



Issuance Date: July 11 2019
Effective Date: August 10, 2019
Expiration Date: August 9, 2024
Modification Date: January 6, 2021

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
WASTE DISCHARGE PERMIT NO. WA0031534**

State of Washington
DEPARTMENT OF ECOLOGY
Southwest Regional Office
P.O. Box 47775
Olympia, WA 98504-7775

In compliance with the provisions of
The State of Washington Water Pollution Control Law
Chapter 90.48 Revised Code of Washington
and
The Federal Water Pollution Control Act
(The Clean Water Act)
Title 33 United States Code, Section 1342 et seq.

COOKE AQUACULTURE PACIFIC, LLC
Fort Ward-Saltwater II
P.O. Box 79003
Seattle, Washington 98119

is authorized to discharge in accordance with the Special and General Conditions that follow.

<u>Facility Location:</u> Rich Passage, Near Fort Ward Adjacent to Bainbridge Island	<u>Receiving Water:</u> Rich Passage Puget Sound (Estuarine)
<u>Latitude:</u> 47° 34' 37" N <u>Longitude:</u> 122° 31' 36" W	<u>Estimated maximum net production per growth cycle:</u> 3,400,000 pounds
<u>Industry Type:</u> Concentrated Aquatic Animal Production, Marine Net-Pen	SIC 0273 NAICS 112511



Andrew Kolosseus
Southwest Region Manager
Water Quality Program
Washington State Department of Ecology

TABLE OF CONTENTS

SUMMARY OF PERMIT REPORT SUBMITTALS.....	4
SPECIAL CONDITIONS.....	7
S1. DISCHARGE LIMITS.....	7
S2. MONITORING REQUIREMENTS	7
S2.A. Monitoring Schedule.....	7
S2.B. Sediment Sampling and Analysis Plan (SAP).....	8
S2.C. Sediment Data Report	9
S2.D. Annual and Estimated Peak Biomass Sediment Monitoring.....	10
S2.E. Exceedance Monitoring.....	11
S2.F. Enhanced Monitoring	12
S2.G. Closure Monitoring	12
S2.H. Laboratory Accreditation	12
S2.I. Latitude and Longitude Coordinates	13
S2.J. Water Column Dissolved Oxygen Profile Monitoring.....	13
S2.K. Underwater Video and Photographic Survey	13
S2.L. Antibiotic Resistance Monitoring	13
S3. REPORTING AND RECORDING REQUIREMENTS	14
S3.A. Discharge Monitoring Reports:.....	14
S3.B. Permit Submittals and Schedules	15
S3.C. Records Retention	16
S3.D. Recording of Results	16
S3.E. Additional Monitoring by the Permittee	16
S3.F. Operational Log	17
S3.G. Reporting Permit Violations.....	17
S3.H. Other Reporting.....	19
S3.I. Maintaining a Copy of this Permit	19
S4. OPERATION AND MAINTENANCE	19
S4.A. Operations and Maintenance (O&M) Manual.....	19
S5. SOLID WASTES	22
S6. APPLICATION FOR PERMIT RENEWAL OR MODIFICATION FOR FACILITY CHANGES.....	22
S7. NET PEN STRUCTURAL INTEGRITY ASSESSMENT REPORT	23
S8. POLLUTION PREVENTION PLAN	23
S8.A. Pollution Prevention Plan Submittals and Requirements.....	23
S8.B. Pollution Prevention Plan Components.....	23
S9. FISH ESCAPE PREVENTION, REPORTING AND RESPONSE PLAN	25
S10. AKART ANALYSIS REPORT	28
GENERAL CONDITIONS.....	29
G1. SIGNATORY REQUIREMENTS	29
G2. RIGHT OF INSPECTION AND ENTRY	30
G3. PERMIT ACTIONS	30

G4.	REPORTING PLANNED CHANGES	32
G5.	PLAN REVIEW REQUIRED	32
G6.	COMPLIANCE WITH OTHER LAWS AND STATUTES.....	32
G7.	TRANSFER OF THIS PERMIT	32
G8.	REDUCED PRODUCTION FOR COMPLIANCE	33
G9.	REMOVED SUBSTANCES	33
G10.	DUTY TO PROVIDE INFORMATION	33
G11.	OTHER REQUIREMENTS OF 40 CFR.....	33
G12.	ADDITIONAL MONITORING	33
G13.	PAYMENT OF FEES.....	33
G14.	PENALTIES FOR VIOLATING PERMIT CONDITIONS.....	33
G15.	UPSET.....	34
G16.	PROPERTY RIGHTS.....	34
G17.	DUTY TO COMPLY.....	34
G18.	TOXIC POLLUTANTS	34
G19.	PENALTIES FOR TAMPERING.....	35
G20.	REPORTING REQUIREMENTS APPLICABLE TO EXISTING MANUFACTURING, COMMERCIAL, MINING, AND SILVICULTURAL DISCHARGERS.....	35
G21.	COMPLIANCE SCHEDULES.....	35
	<i>APPENDIX A - LIST OF POLLUTANTS WITH ANALYTICAL METHODS, DETECTION LIMITS AND QUANTITATION LEVELS.....</i>	<i>36</i>
	<i>APPENDIX B - SEDIMENT IMPACT ZONE</i>	<i>39</i>
	<i>APPENDIX C - ROUTINE SEDIMENT SAMPLING STATION LOCATIONS</i>	<i>40</i>
	<i>APPENDIX D - EXCEEDANCE SEDIMENT SAMPLING STATION LOCATIONS OUTSIDE THE SIZ</i>	<i>41</i>
	<i>APPENDIX E - DECISION FLOWCHART FOR SEDIMENT MONITORING.....</i>	<i>42</i>
	<i>APPENDIX F - DAILY CRITICAL PERIOD DISSOLVED OXYGEN PROFILE MONITORING LOCATIONS.....</i>	<i>43</i>
	<i>APPENDIX G - STATE AGENCY CONTACT INFORMATION FOR EMERGENCIES/UNUSUAL EVENTS.....</i>	<i>44</i>

SUMMARY OF PERMIT REPORT SUBMITTALS

Refer to the Special and General Conditions of this permit for specific and additional submittal requirements.

Permit Section	Submittal	Frequency	First Submittal Date
S3.A	eDMR for fish biomass, fish feed, feed conversion ratio, number of live fish, number of dead fish, and disease control chemical use	Monthly	September 15, 2019
S3.A	eDMR for dissolved oxygen at net pen corners	Monthly	September 15, 2019
S3.A	Annual report fish biomass, fish feed, feed conversion ratio, number of live fish, number of dead fish, and disease control chemical use	Annual	January 31, 2020
S3.B.4	Nitrogen Reporting Plan	Once	July 5, 2021
S3.B.4	Annual Report for Nitrogen Input	Annually	January 31, 2022
S2.B.1	Critical Summer Period Sediment Monitoring Sampling and Analysis Plan (SAP)	1/permit cycle	January 31, 2020
S2.B.1	Critical Summer Period Sediment Monitoring SAP Update or Review Confirmation Letter	Annual	January 31, 2021
S2.C, S2.D, S3	Critical Summer Period Sediment Monitoring Report for Silt-Clay, TOC, Copper and Zinc	Annual	January 31, 2021
S2.J, S3	Critical Summer Period Dissolved Oxygen Water Column Monitoring	Annual	January 31, 2021
S2.K, S3	Critical Summer Period Underwater Video and Photographic Survey Report	Annual	January 31, 2021
S2.B.1	Estimated Peak Biomass Sediment Monitoring SAP	1/permit cycle	Within 3 months of issuance
S2.B.1	Estimated Peak Biomass Sediment Monitoring SAP Update or Review Confirmation Letter	As necessary	Within 1 month of stocking facility with new cohort
S2.C, S2.D, S3	Estimated Peak Biomass Sediment Monitoring Report for Silt-Clay, TOC, Copper and Zinc	As necessary	4 months after sampling
S2.K, S3	Estimated Peak Biomass Period Underwater Video and Photographic Survey Report	As necessary	4 months after sampling
S2.B.2	Exceedance Sediment Monitoring SAP	As necessary	
S2.E	Exceedance Sediment Monitoring Report	As necessary	
S2.B.3	Enhanced Sediment Monitoring SAP	As necessary	

Permit Section	Submittal	Frequency	First Submittal Date
S2.F	Enhanced Sediment Monitoring Report	As necessary	
S2.B.4	Closure Monitoring SAP	As necessary	
S2.G	Closure Monitoring Report	As necessary	
S2.I	Latitude and Longitude Coordinates	Annual	January 31, 2020
S3.A.5	Reporting Fish Mortalities Monitoring Results	As necessary	
S3.A.5	Reporting Sea Lice Monitoring Results	As necessary	
S3.G	Reporting Permit Violations	As necessary	
S4	Operations and Maintenance Manual	Once per cycle and updated versions as necessary	January 31, 2020
S6	Application for Permit Renewal	1/permit cycle	January 31, 2024
S7	Net Pen Structural Integrity Assessment Report (includes Doppler current assessment)	Approximately every two years	Within 2 years of permit issuance
S8	Pollution Prevention Plan	Once per cycle and updated versions as necessary	January 31, 2020
S9	Fish Escape Prevention, Reporting, and Response Plan	Once per cycle and updated versions as necessary	January 31, 2020
S9	Annual Fish Release Report	Annually	January 31, 2020
S9	Fish Release Report	As necessary	Within 24 hours of release
S9	Fish Release Follow-Up Report	As necessary	
S9	Stocking Plan	As necessary	Prior to stocking
S9	Stocking Report	As necessary	30 days after stocking
S9	Harvest Plan	As necessary	Prior to harvest
S9	Harvest Report	As necessary	30 days after harvest
S10	AKART Analysis Report	Once	With reapplication: January 31, 2024
G1	Notice of Change in Authorization	As necessary	
G4	Permit Application for Substantive Changes to the Discharge	As necessary	
G5	Engineering Report for Construction or Modification Activities	As necessary	
G7	Notice of Permit Transfer	As necessary	

Permit Section	Submittal	Frequency	First Submittal Date
G10	Duty to Provide Information	As necessary	
G21	Compliance Schedules	As necessary	

SPECIAL CONDITIONS

S1. DISCHARGE LIMITS

Beginning on the effective date of this permit and lasting through the expiration date, the Permittee is authorized to discharge waste materials at the permitted location subject to meeting the following limitations:

Release of fish	Fish that are permitted to be raised in the net pens through the permittee's WDFW Marine Aquaculture Permit are prohibited to be released to the receiving waters beyond the confines of the net pens. Each fish released to the receiving waters beyond the confines of the net pens is a separate Permit violation.
Surface Water Quality Criteria	Discharge from this facility must comply with the Surface Water Quality Standards specified in Chapter 173-201A WAC.
Sediment Management Standards	Discharge from the facility must comply with Chapter 173-204 WAC Sediment Management Standards to protect biological resources and human health.

S2. MONITORING REQUIREMENTS

S2.A. Monitoring Schedule

The Permittee must monitor in accordance with the following schedule and the requirements specified in **Appendix A**.

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type	Sample Locations
Sediment silt-clay particles	Percent dry weight	Annually, between August 15 th and September 30 th , AND within 45 days after first harvest ^c , if different.	Grab ^a	See Appendix C for sampling stations.
Total Organic Carbon (TOC)	Percent dry weight	Annually, between August 15 th and September 30 th , AND within 45 days after first harvest ^c , if different.	Grab ^a	See Appendix C for sampling stations.
Copper (Sediment)	mg/kg	Annually, between August 15 th and September 30 th , AND within 45 days after first harvest ^c , if different.	Grab ^a	See Appendix C for sampling stations.

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type	Sample Locations
Zinc (Sediment)	mg/kg	Annually, between August 15 th and September 30 th , AND within 45 days after first harvest ^c , if different.	Grab ^a	See Appendix C for sampling stations.
Dissolved oxygen in water column at SIZ stations and reference ^b	mg/L	Annually, between August 15 th and September 30 th	Grab ^a	See Appendix C for sampling stations.
Dissolved oxygen in water column at corners of net pen array ^b	mg/L	Daily, between August 15 th and September 30 th	Grab ^a	See Appendix F for sampling stations.
Underwater video and photographic survey. Note <i>Beggiatoa</i> presence and quantity	NA	Annually, between August 15 th and September 30 th , AND within 45 days after first harvest ^c , if different.	Video & Photo	See Appendix C for sampling stations.
a	Grab means an individual sample collected over a fifteen (15) minute, or less, period.			
b	Water column monitoring consists of DO measured at one meter of the water surface, at approximately half the depth of the pen, and within one meter of the bottom.			
c	In addition to the annual sediment monitoring during the critical summer period between August 15 and September 30, the permittee shall conduct sediment monitoring corresponding to fish harvesting that is likely to be the time that maximum or peak biomass will occur. The estimated peak biomass period is operationally defined as 45 days after the first harvest and no later than the last harvest of the cohort. The additional monitoring is to take place in any calendar year in accordance with the schedule specified, if the 45 days after first harvest does not occur between August 15 and September 30.			

S2.B. Sediment Sampling and Analysis Plan (SAP)

The Permittee must submit to Ecology for review and approval a sediment sampling and analysis plan for sediment monitoring events. The purpose of the plan is to characterize the sediment quality (i.e., the nature and extent of chemical contamination and biological toxicity) in the vicinity of the Permittee's discharge locations (Appendix B). The Permittee must follow the guidance provided in the *Sediment Cleanup User's Manual II, Appendix A: Sampling Guidance for NPDES Permits under the Sediment Management Standards* (Ecology 2017).

The Permittee is required to submit SAPs to Ecology for the following sediment monitoring events in the manner described for review and approval before any sampling is conducted.

1. Annual critical summer period sediment monitoring: By January 31, within the first year of issuance, submit a SAP for sediment monitoring that will occur during the critical summer period every year. The critical summer period is between August 15 and September 30 and sampling occurs at the routine monitoring locations shown in Appendix C.

The Permittee must review the SAP annually and confirm this review or provide changes by certified letter to Ecology by January 31st of each year. Any changes to the SAP are required to be reviewed and approved prior to sampling being conducted.

2. Estimated peak biomass sediment monitoring: Sediment monitoring will be necessary during the estimated peak biomass period. The estimated peak biomass period is operationally defined as 45 days after the first harvest and no later than the last harvest of the cohort. Submit a SAP within three months of permit issuance. Include in the SAP the approximate date first harvest would occur at the net pen facility and estimate the likely date(s) sampling would happen. Sampling shall occur at routine monitoring locations shown in Appendix C. Identify if the 45 day period after first harvest coincides with the critical summer period monitoring. Ecology will need 45 days to review and approve SAP.

The Permittee must review the SAP within one month of when fish are outplanted to the net pen facility to update first harvest and sampling date estimates. Confirm this review along with the updated dates and provide other changes to the SAP in writing by certified letter to Ecology. The changes to the SAP are required to be reviewed and approved prior to sampling being conducted.

3. Exceedance monitoring: If the monitoring results during the critical summer period or estimated peak biomass period exceed the permit limits, additional monitoring will be required for locations shown in Appendix D. Submit a SAP to Ecology for review and approval no later than January 31 for sampling between August 15 and September 30 of that year, and no less than 90 days before the next the estimated peak biomass period. Ecology will need 45 days to review and approve SAP.
4. Enhanced monitoring: If the Exceedance Monitoring results are above permit limits, additional monitoring will be required as shown in Appendix E. Submit a SAP to Ecology for review and approval no later than January 31 for sampling between August 15 and September 30 of that year, and no less than 90 days before the next the estimated peak biomass period. Ecology will need 60 days to review and approve SAP.
5. Closure monitoring: If net pens are moved or removed, conduct Closure Monitoring in areas where the previous Sediment Impact Zone (SIZ) was established but is no longer in effect. If a site closure or move is anticipated, submit a SAP to Ecology for review and approval at least 60 days prior to the planned closure or move. If a site is moved or removed due to unanticipated circumstances, submit a SAP to Ecology for review and approval within 60 days of the move or removal. Ecology will need 60 days to review and approve SAP.

S2.C. Sediment Data Report

Following Ecology approval of the sediment sampling and analysis plan, the Permittee must collect sediments between August 15th and September 30th, as well as during the

estimated peak biomass period, if different. The Permittee must submit to Ecology a sediment data report containing the results of the sediment sampling and analysis, as well as the underwater video and photographic survey, no later than January 31 of the calendar year after the sampling was done for critical summer period sampling or four months after peak biomass period sampling. The sediment data report must conform to the approved sediment sampling and analysis plan. The report must document when the data was successfully loaded into EIM as required below.

In addition to a sediment data report, submit the sediment chemical and biological data to Ecology's [EIM database](http://www.ecy.wa.gov/eim/) (<http://www.ecy.wa.gov/eim/>). Data must be submitted to EIM according to the instructions on the EIM website. The data submittal portion of the [EIM website](http://www.ecy.wa.gov/eim/submitdata.htm) (<http://www.ecy.wa.gov/eim/submitdata.htm>) provides information and help on formats and requirements for submitting tabular data.

In addition to the EIM data submittal, Ecology's [MyEIM](http://www.ecy.wa.gov/eim/MyEIM.htm) tools (<http://www.ecy.wa.gov/eim/MyEIM.htm>) must be used to confirm that the submitted data was accurately entered into EIM. Any differences between the MyEIM analytical results and sediment data report must be identified and explained

S2.D. Annual and Estimated Peak Biomass Sediment Monitoring

The Permittee will collect five field replicates from each of the sampling stations identified in Appendix C. All field replicates will be at least four to five centimeters in depth (or as deep as possible up to four or five cm) and representative of the station and the undisturbed sediment. If antifoulants are used on nets, sediment samples must be analyzed for copper and compared to the Sediment Management Standards (SMS) criteria.

Carefully remove the top two centimeters of each field replicate sample using a pre-cleaned stainless steel scoop. Homogenize prior to analysis. Treat field replicates as distinct samples; do not combine replicates prior to analysis.

If repeated sampling attempts do not result in adequate sample volume, take photos and video of the seafloor at each unsuccessful station. Include photos and video documentation in the sediment data report.

The Permittee may suspend sediment sampling at any station where it is not possible to collect adequate sample volume. Include documentation of unsuccessful sampling attempts made within the previous two sampling attempts in the sediment data report.

Compare results from the TOC replicates statistically (t test, $p \leq 0.05$) to facility baseline levels or to the following values to determine if the facility has exceeded permit requirements:

Table 1. Puget Sound TOC Reference Values

Silt-Clay Particles (Percent Dry Weight)	Total Organic Carbon (Percent Dry Weight)
0-20	0.5
20-50	1.7

Silt-Clay Particles (Percent Dry Weight)	Total Organic Carbon (Percent Dry Weight)
50-80	3.2
80-100	2.6

Evaluate samples to determine if TOC values are statistically exceeded compared to the mean of the baseline levels (or Table 1) for each station location.

S2.E. Exceedance Monitoring

Exceedance Monitoring is required if the Annual or Estimated Peak Biomass Sediment Monitoring results show either:

- The TOC values at one or more individual stations exceed the requirements in Table 1 (S2.E) [WAC 173-204-412(3)], or
- Copper (if required) or zinc concentrations exceed cleanup screening levels (CSL) criteria. Cleanup screening levels (WAC 173-204-520) establish minor adverse effects above which areas of potential contaminant concern are established.

Exceedance Monitoring shall consist of benthic infaunal analysis outside the Sediment Impact Zone (SIZ) (WAC 173-204-412) and TOC outside the SIZ as identified in Appendix D [WAC 173-204-412(4)(a)].

1. Benthic Infaunal Analysis Sampling (WAC 173-204-412)

- a. The benthic infaunal analysis must follow the most recent *Recommended Protocols for Sampling and Analyzing Subtidal Benthic Macroinvertebrate Assemblages in Puget Sound* (Puget Sound Action Team). Follow the procedures of the most recent PSEP protocols for all sediment sample collection and processing.
- b. The Permittee will collect five field replicates from the station(s) that exceeded standards or TOC baseline percentages.
- c. Analyze sediment samples for compliance with the SMS benthic abundance biological effects criteria, identifying benthic infauna at the lowest taxonomic level possible. Taxonomic identification above the genus level must be approved by ecology before the data report is submitted.
- d. If the analysis exceeds the benthic abundance biological effects criteria at any station location, the Permittee will conduct Enhanced Sediment Quality Monitoring per WAC 183-204-412(4)(a) at that station.

2. Total Organic Carbon (TOC) Sampling

- a. The Permittee shall collect five field replicates from the sampling station(s) identified in Appendix D that exceeded standard or TOC baseline percentages. Per Appendix D, sample station(s) will be 25 feet outside the SIZ boundary. If the down current sample station exceeds standards, one sampling station will be 50 feet outside the SIZ. All field replicates will be at least five cm in depth and representative of the station and the undisturbed sediment.
- b. All monitoring and analysis requirements listed in S2.A apply to Exceedance Monitoring except DO monitoring.
- c. If testing shows the TOC at any one station statistically (t test, $p \leq 0.05$) exceeds the facility baseline levels or those values noted in Table 1 above, then the Permittee will conduct Enhanced Sediment Quality Monitoring per WAC 173-204-412(4)(a).

S2.F. Enhanced Monitoring

The permittee should use the Decision Flowchart in Appendix E to determine the need to conduct Enhanced Sediment Monitoring. A SAP for Enhanced Sediment Quality Monitoring should be submitted to Ecology for review and approval prior to monitoring. The SAP must include parameters in S2.A to include all routine monitoring. In addition to Enhanced Sediment Quality Monitoring, the Permittee must work in consultation with Ecology to develop, refine, and implement actions in order to return to SIZ compliance.

S2.G. Closure Monitoring

If the net pen will be moved or removed, closure monitoring must be conducted in the area where the SIZ was established but is no longer in effect [WAC 173-204-412(3)]. The goal of closure is to monitor the return of the sediment quality to baseline conditions. A SAP must be submitted to Ecology, Aquatic Lands Unit, for review and approval at least 60 days before any planned closure. If a closure occurs due to unanticipated circumstances, a SAP for closure monitoring must be submitted within 60 days of site closure, movement, or removal.

Closure monitoring must include parameters listed in S2.A except DO monitoring. Benthic infaunal abundance must be conducted as described in S2.E.1. Closure monitoring must be conducted within the first year of closure and the data report submitted as described in S2.E. Ecology may require additional closure monitoring to ensure the sediment quality's return to baseline conditions.

S2.H. Laboratory Accreditation

The Permittee must ensure that all monitoring data required by Ecology for permit specified parameters is prepared by a laboratory registered or accredited under the provisions of chapter 173-50 WAC, *Accreditation of Environmental Laboratories*. Flow, temperature, settleable solids, conductivity, pH, and internal process control parameters are exempt from this requirement. The Permittee must obtain accreditation for conductivity and pH if it must receive accreditation or registration for other parameters.

S2.I. Latitude and Longitude Coordinates

The Permittee shall record net pen latitude and longitude coordinates for the outer corners and sampling stations. The coordinates shall be submitted with the data report by January 31 of each year. The sediment sampling station coordinates should be provided as geographical latitudinal/longitudinal coordinates (decimal degrees or degrees, minutes, seconds) in NAD83, HARN, south zone, feet.

S2.J. Water Column Dissolved Oxygen Profile Monitoring

The Permittee shall conduct a single dissolved oxygen (DO) profile of the water column at each sampling station collocated with annual SIZ sediment monitoring stations described in Appendix C and a separate reference station, between August 15 and September 30, the critical summer period. The Permittee shall measure DO at three depths within the water column—within one meter of the water surface, at approximately half the depth of the pen, and within one meter of the bottom. The Permittee shall compare results from the reference site with the sampling stations. See Appendix C for sampling station locations. The results shall be submitted with the Annual Report by January 31 of each year.

The Permittee shall also measure DO at each corner of the net pen array daily between August 15 and September 30. Appendix F describes the locations of the monitoring. The Permittee shall report the high, low, and average DO for each week on the monthly eDMR.

S2.K. Underwater Video and Photographic Survey

The Permittee shall conduct an underwater video and photographic survey of the seafloor annually between August 15 and September 30 and at each estimated peak biomass sediment sampling event for each of the sediment sampling stations noted in Appendix C.

1. Video and still photos shall be taken at each station, from a distance of three to seven feet above the bottom. Use artificial light (50 watt or greater) at all times to take 15-30 seconds of video, and no less than four photos. The Permittee shall provide reference information on linear dimensions, time, date, station location, and net pen facility with each picture or section of film footage.
2. Video and photos shall clearly convey the appearance of the seafloor at each station.
3. Note any *Beggiatoa* species, if present, and estimate percent of coverage.
4. The survey results shall be submitted with the sediment data reports required in S2.D.

S2.L. Antibiotic Resistance Monitoring

Ecology may require benthos sediment antibiotic resistance monitoring by administrative order or by permit modification.

The basis for requiring sediment antibiotic resistance monitoring may include, but is not limited to:

- New information on the environmental impacts of antibiotics, and/or

- Unusually high usage levels of antibiotics by the Permittee.

Any permit modification or administrative order requiring the Permittee to monitor sediment antibiotic resistance is subject to the administrative procedures under RCW 43.21C.

S3. REPORTING AND RECORDING REQUIREMENTS

The Permittee must monitor and report in accordance with the following conditions. Falsification of information submitted to Ecology is a violation of the terms and conditions of this permit.

S3.A. Discharge Monitoring Reports:

The first monitoring period begins on the effective date of the permit (unless otherwise specified). The Permittee must:

1. Summarize, report, and submit monitoring data obtained during each monitoring period on the electronic discharge monitoring report (DMR) form provided by Ecology within the Water Quality Permitting Portal. Include data for the parameters tabulated in Special Condition S2 and as required by the form. Specifically, submit eDMRs for the parameters fish biomass, fish feed, disease control chemical use, feed conversion ratio, estimated number of live individual fish, number of dead fish collected or observed, and dissolved oxygen at net pen corners as required by the form. Report a value for each day sampling occurred (unless specifically exempted in the permit) and for the summary values (when applicable) included on the electronic form.

To find out more information and to sign up for the [Water Quality Permitting Portal](https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Water-quality-permits-guidance/WQWebPortal-guidance) go to: <https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Water-quality-permits-guidance/WQWebPortal-guidance>.

Report a value for each day sampling occurred (unless specifically exempted in the permit) and for the summary values (when applicable) included on the electronic form.

Enter the “No Discharge” reporting code for an entire DMR, for a specific monitoring point, or for a specific parameter as appropriate, if the Permittee did not discharge wastewater or a specific pollutant during a given monitoring period.

Submit a copy of the raw data record as an attachment using WQWebDMR. Report the test method used for analysis in the comments if the laboratory used an alternative method not specified in the permit and as allowed in Appendix A or S2.

2. Ensure that DMRs are electronically submitted no later than the dates specified below, unless otherwise specified in this permit.

Submit DMRs for parameters with the monitoring frequencies specified in S2 (monthly, quarterly, annual, etc.) at the reporting schedule identified below. The Permittee must:

- a. Submit **monthly** DMRs by the 15th day of the following month.

3. Monthly Monitoring Reports: Monthly DMRs must be submitted through the Water Quality Permitting Portal.
 - a. Disease Control Chemicals: The Permittee must report the use of any disease control chemicals on the monthly DMR. The name and amount of any chemicals and/or medicated feed used shall be reported.
 - b. Fish Biomass, Monthly Feed, Feed Conversion Ratio, Estimated Number of Individual Live Fish, and Estimated Number of Dead Fish Collected or Observed: The Permittee must report the fish biomass and monthly food fed, both in pounds. This information shall be submitted monthly on the DMR.
 - c. Dissolved Oxygen: The Permittee must report the weekly high, low, and average DO between August 15 and September 30 on the monthly DMR for those months.

S3.B. Permit Submittals and Schedules

The Permittee must use the Water Quality Permitting Portal – Permit Submittals application (unless otherwise specified in the permit) to submit all other written permit-required plans and reports by the date specified in the permit.

1. Sediment Monitoring Data Reports:

Critical summer period data reports for sediment monitoring and underwater video and photographic surveys required in Section S2 of this permit shall be submitted to Ecology by January 31 of the following year.

Estimated peak biomass period data reports for sediment monitoring and underwater video and photographic surveys required in Section S2 of this permit shall be submitted to Ecology within four months of sampling.

Sediment data must be submitted in both dry weight and total organic carbon normalized units and compared to SMS criteria. The data report must note if Exceedance and/or Enhanced Monitoring will be required.

2. Annual Monitoring Reports: Annual reports must be submitted through the Water Quality Permitting Portal. Annual summaries of disease control chemical use, monthly biomass, feed fed, feed conversion ratios, number of live fish, and number of dead must be submitted via the DMR by January 31 of the following year.
3. Other Monitoring and Data Recorded: Records of harvest, fish mortalities and sea lice inspections, including original tally sheets, shall be kept on-site and available to Ecology inspectors upon request.
 - a. Fish Mortality Monitoring and Reporting: The Permittee must notify the Washington Department of Health (DOH) when fish mortalities within the facility exceed five percent of the fish in any calendar week in respect to a harmful algae bloom. See below in section S3.G for contact information.
 - b. Sea Lice Monitoring and Reporting: The Permittee shall conduct visual inspections of the penned fish for sea lice and record any increase in occurrence,

infestations, or outbreaks. Sea lice monitoring records shall be kept and reported to WDFW and Ecology within one week if an increase of sea lice numbers above normal observations occur. All records must be kept on site or in the main office and be made available to Ecology or WDFW upon request.

4. The Permittee must develop, with Ecology's review and approval, a Nitrogen Reporting Plan finalized within 6 months of the modified permits being issued and report annually thereafter an Annual Nitrogen Input Report.
5. When another permit condition requires submittal of a paper (hard-copy) report or the format is not allowable such as videos, the Permittee must ensure that it is postmarked or received by Ecology no later than the dates specified by this permit. Send these reports to Ecology at:

Water Quality Permit Coordinator-Aquaculture Specialist
Department of Ecology
Southwest Regional Office
P.O. Box 47775
Olympia, WA 98504-7775

S3.C. Records Retention

The Permittee must retain records of all monitoring information for a minimum of three years. Such information must include all calibration and maintenance records and all original recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit. The Permittee must extend this period of retention during the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by Ecology.

S3.D. Recording of Results

For each measurement or sample taken, the Permittee must record the following information:

1. The date, exact place, method, and time of sampling or measurement.
2. The individual who performed the sampling or measurement.
3. The dates the analyses were performed.
4. The individual who performed the analyses.
5. The analytical techniques or methods used.
6. The results of all analyses.

S3.E. Additional Monitoring by the Permittee

If the Permittee monitors any pollutant or conducts sediment or water quality monitoring more frequently than required by Special Condition S2 of this permit using test procedures

approved under 40 CFR Part 136, then the Permittee must include the results of such monitoring in the calculation and reporting of the data submitted in the Permittee's DMR or sediment data report.

S3.F. Operational Log

1. The Permittee must keep records on all disease control chemicals used at the facility. All variances from the disease control chemical use procedures contained in the facility Pollution Prevention Plan (S8) must be documented. These records must include:
 - a. Person responsible for the administration of the disease control chemical if different from the individual identified in the facility Pollution Prevention Plan.
 - b. The date of application of the disease control chemical used. For disease control chemicals which are used routinely, the frequency of application may be recorded in place of each individual application date.
 - c. The trade name of the disease control chemical used.
 - d. The treatment concentration of the active ingredient, duration of treatment, and amount of the chemical used.
 - e. The reason for use and method of application.
2. The Permittee must keep records of the average and maximum amount of fish on hand in pounds and the total amount of food fed in pounds for each calendar month at the facility.
3. The information contained in the operational log (S3.F) must be used to complete the disease control chemical use reporting requirements as noted in section S3.A.4, above.

S3.G. Reporting Permit Violations

The Permittee must take the following actions when it violates or is unable to comply with any permit condition:

Immediately take action to stop, contain, and cleanup unauthorized discharges or otherwise stop the noncompliance and correct the problem.

If applicable, immediately repeat sampling and analysis. Submit the results of any repeat sampling to Ecology within 30 days of sampling.

1. Immediate Reporting

The Permittee must immediately report to Ecology and the Department of Health, Shellfish Program (at the number listed below) fish mortality associated with HABs (Harmful Algal Blooms) in accordance to threshold in S3.B.3.a and all spills of oil or hazardous materials to marine surface waters.

Department of Ecology - Southwest Regional Office Environmental Reporting	360-407-6300 (24 hours)
Department of Health, Shellfish Program	360-236-3330 (business hours) 360-789-8962 (after business hours)

The Permittee must report a spill of oil or hazardous materials in accordance with the requirements of [RCW 90.56.280](#) and [chapter 173-303-145 WAC](#). You can obtain further instructions on [How to Report a Spill](#) at: <https://ecology.wa.gov/About-us/Get-involved/Report-an-environmental-issue/Report-a-spill>

2. Twenty-Four-Hour Reporting

- a. The Permittee must report the following occurrences of noncompliance by telephone, to Ecology at the telephone number listed above, within 24 hours from the time the Permittee becomes aware of any of the following circumstances:
 - i. Any noncompliance that may endanger health or the environment, unless previously reported under immediate reporting requirements.
 - ii. Any upset that causes an exceedance of an effluent limit in the permit (See G.15, "Upset").
- b. Permittee must report fish escapes within 24 hours of having knowledge that a release has occurred in accordance with Fish Escape Reporting and Response (S9.N), which includes reporting to the state agencies, Tribes, and local governments.
- c. Permittee must report Unusual Events within 24 hours of having knowledge that event has occurred in accordance with unusual events reporting in Pollution Prevention Plan (S8.B.13) and Fish Escape Prevention, section S9.F.

3. Report within Five Days

The Permittee must also submit a written report within five days of the time that the Permittee becomes aware of any reportable event under subparts 1 or 2, above. The report must contain:

- a. A description of the noncompliance and its cause.
- b. The period of noncompliance, including exact dates and times.
- c. The estimated time the Permittee expects the noncompliance to continue if not yet corrected.
- d. Steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

4. Waiver of Written Reports

Ecology may waive the written report required in subpart c, above, on a case-by-case basis upon request if the Permittee has submitted a timely oral report.

5. All other Permit Violation Reporting

The Permittee must report all permit violations, which do not require immediate or within 24 hours reporting, when it submits monitoring reports for S3.A ("Reporting"). The reports must contain the information listed in subpart c, above. Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply.

S3.H. Other Reporting

1. Permittee must report sea lice outbreak within one week as defined in S3.B.2 to Ecology and WDFW.

2. Failure to Submit Relevant or Correct Facts

Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to Ecology, it must submit such facts or information promptly.

S3.I. Maintaining a Copy of this Permit

The Permittee must keep a copy of this permit at the facility and make it available upon request to Ecology inspectors.

S4. OPERATION AND MAINTENANCE

The Permittee must, at all times, properly operate and maintain all facilities and systems to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes keeping a daily operation logbook (paper or electronic), adequate laboratory controls, and appropriate quality assurance procedures.

The Permittee must schedule and carry out any facility maintenance according to the approved O&M manual or as otherwise approved by Ecology.

S4.A. Operations and Maintenance (O&M) Manual

1. O&M Manual Submittal and Requirements

The Permittee must:

- a. Update the O&M Manual such that it meets the requirements of 173-221A-110 WAC and submit it to Ecology for approval by January 31, 2020.
- b. Submit to Ecology for review and approval changes or updates to the O&M Manual whenever permittee incorporates them into the manual.
- c. Keep the approved O&M Manual at the permitted facility.

- d. Follow the instructions and procedures of this manual.

2. O&M Manual Components

The O&M Manual must include procedures to address the following:

- a. The Permittee must take immediate action to correct any noncompliance with the water quality or sediment management standards identified in Section S1 of this permit. Corrective actions may include reduction in feeding rate, removal of fish from net pens, or other remedies.
- b. Emergency procedures for spills, fish escapes, and structural failures.
- c. A review of components which, if they failed, could cause the discharge of pollutants to surface waters, including the release of fish.
- d. Any directions to staff when performing maintenance, cleaning, or other tasks which are necessary to ensure the proper operation of the facility.
- e. Minimum staffing adequate to operate and maintain the facility and carry out compliance monitoring required by the permit.

3. O&M Manual Submittal and Requirements

- a. The Permittee must utilize properly sized feed for the size of fish in each individual net pen.
- b. The Permittee must feed fish in a manner that minimizes the amount of uneaten fish food, and maximizes ingestion by reared fish.
- c. The Permittee must utilize feed which is free of excessive fines and high in digestibility.
- d. The Permittee must routinely collect environmental data and accurate data on fish numbers in the pens, size, growth, and food conversion ratios necessary to determine and update optimal feeding rates.
- e. The Permittee must remove fish carcasses from the net pens on a frequent basis.
- f. The Permittee must collect and store fish carcasses in leak-proof containers, and disposed of in approved land-based disposal facilities. Carcasses shall not be disposed of in surface waters.
- g. The Permittee must store and dispose of fish mortalities, harvest blood, and leachate from these materials in a manner which prevents such materials from entering waters of the state.
- h. The Permittee must maintain all structural and mechanical systems associated with the net pens, including but not limited to floats, walkways, mooring points, and all components of the anchoring systems in good working order. Maintenance and repairs to the structural or anchoring systems shall be

documented and records maintained on site and available to Ecology upon request, as well as reported to Ecology as specified in Section S9.

- i. The Permittee must prevent the excessive accumulation of marine growth on the stock nets. Current protocol developed cooperatively with DNR must be followed. In accordance with DNR protocol, the Permittee shall maintain documentation of net cleaning activities and effectiveness of net washing, shall provide verification of the efficacy of in situ net cleaning to Ecology upon request.
- j. The Permittee must minimize the storage quantities of all necessary chemicals, petroleum products, and potentially toxic substances essential to the day-to-day operation at the facility. These products must be kept in leak-proof storage areas which provide secondary containment.
- k. The Permittee must not discharge sanitary waste, floating solids, visible foam other than in trace amounts, or oily wastes which produce sheen on the surface of the receiving water.
- l. The Permittee must not discharge toxic chemicals in toxic amounts to the receiving water.
- m. The Permittee must not discharge soaps, detergents, or disinfectants to the receiving water.
- n. The Permittee may not pressure wash any portion of the net pen structure or any equipment, docks, barges, or other apparatus associated with the operation of the facility, if the water from pressure washing could enter waters of the state. In situ washing of the stock nets and predator exclusion nets is the only permitted use of pressure washing.
- o. The Permittee must keep items associated with the operation of the net pens secured on the net pen structures and associated service areas, such as docks and barges, in order to prevent debris from entering the water.
- p. The Permittee must recover floating debris which enters the receiving water as soon as it is safe to do so.
- q. The use of tributyl tin (TBT) compounds is prohibited.
- r. When in use, predator nets shall be maintained above the sea floor at all times. Nets may not impede the current flow or tidal exchange so as to contribute to the deposition of solids that would impair water quality or sediment standards. The storage of predator control nets on the sea floor is prohibited. Any net accidentally dropped or lost during a storm event that is not recovered immediately shall be tagged with a float, positioned using differential GPS, and reported to Ecology within 24 hours. The net shall be recovered within 30 days from the date lost, unless Ecology allows a longer time in an individual case. Ecology shall be notified on the date the net is recovered.

4. Disease Control Chemical Use Requirements

The following requirements only apply to those drugs and chemicals included in feed or administered by a bath or dip treatment which results or may result in those materials being discharged to waters of the state. These requirements do not apply to drugs and chemicals administered by injections or by dip treatments which result in no discharge to waters of the state.

- a. Only disease control chemicals and drugs approved for use by the United States Food and Drug Administration (USFDA) or the United States Environmental Protection Agency (USEPA) may be used.
- b. USFDA-approved Investigational New Animal Drugs (INADs) may also be used at a facility, provided the conditions detailed in a facility's INAD permit application are met.
- c. All disease control drug and chemical use must be done in conformance with product label instructions, approved INAD protocols, or be administered by, or under the supervision of, a licensed veterinarian.
- d. Disease control drug and chemicals which are not used in accordance with product label instructions, or under USFDA-approved INAD protocols, must be administered by, or under the supervision of, a licensed veterinarian, and be approved in advance by Ecology.
- e. The use of disease control chemicals must be reported on a form specified under Section S3.A.4 and in compliance with Section S3.F.
- f. Ecology must approve the use of any USFDA or USEPA authorized drug prior to use if the disease controlling chemical is not listed in the permit application.

S5. SOLID WASTES

A. Solid Waste Handling

The Permittee must handle and dispose of all solid waste material in such a manner as to prevent its entry into state ground or surface water.

B. Leachate

The Permittee must not allow leachate from its solid waste material to enter state waters without providing all known, available, and reasonable methods of treatment, nor allow such leachate to cause violations of the State Surface Water Quality Standards, Chapter 173-201A WAC, or the State Ground Water Quality Standards, Chapter 173-200 WAC. The Permittee must apply for a permit or permit modification as may be required for such discharges to state ground or surface waters.

S6. APPLICATION FOR PERMIT RENEWAL OR MODIFICATION FOR FACILITY CHANGES

The Permittee must submit an application for renewal of this permit by January 31, 2024.

The Permittee must also submit a new application or addendum at least 180 days prior to commencement of discharges, resulting from the activities listed below, which may result in permit violations. These activities include any facility expansions, production increases, or other planned changes, such as process modifications, in the permitted facility.

S7. NET PEN STRUCTURAL INTEGRITY ASSESSMENT REPORT

In accordance with RCW 77.125.060, the permittee must obtain a marine engineering firm to conduct inspections to assess structural integrity of the net pens. Inspections must occur within two years of the effective date of the permit if not completed and to be done routinely, approximately every two years, when net pens are fallow, and must include current Doppler data, topside and mooring assessments related to escapement potential, structural integrity, permit compliance, and operations. The net pen structural integrity assessment reports must be certified by a licensed professional engineer and submitted to Ecology within 60 days of the completion of the inspections.

S8. POLLUTION PREVENTION PLAN

S8.A. Pollution Prevention Plan Submittals and Requirements

The Permittee must:

1. Submit to Ecology a pollution prevention plan for the prevention, containment, and control of spills or unplanned releases of pollutants by January 31, 2020.
2. Submit to Ecology for review and approval changes or updates to the Pollution Prevention Plan whenever permittee incorporates them into the Plan.
3. Review the plan at least annually and update the pollution prevention plan as needed.
4. Send changes to the plan to Ecology.
5. Follow the plan and any supplements throughout the term of the permit.
6. The Permittee must maintain a copy of the most current version of the Pollution Prevention Plan at the facility, and ensure that facility staff have been trained in the specific procedures which it requires. The Permittee must maintain documentation of staff training.

S8.B. Pollution Prevention Plan Components

The pollution prevention plan must specify operating conditions which do not violate other conditions of this permit. This plan must address: operations, spill prevention, spill response, solid waste, and stormwater discharge practices which will prevent or minimize the release of pollutants from the facility to the waters of the state.

The Permittee must operate the facility in accordance with this plan along with any subsequent amendments or revisions.

The pollution prevention plan must include procedures to prevent or respond to spills and discharges of oil and hazardous materials.

These procedures must address the following:

1. A list of all oil and petroleum products and other materials used and/or stored on-site, which when spilled, or otherwise released into the environment, designate as Dangerous Waste (DW) or Extremely Hazardous Waste (EHW) by the procedures set forth in WAC 173-303-070. Include other materials used and/or stored on-site which may become pollutants or cause pollution upon reaching state's waters.
2. A description of preventive measures and equipment which prevent, contain, or treat spills of these materials.
3. The reporting system the Permittee will use to alert responsible managers and legal authorities in the event of a spill.
4. A description of the spill response procedures and equipment which will be used.
5. A description of staff training to implement the spill plan.

The pollution prevention plan must also include the following:

6. A description of how fish feeding will be conducted to minimize the discharge of unconsumed food.
7. An explanation of how disease control chemicals are used within the facility to ensure that the amounts and frequency of application are the minimum necessary for effective disease treatment and control. The concentration of disease control chemicals in the facility's discharge must be minimized.
8. Practices for the storage and, if necessary, disposal of disease control chemicals.
9. How solid and biological wastes are collected, stored, and ultimately disposed of at an upland facility. Among the solid wastes of concern are:
 - a. Any fish mortalities under normal operations.
 - b. Fish mortalities due to a fish kill involving more than five percent of the fish within one week.
 - c. Blood and waste from harvesting operations.
10. Schedule of inspections of exposed surface lines, shackles, and mooring points, as well as inspections of components and anchoring system below the water line. Detailed inspection and maintenance protocols required in the fish escape prevention, response, and reporting plans can be referenced to meet the requirements of the pollution prevention plan.
11. Procedures to identify and prevent existing and potential sources of stormwater pollution.
12. Procedures for conducting routine maintenance of the facility and supporting structures (including barges and docks) and equipment in such a way as to prevent

pollutants from entering state waters in violation of RCW 90.48, including but not limited to cleaning structures and equipment, maintenance of generators, compressors, boats, or other vehicles, and welding procedures.

13. Notification of Unusual Events: Procedure for notification of Ecology and other state agencies of events that have the potential to lead to or include major repairs or mechanical or structural issues that may produce a spill. Appendix G provides Ecology, WDFW, and DNR contacts valid at the time of reissuance. An “unusual event” at the marine net pen facility is an uncommon event or abnormal situation that is not an active fish escape or a spill or release of toxic substances. An “unusual” event can create or lead to an increased potential for accidental fish escapement, structural failure of the net pen array, or spill.

S9. FISH ESCAPE PREVENTION, REPORTING AND RESPONSE PLAN

The Permittee must develop and maintain a Fish Escape Prevention, Reporting, and Response plan. Updated plan must be submitted to Ecology within 30 days of finalizing. *It is required that fish must be contained within the net pens. Escape prevention, response, and reporting must be implemented in such a way to reduce the risk of a discharge and enact responses to and mitigate for any discharge.*

Ecology will consult with WDFW as part of reviewing and approving plan updates. For purposes of meeting this requirement, plans developed for WDFW that comply with chapter 220-370 WAC may be submitted, provided the conditions of S9 (escape prevention, reporting, and response plan requirements) of this permit are addressed in the plan.

The fish escape prevention section of the plan must include, but not be limited to, the following elements:

- A. Identification and implementation of technology that will minimize fish escapes.
- B. Routine procedures and best management practices to minimize the risk of escapement from the pens during normal daily operations.
- C. Procedures to minimize escapements in the event that the net pens need to be repaired or manipulated in any manner while fish are present.
- D. Detailed inspection schedules and procedures, including specific designation of staff to perform and document inspections, examples of inspection and maintenance forms to be completed and maintained on site, and provided to Ecology on request.
- E. Specific description of what constitutes routine repairs and major or emergency repairs.
- F. Notification of Unusual Events: Procedure for notification of Ecology and other state agencies of events that have the potential to lead to or include major repairs or mechanical or structural issues that may produce fish escape. Appendix G provides Ecology, WDFW, and DNR contacts valid at the time of reissuance. An “unusual event” at the marine net pen facility is an uncommon event or abnormal situation that is not an active fish escape or a

spill or release of toxic substances. An “unusual event” can create or lead to an increased potential for accidental fish escapement, structural failure of the net pen array, or spill.

- G. Procedures to minimize escapements during stocking and harvesting operations.
- H. Procedures to minimize escapements in the event emergency conditions require pen stabilization.
- I. Procedures for training of all employees, contractors, and subcontractors involved in operations, stocking, and harvesting of the pens, with emphasis on escape prevention.
- J. Procedures for documenting net cleaning, including verification of efficacy of cleaning efforts. Procedure developed cooperatively with DNR must be followed.
- K. Procedures for identification and repair of any holes in nets, and procedures for documenting size of holes and reporting suspected escapes. The Permittee should assume potential fish escape when nets are damaged with holes large enough for the fish in the nets to pass through easily, and must document this net damage, and report to Ecology and WDFW.
- L. Procedures for routinely tracking the number of fish within the pens, the number of fish lost due to predation and mortality, and the number of fish lost due to escapement.

The **fish escape reporting and response section** of the plan must include, but not be limited to, the following elements:

- M. An emergency contact list in the event of a reportable fish escape from the Permittee’s net pens, including but not limited to, area Tribes, WDFW, Ecology, DNR, DOH, and local governments.
- N. Procedures requiring the Permittee to report fish escapes within 24 hours of the Permittee having knowledge that a release has occurred, to state agencies, Tribes, and local governments. The report must include the location, number, age class, disease and medication history, and cause of the release. The Permittee must also submit a follow-up report describing all fish recovery efforts initiated in response to the release, and the effectiveness of the recovery efforts.
- O. Emergency procedures that will be taken to minimize the number of escaped fish, including but not limited to emergency net swaps and emergency removal of the fish from the pens.
- P. Identification of technology the Permittee has implemented or will implement to minimize or eliminate fish escapes.
- Q. Commitment to have personnel trained in participating in a Unified Command under the National Incident Management System (NIMS) and consistent with the Northwest Area Contingency Plan.
- R. Commitment to actively and cooperatively participate in or establish a Unified Command structure, in the event of a large escape. The escape response plan should specify what staff

will receive Incident Command training and for what positions, and when and how preparedness will be evaluated (drills, tabletop exercises).

- S. Procedures to recapture as many escaped fish as possible, including, but not limited to, boats on site that can be deployed to assist in an emergency, gear on site that can be deployed contingent on approval from authorities, type of fish recovery gear that is appropriate to the site, vessels of opportunity, Tribal contacts and resources.
- T. Procedures that will be used to determine if any of the escaped fish were being treated with antibiotics or other drugs subject to USFDA withdrawal requirements for food fish.
- U. In the event that the escaped fish were being treated with antibiotics or other drugs subject to USFDA withdrawal requirements and the withdrawal periods had not expired at the time of the escapement, the Permittee must also include this information in the report required by subparagraph 2, and must provide a copy of the report to DOH for the agency to issue an advisory about fish consumption if caught.
- V. Reporting stocking activities. Cooke must provide Ecology and the associated regulating state agencies (WDFW and DNR) the following:
 - a. Stocking Plan: Prior to stocking, report approximate dates for stocking.
 - b. Stocking Report: Within one month after stocking is complete, Cooke must report the date in which stocking occurred, the total number of fish stocked per day, and any complications that may have occurred during stocking.
 - c. Cooke must report immediately if fish escaped during stocking. If requested, Cooke must allow personnel from Ecology and the associated regulating agencies (WDFW and DNR) to monitor stocking activities.
- W. Reporting harvest activities. Cooke must provide Ecology and the associated regulating state agencies (WDFW and DNR) the following:
 - a. Harvest Plan: Prior to harvest, report approximate dates for harvest.
 - b. Harvest Report: Within one month after harvesting is completed Cooke must report the dates in which harvesting occurred, the total number of fish harvested per day, and any complications that may have occurred during harvesting.
 - c. Cooke must report immediately if fish escaped during harvest. If requested, Cooke must allow personnel from Ecology and the associated regulating agencies (WDFW and DNR) to monitor harvesting activities.
- X. The permittee must submit an Annual Fish Release Report to Ecology by January 31 of each year covering the previous year. The report must 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. Include the reference to the initial reporting and follow-up report.

S10. AKART ANALYSIS REPORT

In accordance with WAC 173-240-110, the permittee must conduct an analysis for all known, available, and reasonable methods of treatment or AKART. The analysis must include an economic analysis of the range of culturing techniques, including but not limited to all known in-water and uplands systems for the purpose of improved water quality of the effluent, reduced discharge, and less feed waste. The report must be submitted by January 31, 2024 along with the application for the renewal of this permit as required in S6.

Structural/operational best management practices (BMPs) and pollution source controls are commonly used to establish AKART when traditional effluent treatment is not available. In this case, the analysis of treatment technology is a review of recommendations for use of the latest structural/operational BMPs and pollution source controls (such as closed-containment for in-water culturing of finfish in the net pens) that will lead to improved water quality of the effluent, reduced discharge, and less feed waste. Additionally, an analysis of recirculating aquaculture system technology at an uplands location must be included.

GENERAL CONDITIONS

G1. SIGNATORY REQUIREMENTS

A. All applications submitted to Ecology must be signed and certified.

1. In the case of corporations, by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
 - 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
 - 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.
2. In the case of a partnership, by a general partner.
3. In the case of sole proprietorship, by the proprietor.
4. In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official.

Applications for permits for domestic wastewater facilities that are either owned or operated by, or under contract to, a public entity shall be submitted by the public entity.

B. All reports required by this permit and other information requested by Ecology must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described above and submitted to Ecology.
2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)

- C. Changes to authorization. If an authorization under paragraph G1.B, above, is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph G1.B, above, must be submitted to Ecology prior to or together with any reports, information, or applications to be signed by an authorized representative.
- D. Certification. Any person signing a document under this section must make the following certification:

“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 gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering 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.”

G2. RIGHT OF INSPECTION AND ENTRY

The Permittee must allow an authorized representative of Ecology, upon the presentation of credentials and such other documents as may be required by law:

- A. To enter upon the premises where a discharge is located or where any records must be kept under the terms and conditions of this permit.
- B. To have access to and copy, at reasonable times and at reasonable cost, any records required to be kept under the terms and conditions of this permit.
- C. To inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, methods, or operations regulated or required under this permit.
- D. To sample or monitor, at reasonable times, any substances or parameters at any location for purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act.

G3. PERMIT ACTIONS

This permit may be modified, revoked and reissued, or terminated either at the request of any interested person (including the permittee) or upon Ecology's initiative. However, the permit may only be modified, revoked and reissued, or terminated for the reasons specified in 40 CFR 122.62, 122.64 or WAC 173-220-150 according to the procedures of 40 CFR 124.5.

- A. The following are causes for terminating this permit during its term, or for denying a permit renewal application:
 - 1. Violation of any permit term or condition.
 - 2. Obtaining a permit by misrepresentation or failure to disclose all relevant facts.

3. A material change in quantity or type of waste disposal.
 4. A determination that the permitted activity endangers human health or the environment, or contributes to water quality standards violations and can only be regulated to acceptable levels by permit modification or termination.
 5. A change in any condition that requires either a temporary or permanent reduction, or elimination of any discharge or sludge use or disposal practice controlled by the permit.
 6. Nonpayment of fees assessed pursuant to RCW 90.48.465.
 7. Failure or refusal of the Permittee to allow entry as required in RCW 90.48.090.
- B. The following are causes for modification but not revocation and reissuance except when the Permittee requests or agrees:
1. A material change in the condition of the waters of the state.
 2. New information not available at the time of permit issuance that would have justified the application of different permit conditions.
 3. Material and substantial alterations or additions to the permitted facility or activities which occurred after this permit issuance.
 4. Promulgation of new or amended standards or regulations having a direct bearing upon permit conditions, or requiring permit revision.
 5. The Permittee has requested a modification based on other rationale meeting the criteria of 40 CFR Part 122.62.
 6. Ecology has determined that good cause exists for modification of a compliance schedule, and the modification will not violate statutory deadlines.
 7. Incorporation of an approved local pretreatment program into a municipality's permit.
- C. The following are causes for modification or alternatively revocation and reissuance:
1. When cause exists for termination for reasons listed in A.1 through A.7 of this section, and Ecology determines that modification or revocation and reissuance is appropriate.
 2. When Ecology has received notification of a proposed transfer of the permit. A permit may also be modified to reflect a transfer after the effective date of an automatic transfer (General Condition G7) but will not be revoked and reissued after the effective date of the transfer except upon the request of the new Permittee.

G4. REPORTING PLANNED CHANGES

The Permittee must, as soon as possible, but no later than 180 days prior to the proposed changes, give notice to Ecology of planned physical alterations or additions to the permitted facility, production increases, or process modification which will result in:

- A. The permitted facility being determined to be a new source pursuant to 40 CFR 122.29(b).
- B. A significant change in the nature or an increase in quantity of pollutants discharged.
- C. A significant change in the Permittee's sludge use or disposal practices. Following such notice, and the submittal of a new application or supplement to the existing application, along with required engineering plans and reports, this permit may be modified, or revoked and reissued pursuant to 40 CFR 122.62(a) to specify and limit any pollutants not previously limited. Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by this permit constitutes a violation.

G5. PLAN REVIEW REQUIRED

Prior to constructing or modifying any wastewater control facilities, an engineering report and detailed plans and specifications must be submitted to Ecology for approval in accordance with chapter 173-240 WAC. Engineering reports, plans, and specifications must be submitted at least one hundred eighty (180) days prior to the planned start of construction unless a shorter time is approved by Ecology. Facilities must be constructed and operated in accordance with the approved plans.

G6. COMPLIANCE WITH OTHER LAWS AND STATUTES

Nothing in this permit excuses the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

G7. TRANSFER OF THIS PERMIT

In the event of any change in control or ownership of facilities from which the authorized discharge emanate, the Permittee must notify the succeeding owner or controller of the existence of this permit by letter, a copy of which must be forwarded to Ecology.

A. Transfers by Modification

Except as provided in paragraph (B) below, this permit may be transferred by the Permittee to a new owner or operator only if this permit has been modified or revoked and reissued under 40 CFR 122.62(b)(2), or a minor modification made under 40 CFR 122.63(d), to identify the new Permittee and incorporate such other requirements as may be necessary under the Clean Water Act.

B. Automatic Transfers

This permit may be automatically transferred to a new Permittee if:

- 1. The Permittee notifies Ecology at least 30 days in advance of the proposed transfer date.

2. The notice includes a written agreement between the existing and new Permittees containing a specific date transfer of permit responsibility, coverage, and liability between them.
3. Ecology does not notify the existing Permittee and the proposed new Permittee of its intent to modify or revoke and reissue this permit. A modification under this subparagraph may also be minor modification under 40 CFR 122.63. If this notice is not received, the transfer is effective on the date specified in the written agreement.

G8. REDUCED PRODUCTION FOR COMPLIANCE

The Permittee, in order to maintain compliance with its permit, must control production and/or all discharges upon reduction, loss, failure, or bypass of the facility until the facility is restored. This requirement applies in the situation where, among other things, the primary source of power of the facility is reduced, lost, or fails.

G9. REMOVED SUBSTANCES

Collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters must not be resuspended or reintroduced to the final effluent stream for discharge to state waters.

G10. DUTY TO PROVIDE INFORMATION

The Permittee must submit to Ecology, within a reasonable time, all information which Ecology may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee must also submit to Ecology upon request, copies of records required to be kept by this permit.

G11. OTHER REQUIREMENTS OF 40 CFR

All other requirements of 40 CFR 122.41 and 122.42 are incorporated in this permit by reference.

G12. ADDITIONAL MONITORING

Ecology may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit modification.

G13. PAYMENT OF FEES

The Permittee must submit payment of fees associated with this permit as assessed by Ecology.

G14. PENALTIES FOR VIOLATING PERMIT CONDITIONS

Any person who is found guilty of willfully violating the terms and conditions of this permit is deemed guilty of a crime, and upon conviction thereof shall be punished by a fine of up to ten thousand dollars (\$10,000) and costs of prosecution, or by imprisonment in the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.

Any person who violates the terms and conditions of a waste discharge permit may incur, in addition to any other penalty as provided by law, a civil penalty in the amount of up to ten thousand dollars (\$10,000) for every such violation. Each and every such violation is a separate and distinct offense, and in case of a continuing violation, every day's continuance is deemed to be a separate and distinct violation.

G15. UPSET

Definition – “Upset” means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limits 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.

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limits if the requirements of the following paragraph are met.

A Permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

- A. An upset occurred and that the Permittee can identify the cause(s) of the upset.
- B. The permitted facility was being properly operated at the time of the upset.
- C. The Permittee submitted notice of the upset as required in Special Condition S3.F.
- D. The Permittee complied with any remedial measures required under S3.F of this permit.

In any enforcement action the Permittee seeking to establish the occurrence of an upset has the burden of proof.

G16. PROPERTY RIGHTS

This permit does not convey any property rights of any sort, or any exclusive privilege.

G17. DUTY TO COMPLY

The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

G18. TOXIC POLLUTANTS

The Permittee must comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

G19. PENALTIES FOR TAMPERING

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two years per violation, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this condition, punishment shall be a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than four years, or by both.

G20. REPORTING REQUIREMENTS APPLICABLE TO EXISTING MANUFACTURING, COMMERCIAL, MINING, AND SILVICULTURAL DISCHARGERS

The Permittee belonging to the categories of existing manufacturing, commercial, mining, or silviculture must notify Ecology as soon as they know or have reason to believe:

- A. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following "notification levels:"
 - 1. One hundred micrograms per liter (100 µg/L).
 - 2. Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony.
 - 3. Five times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7).
 - 4. The level established by the Director in accordance with 40 CFR 122.44(f).
- B. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following "notification levels:"
 - 1. Five hundred micrograms per liter (500µg/L).
 - 2. One milligram per liter (1 mg/L) for antimony.
 - 3. Ten times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7).
 - 4. The level established by the Director in accordance with 40 CFR 122.44(f).

G21. COMPLIANCE SCHEDULES

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date.

APPENDIX A - LIST OF POLLUTANTS WITH ANALYTICAL METHODS, DETECTION LIMITS AND QUANTITATION LEVELS

The Permittee must use the specified analytical methods, detection limits (DLs) and quantitation levels (QLs) in the following table for permit and application required monitoring unless:

- Another permit condition specifies other methods, detection levels, or quantitation levels.
- The method used produces measurable results in the sample and EPA has listed it as an EPA-approved method in 40 CFR Part 136.

If the Permittee uses an alternative method, not specified in the permit and as allowed above, it must report the test method, DL, and QL on the discharge monitoring report or in the required report.

If the Permittee is unable to obtain the required DL and QL in its effluent due to matrix effects, the Permittee must submit a matrix-specific detection limit (MDL) and a quantitation limit (QL) to Ecology with appropriate laboratory documentation.

Ecology added this appendix to the permit in order to reduce the number of analytical “non-detects” in permit-required monitoring and to measure effluent concentrations near or below criteria values where possible at a reasonable cost.

The lists below include conventional pollutants (as defined in CWA section 502(6) and 40 CFR Part 122.) and nonconventionals.

CONVENTIONAL POLLUTANTS

Pollutant	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)¹ µg/L unless specified	Quantitation Level (QL)² µg/L unless specified
Biochemical Oxygen Demand		SM5210-B		2 mg/L
Biochemical Oxygen Demand, Soluble		SM5210-B ³		2 mg/L
Fecal Coliform		SM 9221E,9222	N/A	Specified in method - sample aliquot dependent
Oil and Grease (HEM) (Hexane Extractable Material)		1664 A or B	1,400	5,000
pH		SM4500-H ⁺ B	N/A	N/A
Total Suspended Solids		SM2540-D		5 mg/L

NONCONVENTIONAL POLLUTANTS

Pollutant & CAS No. (if available)	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)¹ µg/L unless specified	Quantitation Level (QL)² µg/L unless specified
Ammonia, Total (as N)		SM4500-NH ₃ -B and C/D/E/G/H		20
Chemical Oxygen Demand		SM5220-D		10 mg/L
Chlorine, Total Residual		SM4500 Cl G		50.0
Dissolved oxygen		SM4500-OC/OG		0.2 mg/L
Flow		Calibrated device		
Nitrogen, Total Kjeldahl (as N)		SM4500-N _{org} -B/C and SM4500NH ₃ -B/C/D/EF/G/H		300
Phosphorus, Total (as P)		SM 4500 PB followed by SM4500-PE/PF	3	10
Salinity		SM2520-B		3 practical salinity units or scale (PSU or PSS)
Settleable Solids		SM2540 -F		Sample and limit dependent
Soluble Reactive Phosphorus (as P)		SM4500-P E/F/G	3	10
Sulfate (as mg/L SO ₄)		SM4110-B		0.2 mg/L

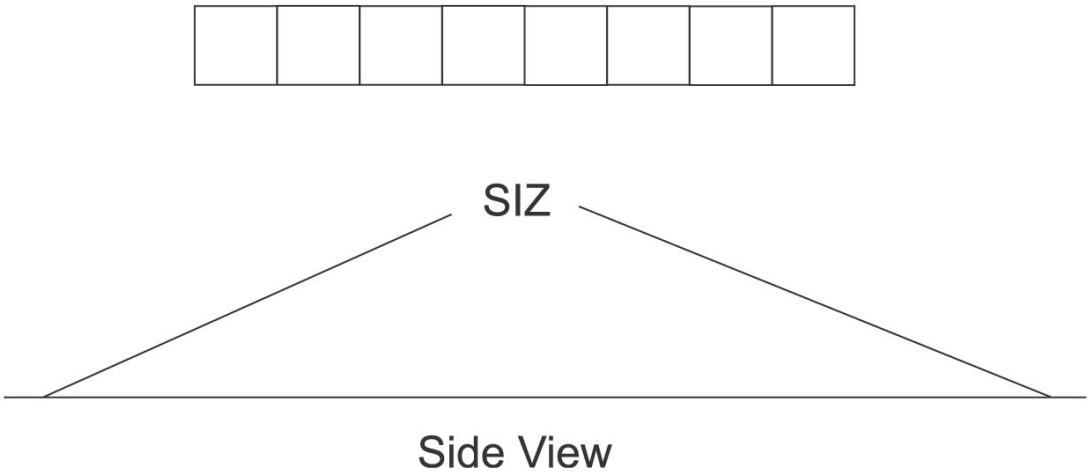
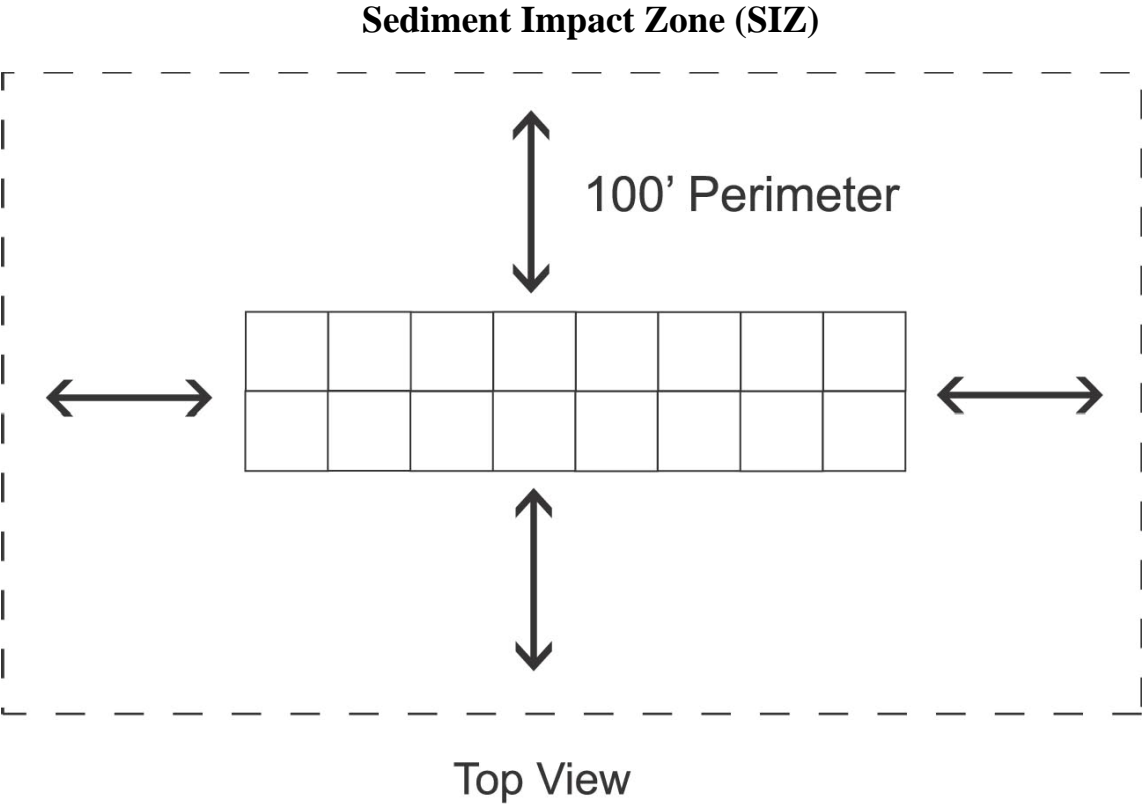
NONCONVENTIONAL POLLUTANTS

Pollutant & CAS No. (if available)	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)¹ µg/L unless specified	Quantitation Level (QL)² µg/L unless specified
Sulfide (as mg/L S)		SM4500-S ² F/D/E/G		0.2 mg/L
Sulfite (as mg/L SO ₃)		SM4500-SO ₃ B		2 mg/L
Temperature (max. 7-day avg.)		Analog recorder or Use micro-recording devices known as thermistors		0.2° C
Total Organic Carbon		SM5310-B/C/D		1 mg/L
Total dissolved solids		SM2540 C		20 mg/L

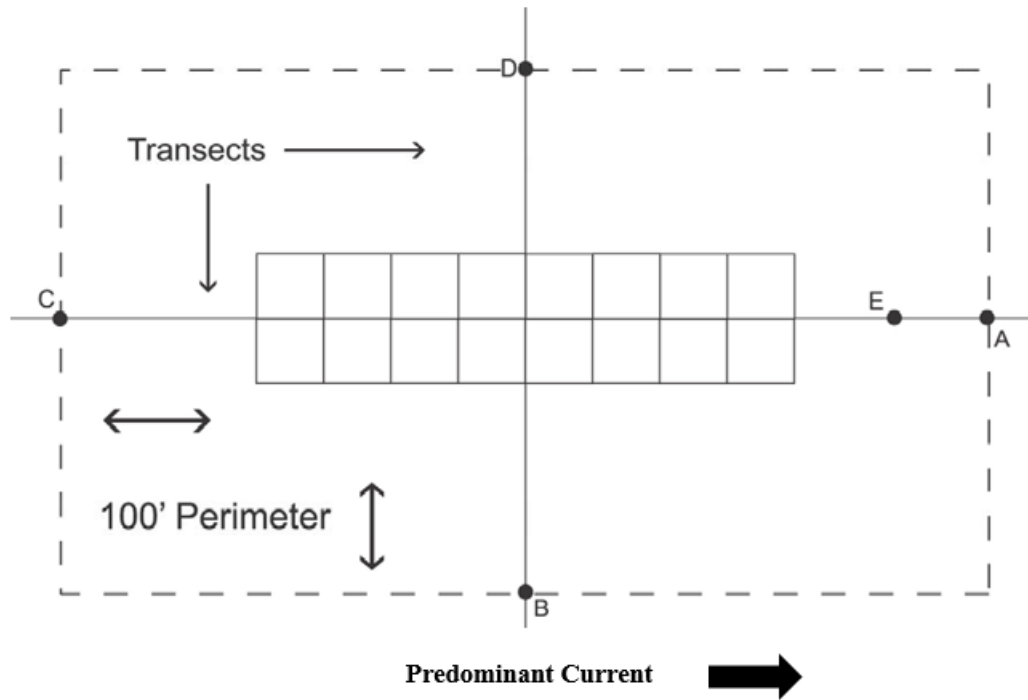
<i>PRIORITY POLLUTANTS</i>	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)¹ µg/L unless specified	Quantitation Level (QL)² µg/L unless specified
METALS, CYANIDE & TOTAL PHENOLS					
Copper, Total	120	7440-50-8	200.8	0.4	2.0
Zinc, Total	128	7440-66-6	200.8	0.5	2.5

1. Detection level (DL) or detection limit means the minimum concentration of an analyte (substance) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero as determined by the procedure given in 40 CFR part 136, Appendix B.
2. Quantitation Level (QL) also known as Minimum Level of Quantitation (ML) – The lowest level at which the entire analytical system must give a recognizable signal and acceptable calibration point for the analyte. It is equivalent to the concentration of the lowest calibration standard, assuming that the lab has used all method-specified sample weights, volumes, and cleanup procedures. The QL is calculated by multiplying the MDL by 3.18 and rounding the result to the number nearest to (1, 2, or 5) x 10ⁿ, where n is an integer. (64 FR 30417).
ALSO GIVEN AS:
The smallest detectable concentration of analyte greater than the Detection Limit (DL) where the accuracy (precision & bias) achieves the objectives of the intended purpose. (Report of the Federal Advisory Committee on Detection and Quantitation Approaches and Uses in Clean Water Act Programs Submitted to the US Environmental Protection Agency December 2007).
3. Soluble Biochemical Oxygen Demand method note: First, filter the sample through a Millipore Nylon filter (or equivalent) - pore size of 0.45-0.50 µm (prep all filters by filtering 250 ml of laboratory grade deionized water through the filter and discard). Then, analyze sample as per method 5210-B.

APPENDIX B - SEDIMENT IMPACT ZONE



APPENDIX C - ROUTINE SEDIMENT SAMPLING STATION LOCATIONS

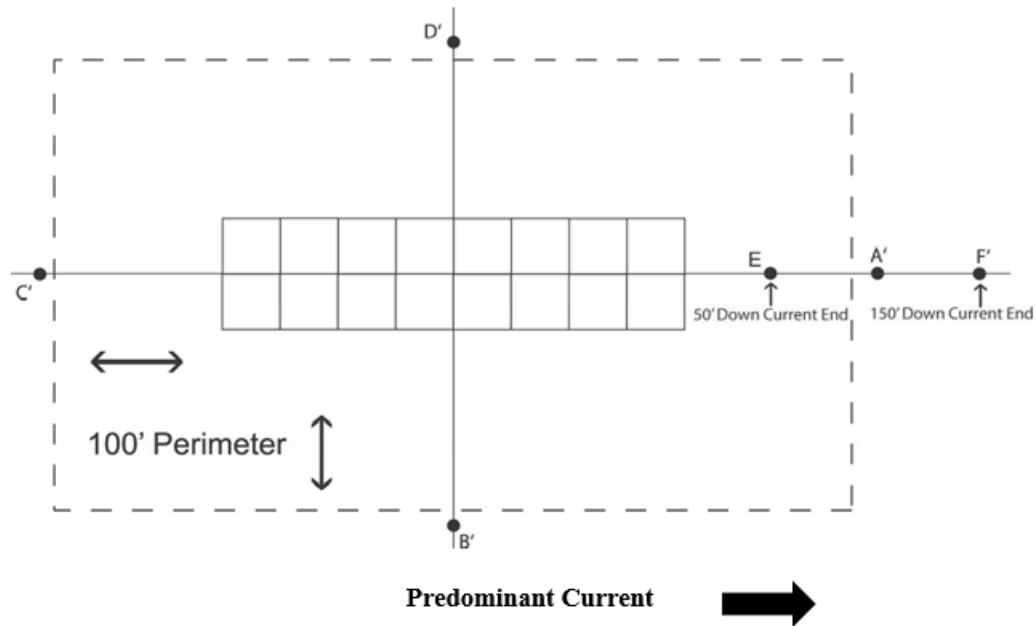


The five sediment sampling stations at the net pen facility shall be located along transects in line with the medial line of the long axis of the facility and in line with the short axis of the facility.

Sediment sampling station locations shall be as follows:

- A) 100' from down current end
- B) 100' from seaward current end
- C) 100' from up current end
- D) 100' from shoreward end
- E) 50' from down current end

APPENDIX D - EXCEEDANCE SEDIMENT SAMPLING STATION LOCATIONS OUTSIDE THE SZ

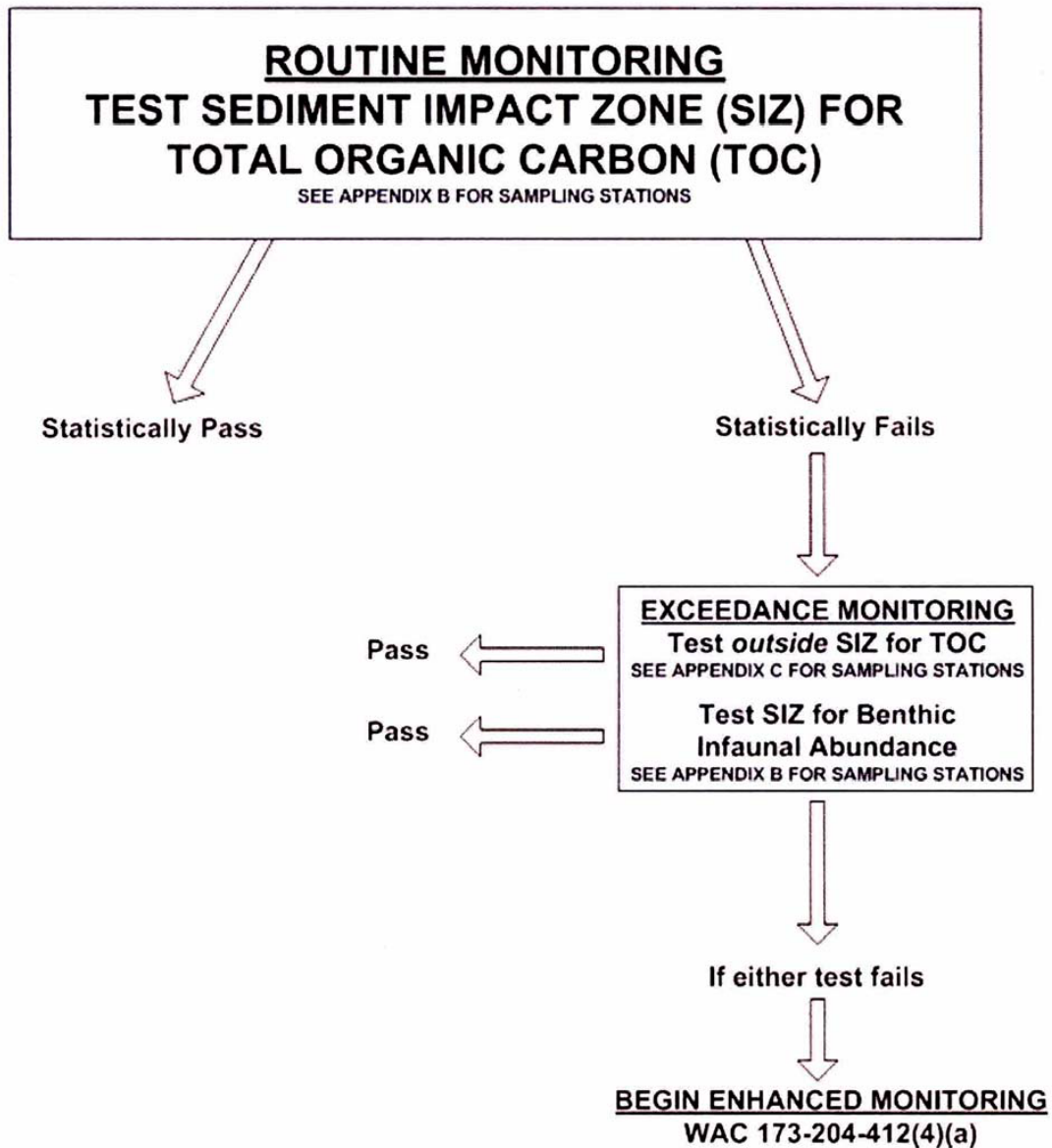


The six outside sediment sampling stations at the net pen facility shall be located along transects in line with the medial line of the long axis of the facility and in line with the short axis of the facility.

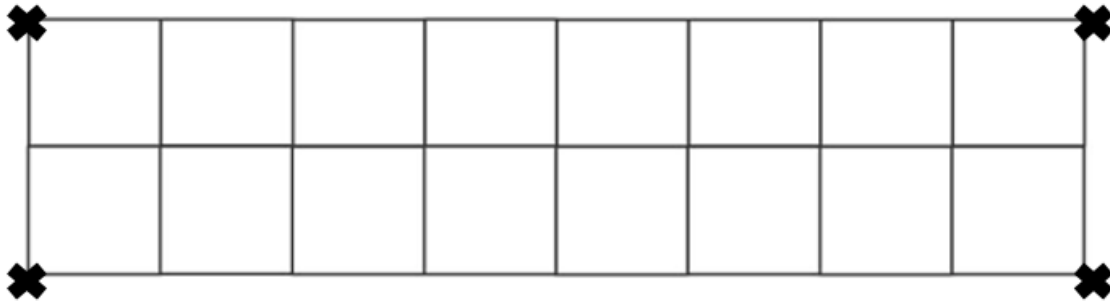
Outside sampling station locations shall be as follows:

- A) 125' from down current end
- B) 125' from seaward end
- C) 125' from up current end
- D) 125' from shoreward end
- E) 50' from down current end
- F) 150' from down current end

APPENDIX E - DECISION FLOWCHART FOR SEDIMENT MONITORING



**APPENDIX F - DAILY CRITICAL PERIOD DISSOLVED OXYGEN PROFILE
MONITORING LOCATIONS**



The four dissolved oxygen profile sampling stations shall be located at each corner of the net pen array. Dissolved oxygen will be measured at one meter of the water surface, at approximately half the depth of the pen, and within one meter of the bottom.

APPENDIX G - STATE AGENCY CONTACT INFORMATION FOR EMERGENCIES/UNUSUAL EVENTS

“Unusual Events” Involving Finfish Farms Operated by Cooke Aquaculture Pacific

Call Down List for State Agencies

Version February 3, 2020

For fish escapes, follow the reporting requirements in the “Fish Escape Prevention, Response, and Reporting Plan.”

For spills or unplanned releases of toxic substances such as petroleum products or other hazardous materials, follow the reporting requirements in the “Pollution Prevention Plan.”

This “call down” list is for “unusual events” only.

An “unusual event” at the marine net pen facility is an uncommon event or abnormal situation that is not an active fish escape or a spill or release of toxic substances. An “unusual” event can create or lead to an increased potential for accidental fish escapement, structural failure of the net pen array, or spill.

Examples of “unusual events” are:

- Abnormal loss of net pen raft floatation,
- Accidents involving other parties (for example, a small boat colliding with an array not causing a fish escape),
- Worker injuries resulting in hospitalization or death, and
- Mass mortality of fish from causes other than pathogens.

Please “call down” *each* agency contact list until you reach a live person. If you leave a message at a number, please note that you are continuing to “call down” the list for that agency until you reach a live person.

Department of Ecology

- 1) Laurie Niewolny,
Aquaculture Specialist
 - a. Office: 360-407-7666
 - b. Cell: 360-584-8852

- 2) Andrew Kolosseus, SW Region
Water Quality Section Manager
 - a. Office: 360-407-6721
 - b. Cell: 360-529-7641

Department of Fish & Wildlife

- 1) Eric Kinne,
Fish Hatcheries Program
 - a. Work: 360-902-2418
 - b. Cell: 360-601-1301
- 2) Ken Warheit, Fish Health
 - a. Work: 360-902-2595
 - b. Work cell: 360-999-7889
- 3) Amy Windrope,
Deputy Director
 - a. Work: 360-298-2278
 - b. Personal cell: 206-488-8072
- 4) Captain Alan Myers,
Region 4 Enforcement
 - a. Work cell: 360-489-5715

Department of Natural Resources

- 1) Dennis Clark, Aquatics
Assistant Division Manager
 - a. Work cell: 360-708-7357
 - b. Personal cell: 206-383-8977
 - c. Wife's cell: 206-372-9634
- 2) Sean Carlson,
Aquatics Land Manager
 - a. Cell: 360-301-0422
- 3) Katrina Lassiter, Aquatic
Resources Division Manager
 - a. Work cell: 360-791-9814
 - b. Office: 360-902-1081
- 4) Washington DNR Wildfire
Division (monitored off-hours
by Washington Department of
Emergency Management):
1-800-562-6010