



Freshwater Aquaculture Licence 2010

Licensed for: Aquaculture

Date Issued: «DATE_ISSUED»

LICENCE No: AQFW «LICENCE_NUMBER» 2010

Expiry Date: «EXPIRY_DATE»

ISSUED TO:

«LICENCE HOLDER»
«ADDRESS»
«CITY_PROV»«POSTAL_CODE»
Phone: «Phone»
Fax: «Fax»

This licence is 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.

The above licence holder is authorized by this licence to carry on the business of aquaculture at following location and for the following species:

Site:

Site Reference Number	Location and Legal Description
«SITE_REF_NUMBER»	Site: «SITE_NAME» Legal Description: «LEGAL_PID» Land File #: «LANDFILE_NUMBER» (if applicable) Facility Type: «FACILITY_TYPE»

Licensed Species

Species common (<i>species latin</i>)	
1	«SPECIES_1»
2	«SPECIES_2»
3	«SPECIES_3»
4	«SPECIES_4»
5	«SPECIES_5»
6	«SPECIES_6»
7	«SPECIES_7»

Site and/or Species Specific Conditions:

«SECTION_B»

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

Compliance Advisory: Contravening a condition of this licence is an offence under the *Fisheries Act*.

It is the responsibility of individual licence holder to be informed of, and comply with, the *Fisheries Act* and the regulations made there under as well comply with all laws, bylaws and orders of any competent government authorities which affect the aquaculture facility described herein, in addition to these conditions.

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PART A. Definitions

“Containment structures” are net pens, bag cages, tanks or similar structures used to contain fish for the purposes of aquaculture.

“Containment array” means a group of containment structures physically attached to each other or in the case for circular structures, up to a maximum of 60 metres apart.

“Department” means the Department of Fisheries and Oceans.

“Facility” means the collective structures used under this licence for the purposes of aquaculture.

“Fish” includes (a) parts of fish, (b) shellfish, crustaceans, marine animals and any parts of shellfish, crustaceans or marine animals, and (c) the eggs, sperm, spawn, larvae, spat and juvenile stages of fish, shellfish, crustaceans and marine animals.

“Fish habitat” means spawning grounds and nursery, rearing, food supply and migration areas on which fish depend directly or indirectly in order to carry out their life processes.

“Introduction” means the transport and release of live fish (seed, spat, eggs, juveniles or adults) into waters outside their present range, and includes movement of fish from a hatchery or other fish breeding or holding facility to the marine environment.

“Introductions and Transfers Committee” means the Federal Provincial joint committee responsible reviewing applications for the introduction and transfer of fish and providing recommendations regarding issuance of the associated licence.

“Major mortality event” means a significant number of fish mortalities caused by life support failure or through intentional destruction.

“Management Plan” means a facility-specific description of the infrastructure and mode of operation for each cultivated species and location specified on the face of the licence.

“Qualified individual” means an individual employed by or contracted by an aquaculture company who possesses a combination of knowledge, expertise and experience necessary to complete the task and who can provide an attestation to the integrity of new or amended facilities.

“Riparian vegetation” means the trees shrubs and grasses in the areas that border on streams lakes and wetlands that link water to land.

“Stock” means a group of fish from one production cycle that are defined by the system of origin, species, and run timing.

“Transfer” means the movement of individuals of a species or population of live fish from one location to another within its present range and includes transfers to or from a hatchery or other fish breeding or holding facility.

PART B. General Conditions of Licence

1. Application and Licensed Species

- 1.1 This licence authorizes the licence holder to cultivate and harvest the species listed as part of the “Species” section on the face of this licence.
- 1.2 This licence, or a copy of it, shall be kept on-site and available for inspection by the Department.

2. Management Plan

- 2.1 The licence holder shall submit a Management Plan including all the template elements set out in Appendix I (Elements of a Management Plan) to the Department for approval not later than March 31st, 2011.
- 2.2 The licence holder shall comply with all requirements set out in the Management Plan.

3. Introduction or Transfer of Fish

- 3.1 The licence holder shall ensure that all permits required for the importation, transport and transfer of fish at any stage of the culture and husbanding process are acquired prior to the activity commencing.
- 3.2 The licence holder may transfer fish to or from a facility possessing a valid aquaculture licence within the same salmonid transfer zone (Appendix II - Map of Salmonid Transfer Zones) to this facility provided;
 - (a) the species(s) being transferred are the same as those licensed by this document;
 - (b) the number of mortalities in any stock reared at the source facility have not exceeded 1% per day due to any significant disease (Appendix III – List of Significant Diseases), for any four consecutive day period during the rearing period;
 - (c) no stock at source facility has a disease listed in Appendix III requiring treatment;
 - (d) no stock at the source facility is known to have had any disease listed in Appendix III or other infectious agents of concern to the Department; and
 - (e) a copy of this aquaculture licence shall accompany all transfers of fish to and from this facility for within zone transfers.

- 3.3 For transfers between salmonid transfer zones or for transfers of non-salmonid species or where conditions 3.2 (a), (b), (c), and (d) cannot be met, a separate licence is required.
- (a) Application for the licence described in s.3.3 shall be made to the Department, and approval shall be granted prior to shipment.
 - (b) A copy of the licence described in s.3.3 shall accompany all transfers of fish to and from the licensed facility.
- 3.4 The licence holder shall not discharge water from any shipping container into public waters when transporting fish overland.

4. Fish Health

- 4.1 The licence holder shall ensure that the fish cultivated in the licensed facility are given care and attention consistent with their biological requirements.
- 4.2 The licence holder shall undertake reasonable and lawful husbandry practices necessary for preventative disease control.
- 4.3 The licence holder shall keep complete and accurate records of animal health in the licensed facility, including outbreaks of disease and resulting treatments and preventative measures (for sample record form, see Appendix VII).
- 4.4 The licence holder shall immediately notify the Department if,
- (a) unexplained mortalities
 - (i) account for more than 5% of the total number of fish deaths on site within a 24 hour period; or
 - (ii) account for more than 2% of the total number of fish deaths on site within a maximum 5 day period; or
 - (b) there is suspected presence of infectious disease.
 - (c) The notification required under s.4.4 shall be mailed, faxed, or emailed to the Department.

5. Fish Mortalities

- 5.1 The licence holder shall have procedures to deal with major mortality events as part of his/her Management Plan, including:
- (a) the regular collection of mortalities and transferral to sealed containers to prevent leachates from entering receiving waters;

- (b) the regular collection of stored mortalities and transferral to approved disposal or processing facilities;
 - (c) cleaning and disinfection of mortality storage containers or other handling facilities should follow the direction provided by Departmental Veterinarians; and
 - (d) disposing of fish carcasses in fish habitat is not permitted by this licence.
- 5.2 The licence holder shall take all reasonable measures to prevent the attraction of predators to farmed fish mortalities.
- 5.3 The licence holder shall report major mortality events within 24 hours of the event, including the weight in kilograms, to the Department by email or fax.

6. Escape Prevention and Reporting

- 6.1 All equipment, materials and structures employed at the facility must be designed, constructed, installed, inspected, and maintained in a manner that prevents escapes from the facility.
- 6.2 The effluent stream shall be screened in a manner that prevents the loss of any fish through the effluent stream.
- 6.3 The licence holder shall ensure that employees, agents of the licence holder or contractors do not deliberately release cultured fish from the facility.
- 6.4 The licence holder shall ensure that any escape, suspected escape, or evidence of escape of cultured fish from the facility is verbally reported with as much of the detail set out in s.6.6 as possible, within 24 hours to the Department's Observe, Record and Report (ORR) phone line at 1 (800) 465 4336.
- 6.5 The licence holder shall provide a written report of the event reported under s.6.4 not later than seven (7) days following the event to the Department.
- 6.6 A written report made under s. 6.5 must include:
- (a) the date, estimated time and location of the escape or suspected escape;
 - (b) the species and estimated number of fish that escaped or may have escaped;
 - (c) the cause or suspected cause of the escape or suspected escape;
 - (d) the calendar year in which the fish were stocked at the aquaculture facility;
 - (e) the average weight of the fish that escaped or may have escaped;

- (f) the rearing facility from which the fish were received by the licenced facility;
and
- (g) a record of each drug administered to the fish including:
 - (i) the name of the drug;
 - (ii) the period of administration, including the dates of commencement and completion of the drug treatment;
 - (iii) the name of the prescribing veterinarian;
 - (iv) the prescribed withdrawal period, and
 - (v) identification of the lots of fish treated.

7. Annual Aquaculture Statistical Report (AASR)

- 7.1 The licence holder shall complete and submit the AASR (Appendix IV) for each calendar year to the Department not later than January 25th of the following year at the following email address:

fishstats@dfo-mpo.gc.ca

8. Effluent Discharge

- 8.1 The licence holder shall meet the same requirements as those previously required by Provincial authorization, unless otherwise directed by the Department.

9. Predator Control

- 9.1 The licence holder shall undertake all reasonable and lawful husbandry practices necessary for preventative predator control, in compliance with all applicable bylaws, regulations and statutes.

10. Administrative Matters

- 10.1 To amend any Management Plan referred to in these conditions, the licence holder shall submit a request to the Department prior to implementation.
- 10.2 The licence holder shall not begin operation under an amended Management Plan until the Department has approved it, and issued an amendment to this licence.
- 10.3 The licence holder shall keep all records required by these conditions in the following manner:

- (a) accessible, legible and protected from damage, and
 - (b) in either electronic or paper versions.
- 10.4 Unless otherwise noted in specific licence conditions, all other reports and submissions required by this licence shall be submitted by e-mail, Fax or mail to:

Aquaculture Management Division
Pacific Region, Fisheries & Oceans Canada
#200/#1410 – 401 Burrard Street
Vancouver, BC, V6C 3S4
Fax: (604) 666 1076
Email: Freshwater.Aquaculture@dfo-mpo.gc.ca

Requirements Pertaining only to Hatcheries Rearing Fish for Marine Grow Out

Note 1 - The licence holder shall abide by the following conditions, **ONLY** if the licensed facility is a hatchery, rearing fish destined for marine grow-out.

11. Fish Health

- 11.1 Licence holders culturing salmonids shall have in place and follow the Fish Health Management Plan (FHMP) containing the elements listed in Appendix V.
- 11.2 The licence holder shall identify a facility veterinarian. The veterinarian, in conjunction with facility fish health staff, is responsible for overall fish health management, for leading responses to fish health emergency events, and for disease diagnoses and writing prescriptions.
- 11.3 No salmonids shall be introduced to the facility except in accordance with the FHMP and the requirements set out in Section 14 (Transfer of Fish).
- 11.4 The FHMP shall be kept current by the licence holder and any amendments to the FHMP shall be submitted to the Department for approval annually not later than February 15.
- 11.5 The licence holder shall ensure that the fish cultivated in the facility are given care and attention consistent with their biological requirements.
- 11.6 When major losses are occurring, or on suspicion of infectious disease, the licence holder shall ensure that the veterinarian and/or fish health staff:
 - (a) are immediately notified;
 - (b) take action to manage the event;
 - (c) undertake follow-up measures to determine the cause of the outbreak and the efficacy of the management measures; and
 - (d) implement a response plan to contain an infectious disease if suspected or diagnosed.

12. Effluent Discharge

- 12.1 The licence holder shall meet the receiving environment standards, found in the Canadian Council of Ministers of the Environment (CCME) Water Quality Guidelines.

13. Inventory Plans

13.1 The licence holder shall submit the inventory plan for this facility for the current calendar year using the template set out in Appendix VI (Licence Holder Inventory and Stock Transfer Plan) not later than March 31, 2011. This plan shall be sent for approval to the Department.

Note: This plan will be required annually not later than January 15th in 2012 and subsequent years.

14. Transfer of Fish

14.1 The licence holder may transfer to this facility live Atlantic or Pacific salmon fish and/or eggs from a facility possessing a valid aquaculture licence issued pursuant to Section 3 of the Pacific Aquaculture Regulations within the same salmonid transfer zone (Appendix II: Map of Salmonid Transfer Zones), provided:

- (a) the species of live salmonid fish and/or eggs are the same as those listed on the face of this licence, and
- (b) the licence holder has obtained written confirmation, executed by the source facility's veterinarian or fish health staff, that, in his/her professional judgment:
 - (i) mortalities in any stock reared at the source facility have not exceeded 1% per day due to any diseases listed in Appendix III, for any four consecutive day period during the rearing period;
 - (ii) no stock at source facility has a clinical disease listed in Appendix III requiring treatment; and
 - (iii) no stock at the source facility is known to have had any diseases listed in Appendix III.
 - (iv) Where conditions 14.1 (b), (ii), and (iii) cannot be met, the facility veterinarian has conducted a risk assessment of facility fish health records, review of diagnostic reports, evaluation of stock compartmentalization, and related biosecurity measures.

14.2 A copy of the written confirmation described in licence condition 15.2(b) shall:

- (a) be kept on-site and available for inspection; and
- (b) except for movement of harvested fish, a copy of the written attestation shall accompany all shipments of fish to and from this facility.

- 14.3 For transfers between salmonid transfer zones or for transfers of non-salmonid species or where the above conditions cannot be met, a separate licence is required. Application for this licence shall be made to the Department and approval granted prior to shipment.
- 14.4 If there are stock transfer plan changes that deviate from the inventory plans as given in Section 3 of the template Licence Holder Inventory and Stock Transfer Plan (Appendix VI), the licence holder shall notify the Department not less than 10 days prior to the transfer of fish to the aquaculture facility, of the following:
- (a) the source of fish;
 - (b) the age/life stage of fish being transferred;
 - (c) the quantities of fish being transferred;
 - (d) the destination of fish being transferred; and
 - (e) the proposed date of transfer.
- 14.5 The notification shall include a copy of the written confirmation described in Section 15.1(b).

15. Fish Stocking, Fish Health and Therapeutant Use

- 15.1 The licence holder shall keep complete and accurate records of stocking activity and fish health for the facility, including the following:
- (a) inventory records (including source, number, location and lot of fish at the site);
 - (b) mortality records including classification and morbidity records;
 - (c) signs of increased morbidity;
 - (d) fish health monitoring observations (routine and during handling and other activities that may cause stress);
 - (e) biosecurity-related records;
 - (f) records of fish health events;
 - (g) records of major mortality events;
 - (h) samples taken and laboratory analysis related to fish health;
 - (i) surveillance and diagnostic sampling records;

- (j) water quality records;
- (k) records of mitigative actions (other than therapeutants) taken to prevent or mitigate disease
- (l) all veterinarian or fish health staff reports; and
- (m) records of reporting fish health information to Federal authorities.

15.2 The licence holder shall maintain records of the use of all therapeutants for the licensed facility including the following:

- (a) the aquaculture licence number and the name of holder;
- (b) the species of fish cultured on site;
- (c) the name of the prescribing veterinarian;
- (d) a log naming all drugs administered (therapeutants);
- (e) how therapeutants were administered and dosage;
- (f) the treatment schedule including the date treatment commenced;
- (g) the date of last treatment;
- (h) the name and signature of the person responsible for administering each treatment;
- (i) the detailed records of medicated feed administration;
- (j) traceability information related to treated groups that allows them to be readily identifiable through treatment and withdrawal times;
- (k) treated fish movement records; and
- (l) any mixing of treated fish into non-treated fish on site. If this occurs, the mixed group of fish will be recorded and handled as if all were treated.

15.3 The licence holder shall provide training to site personnel to support accurate and consistent observations and recording of fish health information and maintain records of this training.

15.4 The licence holder shall ensure fish health records are reviewed by the licence holder's veterinarian and/or fish health staff to look for patterns in fish health and disease. These reviews shall be documented and kept as part of the fish health records.

- 15.5 The licence holder shall ensure that fish health records for this facility are kept and made available upon request of the Department.
- 15.6 The licence holder shall keep all records required by this licence in the following manner:
- (a) With respect to duration:
 - (i) On-site for the duration of the production cycle; and
 - (ii) In a suitable location, on-site, in a corporate office, or other accessible storage off-site for a minimum of four additional years.
 - (b) accessible, legible and protected from damage; and
 - (c) in either computerized or paper versions.

Requirements Pertaining only to Lake Net Pen Facilities

Note 1 - The licence holder shall abide by the following conditions, **ONLY** if the licensed facility is a Lake Net Pen facility.

16. Facility Installation and Inspection

- 16.1 The licence holder shall submit to the Department by March 31, 2011, a written attestation completed by a qualified individual confirming that the facility design, equipment and systems are designed and installed in such a way and using such equipment as to be able to withstand the prevailing oceanographic and/or meteorological conditions of the licenced location.
- 16.2 A copy of the written attestation described in s.17.1 above must be kept on site and available for inspection.
- 16.3 Licence holders must monitor, evaluate and maintain containment structures, including support systems, in order to prevent escapes and to detect and respond to any escapes in a timely manner.
- 16.4 Daily above-water visual inspections of active cage support systems including, anchoring-line buoy orientation and the general integrity of the anchoring system must be conducted at all net pen aquaculture facilities.
 - (a) A record of the daily visual inspection and any repairs made under this section must be made and a copy of the record must be retained at the facility for one year.

17. Containment Array Elements to Include in Management Plan

- 17.1 The licence holder shall submit the following elements pertaining to the containment array to the Department as part of his/her Management Plan, not later than March 31st 2011:
 - (a) For each anchoring option submitted for approval, the licence holder shall provide a brief description of how and when the configuration would be used and an Operational Layout Diagram of the configuration.
 - (b) An Operational Layout Diagram shall indicate area of:
 - (i) Intensive use encompassing net cages, netting, float camps, net storage, docks, mort sheds and other structures and will include a 30-metre buffer around these structures. This buffer is intended to cover the area where anchor lines are most likely to pose a restriction to navigation due to the scope and angle of lines closest to the structures.

- (ii) Extensive use including the area used for anchoring structures outside of intensive areas but that do not impede navigation or access to lands beyond (in other words, the portion of the tenure area not occupied by farm structures).
- (c) The Operational layout diagram must also, at a minimum, include one or more to-scale plan-view diagram(s) of the facility showing all the features in the following list, preferably at a 1:5,000 scale in order to capture the required features:
- (i) the tenure boundary (current and/or proposed);
 - (ii) the containment array(s) and/or other containment structures (indicate the maximum number of structures that may be installed);
 - (iii) anchor blocks and mooring lines (indicate the depth of anchor blocks);
 - (iv) navigational markers (required only if Navigable Waters Protection Act (NWPA) permit is already in place);
 - (v) potential navigational pathways through or around facility structures;
 - (vi) buildings and floats, including staff quarters (if applicable);
 - (vii) domestic water lines (if applicable);
 - (viii) mortality storage and net cleaning stations (if applicable);
 - (ix) bottom depth contours (in recommended 10- metre intervals from the lowest low-water mark (LLWM)) indicating source(s) of bathymetric data if not derived from Canadian Hydrographic Service charts;
 - (x) predominant current direction(s);
 - (xi) true north; and
 - (xii) Label diagram(s) as Figures.

17.2 A 1:2000 to-scale, side-view diagram of the containment array must be provided which, at a minimum, must illustrate and itemize all structures above the surface and include all underwater structures to a depth of 10 metres (required by Coast Guard for navigation purposes). The diagram does not need to show bathymetry, anchor lines or other structures below a 10-metre depth.

18. Inspections and Record Keeping

- 18.1 An underwater inspection, by divers or other comparable method must be conducted on any containment structures used to contain fish prior to the initial introduction of a new group of fish.
- 18.2 Active containment structures and similar structures used to contain fish must be inspected at least every 90 days by divers or other comparable method.
- 18.3 At the facility where the net or bag cage is deployed, holders must have a written maintenance record for each net or bag cage that includes:
 - (a) the inventory control number;
 - (b) the dimensions;
 - (c) the mesh size, if applicable;
 - (d) the record of the most recent complete out-of-water servicing and inspection;
 - (e) the accumulated time-in-water since the most recent complete out-of-water servicing and inspection;
 - (f) a description of and the dates of each inspection since most recent complete out-of-water servicing and inspection; and
 - (g) a description and the dates of all repairs, including reasons for repairs, made to the containment structure since the most recent complete out-of-water servicing and inspection.
- 18.4 Written maintenance records that were recorded prior to the last out-of-water servicing and inspection must be retained for six months after that out-of-water servicing and inspection.
- 18.5 Records for each net or bag cage must be kept on site, and retained for 1 year following retirement of the net or bag cage.

19. Boat Operations

- 19.1 The licence holder shall ensure that all boats in use at his/her aquaculture facilities are operated so as to prevent damage to containment structures and anchoring systems.
- 19.2 The licence holder shall post signs at designated docking stations for boats not involved in the cultivation of fish.
- 19.3 The licence holder shall post restricted use signs in those areas where boats not involved in the cultivation of fish are not permitted access.

20. Key Operational Activities

- 20.1 Licence holders shall deploy prevention-oriented predator control gear appropriate to the predator problems that can reasonably be anticipated at the licensed site (top nets or lines against birds/full enclosures against otter/mink).
- 20.2 Licence holders shall ensure that bird netting or bird line size, installation and spacing is sufficient to prevent birds from removing fish from pens, as well as to prevent the net from collapsing under adverse weather conditions.

Requirements Pertaining only to the Culture of Signal Crayfish

Note 1 - The licence holder shall abide by the following conditions, **ONLY** if the licence holder is licensed to culture signal crayfish.

Note 2 - Application for a SSSL must be made to the Introductions and Transfers Committee at famitc@dfo-mpo.gc.ca. Find further information and application forms at the website <http://www.dfo-mpo.gc.ca/aquaculture/regions/pac/introduction-eng.htm>

21. General Culture of Signal Crayfish

- 21.1 The licence holder shall ensure that all permits required for the importation, transport and transfer of fish at any stage of the culture and husbanding process are acquired prior to these activities commencing.
- 21.2 The licence holder shall not transfer signal crayfish unless a Specific Shellfish Transfer Licence (SSTL) has been issued prior to transfer.
 - (a) A copy of the SSTL shall accompany all shipments of fish to and from this licensed area.

Requirements Pertaining only to the Culture of Whiteleg Shrimp

Note 1 - The licence holder shall abide by the following conditions, ONLY if the licence holder is licensed to culture whiteleg shrimp.

Note 2 - Application for a SSTL must be made to the Introductions and Transfers Committee at famitc@dfo-mpo.gc.ca. Find further information and application forms at the website <http://www.dfo-mpo.gc.ca/aquaculture/regions/pac/introduction-eng.htm>

22. General Culture of Whiteleg Shrimp

- 22.1 The licence holder shall ensure that all permits required for the importation, transport and transfer of fish at any stage of the culture and husbanding process are acquired prior to these activities commencing.
- 22.2 The licence holder shall not transfer whiteleg shrimp unless a Specific Shellfish Transfer Licence (SSTL) has been applied for and issued prior to transfer.
- (a) A copy of the SSTL shall accompany all shipments of fish to and from this licensed area.
- 22.3 If a SSTL for whiteleg shrimp has been issued, the following conditions apply:
- (a) Licence holders shall have in place and follow a Fish Health Management Plan (FHMP). The licence holder shall submit to the Department any amendments to this FHMP annually.
- (b) Shrimp shall be held in enclosed, secure growing systems to prevent escapes of shellfish and parts of shellfish, including gametes, to natural waters.
- (c) Shrimp shall be processed at approved processing plants.
- (d) A source facility's fish health test records and specific pathogen-free certification must be approved by Introductions and Transfers Committee prior to transfer.
- (e) Waste material, transport water and effluent water shall be disinfected before disposal.
- (f) Containers and transport equipment shall be disinfected after use.
- (g) The license holder shall ensure that fish health checks during and after quarantine are carried out in compliance with the Introductions and Transfers Committee requirements.

Requirements Pertaining only to the Culture of Sturgeon

Note 1 - The licence holder shall abide by the following conditions, **ONLY** if the licence holder is licensed to culture sturgeon.

Note 2 - Application for a STL must be made to the Introductions and Transfers Committee at famitc@dfo-mpo.gc.ca. Find further information and application forms at the website <http://www.dfo-mpo.gc.ca/aquaculture/regions/pac/introduction-eng.htm>

23. General Culture of Sturgeon

- 23.1 The licence holder shall ensure that all permits required for the importation, transport and transfer of fish at any stage of the culture and husbanding process are acquired prior to these activities commencing.
- 23.2 The licence holder shall not transfer sturgeon unless a Specific Transfer Licence (STL) has been applied for and issued prior to transfer.
 - (a) A copy of the STL shall accompany all shipments of fish to and from this licensed area.
- 23.3 The licence holder shall rear sturgeon in covered tanks only to prevent removal and/or pathogen transfer by predators.
- 23.4 The licence holder shall ensure that all effluent water passes through a minimum of three levels of screening of an appropriate filter/screen size to prevent the smallest fish of the population from leaving the facility. Integrity of screening must be maintained at all times. Discharge to ground through exfiltration can be considered one level of screening.
- 23.5 Fish discovered between screening points shall be immediately removed.
- 23.6 Tracking Requirements for Sturgeon Licence Holders:
 - (a) For live cultured sturgeon destined for live market sales or restaurants:
 - (i) The licensed producer may not transfer live sturgeon to any person except to a person licensed to possess, transport or sell such fish.
 - (ii) All cultured sturgeon transferred live to market must have a tag or tags affixed that identify the producer of the fish and assign an individual number or code to each fish produced.

- (iii) Tags within each shipment must be numbered or coded individually so each fish can be unambiguously identified. Identifying numbers/codes shall be used only once. Tag numbers/codes used for different shipments shall not be sequential with the previous shipment.
- (b) The licensed producer must make and retain records for two years for each shipment of cultured sturgeon transferred live to market. These records must include:
 - (i) the tag identification number or code for each fish transported;
 - (ii) the date of transfer;
 - (iii) the name and licence number of the person to whom the fish were transferred;
 - (iv) total and estimated average weight of fish transported with each shipment and
 - (v) the medication history of each fish.

Requirements Pertaining only to the Culture of Tilapia and/or Barramundi

Note 1 - The licence holder shall abide by the following conditions, ONLY if the licence holder is licensed to culture tilapia and/or barramundi.

Note 2 - Application for a STL must be made to the Introductions and Transfers Committee at famitc@dfo-mpo.gc.ca. Find further information and application forms at the website <http://www.dfo-mpo.gc.ca/aquaculture/regions/pac/introduction-eng.htm>

24. General Culture of Tilapia and/or Baramundi

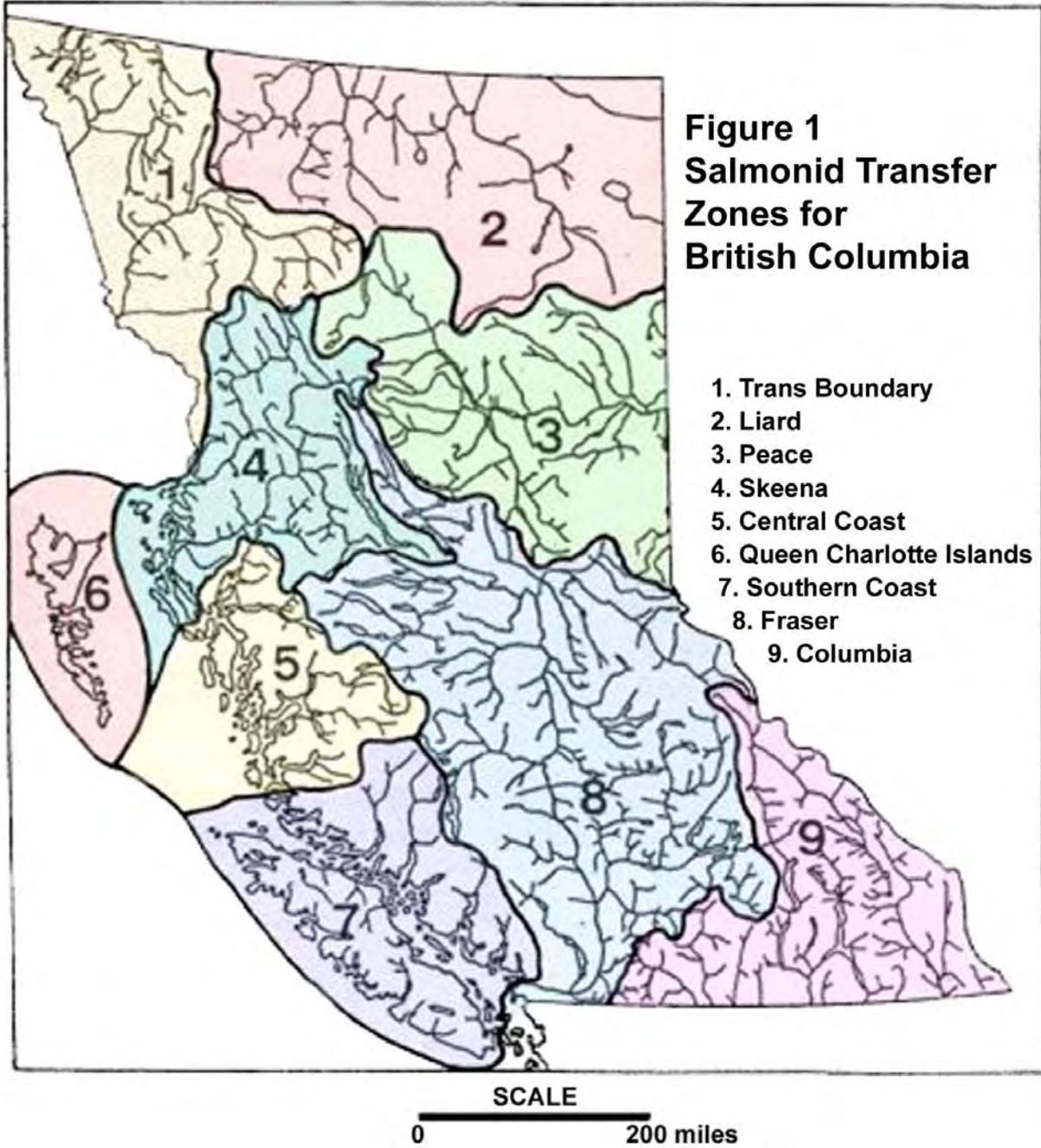
- 24.1 The licence holder shall ensure that all permits required for the importation, transport and transfer of fish at any stage of the culture and husbanding process are acquired prior to these activities commencing.
- 24.2 The licence holder shall not transfer tilapia and/or barramundi unless a Specific Transfer Licence (STL) has been applied for and issued prior to transfer.
 - (a) A copy of the STL shall accompany all shipments of fish to and from this licensed area.
- 24.3 The licence holder shall ensure that juvenile tilapia and/or barramundi, all resulting fish, and future generations thereof, remain in the direct care and custody of the licence holder at the facility until sold.
- 24.4 The licence holder shall ensure that all effluent water passes through a minimum of three levels of screening of an appropriate filter/screen size to prevent the smallest fish of the population from leaving the facility. Discharge to ground through exfiltration to ground can be considered one level of screening.
- 24.5 The licence holder shall ensure fish health checks during and after quarantine are carried out in compliance with the conditions prescribed by the Department and/or an appropriate veterinary authority.
- 24.6 The licence holder shall immediately (within 24 hours of discovery) notify the Manager and the appropriate Federal veterinary authority of any losses or stock mortality rates that reach 0.5% per tank per week.
- 24.7 The licence holder shall complete and sign a Harvest/Population Declaration form (Appendix VIII) for each shipment of live product to market. A complete form must accompany each shipment of live product and must be given to the receiver at time of delivery of live product.

PART C. Appendices

Appendix I - Elements of a Management Plan

1. Site Location
 - 1.1. Site location data
 - 1.2. Legal description of site
 - 1.3. Location (nearest municipality, major landmark other location identifiers of address if different from mailing address)
 - 1.4. Total are of the site (in hectares)
 - 1.5. Location Map
2. Siting Information
 - 2.1. Zoning
 - 2.2. Land title
3. Water Supply and Discharge
 - 3.1. Water Supply
 - 3.1.1. Water Intake
 - 3.1.2. Water Licence
 - 3.2. Water discharge
 - 3.2.1. Water discharge volume
 - 3.2.2. Point of water discharge
 - 3.2.3. If point of discharge is a surface water body, indicate name of the water body and 2 water bodies downstream unless permanently blocked.
 - 3.2.4. Salmonid-bearing watercourse
 - 3.2.5. Waste management information
 - 3.2.6. Settling ponds
 - 3.2.7. Water circulation
4. Details of Operation
 - 4.1. Operational layout diagram
 - 4.2. Improvement schedule
 - 4.3. Facility Waste Systems
 - 4.3.1. Describe methods for handling, storing and disposing of fish mortalities
 - 4.3.2. Fuel storage and handling
5. Species and Production
 - 5.1. Production schedule
 - 5.1.1. Hatchery production
 - 5.1.2. Grow-out production
 - 5.2. Product processing
 - 5.3. Bona Fide Aquaculturist
6. Farmed Stock Escape Control
 - 6.1. Escape prevention plan
 - 6.2. Escape response plan
 - 6.3. Predator avoidance plan

Appendix II - Map of Salmonid Transfer Zones



Appendix III - List of Diseases

These diseases are not treatable and/or are not known to occur in this area.

1. Infectious Hematopoietic Necrosis (IHN)
(causative agent: Infectious hematopoietic necrosis virus (rhabdovirus))
2. Infectious Pancreatic Necrosis (IPN)
(causative agent: Infectious pancreatic necrosis virus (birnavirus))
3. Viral Hemorrhagic Septicemia (VHS) – European Strain
(causative agent: Viral hemorrhagic septicemia virus (rhabdovirus))
4. Infectious Salmon Anemia (ISA)
(causative agent: Infectious salmon anemia virus (orthomyxovirus))
5. *Oncorhynchus masou* Virus Disease (OMV)
(causative agent: *Oncorhynchus masou* virus (herpes virus))
6. Any filterable agent causing cytopathic effects in tissue culture other than the above.
7. Whirling disease
(causative agent: *Myxobolus cerebralis*)
8. Cold Water Vibriosis (Hitra disease)
(causative agent: *Vibrio salmonicida*)

Appendix IV - Annual Aquaculture Statistical Report (AASR)



Fisheries and Oceans
Pêches et Océans



Province of BC
Province de Colombie-Britannique

Annual Aquaculture Statistical Report

Confidential within the provisions of the *Access to Information*
and *Privacy Act*

Reporting Year: <u>2010</u>	BC MAL Ref. # _____
DFO Licence # _____	
Licence Holder: _____	
IMLB Land File (Tenure) #: _____	
Legal Description & Location: _____	

Grand Total Sales \$

FINFISH

Introduction

Fisheries and Oceans Canada is responsible for the collection and analysis of production statistics for the British Columbia aquaculture industry. This information is collected via the Annual Aquaculture Statistical Reports (AASR). All aquaculture licen

Instructions for Completing the AASR

- ▶ Complete all sections (1 through 7) on this form.
- ▶ The completed form may be faxed to 1 (604) 666 1076 or mailed. An electronic version of the form may be downloaded from <http://www.dfo-mpo.gc.ca/aquaculture/aquaculture-eng.htm> and completed and submitted via email to fishstats@dfo-mpo.gc.ca.

Section 1 - Harvest For Food Market Sales

If nil, please check here:

- ▶ All weights provided in this section are in (check one): Kilograms Pounds

Product Type	Species (please specify)					
	Weight	Value (\$)	Weight	Value (\$)	Weight	Value (\$)
Round						
Live						
Fresh Dressed Head On						
Fresh Dressed Head Off						
Frozen Dressed Head On						
Frozen Dressed Head Off						
Fresh Fillets						
Frozen Fillets						
Other (specify)						
Other (specify)						
Total Food Market Sales \$						

Section 2 - Processing Information

If not applicable please check here:

▶ Who processed your fish? _____
▶ Did you own the fish after processing and sell to market (i.e. have your fish self- or custom-processed)? <input type="checkbox"/> No <input type="checkbox"/> Yes, all of it <input type="checkbox"/> Yes, a portion of it. Provide details: _____

Freshwater Aquaculture Licence Conditions

DFO Licence # _____

FINFISH - Annual Aquaculture Statistical Report - 2010 (continued)

Section 3 - "U-Catch-Em" Sales If nil, please check here:

Species	Average Length (in)	Total Number	Total Weight (lb or kg)	Specify lb or kg	Total Value \$
Total "U-Catch-Em" Sales \$					

Section 4 - Sales of Live Fish or Eggs for Restocking If nil, please check here:

Species	Stage						Exports Out of B.C. (Yes/No)
	Eggs		Fry/Fingerlings Juveniles/Smolts		Adults		
	Number	Value (\$)	Number	Value (\$)	Number	Value (\$)	
Total Live Fish and Eggs for Restocking Sales \$							

Section 5 - Stocking Information

Freshwater Section 5 - Stocking Information for Freshwater Sites																
<p>► Freshwater Sites - Was any Stock Brought On-Site During the 2010 Calendar Year? If nil - please check here: <input type="checkbox"/> If yes - list all species brought on-site during 2010: _____</p>																
Marine Section 5 - Stocking Information for Marine Sites																
<p>► Marine Sites - Was any Stock Brought On-Site During the 2010 Calendar Year? If nil - please check here: <input type="checkbox"/> If yes:</p> <p>► For fish stocked from another marine site (a lensing site is considered a marine site) - list all species brought on-site during 2010: _____</p> <p>► For fish stocked from a freshwater site (a lensing site is considered a marine site) - list species, number and average weight of fish brought on-site during 2010.</p> <table border="1" style="width: 100%; margin-left: 20px;"> <thead> <tr> <th>Species</th> <th>Number</th> <th>Average Weight (grams)</th> <th>Total Weight (kilograms)</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	Species	Number	Average Weight (grams)	Total Weight (kilograms)												
Species	Number	Average Weight (grams)	Total Weight (kilograms)													

Section 6 - Stock On Hand and Future Plans

<p>► Did this site have any stock on hand on December 31, 2010? <input type="checkbox"/> YES <input type="checkbox"/> NO If YES, what species? _____</p> <p>► Will this site be operating next reporting year? <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> FALLOW</p> <p>► Additional comments on site activity? _____</p>

Section 7 - Declaration

DECLARATION: I have read all information contained on this report and it is true to the best of my knowledge and belief.		
Name (please print) _____	Signature _____	Date _____
Position in Company _____	Email address _____	Phone # _____

DFO 2nd Revision - Rev. Nov/10

Appendix V - Elements of a Fish Health Management Plan (FHMP)

The current licence holder Fish Health Management Plan will be attached.

These plans will lay out measures related to:

- Keeping Fish Healthy
 - Fish Handling Techniques
 - Monitoring water quality and responding to water quality events
 - Predator Exclusion
 - Use of vaccines
 - Keeping Pathogens out
 - Biosecurity including protocols:
 - Site and staff disinfection
 - Visitor
 - Equipment disinfection
 - Supplier protocols
 - Minimizing Disease within the site and transfer to the site
 - Management of Fish Disease Outbreaks including but not limited to:
 - Quarantine and other response measures
 - Fish health sampling protocols for proper collection and shipping of samples and Lab work (on site, in house, referral)
 - Mortality collection, disposal and classification
 - Special reporting related to Fish Escape
 - Handling and storage of vaccines, medicated feeds and chemicals used in fish health (e.g., disinfectants)
- Monitoring Fish Health
- Euthanasia
- Fish Health Records management capturing:
 - Inventory records
 - Fish movement records
 - Feed consumption records
 - Mortality and morbidity records including cause
 - Fish Health monitoring observations records
 - Records of Biosecurity
 - Records and reports of Fish Health Events
 - Records of Fish Health emergencies, including outbreaks of significant diseases
 - Sampling and laboratory results of fish health
 - Surveillance and diagnostic sampling records
 - Water quality records
 - Medicated feed records
 - Therapeutic treatment records
 - Records of mitigative action (non-therapeutic)

- Veterinary or fish health staff reports
- Records of reporting fish health information to federal authorities.
- Fish Health training records of staff

For sites holding broodstock, the following special considerations will be addressed:

- Suitable rearing environment
- Feed and nutrition
- Biosecurity
- Selection and Handling
- Treatment
- Egg and Milt collection
- Disease Screening
- Egg disinfection
- Egg (and/or) milt transport

Appendix VI - Elements of a Licence Holder Inventory & Stock Transfer Plan

The Inventory Plan is to include by month estimates of volume (tones) and numbers of fish broken down by:

1. First Year Production;
2. Second Year Production;
3. Broodstock; and
4. Fallow Periods.

The Stock Transfer Plan is to include the following information by source and transfer date:

1. Source of fish (i.e. facility fish are being transferred from);
2. Age/life stage of fish being transferred;
3. Quantities being transferred (estimated numbers, weight);
4. Transfer period dates;
5. Destination of fish; and
6. Estimated harvest time.

Appendix VII - Fish Health and Fish Mortality Event Report

PART A.

Reporting Date:
 Farm name and Licence number:
 Contact Name:
 Phone Number:

PART B.

The following fish health events occurred:

Unusually high fish mortalities (if so – attributed to)

Vet or Lab Diagnosis of Significance (identify pathogen)

Disease Outbreak (i.e. elevated losses) (identify pathogen)

Cull Event (explain)

Emergency Fish Health Response required Y / N (if yes – was DFO notified as per licence conditions and section 9 of PAR Y / N)

Part C.

The following details of are to be completed for each individual fish health event:

Date of Event
 Cause and/or Diagnosis:

ID or Lot # (of affected fish)	Diagnosis	Fish Species and Common Names	Number of Fish on Site (pieces)
Were treated fish mixed in with non-treated fish? Y / N	Estimated mortalities (numbers, volume) Over ____ (number) days	Recent Escape from lot during reporting period? Y / N	Harvest from lot during reporting period? Y / N

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.) / Response description

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

5. Name of Prescribing Veterinarian

6. Name of Person Responsible for Administering the Treatment	Signature of Person Responsible for the information of this declaration Date:
---------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------

Appendix VIII – Tilapia and/or Barramundi Harvest Declaration Form Template

PART A:

Aquaculture Licence Number			
Company Name:			
Phone Number:			
Fish ID or Lot #	Date of Harvest	Fish Species and Common Names	Quantity Shipped (pieces)
Name of Market venue, Distributor, next Grower, or Processor			

PART B Details of Drug/Chemical Treatment While Fish in this Lot Held at the License Facility (one report to be filled out for each treatment, listing treatments from most recent to oldest)

<p>Treatment 1:</p> <p>Name of Drug and Prescription No. (if any) Date Treatment Commenced and Ended</p> <p>Treatment Information (withdrawal time prescribed, how applied (in-feed or bath), amount per kg of feed, etc.)</p> <p>Treatment file and details are available at rearing site: Yes / No</p> <p>Name of Person Responsible for Administering the Treatment</p> <p>Name of Prescribing Veterinarian</p>

Signature of Person Responsible for the information of this declaration	Date:
-------------------------------------------------------------------------	-------

This form may be used by a holder or his agent to satisfy the information requirements concerning shipping of fish/seafood to a market venue or processing plant.

The 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 a form must be submitted even if there has been no drug treatment of the animals in the shipment.