediately report the situation to the Cooke Internal Management Team using the Emergency Management Team Call Tree in Table 1.

In the event that the first person on the list does not answer their cell phone, the employee must continue down the call list until they make verbal contact with at least one of the following Cooke Emergency Management Team (EMT) members.

Table 1: Emergency Management Team Call Tree

| Cooke Emergency Management Team | | |
|--------------------------------------|--|----------------|
| Position | Name | Phone |
| Cooke Pacific General Manager | Jim Parsons | (206) 200-0768 |
| Bainbridge Island | Orchard Rocks / Fort Word Site Manager | Randy Hodgins |
| | Clam Bay Site Manager | Derek Atkinson |
| Hope Island Site Manager | Tom Glaspie | (360) 391-9504 |
| Permit Coordinator | Kevin Bright | (360) 391-2409 |
| Business Support Analyst | Nichole Robinson | (360) 391-9506 |
| Cooke VP Saltwater Operations | Michael Szemerda | (506) 755-0988 |

5. Cooke EMT will notify all other agencies using Table 2.
6. Follow the directions given by the Cooke EMT.

2.2 Emergency Assessment and Response

The responding Cooke EMT members will:

1. Assess the situation (in consultation with on-site staff) to determine the need for emergency repairs, actions to stabilize the net pen structures, and the ability and need for rapid emergency removal of fish from the net pens.
2. Take situation-dependent immediate action necessary to stabilize the structure and conduct emergency repairs to prevent a collapse. These steps are conducted at the discretion of the Cooke EMT and can include:
 - Procuring any additional resources as necessary to stabilize the structure, prevent a collapse, and prepare to respond to an accidental release of fish or spill of oil or hazardous materials. The Cooke EMT will contact and place Emergency support vessels (i.e. tugboats and/or other working vessels) on standby to assist if the necessary repairs cannot be completed before the next tidal cycle or storm event. Emergency support vessels will remain on standby until the necessary repairs are complete and the situation stabilized.
 - Reporting the emergency to federal, state, and local agencies within 24 hours as described in Section 3.
 - Coordinating with regulatory agencies and the tribes to respond to the emergency. This may include activating Unified Command System (UCS). The UCS consists of government and tribal agencies with Cooke personnel. The UCS will assess the situation and decide a course of action.

2.3 Pen Stabilization

In the event of the need for major or emergency repairs, employee safety is first priority. If pens require stabilization, the following procedures are employed at the discretion of the Cooke EMT:

1. Cooke management (General Manager, Permit Coordinator and/or Site Managers) will notify the State Agency Emergency Contacts using the procedures described in Section 3
2. The Cooke EMT members will contact and secure Emergency support vessels and other resources as appropriate for the situation;
3. Tug boats temporarily hold the facility during repair;
4. Use of external bracing or reinforcement of the facility;
5. Evaluation of the ability to conduct rapid emergency removal of the fish from the facility if necessary;
6. Taking situation-specific steps to minimize or repair damage to containment nets.

3. Reporting Major or Emergency Repairs or Structural/Mechanical Issues

In the event of a Major or Emergency Repair or other unusual event that could lead to a fish escapement, the Cooke EMT shall notify the state agencies within 24 hours using the Washington State Agency Emergency Contact list. Initial voice contact will be made by phone using the agency call-down list in Table 2.

The member of the Cooke EMT who makes the report shall make a written record of the notification in the Record of Agency Notification (Appendix A). The Record of Agency Notification includes the agency and contact person notified, the date and approximate time of each call, and whether verbal contact was made.

3.1 Emergency Contact Lists

3.1.1 Cooke Management Emergency Contact List

Use the Phone Log in Appendix A to record all communications; contact information is shown in Table 1.

3.1.2 State Agency Emergency Contact and Call-Down List

State agency contacts are listed in order of contact. If the first person cannot be contacted directly (verbally) then go to the secondary contacts until you speak with someone from each agency directly. Use the Phone Log in Appendix A to record all communications; contact information is listed below in Table 2.

Table 2: State Agency Contact Information

| Washington Department of Fish & Wildlife (WDFW) | | |
|---|--------------|--------------|
| | Work Phone | Cell Phone |
| 1. Eric Kinne, Hatchery Division Manager | 360-902-2418 | 360-601-1301 |
| 2. Ken Warheit, Fish Health | 360-902-2595 | 360-999-7889 |
| 3. Amy Windrope, Deputy Director | 360-298-2278 | 206-488-8072 |
| 4. Captain Alan Myers, DFW Region 4 Enforcement | | 360-489-5715 |
| Washington Department of Ecology (WDOE) | | |
| | Work Phone | Cell Phone |
| 1. Laurie Niewolny, Aquaculture Specialist | 360-407-7666 | 360-584-8852 |
| 2. Andrew Kolosseus, SW Region Water Quality Section Manager | 360-407-6271 | 360-529-7641 |
| 3. Dept. of Ecology 24 Hour Line NW Region (Cypress, Hope, PA) | 425-649-7000 | |
| 4. Dept. of Ecology 24 Hour Line SW Region (Bainbridge Sites) | 360-407-6300 | |
| Washington Department of Natural Resources (WDNR) | | |
| | Work Phone | Cell Phone |
| 5. Dennis Clark, Assistant Division Manager | 360-708-7357 | 206-383-8977 |
| 6. Katrina Lassiter, Aquatic Resources Division Manager | 360-902-1081 | 360-791-9814 |
| 7. WDNR (24 Hour Line-Washington Dept. of Emergency Management) | 800-562-6010 | |

4. Major or Emergency Repairs, and Routine Repairs

4.1 Major or Emergency Repairs

Major or emergency repairs are defined as repairs requiring additional outside resources to conduct and that address a failure of the containment system that poses a significant and imminent risk of fish escape. Follow the procedures for Reporting Major or Emergency Repairs and responding to Structural Integrity Emergencies outlined in Sections 2, and 3 above.

Anchor lines that have become accidentally detached are to be repaired as quickly as possible. A broken anchor line is top priority and must be quickly addressed.

The following types of emergency repairs can be made by Cooke staff as quickly and safety as possible:

1. Broken anchoring points
2. Cracked weld in a mooring pad eye
3. Deformed walkway structural frame repairs

These types of repair work shall be documented in the Weekly Surface Inspection Reports. Weekly Surface Inspection Reports shall be emailed to the General Manager, Area Manager, Business Support Analyst, and Permit Coordinator upon completion of the work.

4.2 Routine Repairs

Routine repairs are defined as the repair of worn shackles, worn chain, and periodic mooring line replacement that do not pose a structural integrity emergency that could lead to an imminent fish escape. Routine repairs are typically preventative maintenance items that are addressed by the periodic replacement of mooring components. These repairs are documented and reported on the Weekly Surface Inspection Report.

4.3 Procedures to Reduce Escapements during Repairs or Manipulations

1. Site Managers will plan movement of the net pen structure for routine maintenance or relocation purposes; pen movement will be scheduled when the site is empty of fish stocks. Net pen structures with fish in them will not be moved unless determined to be the best course of action by the UCS in an emergency event. See Fish Escape Response and Reporting Plan.
2. In the event of a harmful algae bloom (HAB) or other adverse water quality conditions that may cause increased mortality in the fish stocks, the company will not tow the net pen structures (and the contained fish stocks) into cleaner waters as a method to reduce the effects of harmful algae blooms on the captive fish stocks. Given the historical accidental releases that have occurred during past emergency HAB condition pen movements, the company has developed other mitigation measures that do not involve moving the net pen structure to minimize the risk of accidental fish escapement.
3. Major emergency repairs to moorings or structural components of the net pen system that cannot be postponed to the facility fallow period will enlist the help of tug-boat(s) or other work vessels until the emergency repairs are completed.

5. Routine Practices and BMPs to Reduce Fish Escapes

Cooke will implement the following Best Management Practices (BMPs) to reduce fish escapes:

- Repair and maintain the cage structures and mooring equipment on a routine basis.
- Facility staff conduct a Weekly Surface Inspection of the cage structure and surface moorings points to identify potential issues. Weekly Surface Inspections are reported to the General Manager, Business Support Analyst and Permit Coordinator. The weekly reports are compiled and distributed weekly to the Cooke Management team.
- Divers conduct a visual inspection of stock nets during mortality retrieval dives.
- Frequent removal of fish mortalities from pens, during mortality removal dives outlined Section 6 of the Pollution Prevention Plan.
- Facility staff maintain stock net hygiene by frequent in-situ net washing. Net washing removes bio-fouling organisms to increase water flow and decrease drag force.
- A system of net hygiene scoring, net cleaning activity record-keeping, and net hygiene reporting developed with WDNR are incorporated to track the cleanliness of the stock nets. This system is detailed in Section 10 of this Plan. If a particular site falls behind on net hygiene maintenance, additional net cleaning efforts, personnel, and/or net cleaning machines are re-allocated to address the situation. Heavily-fouled nets are removed and new or clean nets rotated into place.
- Facility staff repair or replace worn lines or netting materials. Stock nets removed from the site at the end of each generation are sent to a professional net service. Nets are tested for break strength, repaired and returned for redeployment. If nets do not meet company standard of 50% of original material break strength, the net is retired from service and replaced with a newly-manufactured net.
- Facility staff maintain chafe guards around upper perimeter of each stock net to prevent chafing and damage to netting from floating debris, logs or other means of mechanical abrasion.

- Repairing, re-attaching, or correcting any carrier line attachments, tie-down lines, down-haul lines, or other lines that help to hold the stock nets in the correct position.
- Communication between Cooke management, Site Managers, dive team, feeding technicians, boat crew, and facility technicians addressing status of operations.
- Cooke currently uses a single stocking production plan at the marine net pen sites. The fish are stocked in each net pen and those fish remain in the pen until they reach market sizes and are harvested out.
- Facility staff minimize the number of live fish handling events, thereby reducing the risk of accidental fish escapement by mechanical or human error.

6. Stocking and Harvesting

At the beginning of the single stocking cycle, the smolt are pumped into each fish stock net (each individual pen) using a vacuum fish pump located on the transport vessel. The smolt are pumped directly through a heavy-walled flexible pipe that is securely tied to the receiving net pen. At the end of the growing cycle, the fish are removed using the same vacuum fish pump and taken to the processing plant.

Fish Transport Vessel Operators will be trained on and directed to implement the elements of the Fish Escape Prevention Plan and Fish Escape Response and Reporting Plans that are relevant to their job duties.

The following procedure shall be implemented during stocking and harvesting fish-transfer operations to ensure the fish-transfer activities are carried out safely and in a manner that minimizes the likelihood of accidental fish releases:

1. Site Managers communicate the daily plans ahead of time to the personnel involved in the process of fish handling.
2. Facility staff are to check that the predation barrier netting and the fish containment netting are not billowing out where the transport or harvest vessel is docking to prevent the nets from being drawn into the propeller of the vessel.
 - a. If the net is seen billowing out to the point that it could be hit by the propeller of the vessel, then delay the docking in that location until the problem with the net has been corrected.
 - b. Corrections may involve facility staff pulling slack netting and hanging it on the handrail, re-tensioning the down-haul lines, or directing the dive team to attach additional attachment lines to pipe frame.
 - c. Safely maneuvering and docking the harvest/transport vessel onto the pen system is given more priority than meeting scheduled delivery or harvest times.
3. The Site Manager, or other qualified staff, is responsible for talking with the vessel captain about expected tidal currents, weather forecasts, and designated docking areas at the facility for the safe moorage of the transfer vessel. Clear communication with the transport vessel captain in advance of the harvest or smolt transfer ensures the vessel docks safely and in the designated area.
4. The Area Manager, Site Manager, and Assistant Site Manager have the authority to deviate from the harvest schedule or smolt delivery time to adjust to any adverse environmental conditions. Employee safety, safety of the facility, and the safety of the fish stocks are more important than adherence to a scheduled or routine start time.
5. The vessel captain has the ultimate responsibility for berthing and departing the facility safely. Large vessels are to be tied securely to the net pen system walkways and/or mooring points. The facility skiffs can be used to help maneuver the transport vessel when they are docking or leaving the pens if needed.
6. When pumping smolt from the transport vessel, facility staff should:

- a. Securely tie the discharge side of hose to the pen system with the discharge end of the pipe well inside of the receiving fish containment net;
 - b. Tightly secure hoses, pipes and chutes before the live fish are pumped through them;
 - c. Protect against potential escapement areas using jump nets or other physical barriers where there is potential for fish to fall or jump out; and
 - d. Inspect the fish pump hoses and other equipment before commencing for integrity and soundness. Do not begin pumping until all the equipment is secured and both the vessel personnel and facility personnel agree they are ready. At least one employee will be on hand at the facility during the smolt transfer process into the net pens.
7. At least four facility employees will be on duty at all times during the harvesting process to ensure the safe transfer of fish. After the harvest is completed, the harvest vessel will take care while leaving the facility to not damage facility infrastructure. Facility employees can use facility skiffs to help maneuver the vessel if needed.
 8. After the harvest or fish transfer is complete, facility staff properly secure the area and fish-containment netting. Jump panels and down-haul lines are to be secured. Re-secure mooring lines if they were moved.

7. Inspection Schedules and Procedures

A schedule of inspections, their frequency, the elements inspected, and the responsible party are listed in Table 3 below. A blank of each inspection form is included in Appendix B.

Table 3: Inspection Schedule

| Inspection | Frequency | Elements Inspected | Responsible Party |
|---------------------------|--|---|--|
| Weekly Surface Inspection | Once per week | Visible surface mooring components, steel cage components and walkway areas inspected for signs of excessive wear and corrosion, bending, or cracking of the mooring pad eyes, shackles, thimbles, chains and lines connecting the moorings to the cage system. | Area Manager, Site Manager, Assistant Site Manager or another experienced employee. Weekly Surface Inspection forms are reported to General Manager, Business Support Analyst and Permit Coordinator. A Weekly Surface Inspection Summary Report for all sites is created and emailed to the Cooke Management team. Weekly Surface Inspection procedures are detailed below. |
| Weekly Surface Inspection | Post Storm or Vessel Strike Inspection | Visible surface mooring components, steel cage components and walkway areas inspected for signs of excessive wear and corrosion, bending, or cracking of the mooring pad eyes, shackles, thimbles, chains and lines connecting the moorings to the cage system. | Area Manager, Site Manager, Assistant Site Manager, or another experienced employee. Reported using Weekly Surface Inspection form to General Manager, Business Support Analyst, Permit Coordinator and distributed to Cooke Management team. |

| | | | |
|---------------------------------|--------------------|---|---|
| Net Hygiene Scoring | Once per week | Divers will inspect the nets for holes and wear-and-tear, and score them numerically against a photo guide for biofouling. | Cooke Divers. Net hygiene scores are sent to Business Support Analyst. Cooke Management and WDNR receive a weekly Net Hygiene Summary Report. Procedures for net inspections, scoring and reporting are detailed in Section 9 below. |
| Annual Below Surface Inspection | Once per year | All elements of the mooring system components are inspected surface to anchor. Cage system pontoons and floats inspected below the surface. | Cooke Divers and contracted inspectors. Cooke Business Support Analyst and Site Managers are responsible for coordinating annual inspections. The Annual Below Surface Inspection procedures are described below. Critical structural components and BMP's are identified in Section 5, Table 3 of the Operations and Maintenance Manual. |
| Marine Engineering Inspection | Once per two years | All elements of the facility system inspected for structural integrity, mooring analysis, and analysis of risk. | Contracted marine engineering firm. Cooke General Manager, Business Support Analyst and Site Managers responsible for coordinating inspections. Structural Integrity Inspection reports are sent to WDOE, WDFW and WDNR by Permit Coordinator. |
| Ultrasonic Survey | Once per two years | Select steel pontoons on the ProOcean cages are surveyed for metal thickness | Contracted surveyor. Cooke Business Support Analyst and Site Managers responsible for coordinating inspections. |

Weekly Surface Inspection Procedures:

1. Facility staff will record their name, the date, and time of Inspection. If a person other than the Site Manager or Assistant Site Manager performs the inspection, then the inspection is reviewed by the Site Manager or Assistant Site Manager.
2. Facility staff will visually inspect above-surface mooring components and adjacent walkways and make note of their condition.
3. If facility staff identify issues or potential issues during the weekly surface inspections or at any other time, the date(s) of inspection, date(s) of repair, and the type of repair work are to be documented on a Weekly Surface Inspection Report.
4. Site Managers will email copies of each report to the General Manager, Permit Coordinator, and the Business Support Analyst. Site Managers must keep and maintain original copies of the reports on site for three years and be available for review.

5. The Weekly Surface Inspection Summary Report is prepared by the Business Support Analyst compiling the site information. Copies of the Weekly Surface Inspection Summary Report are emailed to the Cooke Management team.

Annual Below Surface Mooring Component and Cage System Floatation Inspection Procedures:

1. Divers and/or ROV's are used to annually inspect the below surface mooring components and cage system floatation devices. Facility staff will record their name, the date, and time of Inspection. If a person other than the Site Manager or Assistant Site Manager performs the inspection, then the inspection is reviewed by the Site Manager or Assistant Site Manager.
2. A combination of diver visual observations and ROV video observations are used to inspect the mooring components from the surface of the water to the anchor.
3. Site Managers and the Business Support Analyst review the reports and videos for each mooring point and complete the Annual Below Surface Inspection Report.
4. Divers are used to perform an annual inspection of the below surface cage structure floatation components and note if they observe areas in need of repair on an Annual Below Surface Mooring and Cage System Inspection Report.
5. Copies of the Annual Below Surface Mooring Component Inspection Reports are distributed to the General Manager, Business Support Analyst and Site Managers.
6. Critical structural components and BMP's are identified in Section 5, Table 3 of the Operations and Maintenance Manual.

In addition to routine inspections, all facility employees are expected to observe and be aware of the condition of the net pen structures at all times on the net pens. If an employee identifies a suspected moorage system problem, they shall immediately report it verbally and in writing to the Cooke Emergency Management Team using the call-down tree in Section 2.1, above. The Site Manager or other experienced employee will then immediately investigate the problem. The Site Manager and the Cooke Emergency Management Team will determine the best course of action to correct the problem. These efforts will be documented accordingly.

8. Training

Cooke will train all staff on the requirements and procedures of the Operations and Maintenance Manual, Pollution Prevention Plan, Fish Escape Prevention Plan, and Fish Escape Reporting and Response Plan annually by March 30 of each calendar year. New employees will be trained during their three-month probationary period. Additional training will be provided if plans are updated or changed. An employee training log will be maintained by the Site Manager at each location and will be updated as needed. Updated training logs are sent to the General Manager, Permit Coordinator and Business Support Analyst.

The Area Manager, Site Manager, Permit Coordinator, or the Business Support Analyst will conduct training on the Fish Escape Prevention and Fish Escape Response and Reporting Plan. The training will include drills, tabletop exercises, and full review of each facility's Operations and Maintenance Manual, Pollution Prevention Plans, and Fish Escape Prevention and Response Plans. The instructor will determine whether an employee is competent in understanding the plan procedures and emergency responses. The Employee Training Log will include the instructor's name and signature, the employees' name and signature, the date of instruction, and an indication of employee competency.

The operators of any vessels used to harvest, and transport fish are provided with the most recent updates to the Fish Escape Prevention, Response, and Reporting Plans and are to attend the training sessions.

The elements of this general training specific to the Fish Escape Prevention Plan and Fish Escape Reporting Plan are:

- Review of Fish Escape Prevention and the Response and Reporting Plans

- Identify and discuss potential escape hazards and preventative measures
- Review of the Cooke/DNR Net Hygiene Scoring System and the importance of net cleaning activities
- Review of the mooring and cage inspection procedures and record keeping
- Emergency response procedures
- Emergency notification procedures for Federal, State and Tribal contacts
- Emergency vessel contact lists
- Escaped fish recovery methods, equipment, rules, record keeping

9. Nets

9.1 Net cleaning

Site Managers and facility personnel maintain a log of the net-washing activities at each facility. The Net Washing Log will record the date that the pen walls or floors are washed and an assessment of the effectiveness of the cleaning process (e.g., clean, fair, or needs additional washing). Each week, Site Managers send the Net Washing Logs to the Cooke Business Support Analyst. This information is used to compile the Weekly Net Score Summary Report, which shows the weekly net scores for each individual net pen at the facility, the date that each net pen was last cleaned, and the weekly average net score for the entire facility. The Weekly Net Score Summary Report creates a running standardized numeric value for the level of biofouling at each facility. Each week, copies of this report are sent to the Washington Department of Natural Resources (WDNR) Aquaculture Coordinator and to Cooke Management personnel. Site Managers maintain copies of the Net Washing Logs and Weekly Net Score Summary Report on-site or at the associated facility office on-shore.

Divers perform a weekly net hygiene scoring of each fish containment net (Weekly Net Score Log). The diver will use the standardized Net Hygiene Scoring Photographs and Net Scoring Scale to perform a visual assessment of biofouling on the sidewalls and floor panel for each stock net and assign a numeric value based on the biofouling photo-references. Net hygiene scoring, reporting, and verification procedures were developed in cooperation with DNR. The Net Hygiene Photographic Chart and standardize scoring system communicate the current status of the nets at each facilities between Cooke and DNR.

Each month during peak biofouling season (April to October), DNR personnel randomly select two to four nets to be inspected using underwater video photography. During the winter months (November to March) as biofouling growth decreases, video verification occurs every other month. Copies of the underwater videos of the randomly selected pens are submitted to DNR for verification of the numerical values reported to DNR in the Weekly Net Score Summary Report.

9.2 Net Repairs

Divers inspect fish containment and predator nets. Divers carry materials to repair small holes and will do so as long as it is safe. Divers are trained on net inspection and minor repairs. Divers make note of repairs in dive logs and in the daily records kept at the site, including the estimated size of the hole. Holes large enough to allow fish to pass through easily will be documented in daily records kept at the site and reported to the Site Managers, the Cooke General Manager, Ecology, and the Washington Department of Fish and Wildlife. Additionally, any known release or escape must be reported to Cooke's Permit Coordinator for inclusion in the Annual Fish Release Report.

At the end of the production cycle after the fish harvest, the containment nets are removed from the site and sent to a specialized facility for cleaning and repair. The facility inspects the nets and creates a service record for each fish containment net that identifies the net, date of service, and inspection notes by the facility. The clean and repaired nets are shipped back to the facility for the next generation of fish.

When the returned nets are installed into the facility cage structure, the facility personnel perform an additional visual check for possible damage or holes in the netting caused during handling. Nets can be checked for holes from the surface during installation, or after installation by divers.

Before use, all nets are inspected for holes, manufacturing defects, or visually weak areas. A net log will be maintained that records the date of manufacture, a description of the net, the location of the net on the pen system, and any other relevant information on the netting.

Net pens are not moved when fish are present. Non-emergency repairs to the structure of the net pens conducted when fish are present are scheduled when the tides and other factors mean that part of the net pen is not under stress.

9.3 Debris

Chafe guards (double netting) are built into the outside surface perimeter of the fish containment and predator nets. Predation barrier nets are used at the sites to deter marine mammal predation and additionally protect the inner fish containment nets (stock nets) from floating debris.

Logs or other large floating debris that could cause damage to the predation barrier net or the inner stock net will be removed as soon as possible.

All facility employees should be observant and aware of their surroundings and look for any potential problems in the surface areas of the predation barrier net and the fish containment nets. If a problem is identified, they are to attempt to correct it as quickly as possible and report it to their Site Manager.

9.4 Technology to Reduce Fish Escapes

Cooke has implemented the following technologies to minimize fish escapements.

- Heavy polypropylene twine netting used with chafe panel (layer of extra netting) is installed into surface perimeter of stock nets to approximately 3 feet in depth. Chafe netting is around the surface perimeter of both stock nets and predation barrier nets.
- Outer predator barrier nets are installed around perimeter of facility protects interior stock nets from floating debris, logs, and marine mammal predation.
- Weight systems are installed that separate stock nets from predation barrier nets.
- Underwater camera systems are used to monitor fish stocks in the pens at the facilities.
- Periodic replacement of equipment such as cage systems, netting, and other key infrastructure components is another way to reduce fish escapes and is done by Cooke when such components reach the end of their serviceable life. For instance, cage systems may have a life of 20 years, during which time cage technology may progress. Cooke will evaluate the suitability of such new technologies when existing infrastructure reaches the end of its serviceable life.

10. Fish Tracking

Fish are tracked from the time they leave the hatchery until the time of harvest, with data maintained in a database accessible onsite and remotely by Cooke management. Cooke will use an additional fish counting system as the next generation of fish are transferred from the transport vessel into each net pen. A new electronic fish counter installed on the smolt transport vessel will further aid in fish tracking. The number of fish pumped into each pen, as counted by this fish counter, will be the beginning inventory number for that pen and entered into the inventory program. During the growing cycle, dive team members enter each net pen three times per week (dependent on weather conditions) to inspect the pen and remove any fish mortalities. The total number of mortalities removed from each pen and the presumed cause of death are recorded on a mortality sheet during each retrieval dive. A tally is kept of the number of mortalities bearing signs of predation. The total mortality number is subtracted from the beginning inventory number each time the mortality data is entered into the fish

inventory system. The Site Manager or other designated technicians update the fish inventory program frequently with the daily feeding information and the mortality data. The Site Manager keeps original copies of the mortality sheets on site.

When fish are harvested, the fish are counted automatically as they pass through the harvesting machine during extraction. The harvest vessel transports the fish to the processing plant, where they are offloaded. A final piece count is performed at the fish processing plant when the fish are cleaned and packaged. This final piece count is entered into the database as the final ending inventory number. If the inventory number of fish differs by $\pm 3\%$ from the processor piece count, Cooke must issue an explanation for the discrepancy. Given that any detected mechanism of escape would have resulted in re-inventorying of fish at the time of that detection, such a discrepancy is not necessarily an indicator of an undetected fish escape.

Fish tracking also includes monitoring the daily feed consumption level in each pen to ensure the fish population is eating at the calculated or expected feeding level based on the number of fish in the pen. Facility personnel observe the fish in each pen daily during the feeding process, both from the surface and with underwater cameras. The Site Manager and Feeding Technicians maintain accurate records of the quantity of feed fed to each pen. If there is an unexplained drop in the actual feed consumption in a pen compared to the calculated (expected) feed consumption level, the Site Manager deploys divers to inspect the pen. If a breach is found in a pen, then an escape is suspected to have occurred and the fish release notification and re-inventory procedures will be initiated. In the event of a suspected fish release, Cooke will re-inventory that pen and compare the current stock count to the fish contained in the pen.

Any suspected release or escape must be promptly reported according to Section 2 and included in the Annual Fish Release Report. Suspected releases or escapes will result in counting and enumeration of the fish that have escaped. In the event of a catastrophic collapse of the facility, this may involve counting the remaining fish in the pen and assuming the rest of the fish have escaped. In the event of a smaller escape, this may involve re-inventorying fish remaining in the pen and performing a similar comparison of the remaining fish to the expected fish in the pen.

Appendix A

Record of Agency Notification

[illegible]

Appendix B

Inspection Forms

Weekly Surface Inspection Form

| Weekly Surface Inspection Sheet | | | | | | Condition codes: OK = Good Condition R = Routine Repair/Maintenance Required IR = Immediate Repair is Required | | | | |
|--|--|--------------------------------------|---------------|---------------------------|----------------------|--|---|---|--|--|
| Name of Person Inspecting Surface Moorings (full name) | | | | | | DATE: (month, day, year) | | | | |
| NOTE: Surface Inspections Are to Occur Weekly By Site Manager, Assistant Mng'r, or Raft Mng'r. | | | | | | | | | | |
| ANCHOR LOCATION ID # | System Mooring Points (Pad eyes, Mooring Plates) | Surface Shackles, Thimbles, Hardware | Mooring Lines | Surface Chain Connections | Walkway Hinge Points | Walkway Grating Condition | Are Immediate Repairs Required? (Yes or No) | Write Date When Immediate Repair Was First Identified | Write the Date When the Immediate Repair Was Completed | Name of Person(s) Completing Immediate Repair/Routine Repair/Maintenance |
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| Anchor # | - Use the space below to provide details for ALL repair types - Immediate Repair, Routine Repair or Routine Maintenance Details - |
|----------|---|

Annual Below Surface Mooring Component Inspection Form

| Annual Below Surface Mooring Inspection Sheet | | | | | | | | Condition codes: OK = Good Condition S = Schedule Annual Routine Maintenance IR = Immediate Repair Required | | | | | | |
|---|-----------------------|--|---|---|--|-------------------------|---|--|---------------------|---|--|--|---|--|
| Name of Person Completing Below Surface Mooring Form (full name) | | | | | | DATE (month, day, year) | | | | | | | | |
| ANCHOR LOCATION ID # | Date of Inspection | Name of person(s) completing inspection | Surface Connections (Shackles, Thimbles, Chain) | Below water Pontoon / Plastic floats condition | Chain to Mooring Line Connection | Mooring Line | Mooring Line to Anchor Chain Connection | Anchor Chain Condition | Anchor Condition | Are Immediate Repairs Required? (Yes or No) | Write Date When Immediate Repair Was First Identified | Write Date When the Immediate Repair or Routine Maintenance Was Completed | Brief Description of Component Repairs/Maintenance | Name of Person(s) Completing Immediate Repair/Routine Repair/Maintenance |
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| 15 | | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | | |



FISH ESCAPE REPORTING AND RESPONSE PLANS

Cooke Aquaculture Pacific

January 27, 2020

List of Revisions

[illegible]

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1. Overview

Cooke has updated the Fish Escape Response and Reporting Plan to comply with the National Pollutant Discharge Elimination System (NPDES) Permits issued by Washington State Department of Ecology (Ecology). This plan contains procedures for minimizing fish escapes, recapturing escaped fish, and reporting fish escapements to regulatory agencies. The Permit Coordinator will review, update, and submit this plan annually to Ecology. The Permit Coordinator will re-submit the Plan to Ecology if the plan is additionally updated or changed.

2. Emergency Contact List

In the event of an accidental fish escape or emergency with a risk of fish escape, including a discovery of a breach in the stock net, facility staff will use the call lists in Table 2 and Table 3 to notify State agency emergency contacts and tribal natural resource managers. All communication will be recorded in the phone log in Appendix A.

2.1 Cooke Management

In the event of an emergency, the first responding Cooke employees will use the call list in Table 1 to notify the Cooke Emergency Management Team (EMT). In the event that the first person on the list does not answer their phone, the employee must continue down the call list until they make verbal contact with at least one of the following Cooke (EMT) Personnel. Record all communication in the phone log in Appendix A.

Table 1 Cooke Emergency Management Team Call List

| Cooke EMT Personnel | Contact Name | Phone # |
|---------------------------------------|---------------------|----------------|
| Pacific General Manager | Jim Parsons | 206-200-0768 |
| Fort Ward, Orchard Rocks Site Manager | Randy Hodgin | 360-461-3694 |
| Clam Bay Site Manager | Derek Adkisson | 360-298-8078 |
| Hope Island Area Manager | Tom Glaspie | 360-391-9504 |
| Permit Coordinator | Kevin Bright | 360-391-2409 |
| Business Support Analyst | Nichole Robinson | 360-391-9506 |
| Cooke VP Saltwater Operations | Michael Szemerda | 506-755-0988 |

2.2 State Agency Emergency Contact and Call-Down List

Contact Instructions: State agency contacts are listed in order they should be contacted in Table 2. If the first person cannot be contacted directly (verbally), then attempt to make contact with the secondary contacts until you speak with someone from each agency directly.

Table 2 State Agency Call List

| Washington Department of Fish & Wildlife (WDFW) | | Work Phone | Cell Phone |
|--|--|---------------------|-------------------|
| 1. | Eric Kinne, Hatchery Division Manager | 360-902-2418 | 360-601-1301 |
| 2. | Ken Warheit, Fish Health. | 360-902-2595 | 360-999-7889 |
| 3. | Amy Windrope, Deputy Director | 360-298-2278 | 306-488-8072 |
| 4. | Captain Alan Myers, DFW Region 4 Enforcement | | 360-489-5715 |
| Washington Department of Ecology (WDOE) | | Work Phone | Cell Phone |
| 1. | Laurie Niewolny, Aquaculture Specialist | 360-407-7666 | 360-584-8852 |
| 2. | Andrew Kolosseus, SW Region Water Quality Section Manager | 360-407-6271 | 360-529-7641 |
| 3. | Dept. of Ecology 24 Hour Line NW Region (Cypress, Hope, PA) | | 425-649-7000 |
| 4. | Dept. of Ecology 24 Hour Line SW Region (Bainbridge Sites) | | 360-407-6300 |
| Washington Department of Natural Resources (WDNR) | | Work Phone | Cell Phone |
| 5. | Dennis Clark, Assistant Division Manager | 360-708-7357 (cell) | 206-383-8977 |
| 6. | Katrina Lassiter, Aquatic Division Manager | 360-902-1081 | 360-791-9814 |
| 7. | WDNR (24 Hour Line-Washington Dept. of Emergency Management) | | 800-562-6010 |
| Washington Department of Health (WDOH) | | | |
| 8. | Washington Department of Health | 24-hour line | 877-539-4344 |

2.3 Fish Escape Reporting Tribal Contacts

Contact Instructions: Contact the Northwest Indian Fisheries Commission Chairperson first, then make contact with the Tribal Fisheries Resource Managers listed in Table 3 in the region of an accidental fish escape (Regions: North Puget Sound, Central Puget Sound, South Puget Sound).

Northwest Indian Fisheries Commission Chairperson: **Lorraine Loomis 360-466-7240**

Table 2 Tribal Fisheries Resource Managers Call List

| Tribe | Contact Person | Title | Phone Number |
|---|-----------------------|----------------------------|---------------------|
| <i>North Puget Sound Area, Hope Island Site</i> | | | |
| Swinomish Tribe | Lorraine Loomis | Fish and Game Commission | (360) 466-7240 |
| Lummi Tribe | Ben Starkhouse | Harvest Manager | (360) 312-2300 |
| Skagit River System Coop. | Casey Ruff | Director Harvest Mgmt. | (360) 466-7224 |
| Upper Skagit Tribe | Scott Schuyler | Natural Resources Director | (360) 854-7090 |
| Nooksack Tribe | Gary MacWilliams | Director Natural Resources | (360) 592-5176 |
| Stillaguamish Tribe | Shawn Yanity | Fisheries Manager | (360) 435-2755 |
| Samish Tribe | Todd Woodward | Natural Resources Dept. | (360) 293-6404 |
| Tulalip Tribes | Jason Gobin | Fish and Wildlife Director | (360) 716-4595 |
| Sauk-Suiattle Tribe | Grant Kirby | Fishery Manager | (360) 436-0347 |
| <i>Central Puget Sound Area (Straits), Port Angeles Area</i> | | | |
| Lower Elwha Klallam Tribe | Robert Elofson | Harvest Manager | (360) 452-8471 |
| Makah Tribe | Russ Svec | Fishery Manager | (360) 645-3156 |
| Jamestown S'Klallam Tribe | Hansi Hals | Natural Resources Director | (360) 683-4601 |
| Port Gamble S'Klallam | Jeromy Sullivan | Tribal Chairman | (360) 297-2646 |
| Port Gamble S'Klallam | Main Office | Natural Resources Dept. | (360) 297-6284 |
| <i>South Puget Sound Area, Bainbridge Island Sites</i> | | | |
| Suquamish Tribe | Rob Purser, Jr. | Fisheries Director | (360) 394-8436 |
| Puyallup Tribe | Joe Anderson | Fisheries Director | (253) 845-9225 |

| Tribe | Contact Person | Title | Phone Number |
|------------------------|-----------------------|----------------------------|---------------------|
| Tulalip Tribes | Jason Gobin | Fish and Wildlife Director | (360) 716-4595 |
| Nisqually Indian Tribe | David Troutt | Natural Resources Director | (360) 438-8687 |
| Squaxin Island Tribe | Andy Whitener | Natural Resources Director | (360) 432-3802 |
| Muckleshoot Tribe | Isabel Tinaco | Natural Resources Director | (253) 876-3109 |

3. Reporting Procedures

A fish release, or a breach of stock net, initiates the emergency reporting and recovery procedures. These procedures are:

1. Facility staff will use the call list in Table 1 to alert the Cooke EMT.
2. Cooke EMT will notify the agencies in Table 2.
3. The Permit Coordinator will submit an Accidental Fish Release Report (Appendix C) to the Washington Department of Fish and Wildlife (WDFW), Washington Department of Natural Resources, and Ecology within 24 hours.
4. Cooke EMT will determine the best course of action for fish recovery, with recommendations and approval from the agencies identified in Table 2.
5. Within five working days of terminating the fish escape recovery actions, the Permit Coordinator will submit a Fish Recovery Response Report (template provided in Appendix D) to WDFW and Ecology detailing the recovery efforts and the efficiency of those efforts.

3.1 Reporting Medicated Fish Escapes

If medicated feed has been fed recently to the escaped fish population, and the fish are still within the required withdrawal period, the General Manager and/or Permit Coordinator will also immediately notify the Washington Department of Health of that condition and the date when the required withdrawal period will be met.

If fish are still under the required withdrawal period at the time of escapement, a copy of the Accidental Fish Escape Report is sent to the Washington Department of Health for the agency to issue an advisory about fish consumption.

4. Fish Recapture

4.1 Recapture Procedures

In the event of a catastrophic structural failure of the equipment, securing the net pen structure may be necessary in order to make the site safe for employees and subsequent fish recapture actions. The safety of Cooke employees and contractors takes priority over fish recapture. This determination is made at the discretion of Cooke EMT.

The next priority is to determine and attempt to correct the cause of the accidental fish release by repairing the breach or implementing some form of secondary containment, if possible.

Cooke EMT maintains an Emergency Work Vessel Contact List. The contact list is provided in Appendix B. The Permit Coordinator will update this list annually. The operators of emergency work vessels will keep Cooke apprised of changes in personnel or contact information.

Concurrent with actions to stop or reduce further fish escapements from the facility, the Cooke EMT will initiate the rapid recovery of escaped farmed fish. These procedures are as follows:

1. If there is reason to suspect an accidental fish escape has occurred, the Cooke EMT will contact WDFW regarding the feasibility and approval of fish recovery measures in the area of the escapement.

2. Written authorization by WDFW must be obtained by the Cooke EMT before commencing any recapture efforts.
3. Upon receiving authorization from WDFW, the Cooke EMT will commence recovery of escaped fish through one or more of the following actions:
 - a. Deploying Cooke skiffs and seine nets to recapture escaped fish.
 - b. Contacting the Northwest Indians Fishery Commission and nearby tribal Natural Resource managers to help facilitate the recapture of escaped fish.
 - c. Contacting and engaging the services of local vessels of opportunity to facilitate the recapture escaped fish.

4.2 Recapture Vessels, Gear, and Methods

The time of year, location, size of the escaped fish, possible incidental by-catch, and/or Endangered Species Act (ESA) species concerns are considered in the decision process to determine the most suitable method for recapturing escaped fish. The goal is to recapture as many escaped fish as possible, while reducing the by-catch of non-target species. Cooke EMT, in partnership with the agencies listed in Table 2, will make a determination of the methods used.

Cooke will work with nearby tribes to review appropriate fisheries and gear types and identify the key natural resource contacts in the areas near each of the marine net pen farming locations. The tribal contact list is presented in Section 2.

The most effective method to recover escaped fish is to hire outside contractors with commercial fishing gear and vessels designed for capturing, harvesting and containing fish removed from the water.

4.2.1 Cooke Equipment

Cooke owns and operates several large work vessels with cranes. These vessels have the capacity to pull and refit anchors, transport supplies and equipment to the facilities, lift stock nets to the surface, or rotate in new stock nets. These vessels can be moved to any appropriate site in an emergency. The name of the vessel and their home area served is provided below:

| Name of Vessel | Home Area Served |
|-----------------|---|
| F/V Clam Digger | Anacortes area and Hope Island |
| F/V Elsie Em | Bainbridge Island |
| F/V Farm Hand | Bainbridge Island and Port Angeles area |

Each facility typically has two to three braided nylon seine nets, approximately 15 fathoms long and 9 fathoms deep, constructed of one-inch mesh netting. These nets are used for harvesting fish but can be used as beach seine nets in an emergency.

4.2.2 Contractor Equipment

Cooke has established contacts with commercial fishing vessels and operators that are capable of capturing, harvesting, containing and transporting fish. Those operators are listed in Appendix B.

Commercial fishing contractors can employ the following methods of capturing and removing fish:

1. Purse seining - These vessels allow the nets to be gathered and the captured fish to be pumped onto a harvest vessel using the vacuum pump. Non-target salmonids or other species can be manually removed by observing the fish being pumped across a de-watered table and then physically freeing them over the side of the vessel through a by-pass chute or pipe back into the water.

2. Gill netting – These vessels capture fish by encircling them with nets that the fish become tangled in. This method is effective if the fish are within the size range that gill-net vessels target. Target fish size for most gillnets is between three pounds and 15 pounds. While large fish may tangle in the netting, the size of the heads prevents them from being gilled in the net. Smaller fish could easily swim through the mesh openings or not be fully gilled and fall off as the nets are retrieved.

5. Emergency Procedures to Limit Escaped Fish

If there is structural damage to the fish pen structure that could lead to an accidental fish escape, the Cooke EMT will follow the Emergency procedures outlined in the Fish Escape Prevention Plan. Dependent on the situation, the number of fish escaping from damage to a stock containment net could be reduced by using the following response actions:

Safety of the employees and contractors is a priority.

1. Farm site employees trained in diving assist in performing the underwater repair work.
2. Employees working on the surface manually pull the damaged section of the stock net to the surface to prevent fish from swimming out of the damaged area.
3. Deploy a piece of spare netting, bird net or harvest seine net over the damaged net surface to cover and divert fish away from location of damage.
4. To help keep fish in pen, begin feeding the fish in a location away from the damaged area of pen while divers or surface crew mobilize or make repair.
5. EMT contacts additional support vessels quickly and as necessary for the situation.

6. Technology to Minimize Fish Escapes

Technologies implemented to minimize fish escapes are identified in Section 7 of the Fish Escape Prevention Plan and are incorporated here by reference.

7. Cooke Communications and Responsibilities during a Significant Emergency Event

The Cooke EMT follow the procedures in Section 2 to report emergencies to the appropriate state and tribal agencies.

7.1 Unified Command

In the event of an emergency at the facility that requires the activation of a UCS, a UCS-certified Cooke employee or representative will actively participate with the UCS. Select Cooke personnel are trained in, and participate with, the Unified Command System (UCS) under the National Incident Management System (NIMS). NIMS is consistent with the Northwest Contingency Plan. The employee will have technical knowledge of the net pen operations and be a resource to the UCS. The following members of the Cooke Emergency Management Team completed the online UCS-100 training course in 2018, received the appropriate UCS-100 course completion certificate, and will renew their certificates before December 2020:

- Area Managers
- Site Managers
- Business Support Analyst
- Permit Coordinator

Cooke conducts active drills each spring and includes tabletop exercises during the annual trainings. The plans and procedures outlined in the Fish Escape Prevention and Fish Escape Reporting & Response Plans are applicable to all facilities. Resources that can be called upon in an emergency are presented in Appendix B.

8. Annual Fish Release Report











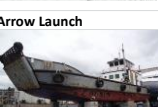







Cooke will submit an Annual Fish Release Report to Ecology by January 31 of every year. This report will summarize, by month and pen site, the number, age class, disease and medication history, and cause of all fish releases to waters of the State of Washington. The Annual Fish Release Report will also include a copy of the initial and follow-up fish release reporting described in Section 3.0.

Appendix A

Phone log

[illegible]

Vessels of Opportunity

| <u>Work Boats</u> | <u>Phone</u> | <u>Location</u> | | <u>Work Boats</u> | <u>Phone</u> | <u>Location</u> |
|--|--------------|----------------------------|--|--|------------------------------------|-----------------|
| Culbertson Marine  | 360-630-4366 | Anacortes | | Crowley  | 206-332-8000 800-900-8847 24hrs | Washington |
| San Juan Enterprise  | 360-202-8611 | Anacortes | | Neptune- Meridian  | 360-661-7990 | La Conner |
| PinTail  | 360-317-8532 | Anacortes | | Harley  | 206-628-0051 | Washington |
| Island Transporter  | 360-941-6060 | Anacortes | | F/V Valero  | 206-409-2532 | Seattle |
| American Patriot  | 206-790-8382 | Seattle | | Impala  | Icicle Vessel | Seattle |
| Arrow Launch  | 360-457-1544 | Anacortes/ Port Angelas | | Polar Lady  | 206-619-7333 | Seattle |
| Henry Island  | 360-317-8486 | Anacortes | | Harvestor  | 206-295-5470 | Seattle |
| Dunlop  | 360-466-3114 | Washington | | Norquest  | 907-843-2412 | Anacortes/AK |
| Western Tow Boat  | 206-789-900 | Seattle | | Eastern Hunter  | 907-843-2412 | Anacortes/AK |

| | | | | |
|---|--------------|--------------|--|---|
| Foss | 800-426-2885 | Washington | | Large Fish Tenders- Owned by Ocean Protein/Ocean Gold |
|  | | | | <u>Ocean Protein Contact- Greg Shaughnessey 360-310-0662</u> |
| | | | | FV Sea Clipper 320K Lbs. RSW no pump |
| | | | | FV Jamie Marie 350K Lbs. RSW no pump |
| | | | | FV Lisa Marie 220K Lbs. Seiner/crabber with pump |
| | | | | |
| Thompsons Pile Driving | 360-769-8428 | Port Orchard | | Other Tenders- |
|  | | | | FV Pacific Harvester 320K Lbs RSW pump. Contact John (206) 941-9442 |
| | | | | |
| | | | | Seiners |
| | | | | F/V Resolution II Joe Lindhome 360-202-0365 58ft seiner Anacortes |
| | | | | F/V Star Shadow Joe Lindhome 360-202-0365 58 seiner Anacortes |
| | | | | F/V Kelley Ann Tandy Wilber 360 610-9668 58 seiner Anacortes |
| Seahorse | 206-459-1713 | Seattle | | F/V D.C. Cole Ralph Cole 360 202-4436 seiner Anacortes |
|  | | | | F/V Crusader Nik Johansen 206 399-4411 58 seiner Seattle |
| | | | | F/V Leith W Mark Wade 360 739-1066 65 seiner Bellingham |
| | | | | F/V Homeshore Ben Kyle 360 393-6155 65Ft seiner Bellingham |
| | | | | |
| | | | | |

Appendix C

Accidental Fish Release Report Information

| Accidental Fish Release Report Information | |
|--|--|
| Fish Release Report Date: | Age Class of Fish: |
| Location of Escape: | Disease History: |
| Date of Release: | Are Fish Medicated? Yes <input type="checkbox"/> No <input type="checkbox"/> |
| Type of Medication: | End Date of Harvest Quarantine: |
| Estimated Number of Fish: | Species of Fish: |
| Avg. Weight of Fish: | Cause of Release: |
| Employee Name: | Employee Title: |

Appendix D

Fish Recovery Response Report Form

Fish Recovery Response Report Form

Fish Release Report Number:

Inclusive Dates of Attempted Recovery:

Date of Submission of Report:

Type of Recovery Efforts Made by Facility Personnel, Contractors and Others:

Description of Recovery Gear Used:

Area(s) of Attempted Catch:

Total Catch of Escaped Fish:

Incidental Catch of other Fish (Species and Numbers):

Employee Name:

Title: