



Marine Finfish Aquaculture Licence under the *Fisheries Act*

Licensed for: Aquaculture

Effective Date: July 1, 2024

LICENCE No. «DFO_Prefix» «DFO_Lic_No» «YEAR» Expiry Date: «EXPIRY_DATE»

ISSUED TO:

«LICENCE HOLDER»

«CORPORATION ADDRESS»

This licence includes further conditions that are included herein and/or attached hereto. These conditions form part of the licence and may not be removed.

All parts of this licence are issued under the authority of the *Fisheries Act* and confers, subject to provisions of the *Fisheries Act* and Regulations made there under, the authority to carry out aquaculture activities including cultivation and Harvest of fish and prescribed activities under the conditions included herein and/or attached hereto.

It is the responsibility of the Licence Holder to obtain all other forms of authorization from federal or provincial agencies that may have jurisdiction for marine finfish aquaculture Facilities. As well, it is the Licence Holder's responsibility to be informed of, and comply with, the *Fisheries Act* and the regulations made there under, in addition to these conditions.

In addition to these conditions, it is the responsibility of licence holders to be informed of, and comply with, the Fisheries Act and the regulations made thereunder. This includes, but is not limited to, the Fishery (General) Regulations, the Aquaculture Activities Regulations, and the Pacific Aquaculture Regulations.

Under Section 17(1) of the Fisheries (General) Regulations, a licence holder must notify the Department if it experiences any change to contact information within 15 days of such an occurrence. Failing to do so could lead to the Department taking enforcement action against the licence holder.

The above Licence Holder is authorized by this licence to carry out aquaculture activities at the following location and for the following species:

Facility Reference Number	Location and Legal Description
«REFERENCENUMBER»	«SITECOMMONNAME» «LEGALDESCRIPTION» «LANDFILENUMBER» «PFMA» «AQUACULTURE MANAGEMENT ZONE»



Licensed Species	
1	«SPECIES_1»
Maximum Allowable Peak Biomass (Tonnes):	

Site specific conditions:

«Section_B_Comment_1»

Required Record Keeping and Reporting: Details are contained within the attached conditions of this licence.

Compliance Advisory: Persons carrying out activities under the authority of this licence may only do so in accordance with the conditions of this licence.

The Licence Holder is legally required to ensure that annual fees for this licence are paid each year not later than the anniversary date of this licence. The annual licence fee must be calculated as set out in section 3 of the *Pacific Aquaculture Regulations*.

A copy of this licence must be kept on site at the licensed Facility and be available for inspection by a Fishery officer or Fishery guardian.

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PART A. Definitions

“Acoustic Deterrent” means a device that is used underwater and is intended to generate an aversive response in Marine Mammals and could cause harm, which includes but is not limited to: explosives, incendiary devices, and electronic sound recordings.

“Active Facilities” means Facilities that have live cultivated fish on site. For sea lice purposes: Facilities that have had fish on site for more than 30 Days.

“All Pen Counting Event” means the physical counting and recording of sea lice on farmed salmon from all stocked containment structures as outlined in Appendix 13; counts must be completed within a seven Day period.

“Attestation” means a written declaration made by a Qualified Individual who bears witness to, confirms, or authenticates.

“Biofouling” means the organisms that attach and/or live on nets and other farm structures (excluding herring spawn).

“Broodstock” means fish used to generate gametes.

“Containment Structures” means net pens, bag cages, tanks, and similar structures used to contain finfish for the purposes of aquaculture.

“Containment Structure Array” means a group of Containment Structures physically attached to each other, or in the case of circular structures, up to a maximum of 60 m apart.

“Counting Event” means the physical counting and recording of sea lice on farmed salmon from a minimum of three stocked containment structures as outlined in Appendix 13. For sites with fewer than three stocked pens, all pens must be counted. Counts must be completed within a five Day period.

“Day” means the period of elapsed time, using Pacific Time that begins at midnight and ends 24 hours later at the next midnight.

“Debris” refers to any persistent solid material that is manufactured or processed and directly or indirectly, intentionally or unintentionally, deposited into the marine environment.

“Department” means Fisheries and Oceans Canada.

“Disease” means an abnormality of structure or function which results in a measurable compromise in physiological or behavioural performance of the individual, which is not a direct result of injury and can be caused by a suite of infectious, non-infectious, and inherent factors. Specifically:

“Infectious Disease” means a Disease caused by the invasion and multiplication of a Pathogen in or on a fish.

“Infectious Disease Mortality” means recently dead fish from the facility population that display outward signs suggestive of Infectious Disease as identified by a Qualified Individual.

“Environmental Data” means dissolved oxygen levels, water temperature, plankton species and counts, salinity, turbidity, and other relevant data as requested by the Department.

“Evidence of Escape” includes, but is not limited to, any visual or physical evidence that demonstrates a release of cultivated fish from the Facility, including unexplained declines in feed demand or inventory discrepancies.

“Facility” means the collective structures used for the purposes of aquaculture, including but not limited to, net pens, walkways, barges, floats and living accommodations, plus associated lines and anchors.

“Fallow” means zero cultivated fish at the Facility.

“Fish Health Event (FHE)” means a suspected or confirmed Disease occurrence within an aquaculture Facility that requires the involvement of a veterinarian and implementation of mitigation to reduce associated impact(s) or risk(s). Actions/mitigation could include: treatment(s), targeted sampling, site quarantine, enhanced biosecurity, or culling to control suspected or confirmed Disease.

“Fish Health Staff” means the designated personnel, with veterinary oversight, responsible for: identifying, managing, and minimizing the impact of health risk factors, making health-related decisions, and routine monitoring of health, lice and Disease parameters.

“Fresh Silver Mortalities” means recently dead fish from the facility population that may or may not have outward signs suggestive of Disease and do not display outward signs of Infectious Disease. These fish most reflect the living production population.

“Gross Signs of Jaundice” means yellow discolouration of the skin for any physiological reason.

“Handling Event” means any onsite activities that include the physical handling, crowding, or capturing of fish by nets or other means.

“Harmful Debris” refers to any Debris that may cause harm to fish and fish habitat.

“Harvest” means removal of live cultivated fish for market.

“Harvest/Transfer Pens” means pens that are secured for less than 90 Days to the main cage array for the purpose of feeding, handling, holding, Harvesting or moving fish.

“High Slack Tide” means the time when high tide has been reached, and water movement has ceased temporarily before starting to recede.

“Incidental Catch” means any wild finfish (excluding sharks) from within the Facility caught during Harvest, Handling Events, movement of fish between Facilities, or net removal.

“Licence Holder” means the individual or corporation listed on the face of this licence.

“Megafauna” means Marine Mammals, turtles, and sharks.

“Mortalities” means cultivated fish that have died at the Facility but does not include fish killed for the purpose of Harvest.

“Mortality Event” means:

- (a) fish Mortalities or losses reaching 1% of the current Stock Inventory, within a 24 hour period; or
- (b) fish Mortalities or losses reaching 2.5% of current Stock Inventory, within a five Day period.

“Pathogen” means a bacterium, virus, or other microorganism that can cause Disease.

“Peak Biomass” means the maximum biomass of cultivated finfish within a Facility during a Production Cycle.

“Production Cycle” means:

- (a) the period of time from stocking the Containment Structures to the time of Harvest or removal of all finfish; or
- (b) for Facilities containing only Broodstock, the period of time immediately after a Peak Biomass up to and including the next Peak Biomass.

“Production Site” means a Facility where fish of the same age class are entered at the same time, grown, and Harvested until the site is empty. Some may also have Broodstock kept continuously on site in dedicated pen(s) for breeding purposes.

“Qualified Individual” means an individual employed by or contracted by an aquaculture corporation who possesses a combination of knowledge, expertise and experience necessary to complete a task.

“Recurring Fish Health Event” means any Fish Health Event which has previously been reported on a farm in that Production Cycle but more than 30 Days have passed since the last reporting.

“Resolved” means cultivated Mortalities no longer trigger the Mortality Event thresholds, as described in the Mortality Event definition above, for 10 consecutive Days.

“Sea Lice Mitigation” means measures such as, but not limited to: use of in-feed therapeutants, bath treatments, mechanical equipment, or harvest to decrease or eliminate sea lice.

“Stock Inventory” means the number of cultivated fish within a Facility.

“Tonnes(t)” means 1,000kg.

“Transfer” means the movement of live fish to or from a licensed marine Facility.

“Treatment Efficacy” means the percentage change from pre- to post-treatment sea lice abundances. This is measured by comparing the most proximal pre-treatment All Pen Counting Event to any All Pen

Counting Event between 21 and 42 Days post-treatment for in-feed treatments, or seven Days for all other treatment methods.

“Upon Discovery” means the date and time something was discovered. For sea lice threshold exceedance, it means the last Day of a Counting Event or All Pen Counting Event.

“Wild Mortalities” means non-cultivated fish that have died within the Containment Structure Array but does not include Incidental Catch.

PART B. Finfish Condition of Licence

1. Administrative Matters

- 1.1** Unless otherwise noted under specific conditions of this licence, the Licence Holder must keep all records required by these conditions, including management plans, in the following manner:
- (a) with respect to duration:
 - (i) at this Facility for the duration of the Production Cycle; and
 - (ii) in a suitable location: at this Facility, in a corporate office, or other accessible storage off-site, for a minimum of four years after the end of a Production Cycle; and
 - (b) accessible, complete and accurate, legible, and protected from damage; and
 - (c) in either electronic or paper versions; and
 - (d) must be made available for review upon request by Fishery officers and guardians.
- 1.2** Unless otherwise required by under a condition of this licence, all plans, reports and submissions required by this licence must be submitted to the Department as follows:
- DFO.PACAquacultureGeneral-AquacultureenGeneralPAC.MPO@dfo-mpo.gc.ca
for reports required from Sections 2, 4, 7, 8, 9, and 12 of this licence;
- DFO.PACAquaFishHealth-AquaSantedespoissonPAC.MPO@dfo-mpo.gc.ca
for all reports required from Sections 5 and 6 of this licence;
- DFO.PACAASR-RSAAPAC.MPO@dfo-mpo.gc.ca
for all reports required from Section 11 of this licence.
- 1.3** All management plans required by this licence must be available on site for Facility staff to review and implement. Submission timelines for any management plan must be followed as per conditions below.
- 1.4** When a licence reissuance date precedes a management plan submission date, the management plan from the previous licence period will remain in effect until the new management plan is accepted by the Department.
- 1.5** The Licence Holder must comply with existing management plans. Any changes to these plans must be made in agreement between the Department and the Licence Holder.

2. Production

- 2.1** The Peak Biomass of cultivated fish within an authorized Containment Structure Array must not exceed the maximum allowable peak biomass amount set out on the face of this licence.

- 2.2** The Licence Holder must report Peak Biomass information as follows:
- (a) for Production Sites, when the Facility reaches Peak Biomass during a Production Cycle, the Licence Holder must submit to the Department notification of the actual date and tonnage of the Peak Biomass event, on the 15th of the following month as provided for in Appendix 1a.
 - (b) for Facilities with fish continuously on site, the Licence Holder must submit to the Department, no later than January 15th of each year for the term of this licence, notification of the actual date and tonnage of the Peak Biomass event from the previous calendar year, as provided for Appendix 1a.
- 2.3** The Licence Holder must submit to the Department, starting July 15, 2024 and monthly on the 15th of each month thereafter for the term of this licence, up to a 7-month rolling inventory plan for all cultivated species as defined in Appendix 1a:
- (a) one month of the plan must reflect the calculated inventory and biomass at this Facility for the previous month;
 - (b) the next six months must be projected inventory and biomass; and
 - (c) this plan must include data when the facility is Fallow.
- 2.4** The Licence Holder must submit to the Department starting July 15, 2024 and monthly on the 15th of each month thereafter for the term of this licence, Transfers to and from this Facility, including:
- (a) actual Transfers for the previous month, as provided for in Appendix 2; and
 - (b) projected Transfers for the next six months, as provided for in Appendix 1a; and
 - (c) this reporting is required only if Transfers occurred or are projected to occur.
- 2.5** Following Harvest at a Facility, the Licence Holder must:
- (a) complete the Population Harvest Declaration form as provided for in Appendix 3; and
 - (i) the complete Population Harvest Declaration must accompany each group of Harvested fish and be provided to the processor.
 - (b) for Production sites, submit to the Department on the 15th of the month following completion of Harvest, as provided for in Appendix 1a;
 - (i) the final date of Harvest; and
 - (ii) the total number of fish Harvested from the Facility during the Production Cycle.
 - (c) for Facilities with fish continuously on site, submit to the Department, no later than January 15th of each year for the term of this licence, the total number of fish Harvested from the facility from the previous calendar year, as provided for in Appendix 1a.
 - (d) for Production sites from which Harvest occurs, submit to the Department within 30 Days following completion of Harvest, an Inventory Accounting Summary, as provided for in Appendix 1b, including information for the harvested group of fish from seawater entry to harvest.

3. *Transfer of Fish*

- 3.1** The Licence Holder must apply to the BC Introductions and Transfers (I&T) Committee and obtain a licence to Transfer live fish.
- 3.2** All live fish Transfer licences issued for this Facility must:
 - (a) be adhered to; and
 - (b) be kept along with the health Attestation signed by the Licence Holder's veterinarian, at this Facility and available for inspection by a Fishery officer or guardian while those fish are kept on site.

4. *Containment Structure Array Requirements*

- 4.1** The Licence Holder must comply with a Containment Structure Array Plan attached to this licence with respect to location and Containment Structures. The number of Containment Structures at the Facility may be less than that in the Containment Structure Array Plan(s) but must not exceed it.
- 4.2** If the Containment Structure Array is anchored for the first time or re-anchored, the Licence Holder must submit to the Department, prior to Transferring fish to this Facility, or within 30 Days if fish are already on site:
 - (a) an Attestation by a Qualified Individual(s) confirming that the Facility infrastructure is designed and installed in such a way so to withstand the oceanographic and meteorological conditions of the licensed location; and
 - (b) cage numbers and locational information (+/-10m) for each corner of the Containment Structure Array at High Slack Tide.
- 4.3** The Licence Holder must also ensure Attestations, as per 4.2(a) are submitted regularly to the Department even if no re-anchoring has occurred; Attestations on file must be less than 4 years old.
- 4.4** The Licence Holder must notify the Department when planning to change from one approved Containment Structure Array to another 10 days prior to Transferring fish to this Facility.
- 4.5** The Licence Holder must ensure that Harvest/Transfer pens:
 - (a) are not used in the same location for longer than 90 consecutive Days; and
 - (b) remain empty or in an alternate location for a time equal to or greater than the time that they were in operation in a given location.
- 4.6** Facility records of Harvest/Transfer Pen usage must be maintained and must include location, start and end dates of Harvest/Transfer Pen use.

5. Fish Health

- 5.1** The Licence Holder must develop and comply with a Health Management Plan (HMP), as provided for in Appendix 4, and submit the complete HMP to the Department by October 15th of each year, with modified sections identified.
- 5.2** The Licence Holder must develop and comply with proprietary Health Management Standard Operating Procedures (HMSOPs), as provided for in Appendix 4, and submit the complete HMSOPs to the Department by October 15th of each year, with modified sections identified.
- 5.3** If the Facility is assigned to an Area Management Zone, listed on the face of this licence, the other Facilities within the same zone must be considered as provided for in Appendix 4.
- 5.4** The Licence Holder must keep Records as per section 1.1, including:
 - (a) stocking, production, and harvest information; and
 - (b) the information provided for in Appendix 5; and
 - (c) the use of all therapeutants, pest control products, and anaesthetics as provided for in Appendix 6.
- 5.5** The Licence Holder must ensure that all fish health and mortality records are reviewed by the Licence Holder's veterinarian and/or Fish Health Staff to assess patterns in fish health and to ensure accurate reporting.
- 5.6** All Containment Structures must be inspected for mortalities, carcasses removed and classified, and records maintained a minimum of once every seven Days; and if a Fish Health Event or Mortality Event is occurring, carcasses must be removed at least twice every seven days and preferably daily.
- 5.7** Should a Mortality Event occur, the Licence Holder must:
 - (a) notify the Department as provided for in Appendix 7 within two Days Upon Discovery, ensuring carcass numbers are assigned to the date they are recovered, rather than averaged out over previous Days; and
 - (b) report all Mortality Events occurring during Transfers as occurring at the destination Facility; and
 - (c) following the initial Mortality Event, complete consecutive 10 Day follow up reports until the Mortality Event is Resolved. Each report must be submitted within three Days of the final Day of that report; and
 - (d) if it is suspected that a Mortality Event has occurred and mortality retrieval was not possible, the Licence Holder must still submit a Mortality Event Report with supporting rationale as to why the retrieval did not occur; and
 - (e) retain all supporting documentation for the Mortality Event that clarifies the primary and any other contributing factor(s); and
 - (f) with the first 10 Day follow up report pursuant to Section 5.6 (c), the Licence Holder must submit to the Department:

- (i) Environmental Data for seven Days leading up to and during the event; and
- (ii) laboratory results related to the Mortality Event.

5.8 Should a Fish Health Event occur, the Licence Holder must:

- (a) take immediate action to manage the Fish Health Event by implementing response procedures to minimize the potential spread of Pathogens if an Infectious Disease is suspected or diagnosed; and
- (b) submit a Fish Health Event notification to the Department within seven Days following initiation of mitigation as provided for in Appendix 8; and
- (c) submit a separate Fish Health Event notification for each concurrent Disease; and
- (d) undertake follow up measures to evaluate the Fish Health Event and the efficacy of the mitigation measures taken; and
- (e) submit to the Department the treatment details as provided for in Appendix 9; and
- (f) retain all supporting documentation for the Fish Health Event that clarifies the primary, and any other, contributing factor(s) and make available to the Department upon request:
 - (i) Environmental Data for seven Days leading up to and during the event; and
 - (ii) laboratory results related to the Fish Health Event.

5.9 Quarterly on July 15, October 15th, January 15th, and April 15th for the term of this licence, the Licence Holder must submit to the Department records of Mortality by Category for all cultivated Mortalities collected during carcass recovery at all Active Facilities, as per the HMP and as provided for in Appendix 9.

6. Sea Lice Management for Licence Holders Culturing Salmonids

6.1 Licence Holders must develop and comply with a Sea Lice Management Plan (SLMP) as provided for in Appendix 11, and submit the complete SLMP, with modified sections identified, to the Department by October 15th of each year.

6.2 For Active Facilities cultivating Pacific salmon, the Licence Holder must:

- (a) conduct sea lice monitoring during Handling Events at least quarterly; and
- (b) Make average sea lice abundance data available for review by the Department upon request; and
- (c) notify the Department within three Days Upon Discovery, as provided for in Appendix 12, if the threshold identified in Section 6.5 is met or exceeded.

6.3 For Active Facilities cultivating Atlantic salmon, the Licence Holder must conduct sea lice monitoring following protocols, as provided for in Appendix 13, and report to the Department as

described in Sections 6.4 - 6.13. Sections 6.4-6.13 are not applicable to Active Facilities cultivating Pacific salmon.

- 6.4** The Licence Holder must follow all area-based and site-specific sea lice monitoring windows listed in this licence. If those do not exist, the following dates will apply:
- (a) Non-migration window: July 1 – January 31;
 - (b) Pre-migration window: February 1 – February 29;
 - (c) Out-migration window: March 1 – June 30.
- 6.5** The Licence Holder must follow all area-based and site-specific sea lice thresholds prescribed in this licence. If those do not exist, a sea lice threshold of an average of 2.8 motile *Lepeophtheirus salmonis* per farmed fish will apply in 2025. The threshold will drop to 2.4 in 2026.
- 6.6** During the Non-migration window, the Licence Holder must:
- (a) conduct a Counting Event once per month and submit the results to the Department by the 15th of the following month, as provided for in Appendix 14; and
 - (b) Upon Discovery of the threshold in Section 6.5 being met or exceeded, the Licence Holder must:
 - (i) notify the Department within three Days as provided for in Appendix 12; and
 - (ii) conduct Counting Events every two weeks thereafter, so long as the exceedance continues, and submit the results to the Department within three Days of each Counting Event, as provided for in Appendix 12.
- 6.7** During the Pre-migration window, the Licence Holder must:
- (a) conduct Counting Events every two weeks; and
 - (b) Upon Discovery of the average sea lice abundance threshold 6.5 being met or exceeded, the Licence Holder must
 - (i) notify the Department within three Days, and describe the Sea Lice Mitigation that will be taken to ensure that the average sea lice abundance is below the threshold by the start of the Out-migration window; and
 - (ii) conduct an All Pen Counting Event within seven Days Upon Discovery; and
 - (c) submit the results of (a) and (b) to the Department within three Days of each Counting Event and All Pen Counting Event as provided for in Appendix 12.
- 6.8** The Licence Holder must ensure that the average sea lice abundance is below the threshold defined in Section 6.5 at the time of the first All Pen Counting Event of the Out-migration window, unless the Department confirms that the Licence Holder is unable to conduct a Handling Event for the purposes of counting or treating fish due to conditions outlined in Section 6.11(a).

6.9 During the Out-migration window, the Licence Holder must:

- (a) initiate and complete an All Pen Counting Event within the first seven Days of the window and submit the results to the Department within three Days as provided for in Appendix 12; and
- (b) conduct Counting Events every two weeks thereafter, and submit the results to the Department by the 15th of the following month, as provided for in Appendix 14; and
- (c) Upon Discovery of the threshold defined in Section 6.5 being met or exceeded, the Licence Holder must:
 - (i) conduct an All Pen Counting Event within seven Days Upon Discovery, and every two weeks thereafter so long as the exceedance continues; and
 - (ii) describe the planned Sea Lice measures to reduce average sea lice abundance as per 6.9(d) and submit with the initial exceedance report; and
 - (iii) submit the results of each All Pen Counting Event to the Department within three Days as defined in Appendix 12; and
- (d) The Licence Holder must ensure the average sea lice abundance is below the threshold set in 6.5 within 28 days Upon Discovery of an exceedance. Exemptions to this requirement must sought in writing by the licence holder and approved in writing by the Department.

6.10 At any time of the year, if Sea Lice Mitigation occurs, the Licence Holder must:

- (a) submit a Sea Lice Mitigation notification to the Department within the seven Days following the initiation of mitigation, as provided for in Appendix 8; and
- (b) complete an All Pen Counting Event within seven days prior to the Sea Lice Mitigation; and
- (c) conduct Counting Events following in-feed Sea Lice Mitigation as follows:
 - (i) every two weeks following the completion of treatment until 6.10 (c)(ii) is met; and
 - (ii) within 28 Days from the completion of treatment, conduct an All Pen Counting Event once average sea lice abundance is under threshold and a Treatment Efficacy of at least 60% is met; and
- (d) conduct an All Pen Counting Event within seven Days of all other non in-feed Sea Lice Mitigation ; and
- (e) submit the results of (b), (c) and (d) to the Department within three Days as defined in Appendix 12; and
- (f) assess Treatment Efficacy for all Sea Lice Mitigation, and include supporting documentation if Treatment Efficacy is not met as per section 6.13.

6.11 The Licence Holder:

- (a) is not required to conduct a Handling Event for the purpose of counting or treating sea lice in an individual Containment Structure if:

- (i) the Containment Structure(s) will undergo Harvest within the next 10 Days; or
 - (ii) there is a Fish Health Event which precludes handling; or
 - (iii) the site is experiencing a measurable environmental issue that would reasonably lead to elevated fish stress and mortality; or
 - (iv) it is not an Active Facility; or
 - (v) written approval was sought and received from the Department’s veterinarian for reasons other than outlined in 6.11(a); and
- (b) must note if any Containment Structure(s) were excluded from a required Counting Event or All Pen Counting Event for the reasons set out in 6.11(a) in the required reporting to the Department; and
- (c) must notify the Department if an entire Counting Event or All Pen Counting Event could not occur for the reasons set out in 6.11(a) within three Days Upon Discovery; and with that notification, provide the Department with all supporting information associated with the reasons set out in 6.11(a) including a harvest or transfer plan, Fish Health Event data, or Environmental Data as applicable; and
- (d) must resume sea lice counting and management as per licence conditions once the reason set out in 6.11(a) has been resolved.

6.12 If Treatment Efficacy is determined to be less than 60% for in-feed therapeutant or bath Sea Lice Mitigations, the Licence Holder is prohibited from further use of that Sea Lice Mitigation measure during the current production cycle without prior written approval from the Department.

6.13 The Licence Holder must ensure that all mechanical and bath treatments carried out on vessels and barges as Sea Lice Mitigation capture and retain removed sea lice, which must be collected and disposed of on land.

6.14 For Active Facilities cultivating Atlantic salmon, Licence Holders must monitor wild salmon for sea lice as per the direction of the Department. Data from sea lice monitoring on wild salmon, including that conducted under a *Fishery (General) Regulations* Section 52 scientific permit, must be submitted to the Department by November 15th of each year, the data collected during the period of August 1st of the previous year to July 31st of the reporting year.

7. Escape Prevention, Reporting and Response

7.1 The Licence Holder must develop and comply with an Escape Prevention and Response Management Plan (EPRMP), including all elements outlined in Appendix 15, Section C, to prevent the escape of cultivated fish, and submit the complete EPRMP, with modified sections identified to the Department by October 15th of each year.

7.2 If an escape, suspected escape, or Evidence of Escape of cultivated fish from the Containment Structure Array occurs, the Licence Holder must:

- (a) take immediate action to prevent further escapes; and

- (b) notify the Department within 24 hours Upon Discovery, as defined in Appendix 16; and
- (c) submit to the Department a follow-up report not later than seven Days Upon Discovery, as defined in Appendix 16.

8. Interactions with Wild Fish and Megafauna

- 8.1** The Licence Holder must design and use nets and equipment and conduct operations in a manner that causes the least amount of harm to Incidental Catch or the residence of the individuals of any species listed as threatened or endangered under the *Species at Risk Act* or its critical habitat, and does not jeopardize the survival and recovery of these species.
- 8.2** The Licence Holder must:
- (a) make reasonable efforts to sort cultivated fish from wild fish during Transfer between Facilities, Harvest, and net removal, and make reasonable efforts to minimize the Transfer of wild fish between Facilities and to processing plants;
 - (b) make reasonable efforts to avoid treating wild fish during Handling Events specific to Sea Lice Mitigation; and
 - (i) specify those measures in the Sea Lice Management Plan; and
 - (ii) If those measures do not perform as intended, stop the operation and employ alternative measures before treatment resumes; and
 - (iii) report the occurrence to the Department via email within three Days.
- 8.3** Unless otherwise directed by the Canadian Food Inspection Agency or the Department, the Licence Holder must ensure that any live Incidental Catch are immediately returned to waters outside the aquaculture Facility in a manner that causes the least harm.
- 8.4** The Licence Holder must retain all dead Incidental Catch and Wild Mortalities and dispose of them in the same manner that cultivated stock carcasses are disposed of, as set out in the HMP.
- 8.5** The Licence Holder must maintain records of Incidental Catch, Wild Mortality and herring spawn, as provided for in Appendix 17. The records must be submitted to the Department on the following days of every year: July 15th; October 15th; January 15th; and April 15th.
- 8.6** The Licence Holder must develop and comply with a Megafauna Interaction Management Plan (MIMP) that includes all the elements of Appendix 18 and submit the completed MIMP, with any modified sections identified to the Department by October 15th of each year.
- 8.7** When using Megafauna deterrents, the Licence Holder must:
- (a) only use deterrents approved by the Department; and
 - (b) only use deterrents listed in the Facility's Megafauna Interaction Management Plan; and
 - (c) use deterrents in accordance with Appendix 19; and

- (d) not use Acoustic Deterrents.

8.8 Upon Discovery of live entangled or entrapped Megafauna within the farm's infrastructure, the Licence Holder must:

- (a) make all reasonable attempts to free the animal with the least amount of harm, if it is a pinniped, sea otter, turtle (see also 8.9c) or cetacean smaller than 2m in length; and
- (b) make all reasonable attempts to free the animal with the least amount of harm, and follow guidance in the Code of Conduct for Shark Encounters and the Code of Conduct for Basking Sharks Encounters, if it is a shark; and
- (c) contact the Department's Observe, Record, Report (ORR) number (1-800-465-4336) if it is a cetacean greater than 2m in length or a leatherback turtle; identifying the Facility, location, species, situational details, and call-back information and wait to receive explicit guidance from the Department; and follow explicit guidance from the Department; and
- (d) collect and retain at the Facility photographs or video of the Megafauna, along with associated details of the incident, and make available upon request by fishery officer or guardian.

8.9 Upon Discovery of dead entangled or entrapped Megafauna within the farm's infrastructure, the Licence Holder must:

- (a) dispose of pinnipeds following all municipal, regional, provincial, and federal government legislation; and
- (b) seek advice from the Department within 24 hours Upon Discovery on what to do with the animal if it is a sea otter, turtle, shark, or cetacean smaller than 2m in length; and
- (c) immediately contact the Department's ORR number (1-800-465-4336) if it is a cetacean greater than 2m in length; identifying the Facility, location, species, situational details, and call-back information. Do not move the animal before receiving explicit advice from the Department unless there is an immediate risk to human safety or of harm to the infrastructure that could result in a fish escape event; and
- (d) collect and retain at the Facility photographs or video of the Megafauna, along with associated details of the incident, and make available upon request by a fishery officer or guardian.

8.10 Upon Discovery of an entangled or entrapped Megafauna (live or dead), the Licence Holder must:

- (a) notify the Department within 24 hours with as much detail as possible, as provided for in Appendix 20; and
- (b) submit to the Department a complete follow-up report within seven days, as provided for in Appendix 20.

8.11 In the event the deterrent specified the approved Megafauna Interaction Management Plan fail, the Licence Holder must contact the Department if there are any Marine Mammals that represent

an imminent risk to human safety or harm to the infrastructure that could result in a fish escape event, in order to receive guidance on how to manage the situation.

9. Protection of Fish Habitat

- 9.1** The installation and removal of this Facility is authorized under section 35(2)(a) of the *Fisheries Act*.
- 9.2** The Licence Holder must maintain records at this Facility of in-water net cleaning for the purposes of Biofouling removal, as provided for in in Appendix 21.
- 9.3** The Licence Holder must ensure that only anchoring equipment is in contact with the sea bed.
- 9.4** The Licence Holder must collect and retain, with minimal leakage, blood generated during Harvest and dispose of it at a licensed processing facility
- 9.5** The Licence Holder must ensure all Debris generated or used at this Facility is collected or treated and disposed of in accordance with applicable federal, provincial, and municipal legislation.
- 9.6** The Licence Holder must, Upon Discovery or loss of Harmful Debris from the Facility:
 - (a) notify the Department within seven Days, outlining the date of discovery, Facility number, type, size, any identifying information, GPS of last known location, and approximate depth; and
 - (b) retrieve the Harmful Debris within two months if it may catch and/or entangle fish, including Megafauna, unless directed otherwise by the Department; and
 - (c) notify the Department within seven Days of any retrieval of Harmful Debris, including the date of retrieval, photographic evidence, facility number, date it was lost, type, size, if all lost was retrieved, and if not, the number of units retrieved, the estimated amount retrieved, and the last known position of remaining Harmful Debris.
- 9.7** The Licence Holder must conduct benthic monitoring at the Facility in accordance with the *Aquaculture Activities Regulations*.

10. Operation of Vessels

- 10.1** The Licence Holder must post signage directing all vessels not involved in the cultivation of fish to dock at the designated and clearly identified docking station.
- 10.2** The Licence Holder must monitor and post restricted use signs in those areas where vessels not involved in the cultivation of fish are not permitted access.

11. Annual Aquaculture Statistical Report

11.1 On January 25th of each year, the Licence Holder must complete and submit to the Department a complete and accurate Annual Aquaculture Statistical Report as provided for in Appendix 22 for the previous calendar year.

12. Use of Lights

12.1 On February 15th of each year, the Licence Holder must submit to the Department annual light use reports as defined in Appendix 23, summarizing results from for the previous calendar year if they were used.

13. Use of New Technology

13.1 If technologies are utilized in the Facility for the purpose of minimizing interactions between farmed and the ecosystem, the Licence Holder must:

- (a) submit to the Department by November 1, 2024 a list of this technology used at this Facility as well as any intended to be used in the future; and
- (b) if identified as being medium- or high-risk by the Department according to a new technology risk assessment tool, seek approval and direction (including monitoring and reporting) for the use of novel technology prior to implementation at any Facility; and
- (c) notify the Department in advance of implementing, installing, or starting to use new low-risk or approved technology at this Facility; and
- (d) submit any reports required as per the direction of the Department; and
- (e) make additional information regarding this technology available upon request of a fishery officer or guardian.

14. Molecular Monitoring Tools

14.1 Licence Holders are required to collect and analyze water samples related to the Facility's operations as per the direction of the Department.

APPENDIX 1a: Inventory Plan

Submit this report using the most recent structured data template provided by the Department. The following information must be included:

General Information:

- Licence Holder Name
- Reporting Year
- Reporting Month

Report Details:

- Facility Reference Number
- Facility Name
- Previous Month Inventory Information:
 - Fallow (Yes/No)
 - Fish Species
 - Peak Biomass (if applicable)
 - Peak Biomass Date (if applicable)
 - Final Harvest Date (if applicable)
 - Final Harvest Number
 - Population (number of fish)
 - Biomass (tonnes)
 - Harvesting? (Yes/No)
 - Transfer? (Yes/No)
 - Year Class
 - Year 1, Year 2, Brood, Other
 - Containment Type
- Six Month Forecasted Inventory Information:
 - Population (number of fish)
 - Biomass (tonnes)
 - Harvesting? (Yes/No)
 - Year Class
 - Year 1, Year 2, Brood, Other
 - Transfer? (Yes/No)
 - Source Facility Reference Number
 - Source Facility Name
 - Proposed Transfer Date
 - Forecasted Active Date
 - Containment Type By Month

Guidance & Definitions

Reporting Year: The year for which the calculated (not projected) data are reported.

Reporting Month: The month for which the calculated (not projected) data are reported. Reports must be submitted in the month following the Reporting Month.

Previous Month Inventory Information:

Fallow (Y/N): means the facility was Fallow during the entire Reporting Month.

Fish Species: the species of fish cultivated at the Facility.

Peak Biomass: For Production Sites, if the Facility reached Peak Biomass during the Reporting Month, enter the actual Peak Biomass (tonnes). If the Facility did not reach Peak Biomass during the Reporting Month, leave blank. For Facilities with fish continuously on site, enter the actual Peak Biomass (tonnes) for the calendar year, on the submission for the December Reporting Month. For all other Reporting Months, leave blank.

Peak Biomass Date: For Production Sites, if the Facility reached Peak Biomass during the Reporting Month, enter the date that Peak Biomass occurred. If the Facility did not reach Peak Biomass during the Reporting Month, leave blank. For Facilities with fish continuously on site, enter the date that Peak Biomass occurred in the calendar year, on the submission for the December Reporting Month. For all other Reporting Months, leave blank.

Final Harvest Date: If the Facility completed Harvest of a year class of fish, enter the date on which Harvest was completed. If Harvest is ongoing, leave blank. For Facilities with fish continuously on site that completed Harvest of a year class of fish, enter the date on which Harvest was completed. For Facilities with fish continuously on site that did not complete Harvest of a year class of fish, leave blank.

Final Harvest Number: For Production Sites, if the Facility completed Harvest of a year class of fish, enter the total number of fish that were Harvested from the Facility since the fish were transferred to the Facility. If harvest is ongoing leave blank. For Facilities with fish continuously on site, enter the total number of fish harvested in the calendar year on the submission for the December Reporting Month. For all other Reporting Months, leave blank.

Population: means the number of fish at the Facility on the last day of the Reporting Month.

Biomass (T): means the biomass (tonnes) of fish at the Facility on the last day of the Reporting Month.

Harvesting? (Y/N): means that harvesting activities occurred for at least one day during the Reporting Month.

Previous Month Transfer? (Y/N): means that fish were transferred to or from the Facility during the Reporting Month.

Previous Month Year Class: The year class of fish during the Reporting Month. If there are multiple year classes of fish at the Facility, a separate row of data must be reported for each year class.

Six Month Forecasted Inventory Information:

Projected Population/Biomass: For the six months following the Reporting Month, means the estimated the inventory/biomass at the Facility, based on the Licence Holder's expected mortality rates and planned harvests and transfers.

Planned Transfers – Source Facility: Provide detail on the source of expected transfers to the Facility in the six months following the Reporting Month. If no fish are expected to be transferred into the Facility during the six months of Projected Inventory/Biomass, leave blank.

Proposed Transfer Date: If fish are planned to be transferred into the Facility in the six months following the Reporting Month, enter the planned transfer date, to the best of the Licence Holder's knowledge. If no fish are expected to be transferred into the Facility during the six months of Projected Inventory/Biomass, leave blank.

Forecasted ACTIVE Date: If fish are planned to be transferred into the Facility in the six months following the Reporting Month, enter the date, to the best of the Licence Holder's knowledge, that the Facility would be expected to have had fish on site for more than 30 days. If no fish are expected to be transferred into the Facility during the six months of Projected Inventory/Biomass, leave blank.

Containment type: The containment type which was in use for at least 16 days of each month for the reporting period. The following containment-type options would be available for selection in the report:

- **Traditional culture method:** Containment pens with unmitigated water flow-through, allowing interactions with the surrounding ecosystem.
- **Next generation culture:** Facilities that utilize containment, farming techniques, or temporary barrier technologies that improve upon traditional culture in order to mitigate interactions between farmed fish and the surrounding ecosystem. In order

to confirm that a facility qualifies as next generation, the details must be submitted to and approved by the Department.

- **Semi-closed containment:** Containment pens that have permanent or seasonal permeable or semi-permeable barriers in place to exclude or filter surface water (to ~10-15m depth) to reduce interactions between farmed fish and the surrounding ecosystem.
- **Closed containment Level 1:** Containment pens or facilities that:
 - are fully surrounded by an impermeable membrane;
 - draw water into the farm from a minimum of 20m depth;
 - collect mortalities; and
 - have a point source of waste that can be redirected to an appropriate location away from sensitive habitat.
- **Closed containment Level 2:** As per level 1 with the collection of wastes for on-land disposal.
- **Closed containment Level 3:** As per level 1 with the treatment of incoming water to reduce the introduction of pathogens and parasites.
- **Closed containment Level 4:** As per level 1 with treatment of outgoing water to reduce the transmission of pathogens and parasites.
- **Closed containment Level 5:** As per level 1 with filtration and treatment of water circulated within the facility, which reduces the amount of water drawn in and discharged out of the facility.

APPENDIX 1b: Inventory Accounting Summary

Submit this report using the most recent structured data template provided by the Department. The following information must be included:

General Information:

- Licence Holder Name
- Facility Reference Number
- Facility Name
- Months Fallow prior to re-entry (if applicable)
- Area Management Considerations

Report Details:

- Facility Reference Number
- Facility Name
- Cultured Species
- Facility Type
- Number of Fish Transferred IN
- Number of Fish Transferred OUT
- Number of Fish Escaped
- Number of Fish Harvested
- Mortalities by Category
- Description of Exceptional Mortality
- Explanation of Inventory Discrepancy

Guidance & Definitions

Months Fallow Prior to Re-entry: The number of months that the Harvest Facility was fallow prior to restocking of this Production Cycle.

Area Management Considerations: If applicable, describe any area management production considerations, such as single year class stocking, that the Harvest Facility was part of.

Facility Type:

- **Smolt Entry:** A Facility in which fish were entered directly into from a freshwater landbased hatchery, prior to transfer to another marine facility.
- **Interim Marine:** A Facility other than a Smolt Entry Facility that is utilized for part of the Production Cycle, but not the Facility that the fish were harvested from.
- **Harvest:** The final marine Facility used to grow fish during the Production Cycle from which the fish were harvested from. All data included in this report should reflect the groups of fish harvested from this Facility.

Number of Fish Transferred IN: The total number of fish entered into the Facility during the Production Cycle, from landbased hatcheries or marine facilities. Include data ONLY for those groups of fish that were harvested from the Harvest Facility.

Number of Fish Transferred OUT: The total number of fish transferred out of the Facility during the Production Cycle, to other marine facilities or landbased hatcheries. For Smolt Entry or Interim Marine facilities, include ONLY transfers of fish that were destined for the Harvest Facility. For Harvest facilities, include ALL live fish that were removed from the Facility for reasons other than harvest.

Number of Fish Escaped: The total number of fish confirmed or suspected to have Escaped from the Facility during the Production Cycle. Include data ONLY for those groups of fish that were harvested from the Harvest Facility.

Number of Fish Harvested: The total number of fish that were Harvested from the Facility during the Production Cycle.

Mortalities by Category: Enter ONLY the mortalities pertaining to fish that were harvested from the Harvest Facility, using the categories defined in the Mortalities by Category Appendix.

Description of Exceptional Mortality: If mortalities are higher than expected, provide an explanation of the exceptional mortality, including reasons and justification for major mortality events.

Explanation of Inventory Discrepancy: If the Inventory Discrepancy is higher than expected, provide an explanation for the missing or extra fish.

APPENDIX 2: DETAIL OF MONTHLY STOCK TRANSFERS

**Submit this report using the most recent structured data template provided by the Department.
The following information must be included:**

General Information:

- Licence Holder Name
- Reporting Year
- Reporting Month

Report Details:

- Introductions & Transfers (ITC) Licence Number
- Fish Species
- Transfer Start Date
- Transfer End Date
- Number of Fish Transferred
- Source Facility Reference Number
- Source Facility Name
- Receiving Facility Reference Number
- Receiving Facility Name

APPENDIX 3 – Population Harvest

All sections of this appendix must be completed unless otherwise directed in applicable licence conditions or by the Department

PART A.

Company Name:

Address:

Phone number:

Aquaculture Facility Number:

Fish ID or Lot #	Date of Harvest	Fish Species and Common Names	Quantity Shipped (pieces)
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Name of Market Venue, Distributor, Next Grower, or Processor:

PART B. Details of Drug/Chemical Treatment While Fish in this Lot Held at the Licence Facility Details of Last Drug/Chemical Treatment:

1. Name of Drug and Prescription No. (if any)	2. Date Treatment Commenced	3. Date Treatment Ended
•		
•		

4. Treatment Information (withdrawal time prescribed, how applied to animals (in-feed or bath), amount per Kg of feed, etc.)

Treatment file and details are available at rearing site: Yes No

5. Name of Prescribing Veterinarian

Name of Person Responsible for Administering the Treatment	Signature of Person Responsible for the information of this declaration Date:
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This form may be used by a licence holder or their agent to satisfy the information requirements specified in licence condition 2.5 concerning shipping of fish/seafood to a market venue or processing plant. This form must accompany the fish/seafood and must be retained by the market or processing licensee for a period of one year. Please note that this form must be submitted even if there has been no drug treatment of the animals in the shipment.

Appendix 4: Marine Finfish Facility Health Management Plan (HMP)

Requirements

This document outlines the minimum requirements to manage the health of farmed fish in British Columbia. The licence holder must generate their own company Health Management Plan (HMP) that confirms that all the elements in this template will be implemented, and develop a suite of Standard Operating Procedures (SOPs) that describes the details of implementation. Each section in the HMP must list the relevant SOPs to meet defined objectives. As per the Conditions of Licence (COL), this plan must be reviewed on an annual basis and submitted to Fisheries and Oceans Canada (DFO) Aquaculture Management Division (AMD) by October 15th, along with a complete copy of the company's SOPs.

1. Personnel duties and responsibilities

Employing and contracting personnel who are trained in fish health and husbandry is essential for the maintenance of fish health on farm. It is beneficial that all facility staff have a general awareness of health principles.

The HMP/SOPs must describe how the company will address these points:

- Companies must ensure that they have staff to perform the following roles:
 - Veterinarian: A veterinarian-client-patient relationship must be maintained between the Company and a veterinarian who is licenced to practice in the province of BC. The veterinarian is responsible for disease diagnoses, review and interpretation of fish health data, and writing prescriptions, and must exercise good medical judgment in alignment with professional values.
 - Fish Health team: The fish health team is the personnel, including the veterinarian, who are responsible for overseeing the collection of fish health information, evaluating this information, and making major fish health decisions. The fish health team is responsible for identifying and managing risks to optimize fish health.
- All facility staff must read their company HMP and relevant SOPs every two years and when there are changes to the HMP or SOPs.
- All facility staff must abide by their company HMP and relevant SOPs.
- A record of staff training pertinent to fish health must be kept and made available upon request by DFO.
- Contact names and numbers for key fish health personnel, and emergency numbers for regulatory authorities and services must be kept up-to-date and posted in readily accessible locations at each facility.

2. Biosecurity

Disease-causing agents (pathogens) may be found on or in fish (wild or cultured), animals and birds, water, equipment, gear, and infrastructure. Therefore, biosecurity practices are required to minimize the pathways of pathogen transfer wherever possible.

Biosecurity has three main goals: minimizing the entry of pathogens to farms, minimizing the spread of pathogens within the farm and minimizing the spread of pathogens outside of the farm.

The HMP/SOPs must describe how the company will address these points:

- There must be effective biosecurity barriers at and within each facility. These must include physical and chemical barriers (e.g. appropriate disinfectants and restrictions of movement).
- Biosecurity measures must apply to all personnel, visitors, contractors, suppliers, regulators, vessels, and equipment.
- Biosecurity practices and procedures must be posted and explained to all visitors as part of the visitor log-in event.
- All staff and visitors must be made aware of what order to visit farms based on biosecurity risk (e.g. young fish before older fish, farms experiencing a disease last).
- Suppliers and contractors must be advised of facility biosecurity procedures and visit-order in advance of site visits.
- Staff must notify visitors if pathogens or diseases are present that require elevated biosecurity measures.
- Equipment must be cleaned and disinfected on a regular basis and as required. Drying of equipment must be done as often as operationally feasible.
- If equipment is shared between facilities or moved to a new farm, SOPs must describe additional biosecurity measures taken to minimize the transfer of pathogens between facilities.

3. Disinfectants, chemicals, chemotherapeutants, and biologicals

Disinfectants, chemicals, chemotherapeutants, and biologicals (e.g. vaccines) play an important role in biosecurity and disease management and control. These must be used appropriately to fulfill their purpose on farms.

The HMP/SOPs must describe how the company will address these points:

- Disinfectants and chemicals must be stored in clearly marked containers and disposed of according to the manufacturer's instructions and other applicable legislation.
- This category of chemicals may include deleterious substances, which must be contained in materials that create an adequate barrier to spills, and where necessary, in secondary containment so they are prevented from entering the marine environment.
- A Safety Data Sheet (SDS) or product instruction manual for each product used at the facility must be kept on-site and readily accessible for staff.
- All staff must be appropriately trained for the safe use and handling of these products.
- When required, chemotherapeutants and biologicals (including vaccines) must be stored, handled, and disposed of properly as per the manufacturer's instructions.
- Chemotherapeutants and biologicals must be prescribed by a veterinarian and administration of these products must follow their explicit written directions.

a. *Medicated feed storage, administration, and inventory*

- Medicated feed must be stored in clearly marked containers that are easily distinguishable and physically separated from non-medicated feed.
- Medicated feed must be inventoried with amount fed and amount in stock recorded daily.
- Specific and detailed records of medicated feed administration must be kept on-site for the entire production cycle.
- Treated fish pens must be readily identifiable with signage that includes treatment and withdrawal times.
- A copy of the treatment history must accompany the fish at all times.
- All federal, provincial, and other regulations regarding food safety, drug residues, and handling must be acknowledged and implemented.

4. Single year-class stocking

Fish are susceptible to different pathogens and diseases based on their species, age, size, and time at sea (i.e. exposure). Stocking fish of the same species, age, size, and exposure minimizes the risk of disease transmission between infected and naïve cohorts and allows for the quick treatment and resolution of disease if it occurs. The HMP/SOPs must describe how the company will address these points:

- Farms must only culture one species at a time.
- Single year-class and all-in, all-out stocking practices at farms should be prioritized.
- When single year-class stocking is not possible, it must be explained why, and what additional biosecurity and other measures are implemented to mitigate risk (e.g. the physical separation of year-classes).

5. Area-based management

As current marine farms have water flow through, farmed fish health can be influenced by the surrounding environment and wild fish. When farms are located in close proximity, there may be hydrological connectivity between them. As a result, managing the health of a single farm in isolation may not be as beneficial as managing fish health across multiple connected farms.

The HMP/SOPs must describe how the company will address these points:

- Areas have unique physical and biological characteristics. These natural characteristics, such as presence of wild fish, must be considered in the fish health management for all farms (e.g. coordinated stocking, treatment, or fallow) and described.
- Licences may identify Area Management Zones (AMZ) which farms are assigned to. When this occurs, coordinated fish health management for all farms must occur (e.g. coordinated stocking or treatments).
- In AMZs where more than one company operates facilities, all companies must document their plan to collaboratively manage fish health in the zone.

6. Suitable rearing environment and security

Fish health is optimized when farmed fish are raised in an environment that considers their biological requirements.

The HMP/SOPs must describe how the company will address these points:

- Fish must be held at stocking densities that are appropriate for the species being cultured.
- Proper security must be in place for times when the facility is occupied as well as unoccupied.
- Fish must be protected from predators with appropriate infrastructure, which must be installed and inspected as described in the company Escape Prevention and Response Plan, and must be in place for all farm activities including Handling Events, Harvest, and routine maintenance.

7. Observation of fish health and behaviour

Regular observations of fish and their behaviour provides information on their health.

The HMP/SOPs must describe how the company will address these points:

- All staff must be familiar with normal, healthy fish behaviour as well as signs of stress, illness, and disease specific to the species being cultured.
- The behaviour and physical appearance of cultured fish must be assessed regularly, and daily observations (at a minimum) must be recorded and records kept on site
- Site managers and fish health staff must be immediately notified if there are visible lesions, physical signs of illness, or abnormalities in behaviour.

8. Feed and nutrition

Good nutrition and appropriate feeding practices optimizes the health and growth of fish. Fish that are not fed appropriately are more susceptible to disease.

The HMP/SOPs must describe how the company will address these points:

- Cultured fish must receive sufficient quantity and quality of feed.
- Procedures must be in place for the hygienic delivery of feed to fish, and for the appropriate disposal of spoiled or expired feed.
- Feed must be stored in structures designed to minimize spillage, spoilage, and access by pests and wildlife.
- Feed must be stored appropriately and protected from extremes of heat, sunlight, and moisture.

9. Fish handling

Fish handling causes stress in fish which may make them more susceptible to injury and disease. Fish must be handled in a humane manner and only when required for health, regulatory, or production purposes. Handling Events include, but are not limited to euthanasia, harvest, vaccination, grading, treatments on vessels, and transfer.

The HMP/SOPs must describe how the company will address these points:

- Each Handling Event must be recorded, including the type of event, number of fish handled, containment structure identified, method of handling, water quality parameters, and qualitative observations about the event (e.g. any mortalities as a result of handling, accidents that occurred, etc).
- Fish must be observed before, during, and after handling to ensure any negative effects are noted. Steps must be taken to mitigate the impact (e.g. appropriate use of anesthesia, recovery pen used, water oxygen supplementation).
- Staff must minimize the time fish are exposed to stressful events, including crowding and out-of-water events.
- When required, task-appropriate anaesthetics must be used under the prescription and direction of a licenced veterinarian.

a. Euthanasia and harvest

Euthanasia of fish must be conducted in a humane manner, which includes the rapid and irreversible loss of consciousness.

- Guidelines for euthanasia must be clearly outlined and staff properly trained to perform the procedure.
- Fish must be handled humanely prior to and during harvest and euthanasia, and stress to fish must be minimized.
- Harvest equipment and vessels must have hygienic practices in place and employ humane slaughter techniques.
- Blood and blood water must be contained to prevent leakage.
- The health status of the fish must be taken into consideration when selecting the most appropriate method of harvest (e.g. in the case of culling due to infectious disease).
- Carcasses must be processed or disposed of at appropriate facilities.

10. Monitoring water quality

Fish health is optimized when environmental conditions are ideal for the species being cultured. In order to respond to these environmental conditions, site staff must monitor and record water quality parameters regularly.

The HMP/SOPs must describe how the company will address these points:

- On a daily basis (at minimum), the following parameters must be measured and recorded:
 - Temperature
 - Dissolved oxygen
 - Salinity
 - Water clarity (including plankton, algae, sediment, etc.).
- If water quality deteriorates beyond established ranges, feeding must stop and environmental monitoring must be increased and enhanced.
- Fish must be monitored more closely for the duration of the event and must not be handled until water quality returns to acceptable levels.
 - Records of these events, findings, and actions must be made available to Department upon request and as per COL.

11. Transfers of fish

Transferring fish is a potential source of pathogen transfer. The movement of live fish (including milt and eggs) is assessed and permitted by the BC Introductions and Transfers Committee.

The HMP/SOPs must describe how the company will address these points:

- Strict biosecurity measures must be followed including disinfection of all transport vehicles/vessels and equipment used in the transfer between different cohorts.
- The transport of live fish must occur in clean and secure conditions. Milt and eggs must be clearly labelled.
- Water quality must be closely maintained and monitored to minimize stress during transport.

12. Mortality retrieval, storage, and classification

While mortality is natural in all populations, good hygiene practices should be in place to mitigate potential risks from carcasses.

The HMP/SOPs must describe how the company will address these points:

a. Mortality retrieval and storage

Carcasses must be managed properly in order to decrease the risk of attracting scavengers, reduce pathogen transmission, and for the timely and accurate detection of disease.

The HMP/SOPs must describe how the company will address these points:

- Both farmed fish and wild fish carcasses that are located within containment pens must be collected and recorded on a routine and frequent basis (as per the COL).
- In the event of a failure of the main mortality retrieval and disposal system, there must be an alternative method of collection and disposal in order to meet the COL requirements, at a minimum.
- Mortalities must be stored in biosecure containers that prevent mortalities or liquids from entering the environment.
- Mortalities must be regularly removed from sites and disposed of at a land-based facility.
- Mass mortality events require unique SOPs to describe the additional resources required to deal with unusual quantities of carcasses.

b. Carcass classification

The frequent collection and classification of carcasses is critical to assessing fish health. Accurately identifying the cause of death provides insight into the presence or absence of disease, and informs decisions for the management of the stock.

The HMP/SOPs must describe how the company will address these points:

- Farmed fish carcasses must be visually examined for obvious cause(s) of mortality and/or signs of disease. As required by the COL, mortalities must be collected, classified, and reported as follows:
 - Environmental (oxygen, water quality, storms)
 - Infectious Disease
 - Fresh “silvers”
 - Handling or transport damage (trauma)
 - Maturation
 - Old (decomposed)
 - Poor performers
 - Predator attack
- Dead wild finfish carcasses gathered through mortality retrieval must be counted and reported, along with species when known, and a general type when not known (e.g. herring-like, rockfish-like, etc.) as per COL.
- The fish health team must be notified of any unusual counts or types of lesions or mortality.
- When diagnostic sampling is required by the veterinarian, fish health team, or DFO, it must be conducted following outlined procedures.

13. Fish health records

Accurate, legible, and accessible records are important in validating and verifying fish health data.

The HMP/SOPs must describe how the company will address these points:

- Records must be kept in such a way that they are available on site for quick and easy access by site staff and DFO, including raw data (e.g. field notebooks).
- There must be a back-up system to ensure that data is secure.
- Records must be kept for the duration of the production cycle at the facility and meet the requirements as outlined in the COLs.

14. Emergency and contingency planning

Emergency situations may arise when the health of a fish population is suddenly at risk. This may be due to pathogens or to abrupt water quality changes (such as plankton blooms, a toxin, or a sudden, severe decline in dissolved oxygen). Vigilant monitoring, recording, and early detection is key to good management of health emergencies.

The HMP/SOPs must describe how the company will address these points:

- Contingency plans with detailed protocols must be in place in the event of a fish health emergency. These protocols must include the increased monitoring of fish health parameters (including mortality) and environmental conditions.
- Enhanced biosecurity practices must be implemented immediately to minimize the spread of potential pathogens within and outside of the farm, and to protect potentially vulnerable fish from external stressors (e.g. if an environmental event is ongoing, delay non-essential work on facility infrastructure which may additionally add stress).

- Mitigation to minimize effects of the emergency on farmed fish must be put in place as directed by the company veterinarian and fish health staff to control the effects of the emergency.
- For areas with known and predictable stressors (e.g. seasonal plankton blooms and low dissolved oxygen levels, specific endemic pathogens, etc), specific SOPs must outline how the site manages those particular stressors.

15. Broodstock and breeding practices

The vertical transmission of pathogens can occur from parent to offspring. Implementing strict biosecurity practices for the collection of eggs and milt, and the handling of brood fish is important for the health management of farms and to minimize this route of transmission.

The HMP/SOPs must describe how the company will address these points:

- Fish, eggs, and milt must be handled humanely and hygienically.
- Appropriate anesthetic and euthanasia practices must be followed when handling brood, especially for the purposes of gamete collection.
- All equipment must be thoroughly cleaned and disinfected after use.
- Disease screening must be performed for vertically transmitted diseases at the discretion of the veterinarian. Results from screening must be reviewed by the veterinarian and fish health team and must be made available to DFO upon request.
- The location of progeny from sampled fish must be tracked until such time as the screening results are received and reviewed by the company veterinarian and/or fish health staff.
- Eggs must be safely disinfected following fertilization as appropriate for the species.

APPENDIX 5: Stocking and Fish Health Activity

Further to the definition of “Fish Health Staff” in Part A, the designated staff are considered qualified for this role if they have adequate post-secondary or on-the-job training and experience in the recognition of disease signs. Veterinarians are the only professionals qualified to make diagnoses and prescribe treatment of fish diseases.

Records of stocking and fish health activity shall include the following:

- (a) inventory records (including source, number, pen/container number and lot of fish at the facility);
- (b) daily feed consumption and growth rate;
- (c) mortality records including: collection dates, carcass classification and documentation of morbidity;
- (d) signs of increased morbidity;
- (e) fish health and stress monitoring observations during handling or otherwise when noteworthy activities occur such as: predation, strong currents, influx of wild fish to the facility;
- (f) biosecurity-related records including: visitor log, equipment cleaning, moving, and disinfection, footbath or equipment changes;
- (g) records of fish health-related activity including: medications, lice counts, sorts, splits, fish health or veterinary inspection dates;
- (h) records of mortality events, infectious outbreaks, urgent health-reporting;
- (i) daily water quality records;
- (j) records of non-therapeutic mitigative actions taken to prevent or mitigate disease such as: withholding feed due to blooms, deploying tarps and diffusers, the use of nutritional supplements, reducing densities, net changes or cleaning;
- (k) records of samples collected for surveillance and diagnostic laboratory analyses related to fish health (record may reside at headquarter office);
- (l) all veterinarian or fish health staff reports (at headquarter office); and
- (m) records of reporting fish health information to Federal authorities (at headquarter office).

APPENDIX 6: Use of Therapeutants and Pest Control Products

Records of the use of all therapeutants, pest control products and anaesthetics shall include the following:

- (a) the facility reference number and the name of licence holder;
- (b) the species of finfish cultivated at the facility;
- (c) the name of the prescribing veterinarian;
- (d) a log naming all therapeutants, pest control products and anaesthetics administered and when;
- (e) how therapeutants and pest control products were administered and the dosage;
- (f) the therapeutic schedule including the date treatment commenced;
- (g) the final date of treatment or anaesthesia;
- (h) the veterinarian's name and signature responsible for each therapeutant, pest control product and anaesthetic used;
- (i) the detailed records of in-feed medication or pest control product administered;
- (j) with the exception of source hatchery records (to be held at head office), traceability records and copies of previous medication from smolt entry facilities shall accompany all fish groups both within and off-site, and shall include:
 - (i) therapeutant records of the previous 90 days;
 - (ii) anaesthetic records for the previous 21 days;
 - (iii) pest control product records for the previous 21 days.
- (k) any accidental mixing of treated fish and non-treated fish must be recorded; thereafter the mixed group will be considered tainted until the withdrawal period is reached.

APPENDIX 7: MORTALITY EVENTS

Submit this report using the most recent structured data template provided by the Department. The following information must be included:

General Information:

- Licence Holder Name
- Facility Reference Number
- Facility Name

Report Details:

- Incident Date
- Occurrence Category
 - New-5 day, New-24 hour, 10-day follow-up, 20-day follow-up, etc.
- Associated Fish Health Event (Yes/No)
- Cultured Species
- Mortality Information
 - Reporting Date (for daily mortalities)
 - Pens Affected
 - Daily Inventory on site
 - Daily Mortalities
 - Average Weight (grams)
 - Resolved (Yes/No)
- Primary Probable Cause or Diagnosis
 - Low Dissolved Oxygen, Maturation, Algae Bloom, Water Quality, Poor Smolt, Handling, Transport, Treatment, Predation, Infectious Disease, Non-infectious Disease, Unknown, Other – explain
- Action Taken
 - Continued Monitoring, All Pens Treated, Affected pens treated, Reduce Inventory, Harvest, Cull, Investigation, Quarantine, Predator Mitigation, Environmental Mitigation, Carcass Removal, None Required, Other - explain
- Information Relevant to Event
- Other Contributing Factors

GUIDANCE:

Mortality Event means (a) fish Mortalities or losses reaching 1% of the current Stock Inventory, within a 24 hour period; or (b) fish Mortalities or losses reaching 2.5% of current Stock Inventory, within a five Day period.

Resolved? (Y/N): means cultivated Mortalities no longer trigger the Mortality Event thresholds for 10 consecutive Days.

Primary Portable Cause or Diagnosis: The presumptive or confirmed primary cause of the mortality event. Other contributing causes should be reported as “Other Contributing Factors”.

Action Taken: The category of action taken in response to the Mortality Event.

Information Relevant to Event: Provide detail about the probable cause or diagnosis and action taken (e.g. Plankton species, water quality parameters, disease diagnosis, treatment details, etc.)

Other Contributing Factors: Describe in detail other contributing factors resulting in mortality, in addition to the primary probable cause (e.g. Poor gill health, concurrent/chronic disease, environmental conditions)

APPENDIX 8: FISH HEALTH AND SEA LICE MITIGATION NOTIFICATION

Submit this report using the most recent structured data template provided by the Department. The following information must be included:

General Information:

- Licence Holder Name
- Facility Reference Number
- Facility Name

Report Details:

- Incident Date
- Associated Fish Health Event (Yes/No)
- Species Affected
- Average Weight (grams)
- Occurrence Category
 - New, Ongoing, Recurring
- Pens Affected
- Veterinary Diagnosis
 - Sea Lice Mitigation, Atypical aeromonas salmonicida, Aeromonas salmonicida, Amoebic Gill Disease, Bacterial Kidney Disease, Caprellid Infestation, Enteric Redmouth Disease, Infectious Hematopoietic Necrosis, Jaundice syndrome, Loma, Microsporidial encephalitis, Mouthrot, Net Pen Liver Disease, Nucleospora salmonis, Plasmocytoid leukemia, Poor gill health, Proliferative Gill Disease, Pseudomonas sp., Salmonid Rickettsial Septicemia, Sea Lice Infestation, Septicaemia – explain, Skin ulceration, Systemic Fungal Infection, Toxin Exposure, Vibrio sp., Viral Erythrocytic Necrosis, Viral Hemorrhagic Septicemia, Winter ulcer, Other – explain, Unknown – explain
- Fish Health Mitigation Category (If applicable)
 - Continued Monitoring, All Pens Treated, Affected pens treated, Reduce Inventory, Harvest, Cull, Investigation, Quarantine, Other- explain
- Sea Lice Mitigation Category (If applicable)
 - In-feed Treatment, Mechanical Removal, Medicinal Bath Treatment, Non-medicinal Bath Treatment, Other – explain
- Mitigation Description

GUIDANCE:

Fish Health Event means a suspected or confirmed Disease occurrence within an aquaculture Facility that requires the involvement of a veterinarian and implementation of mitigation to reduce associated impact(s) or risk(s). Actions/mitigation could include: treatment(s), targeted sampling, site quarantine, enhanced biosecurity, or culling to control suspected or confirmed Disease.

Sea Lice Mitigation means measures such as, but not limited to: use of in-feed therapeutants, bath treatments, mechanical equipment, or harvest to decrease or eliminate sea lice.

Incident Date: The date on which treatment mitigation was applied. For example: the date on which treatment or sea lice mitigation began, or the quarantine was established, or the disease investigation began.

Occurrence Category:

For Fish Health Events

NEW: the first occurrence of a given disease on farm in that production cycle.

ONGOING: any disease occurrence previously reported as “New”, “Ongoing” or “Recurring” which is still occurring on farm 30 days after the last submitted FHE report.

RECURRING: any disease occurrence which has previously been reported on a farm in that production cycle wherein more than 30 days have passed since the last reporting of that FHE.

For Sea Lice Mitigation

NEW: the occurrence of any sea lice mitigation on a farm when no other mitigations have been applied for at least 30 days prior.

ONGOING: any sea lice mitigation which is applied on a farm within 30 days of a previous mitigation.

RECURRING: not applicable for sea lice mitigation events.

Veterinary Diagnosis: May be either a definitive or presumptive diagnosis, made by a licensed veterinarian in BC, which has prompted the mitigative action(s) necessitating the reporting of a Fish Health Event. For reporting of sea lice management measures, choose category SEA LICE MITIGATION

APPENDIX 9: MORTALITY BY CATEGORY

Submit this report using the most recent structured data template provided by the Department. The following information must be included:

General Information:

- Licence Holder Name
- Reporting Year
- Reporting Period

Report Details:

- Facility Reference Number
- Facility Name
- Cultured Species
- Fish Production Category
 - Production <500g, Production >500g, Brood, Other
- Mortality Details:
 - Month
 - Number of Environmental mortalities
 - Number of Fresh 'Silver' mortalities
 - Number of Handling / Transport mortalities
 - Number of Maturation mortalities
 - Number of Old (Decomposed) mortalities
 - Number of Poor Performer/Cull mortalities
 - Number of Predator Attack mortalities
 - Number of Infectious Disease mortalities
 - Mortality Total
- Treatment Details:
 - Treatment Start Date
 - Treatment End Date
 - Product Name
 - 35% Perox-Aid, Aquacalm TM, Aquaflor, Aqualife TMS, Calicide, Carbon Dioxide, Chloramine-T, Enthromycin, Formalin (Off Label), Gallimycin 50, Hydrogen Peroxide (Off Label), Interlox Paramove 50, Ivomec, Ms-222, Noromectin, Ovadine, Oxysol-220, Oxysol-440, Parasite-S, Pyceze, Romet 30, Salmosan 50WP, Slice, Terramycin 200, Terramycin 440, Terramycin-Aqua, Tribissen, Virkon Aquatic, Wescodyne, Other
 - Active Ingredient
 - Azamethiphos, Bronool, Carbon dioxide, Emamectin benzoate, Erythromycin, Erythromycin thiocyanate, Ethanol-iodine, Florfenicol, Formalin, Hydrogen peroxide, Ivermectin, Metomidate hydrochloride, Oxytetracycline, Oxytetracycline hydrochloride, Polyvinylpyrrolidone-

iodine, Potassium monopersulphate, Sodium N-chloro-p-toluenesulfonamide, teflubenzuron, Tricaine methanesulfonate, Other

- Treatment Reason
 - Algal Bloom, Bacterial Infection, Biofouling Control, Fish Sampling, Fungal Infection, Invasive Species Control, Other Pathogen, Sea Lice Control, Viral Infection, Other
- Species Treated
- Total Aqueous Product (Litres)
- Total Medicated Feed (Kg)
- Total Active Ingredients (Kg)

APPENDIX 10: JAUNDICE AND INCREASED MORTALITY

Submit this report using the most recent structured data template provided by the Department. The following information must be included:

General Information:

- Licence Holder Name
- Facility Reference Number
- Facility Name

Report Details:

- Incident Date
- Cultured Species
- Veterinary Diagnosis
 - Increased Mortality (Atlantic salmon)
 - Jaundice (Chinook salmon)
- Stressful Event (Atlantic salmon only)
 - Environmental, Handling, Harvesting, Husbandry, Predation, Treatment, Other – explain
- Associated Fish health Event? (Yes/No)
- Associated Mortality Event? (Yes/No)
- Mortality Information:
 - Reporting Date
 - Pens Affected
 - Daily Inventory
 - Daily No. of Fish Affected
 - Average Weight (grams)
- Potential Contributing Factors
 - Low Dissolved Oxygen, Maturation, Algae Bloom, Water Quality, Poor Smolt, Handling, Transport, Treatment, Predation, Infectious Disease, Non-infectious Disease, Unknown, Other – explain

GUIDANCE:

Jaundice means dead fish with gross pathology including yellow discoloration of periorbital region and/or ventrum affecting >0.03% of stock inventory in one week.

Increased Mortality means a noticeable and unexplained increase in the number of fresh silver mortalities that does not meet the criteria for Mortality Event or Fish Health Event.

Incident Date: For signs of jaundice, the date on which the threshold of 0.03% of stock inventory within a one week time period was met; For increased mortality following a stressful event, the date on which the increased mortality was identified.

Reporting Date: The date for which mortality data are reported.

Appendix 11

Sea Lice Management Plan (SLMP) Requirements

This document outlines the minimum requirements to manage the sea lice on farmed salmon in British Columbia. The licence holder must generate their own company Sea Lice Management Plan (SLMP) that confirms that all the elements in this template will be implemented, and develop a suite of Standard Operating Procedures (SOPs) that describes the details of implementation. Each section in the SLMP must list the relevant SOPs to meet defined objectives. As per the Conditions of Licence (COL), this plan must be reviewed on an annual basis and submitted to Fisheries and Oceans Canada (DFO) Aquaculture Management Division (AMD) by October 15th, along with a complete copy of the company's SOPs with altered sections identified.

While the company may include additional elements to their SLMP, all elements described in this appendix must be explicitly included.

1. Staff Training

On site monitoring and correct identification of sea lice is a crucial component of any SLMP.

The SLMP/SOPs must describe how the company will address these points:

- Staff responsible for counting sea lice must be trained in species and life stage identification, with a minimum of an annual reviews of methodology.
- Staff responsible for reporting sea lice numbers to DFO must understand the requirements and timelines outlined in the COL.

2. Monitoring

Accurate and timely counts are crucial to the successful implementation of any SLMP. Important information collected includes the species of sea lice found and its life stage.

The SLMP/SOPs must describe how the company will address these points:

- Licence holders must conduct regular sea lice counts, recording and reporting species and life stages of sea louse, to meet the requirements laid out in the COL, including relevant appendices.
- Environmental conditions, including water quality data, must also be measured and recorded.
- Internal audits must be conducted on a regular basis by the company veterinarian or fish health staff to ensure sea lice are counted accurately and consistently.

3. Record Keeping

Accurate, legible, and accessible records are important in validating and verifying sea lice data.

The SLMP/SOPs must describe how the company will address these points:

- Records must be kept in such a way that they are available on site for quick and easy access by site staff and DFO, including raw data (e.g. field notebooks).
- There must be a back-up system to ensure that data is secure.

- Records must be kept for the duration of the production cycle at the facility and meet the requirements as outlined in the COL.

4. Prevention

As with other aspects of animal husbandry and health practices, prevention is the most effective way to manage infection.

The SLMP/SOPs must describe how the company will address these points:

- The health of fish must be maintained through appropriate biosecurity practices, proper nutrition, good husbandry practices, and veterinary oversight.
- Any methods to exclude sea lice from entering farms (e.g. physical barriers) must be described.

5. Area-based management

As current marine farms have water flow through, farmed fish health and sea lice levels can be influenced by the surrounding environment and wild fish. When farms are located in close proximity, there may be hydrological connectivity between them. As a result, managing fish from a single farm in isolation may not be as beneficial as managing fish across multiple connected farms.

The SLMP/SOPs must describe how the company will address these points:

- Areas have unique physical and biological characteristics. These natural characteristics, such as presence of wild fish, must be considered in sea lice management.
- A detailed strategy is required within each Area Management Zone (AMZ) that outlines how sea lice is managed. The strategy must aim to minimize overall sea lice abundance during the outmigration, and must describe the following:
 - Prioritizing interventions on farms that pose the largest ecological sea lice impact;
 - Coordination of treatments within an AMZ;
 - Minimizing the number of days farms in an area are over threshold;
 - The use of multiple treatment strategies to meet Integrated Pest Management principles (IPM);
 - Incorporation of innovative options and new technologies;
 - Agreements between Licence Holders and First Nations in the area;
 - Wild salmon migratory timing;
 - Single year class stocking; and
 - Fallowing.
- In AMZs where more than one company operates facilities, all companies must document their plan to collaboratively manage sea lice at all farms in the zone.

6. Treatments

The data used to help guide veterinarians determine when to treat and what treatment modality to use includes a variety of biological, physical, and medical considerations.

The SLMP/SOPs must describe how the company will address these points:

- The company must describe the multiple tools and techniques which will be utilized to manage sea lice on farms and under what circumstances they would be used, including a predicted schedule of use when known.
- These tools must be specifically identified with the following information:
 - A general description of the tool (i.e. how does it work);
 - When this tool is typically used (e.g. size of fish, environmental conditions);
 - Appropriate permits and validity periods (e.g. Pesticide Use Permit);
 - Lice recapture capabilities (including technical specifications);
 - Mitigation(s) in place to separate wild fish from farmed fish; and
 - Whether the tool is owned or borrowed and any MOUs/sharing agreements in place.
- Chemotherapeutants must be used judiciously under the direction of a licensed veterinarian and must be administered in adherence to label instructions and any relevant regulations.
- Sea lice bioassays must be performed on a regular basis and prior to treatment with an in-feed medication.
- The efficacy of each treatment must be measured and made available to DFO AMD as per COL or upon request.
- For those sea lice management tools that increase risk of incidental catch, the SLMP/SOPs must describe how the company will address these points:
 - the reasonable measures taken to avoid treating wild fish;
 - that all individuals involved in the treatment will be aware of the risk of treating wild fish;
 - contingency plan(s) in place to adjust their operations if wild fish are being treated; and
 - the immediate notification of the treatment of wild fish to the department, if it occurs.

APPENDIX 12: SEA LICE EVENT

Submit this report using the most recent structured data template provided by the Department. The following information must be included:

General Information:

- Licence Holder Name
- Facility Reference Number
- Facility Name

Report Details:

- Incident Date
- Occurrence Category, Secondary Occurrence Category
 - Threshold exceedance, Follow-up, Pre-treatment, Post in-feed treatment, Post mechanical removal or bath treatment, First pre-migration, Second pre-migration, First out-migration
- Number of Active Pens
- Sea Lice Sampling Details:
 - Pen ID
 - Reference Pen (Yes/No)
 - Counting Event Start Date
 - Pen sample Date
 - Number of Fish Sampled
 - Sampling Method
 - Box seine, Full seine, Dipnet-feed, Weights, Harvest, Brood sort, Visual estimate, Fresh carcass, Cull/mort event, Other - explain
 - Number of Adult Female *L. salmonis*
 - Number of Motile *L. salmonis*
 - Number of Chalimus
 - Number of Motile *Caligus*
 - Current Inventory
 - Average Motile Lice
- Over Threshold (Yes/No)
- Planned Mitigation Category (if applicable)
 - Bi-weekly Counts, Medicinal Bath Treatment, Non-medicinal Bath Treatment, In-feed Treatment, Mechanical Removal, Harvest, Reduce inventory, Other – explain
- Mitigation Description

GUIDANCE:

Incident Date: For any Counting Event or All Pen Counting Event, as specified in the conditions of licence, the date on which the final pen was sampled.

Occurrence Category: The PRIMARY and SECONDARY reasons for the Counting Event.

- **Threshold exceedance** – A Counting Event or All Pen Counting Event identifies a sea lice abundance that exceeds the threshold of motile *L. salmonis* per fish.
- **Follow-up** – A Counting Event or All Pen Counting Event requirement following a threshold exceedance or Pre-treatment sampling.
- **Pre-treatment** – An All Pen Counting Event performed prior to a Sea Lice Mitigation event.
- **Post in-feed treatment** – An All Pen Counting Event performed within 28 days of completion of an in-feed treatment.
- **Post mechanical removal or bath treatment** – An All Pen Counting Event performed within 7 days following a mechanical removal or bath treatment.
- **First pre-migration** – A Counting Event performed in the first half of the month of February.
- **Second pre-migration** – A Counting Event performed in the second half of the month of February.
- **First out-migration** – An All Pen Counting Event performed in the week of March 1-7th

Counting Event Start Date: For any Counting Event or All Pen Counting Event, as specified in the Conditions of Licence, the date on which the first pen was sampled.

Current Inventory: The number of fish at the facility on the Incident Date.

APPENDIX 13: Sea Lice Monitoring Protocols

(Protocols applicable for Atlantic salmon and trout only)

Definitions

Lice life stages

Lepeophtheirus salmonis
(*Leps*)

Adult female

Includes adult female lice, with egg strings (i.e. gravid) or without egg strings

Motile Lice

Includes all ‘not permanently attached’ free-moving life stages:

Adult females (as above)

Adult males

Pre-adult male and female lice

Caligus sp.

Total numbers of motile *Caligus* species

Both of the above

Chalimus

Attached early stages of both *Caligus* and *Lepeophtheirus* species. Both species are categorized simply as chalimus since louse identification at these early life stages is not practical at the facility.

Broodstock

Broodstock may initially enter saltwater directly into designated broodstock pens, or be entered to a production farm and later become designated broodstock populations, yet remain at the production farm or be relocated to broodstock facilities.

1. Sea Lice Sampling Protocols – Production Year classes one and two

1.1. Other than the exemptions of Conditions of Licence section 6.11, sampling at each facility shall be conducted in a minimum of three containment structures, i.e. pens, or when there are fewer than three pens, all containment structures.

Pens chosen for a counting event shall include:

- (a) one “reference” or “index” pen (i.e. first pen entered in the system, or the pen with the highest probability of having lice burden based on historical facility information). The fish from this pen are assessed EVERY Counting Event; and
- (b) additional pens selected at random for each counting event.
- (c) notwithstanding Conditions of Licence section 6.11 (a), a Counting Event must occur within a five Day period and an All Pen Counting Event must occur within a seven Day period; that is the time between conducting lice counts from the first pen to the last pen.

1.2. In order to ensure a random sample of fish are collected from the pen:

- (a) numerous fish shall be initially captured using a seine net (or alternate method provided it ensures a representative collection of the pen’s entire population).

(b) a minimum sub-sample of 20 live fish (e.g. five groups of four fish) shall be randomly collected using a dip net.

1.3. Fish shall then be placed in an anaesthetic bath (i.e. 'tote') or humanely euthanized (e.g. in cases where biological sampling is lethal).

1.4. Physical handling shall be minimized to protect the fish and avoid dislodging lice.

1.5. All sampled fish shall be examined for the presence of lice regardless of the health status or size (i.e. robust, moribund or runt).

1.6. Sea lice on each selected fish shall be discriminated, counted and recorded for reporting in the following four categories:

- Adult Lep females (with or without egg strings)
 - Other motile Leps (including adult males, and preadults)
 - Chalmus (non-motiles, regardless of species), and
 - *Caligus* (combined totals of adults and preadults)
- } Motile

1.7. When sampling of each pen is completed, water in the anaesthetic tote shall be examined for detached sea lice. Lice dislodged and found within the handling totes must also be counted and categorized in the manner above, recorded as the 'tote count,' and included in the calculation of the total lice number (per pen) and average abundance (per fish).

2. Sea Lice Sampling Protocols for Broodstock

2.1. Broodstock shall be sampled in the same manner as production fish until their second winter at sea (i.e. the broodstock pens may be selected in the normal course of selecting three pens on the farm during the month for sampling including bi-weekly counts). If a broodstock pen is randomly selected, 20 fish shall be sampled.

2.2. In January/February of their second and subsequent winters at sea:

- a) a broodstock population on broodstock facilities shall be selected for sampling. Twenty broodstock from one pen shall be assessed.
- b) a broodstock population at production facilities, that are of a different year class than the production fish at that same location, shall be selected for sampling. Twenty broodstock from one pen shall be assessed.

2.3. After January/February of the year in which those brood are anticipated to spawn as two-winter brood, and to reduce handling-related injuries and stress on broodstock:

- (a) all sea lice monitoring shall be conducted opportunistically (or via other husbandry sampling). In other words, all sea lice monitoring shall be

coordinated with other routine broodstock Handling Events, such as sorting, moving or medicating.

- (b) broodstock shall be subject to a visual inspection twice per month for the presence of sea lice and any associated grazing blemishes and observations recorded.

3. Licence Holder Recording and Reporting Requirements

3.1 Licence holder's records shall contain the following information for reporting as per Condition of Licence section 6 and Appendix 12 and 14. The records shall contain the following:

- a) date and details of the most recent use of anti-sea louse treatments;
- b) sampling date of each pen count;
- c) year class of the sampled fish;
- d) unique pen identifier;
- e) number of fish sampled for each pen for each counting event;
- f) sampling method used;
- g) total number of lice counted, per pen (including the detached lice in the anaesthetic bath);
- h) lice counts separated into four categories as described above (at a minimum); and
- i) action taken if calculated trigger abundances are reached.

3.2 Calculated Pen averages, Counting Event averages, and Farm Abundance records shall be stored at the facility and made available upon request by the Department.

3.3 Reporting "null" (0) in Appendix 14 and an explanation is required if no lice monitoring was undertaken at an active production facility.

APPENDIX 14: SEA LICE REPORT

Submit this report using the most recent structured data template provided by the Department. The following information must be included:

General Information:

- Licence Holder Name
- Reporting Year
- Reporting Period (Month)

Report Details:

- Facility Reference Number
- Facility Name
- If No Sampling, Reason
 - Harvest ongoing, Fallow, Recent transfer, Emamectin < 21d, Meds ongoing, Environmental, Pathogen Threat, H2O2, Other – explain
- Sea Lice Sampling Details:
 - Sampling Event Start Date
 - Pen ID
 - Reference Pen (Yes/No)
 - Final Sea Water Entry Date
 - Pen Sample Date
 - Number of Fish Sampled
 - Sampling Method
 - Box seine, Full seine, Dipnet-feed, Weights, Harvest, Brood sort, Visual estimate, Fresh carcass, Cull/mort event, Other – explain
 - Number of Adult Female *L. salmonis*
 - Number of Motile *L. salmonis*
 - Number of *Chalimus*
 - Number of Motile *Caligus*
 - Average Adult Female *L. salmonis* per fish
 - Average Motile *L. salmonis* per fish
 - Average *Chalimus* per fish
 - Average Motile *Caligus* per fish
- Action Taken
 - None required, Bi-weekly counts, Harvesting, Harvest pending, Treatment ongoing, Treatment pending, Culled, Cull pending, Other – explain
- Start Date (if Rx or PC approval, if applicable)

APPENDIX 15 – Escape Prevention And Response Management Plan

Escape Prevention through Maintenance of Cage and Net Integrity

A – General Equipment Design, Use and Maintenance

1. The licence holder must ensure all containment structures (including net pens), nets, cage support systems and other system components such as weights, anchoring equipment and predator nets shall be designed, constructed, installed, maintained and repaired in such a manner that preserves structural integrity and prevents escape of cultured fish resulting from damage caused by interactions with other equipment, the physical environment and marine mammals.
2. The licence holder must ensure that containment structures, cage support systems and other system components that are beyond repair are retired from service.
3. The licence holder must ensure all equipment is designed and constructed to be compatible with other containment structure components so there is no chafing that contributes to weak points in any part of the containment structure
4. The licence holder must ensure each net pen or similar structure used to contain fish has an inventory control number that is permanently affixed to the net in an accessible location.
5. The licence holder must ensure that all active net pens are attached to the cage support system as the primary point of attachment.
6. The licence holder must ensure that jump nets that extend at least one metre above the surface of the water are installed at the top of any net pen that does not have a permanently attached mesh top or similar barrier.
7. The licence holder must install containment nets and anti-predator nets in a manner that ensures nets are taut at all times.
8. At the request of the Department, the licence holder must demonstrate that net materials are strong enough to resist tearing and subsequent risk of fish escape.

B – Inspections and Record Keeping

9. The licence holder must ensure that nets are tested and inspected by a qualified individual for integrity and strength prior to being installed at facilities, and again when they are removed from the water and prior to re-installation. The requirements for this complete out-of-water servicing and inspection of net pens are as follows:
 - a. Complete visual inspections of the entire net pens must be completed for signs of abrasions, tears or holes;
 - b. Any damage to the net pen must be repaired;

- c. The net strength must be tested for new nets and assessed and tested as appropriate for operational nets; and
 - d. Records kept as per section 12 of this licence.
- 10. The licence holder must ensure that daily above-water visual inspections are conducted of active net pens, support systems, anchoring system and anchoring-line buoy orientation, and that any damage or irregularities which increase the risk of escape are corrected or repaired immediately and records kept as per section 12 of this licence.
- 11. The licence holder must ensure that complete underwater inspections and repair of active net pens and any similar structures that contain fish take place as follows:
 - a. Inspections are conducted by divers; or
 - b. If an alternative method is used, at the request of the Department, the licence holder must demonstrate that the inspection quality is comparable to diver method; and
 - c. Inspections must occur prior to fish entry;
 - d. Active nets must be inspected at least every 60 days;
 - e. In addition to paragraph 11(d), active nets must be inspected immediately after any operational activity or event that increases the risk of net failure, including but not limited to: harvesting, grading, extreme environmental conditions, net pen changes, fish delivery, recurring predator interactions, vandalism or towing of active containment structure;
 - f. Any damage or irregularities identified which increase the risk of escape are corrected or repaired immediately, and
 - g. A record of these inspections and repairs shall be kept as per section 12 of this licence.
- 12. The licence holder must ensure that complete written records are maintained for the entire life of each net pen and available for inspection by the Department, including:
 - a. Owner of net and inventory control number;
 - b. Net fabricator and date of net fabrication;
 - c. If different from paragraph 12 (b), containment pen manufacturer's name and date produced;
 - d. Size and gauge of mesh and dimensions of net pen;
 - e. If applicable, the date of net retirement;
 - f. Type and date(s) of any anti-foulant treatment on nets;
 - g. Accumulated in-water service time;
 - h. Initial and operational out-of-water servicing and inspection information as per section 9 of this Appendix, including:
 - i. Date and location of testing;
 - ii. Company and name of person conducting the test;
 - iii. Whether net was tested wet or dry;
 - iv. Approximate ambient temperature at test;
 - v. Breaking strength test results for each location tested along with manufacturer's published mesh-breaking strength; or

- vi. If an alternate net technology is used where net breaking cannot occur or there is no manufacturer mesh-breaking information, a description of the alternate testing methodology must be provided; and
 - vii. General comments and notes on overall condition of net;
 - i. The accumulated time-in-water since the most recent complete out-of-water servicing and inspection;
 - j. Details and the dates of each inspection under section 10 of this Appendix, including:
 - i. Date and person conducting inspection;
 - ii. Irregularities noted;
 - k. Underwater inspection information as per section 11 of this Appendix, including:
 - i. Method of inspection;
 - ii. Diver or other professional's name and company;
 - iii. Date of inspection;
 - iv. Purpose of inspection (eg. routine, following an event, etc.);
 - l. A description and the dates of all repairs, including reasons for repairs, made to the net cage following any kind of inspection must be recorded.
- 13. The complete net record as per section 12 must be kept at the facility where it is in use during the life of the net, and following net retirement, must be retained for at least one year and kept at the licence holder's head office.

C – Escape Prevention and Response Plans (EPRP)

- 14. The licence holder must have in place an Escape Prevention and Response Plan (EPRP) describing the response to a fish escape or suspected escape including, but not limited to:
 - a. The means to prevent further escapes;
 - b. The means to recapture any fish that have escaped containment nets but still within the perimeter netting;
 - c. The means to contain any fish that have escaped and are in the vicinity of the facility (excluding the use of fishing gear such as seines or gillnets but could include equipment like dip nets which would reduce the risk of incidental catch);
 - d. The means to rectify the deficiency that caused the escape;
 - e. Required recording and reporting of escape information; and
 - f. Equipment and location of equipment required for escape response.

APPENDIX 16: ESCAPE NOTIFICATION FORM

Submit this report using the most recent structured data template provided by the Department.
The following information must be included:

General Information:

- Licence Holder Name
- Facility Reference Number
- Facility Name
- Contact Name
- Contact Phone Number
- Contact Email

Report Details:

- Escape Information:
 - Escape Date
 - Incident Time
 - Escaped Species (Common Name)
 - Estimated Number Escaped
 - Average Weight (grams)
 - Date Stocked
 - Stock Source Facility Name
 - Incident Cause
 - Planned Mitigation Measures
- Drug Information:
 - Drug Administered
 - No Drug, Oxytetracycline, Florfenicol, Tribriksen, Romet, Emamectin, Erythromycin, TMS, Metomidate, Clove Oil, Other-explain
 - Treatment Start Date
 - Treatment End Date
 - Prescribing Veterinarian Name
 - Prescribed Withdrawal Period
 - Inventory Lots Treated

APPENDIX 17: INCIDENTAL CATCH AND WILD MORTALITIES

Submit this report using the most recent structured data template provided by the Department. The following information must be included:

General Information:

- Licence Holder Name
- Facility Reference Number
- Facility Name
- Final Date of Harvest if available/if applicable

Report Details:

- Event Type
 - Incidentally Caught Fish Event: Harvest, Handling, Transfer, Treatment, Net Observation, Processing Plant
 - Wild Mortality Event: Net observation or Carcass Recovery
- Date of Catch OR Month and Year of Catch
- Species Common Name
- Species Scientific Name
- Estimated Number Released (Pieces)
- Number of Mortalities (Pieces)
- Average Weight (grams)
- Pacific Herring Spawn on facility infrastructure (if applicable)
 - Extent (sq meters)
 - % per sq meter

APPENDIX 18: MEGafauna INTERACTION MANAGEMENT PLAN

Company	
Location	
Facility Ref. #	
Date of Submission	

The Megafauna Interaction Management Plan is intended to describe policies, procedures, infrastructure, and other measures aimed at mitigating conflict with megafauna at marine finfish aquaculture facilities including those resulting from entanglements and entrapments. Please note that different procedures may need to be written for sea otters, pinnipeds, cetaceans <2m, cetaceans >2m, turtles, leatherback turtles, different shark species, and species at risk. The following document is to be completed for each site and must include completed entries for each of the sections listed. Licence holders may submit a plan for multiple facilities provided mitigation measures are identical for all those facilities. The list of these facilities should be provided on the first page of the plan.

Outline:

1. Mitigation
 - a. Infrastructure
 - i. Anti-Predator Nets, type, height, depth, location, etc (Diagram)
 1. Mesh size, material
 2. Maintenance schedule
 - a. Inspection
 - b. Repair
 - ii. Perimeter Fencing (including electric fencing)
 1. Type and distribution
 2. Maintenance Schedule
 - a. Inspection
 - b. Repair
 - b. Non-Lethal Deterrents
 - i. Approved Devices
 1. Procedures
 2. Staff Training
 - c. Interaction Recording Standard Operating Procedures
 - i. Templates/Forms
 1. Procedures
 2. Staff training
 - ii. Photos/Video
 1. Procedures
 2. Staff Training

2. Site Specific Recommendations
 - a. Company Policy
 - b. Site Policy

APPENDIX 19 - Megafauna Deterrent Use Management Plan

This document provides guidance and rules for licence holders on the use of non-lethal deterrents (NLDs) for Megafauna. Scientific literature, interviews with licence holders, scientific reviews of NLDs, and guidance provided by other jurisdictions have been consulted to produce this management plan.

This document takes into consideration: 1) the precautionary principle; 2) the requirement to prevent interactions between Megafauna and marine finfish aquaculture Facilities; 3) the spectrum of opinions on the use, impact, effectiveness, and social acceptability of different megafauna deterrents; 4) the changes that may occur in the severity of Megafauna interactions with marine finfish aquaculture facilities over time. With respect to these considerations, the Aquaculture Management Division (AMD) is authorizing the use of some deterrents not previously considered. Licence holders should understand that changes can be made to the use of NLD conditions and/or authorizations at any time.

For the sake of this document, Megafauna NLDs are sub-categorized into four groups: 1) exclusion devices; 2) active deterrents; 3) human deterrents; and 4) aggressive deterrents.

NLD Type	NLD Explanation	Examples of NLD
Exclusion Devices	Deterrents which exist and do not require operation.	Infrastructure components such as predator nets, perimeter fencing, and bird nets.
Active Deterrents	Deterrents which require a power source, but do not require operation.	Electrified fencing/wires and matting.
Human Deterrents	Deterrent action taken by an individual.	Loud noises (e.g. banging metal implements on infrastructure, using bear bangers and firing propane cannons), physical advances and boat hazing.
Aggressive Deterrents	Deterrents which elicit a pain, and/or stress response and, in some cases, may pose a risk of injury to Megafauna.	Chemical irritants used for animal control (e.g. non-toxic pepper spray), projectiles (e.g. non-toxic, water soluble paint ball or rubber pellets), and electrified implements (e.g. cattle prods)

1. Deterrent Usage

Suitably designed and properly installed infrastructure to prevent animals from accessing farm stock is universally agreed upon as the most effective means of preventing Megafauna interactions. Therefore, licence holders must have exclusion devices in place before any other NLD is used. NLDs must then be used in order of least impact to greatest impact. In order for a licence holder to use any aggressive deterrent, other NLD options for each subcategory must have been attempted during that production cycle and been found to be ineffective.

In addition, the Department will not authorize the use of aggressive deterrents if the licence holder has not utilized the best technology available to exclude Marine Mammals (e.g. a licence holder using nylon predator nets when there are other products available that have a greater capacity to deter animals, will not be authorized to use aggressive deterrents). If exclusion devices or active deterrents have been shown to repeatedly fail, it is expected that the licence holder will work to improve areas of failure. For example, if a jump, or perimeter fence, is not at an adequate height to prevent Megafauna from accessing netpen walkways and aggressive deterrents are used, it is the expectation of the Department that the licence holder will increase the height of the jump fence.

Deterrents will be utilized by the licence holder in the following manner:

- Exclusion devices must be in place before any other NLD can be used;
- Active deterrents must be used prior to using human deterrents;
- All categories of deterrents must be used prior to employing aggressive deterrents.

The Department does recognize situations where certain NLDs are not applicable and so, considerations will be made for those situations (e.g. jump fencing at Facilities using Polarcirkels netcages).

2. General Guidance

- Animals which are not considered Megafauna in the Marine Finfish Aquaculture Conditions of Licence (COL) are beyond the scope of this document (e.g. birds).
- With the exception of Exclusion Devices, NLDs are authorized for use to deter pinnipeds.
- Aggressive deterrents are authorized for use to deter California sea lions (CSL).
- NLDs will be used in such a way as to not cause Mortality or serious injury to an animal, which is defined as an injury that causes great harm and/or likely lead to the death of the affected animal. For example, a laceration of an animal's skin is considered a serious injury while a bruise is not. Additionally, any loss of sensory function is considered serious injury.
- Licence holders must propose the use of each deterrent intended for use in their Facility's Megafauna Interaction Management Plans (MIMPs) and the Department of Fisheries and Oceans (DFO) will work with industry to ensure that MIMPs meet the expectations of the Department and that those plans are compliant with MFF conditions of licence.

- If the rule that requires “lowest impact to highest impact” NLD usage cannot be followed, the licence holder must provide justification(s) in the MIMP
- NLDs must only be used within 30m of the netpen array(s) and barges, compensator buoys, and any other infrastructure moored directly to the netpen array; moored floats which are moored away from the netpens and barges, for this purpose are not considered part of the primary Facility infrastructure
- Only a Qualified Individual will be permitted to use an aggressive deterrent. Qualified Individuals must be identified in the Facility’s MIMP
- Aggressive deterrents may only be used when the Qualified Individual is on Facility infrastructure (e.g. not from a vessel). Larger vessels (e.g. harvest vessels or wellboats), for the sake of this application, may be considered infrastructure while moored to the Facility.
- Aggressive deterrents will target the area of least impact on the CSL (e.g. below the neck)
- For the use of aggressive deterrents which require a firearm, the Qualified Individual will:
 - possess a valid Federal Possession and Acquisition License and be able produce it upon request by the Department;
 - carry photo identification and current contact information, and in the case of a contractor, the business name, photo identification, and current contact information of the business owner and business and produce it upon request by the Department.
- Aggressive deterrent ammunition must be factory produced and the box available for inspection. The use of hand loads is not permitted.

3. Notification and Reporting of Aggressive Deterrent Use

- Prior to use, the licence holder will contact the Department to confirm their intention to use an aggressive deterrent and provide:
 - a synopsis of the situation that warrants the use of aggressive deterrents which will include as much information as possible, such as, but not limited to, the current CSL interactions/activities, the NLDs used up to that point, and rationale for aggressive deterrent use;
 - proposed timing of the deterrent use; and
 - the identity of the Qualified Individual and their contact information (e.g. email; phone number, etc.)
- Within seven Days of the end of aggressive deterrent use the licence holder will provide the DFO a detailed account of the deterrent usage which will include:
 - dates and times of when the shooter attended the Facility and carried out the deterrent use;
 - the number of shots fired;
 - the type of ammunition used;
 - number of animals targeted; and
 - the outcomes and effectiveness of the effort.

APPENDIX 20: Megafauna Incident Report Form

Submit this report using the most recent structured data template provided by the Department. The following information must be included:

General Information:

- Licence Holder Name
- Facility Reference Number
- Facility name
- Contact Name
- Contact Phone Number
- Contact Email

Report Details:

- Incident Date
- Incident Time
- Fish on Site? (Yes/No)
- Average Weight (grams)
- Incident Type
 - Drowning, Entanglement, Entrapment
- Megafauna Species
 - California Sea Lion, Cetacean < 2m, Cetacean > 2m, Harbour Seal, Sea Otter, Shark, Turtle, Other
- Animal Condition
 - Fresh, Moderate-advanced decomposition, Live
- System Component
 - Containment Net, Predator Net, Shark Guard, Other
- Photos Taken? (Yes/No)
- Carcass Stored Pending DFO Advice (Yes/No)
- Animal Released (Yes/No)
- Carcass Discarded (Yes/No)
- Other Action Taken (Yes/No)
- Prior Mitigation Measures
- Incident Cause
- Corrective Measures Taken

APPENDIX 21: REMOVAL OF BIOFOULING REPORT

Submit this report using the most recent structured data template provided by the Department. The following information must be included:

Biofouling:

- Facility Name
- Facility Reference Number
- Site Contact Person
- Culture Species
- Telephone Number
- Date
- Cleaning Equipment/Procedure
- Nets/Infrastructure
 - Type
 - Number
 - Cumulative Area (m²)
 - Anti-foulant Type
 - Date of Application
- Average Size of Mussels >2cm

APPENDIX 22: Annual Aquaculture Statistical Report

Submit this report using the most recent structured data template provided by the Department. The following information must be included:

General Information:

- Licence Holder Name
- Reporting Year

Report Details:

- Facility Reference Number
- Facility Name
- Operating Next Year (Yes/No)
- Stock Year End (List Species)
- Harvest For Food Market Sales (Round, Yes/No)
 - Species Common Name
 - Quantity (kg)
 - Total Value (CDN)
 - Processor Names
- Sales For Restocking or Ongrowing? (Yes/No)
 - Species Common Name
 - Life Stage
 - Eggs/Milt, Juveniles/Smolts, Adults
 - Number Sold in BC
 - Number Exported
 - Total Value (CDN)

APPENDIX 23: Use Of Lights

Submit this report using the most recent structured data template provided by the Department. The following information must be included:

General Information:

- Licence Holder Name
- Reporting Year

Report Details:

- Facility Reference Number
- Lights Used? (Yes/No)
 - Type
 - Metal Halide, LED, Halogen, Other
 - Intensity (Watts)
 - Timeline Start Date
 - Timeline End Date
 - Sunset to Sunrise (Yes/No)
 - Number of lights per pen
 - Number of pens at the site using lights