



# **Pollution Prevention Plan**

Cooke Aquaculture Pacific

January 27, 2020

DRAFT

## 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 Hodgins	(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
<b>Washington Dept. of Ecology</b>	
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

<b>Washington Department of Fish &amp; Wildlife (WDFW)</b>		
	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

<b>Washington Department of Ecology (WDOE)</b>		
	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

A complete list of State Agency Emergency Contact numbers is included in Section 2.0 of this Pollution Prevention Plan. Use the Phone log in the Fish Escape Prevention Plan, Appendix A, to record these notifications.

During harvesting operations, the harvest boat shall be tied securely to the net pens adjacent to the pen that is being harvested. The harvest fish are pumped from the pen and onto the harvest boat. Blood water from the harvesting operations (leachate) shall be contained within the fish harvesting machine that is located on the harvest boat. The harvested fish and blood water are contained and stored inside the fish holds of the harvest boat.

#### 6.4 Solid Waste Storage and Disposal Practices

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

The Site Managers are responsible for ensuring that monthly environmental compliance inspections are documented using the Monthly Environmental Compliance Checklist for Spill Control and Waste Handling practices. During this inspection, key areas are identified, and designated personnel from each facility are responsible for ensuring the necessary equipment is in good condition for the safe handling, storage and transfer of fuel and other potential pollutants at the facilities. The Site Manager at each location will conduct the inspection of the farm and upland facility and complete the Monthly Environmental Compliance Checklist form. The Site Manager shall send the completed inspections to the Environmental Health and Safety Department, the Cooke Permit Manager, and Cooke Business Support Analyst each month. The Site Manager will retain a copy at the farm. This form is included in Appendix B.

## **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 30<sup>th</sup> 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)**

<b>Material</b>	<b>Size and Quantity</b>	<b>BMP</b>	<b>Location</b>
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
<b>Washington Dept. of Ecology</b>	
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

<b>Washington Department of Fish &amp; Wildlife (WDFW)</b>		
	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

<b>Washington Department of Ecology (WDOE)</b>		
	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	

<b>Washington Department of Natural Resources (WDNR)</b>		
	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

<b>Washington Department of Health (WDOH)</b>		
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

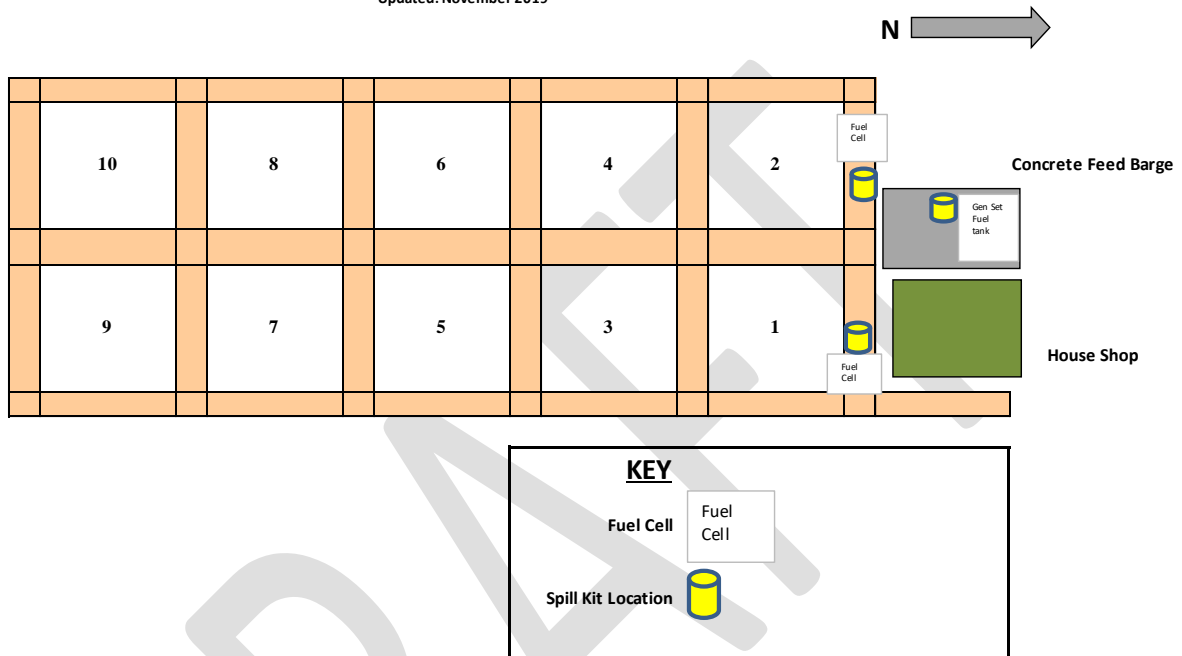
**Natural Resources Corp- Environmental Services- Spill response contractor (800) 337-7455**

## Appendix D

### Facility Site Maps

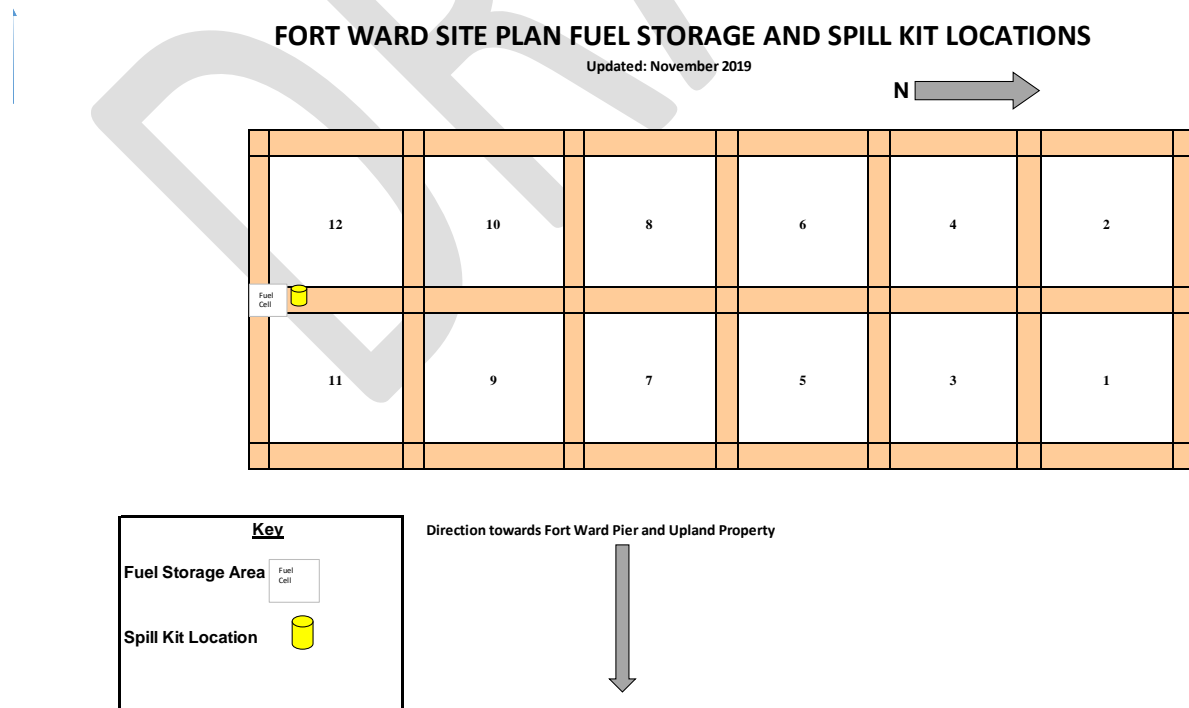
#### HOPE ISLAND SITE PLAN FUEL STORAGE AND SPILL KIT LOCATIONS

Updated: November 2019



#### FORT WARD SITE PLAN FUEL STORAGE AND SPILL KIT LOCATIONS

Updated: November 2019



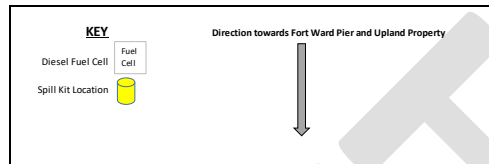
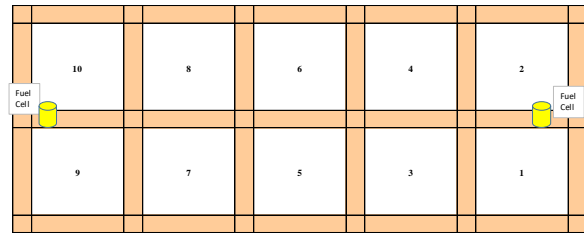
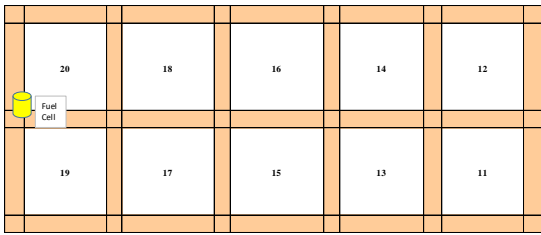
# ORCHARD ROCKS SITE PLAN FUEL STORAGE AND SPILL KIT LOCATIONS

Updated: November 2019

Orchard Rocks South

Orchard Rocks North

N 



# CLAM BAY SITE PLAN FUEL STORAGE AND SPILL KIT LOCATIONS

Updated: November 2019

