

Pacific Marine Finfish Aquaculture Application

PART I – GENERAL APPLICANT INFORMATION

SECTION A: APPLICANT AND GENERAL INFORMATION

1) Applicant Name (Full Legal Name or Registered Company Name)		Telephone: ()	
		Cell: ()	
		Fax: ()	
		Email:	
2) Is Applicant or Applicant's Spouse a Provincial or Federal Government Employee <input type="checkbox"/> Yes <input type="checkbox"/> No			
3) For applications made by more than one individual: <input type="checkbox"/> Joint Tenant or <input type="checkbox"/> Tenants in Common			
4) Mailing Address:			Postal Code:
5) Doing Business as:		6) BC Inc # BC Registration # or Society #	
7) Age: 19 or over <input type="checkbox"/> Yes <input type="checkbox"/> No		8) Canadian Citizen or Permanent Resident: <input type="checkbox"/> Yes <input type="checkbox"/> No	
9) Physical Address (if different from above):			
10) Contact Name (if different from above):		Telephone: ()	
		Cell: () Fax: ()	
		Email:	
9) Agent/ Representative (if applicable):		Telephone: ()	
		Cell: () Fax: ()	
		Email:	
10) Mailing Address of Agent/Representative:			Postal Code:
			Letter of Authorization: <input type="checkbox"/> Yes <input type="checkbox"/> No
11) Type of Application:			
<input type="checkbox"/> New site			
<input type="checkbox"/> Amendment	<input type="checkbox"/> Tenure Area <input type="checkbox"/> Infrastructure	<input type="checkbox"/> Production <input type="checkbox"/> Species <input type="checkbox"/> Other Describe: _____	
<input type="checkbox"/> Licence Holder Change	Current Licence Holder Name:		
12) Type of Operation:			
<input type="checkbox"/> Net Cage		<input type="checkbox"/> Other	



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13) Government Reference Numbers (for existing operations)			
BC Land File #	DFO Aquaculture Licence #	NWPA #	Park Use Permit (PUP) #

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SECTION B: SITE AND INFRASTRUCTURE INFORMATION

1) Site Category:		
<input type="checkbox"/> Provincial Crown Land	<input type="checkbox"/> Provincial Park	<input type="checkbox"/> Private Land
<input type="checkbox"/> Federal Land	<input type="checkbox"/> First Nation Reserve	<input type="checkbox"/> Other

2) Geographic location of site: _____

3) Site Common Name: _____

4) DFO Area: _____ Sub Area: _____

5) Canadian Hydrographic Service Chart (CHS) Marine Chart Number: _____

Topographical Map Number: _____

6) If the site is surveyed, give legal description of site (e.g., Land District and Lot Number):

7) If the site is not surveyed, provide metes and bounds description from a surveyed point or geographic coordinate: _____

8) Provide GPS coordinates for the center of the application area/tenure:

Latitude: _____ deg. _____ min. _____

Longitude: _____ deg. _____ min. _____

9) Total Area of site (Hectares): _____

10) Intensive Use Area of site (Hectares): _____
(Attach worksheet showing calculations)

11) Extensive Use Area of site (Hectares): _____

12) Indicate if the applicant is the upland owner:

Yes

No Upland owner: _____

Letter of consent from upland owner: Yes No

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13) Siting Criteria: Check each box only if the siting criteria has been met. Additional information is required for siting criteria not checked (refer to Guide)

<ul style="list-style-type: none"><input type="checkbox"/> At least 1 km in all directions from a First Nations reserve, unless consent is received from the First Nation (append consent letter). <input type="checkbox"/> At least 1 km from the mouth of a salmonid-bearing stream determined as significant.<input type="checkbox"/> At least 1 km from herring spawning areas designated as having "vital", "major" or "high" importance.<input type="checkbox"/> At least 300 m from intertidal shellfish beds that are exposed to water flow from a finfish farm and which have regular or traditional use by First Nations, recreational, or commercial fisheries.<input type="checkbox"/> At least 125 m from all other wild shellfish beds and commercial shellfish growing operations.<input type="checkbox"/> An appropriate distance from the areas of "sensitive fish habitat" as determined by DFO.<input type="checkbox"/> An appropriate distance from areas used extensively by marine mammals, as determined by DFO.<input type="checkbox"/> At least 30 m from the edge of the approach channel to a small craft harbour, federal wharf or dock.<input type="checkbox"/> At least 1 km from ecological reserves smaller than 1000 ha or approved proposals for ecological reserves smaller than 1000 ha.<input type="checkbox"/> Not within a 1 km line of sight from existing federal, provincial or regional parks or marine protected areas (or approved proposals for these).<input type="checkbox"/> Not infringing on the riparian rights of an upland owner, without consent, for the term of the tenure licence.<input type="checkbox"/> Not in areas that would pre-empt important Aboriginal, commercial or recreational fisheries.<input type="checkbox"/> Not in area of cultural or heritage significance as determined in the <i>Heritage Conservation Act</i>.<input type="checkbox"/> Consistent with approved local government bylaws for land use planning and zoning.<input type="checkbox"/> At least 3 km from any existing finfish aquaculture site, or in accordance with local area plan or Coastal Zone Management Plan.<input type="checkbox"/> Consistent with objectives contained in the applicable Integrated Management of Aquaculture Plan(s)
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NOTE: The siting criteria are guidelines which have been implemented post the Salmon Aquaculture Review (SAR). The criteria are used to evaluate proposals for the siting of new salmon farms. Applications are assessed by government based in part on conformance with these criteria and on the professional judgment of government reviewers.

1) **Physical Structures (Improvements):** Complete table below, providing dimensions of all existing and planned structures.

DESCRIPTION	QUANTITY	DIMENSIONS (m)	AREA AT WATER LEVEL
<i>e.g.: Net cages</i>	12	15m x 15m x 15m cages	2700m²
<i>e.g.: Feed barge</i>	1	40m x 30m	1200m²
Net cage array <input type="checkbox"/> Polar Circles <input type="checkbox"/> Square Steel Cage System			
Work Floats <input type="checkbox"/> Feed barge <input type="checkbox"/> Mort shed <input type="checkbox"/> Boat moorage (Biosecurity) <input type="checkbox"/> Living accommodations			
Navigational Markers			
Mooring lines			
Anchor blocks			DEPTH (m)
Dock(s)			
Net storage			
Other:			

15) Will artificial lighting be used on the site?

No

Yes

Frequency: _____ Duration: _____

SECTION C: MAPS AND DIAGRAMS:

Attach the following maps and diagrams. They must be submitted to scale and be consistent with the other information in this application. Please refer to the Guide for details and sample diagrams.

- a. **Location Map:** A photocopy of a Canadian Hydrographic Service Marine Chart, Cadastral map, or Topographical map of a scale between 1:20,000 and 1:40,000, showing the general location of the area under application.
- b. **Operational Diagrams**
 - i. A 1:5000 scale hydrographic chart showing the specific area under application and the operational components as outlined in the guide.
 - ii. A 1:2000 scale map(s) showing a side view diagram of the containment array(s) which at minimum must illustrate and itemize all structures above the surface and include all underwater structures to a depth of 10 meters.
- c. **Habitat Map:** A 1:5000 habitat map showing the boundaries of the application area, and including habitat characteristics and baseline habitat assessment plan as outlined in the guide.

Note: Transport Canada requires five (5) copies of maps and diagrams to be submitted with this application if they are larger than 11" x 17".



PART II – INFORMATION FOR THE **BC MINISTRY OF FORESTS, LANDS AND NATURAL RESOURCE OPERATIONS**

The following information is required as part of the Provincial Crown Land Tenure application to make a decision under the *BC Land Act*.

Parts I, II and V of the Pacific Marine Finfish Aquaculture application will be used to review this application for tenure under the *BC Land Act*.

Additional Lands Information

1. Provide the name of the Regional District or Municipality for the area:

2. Will rezoning be required for the site?

- Yes
- No

3. Is there a land or coastal marine plan for the area?

- Yes
- No

4. Will a variance be required for the site?

- Yes
- No

5. Indicate water source: _____

6. Will a Water Licence be required for this site?

- Yes
- No
- Existing Licence: No: _____



PART III – INFORMATION FOR FISHERIES AND OCEANS CANADA

The following information is required as part of the Federal aquaculture licence application to make a decision for licensing under the *Pacific Aquaculture Regulations*.

Parts I, III, IV, and V must be submitted to apply for your Federal aquaculture licence or to amend an existing licence.

This completed document will form the site management plan on which your aquaculture licence conditions will be based.

SECTION A: SPECIES AND PRODUCTION

SPECIES: Check all species that you intend to culture and estimate annual production for each species in metric tonnes (MT).

Schedule A1. Details by Species:

Licensed by DFO (check all that apply)	Species Common Name	Species Scientific Name	Projected Production Estimate (MT)
<input type="checkbox"/>	Atlantic salmon	<i>Salmo salar</i>	
<input type="checkbox"/>	Chinook salmon	<i>Onchorhyncus tshawytscha</i>	
<input type="checkbox"/>	Coho salmon	<i>Onchorhyncus kisutch</i>	
<input type="checkbox"/>	Black cod	<i>Anaplopoma fimbria</i>	
<input type="checkbox"/>	Rainbow trout	<i>Onchorhyncus mykiss</i>	
<input type="checkbox"/>	Steelhead trout	<i>Onchorhyncus mykiss</i>	
<input type="checkbox"/>	Pacific halibut	<i>Hippoglossus stenolepsis</i>	
<input type="checkbox"/>	Wolf eel	<i>Anarrhichthys ocellatus</i>	
<input type="checkbox"/>	Pilchard		
<input type="checkbox"/>	Rock fish (provide specific species):		
<input type="checkbox"/>	Other:		
<input type="checkbox"/>	Other:		
Total Peak Biomass			

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SECTION B: DOMESTIC WASTE MANAGEMENT

1. Is there is floating living accommodation within the marine waters of the application area?

- Yes No

Provide description of domestic sewage treatment works:

2. Location of the sewage discharge point (include depth of outfall line):

3. Maximum number of people utilizing the facility on site: _____

4. Frequency of septic tank clean-out (if septic tanks are in use): _____



SECTION C: FISH HABITAT AND PROTECTION MEASURES

C1. GENERAL INFORMATION

A qualified professional must carry out the habitat assessment sampling survey and reporting.

C2. MODELING

Modeling of predicted footprint of containment structure array(s) using acceptable sedimentation models such as DEPOMOD are required.

DEPOMOD results for all proposed sites include:

1. 1g and 5g C/m²/d contour plot of the farm's footprint based on maximum feeding rate;
2. 1g and 5g C/m²/d contour plot of the farm's footprint based on average feeding rate;
3. Carbon flux area summary table; and
4. Site information summary table.

The following supporting data including site specific input (e.g., feed values, cage size and location, hydrographic data, bathymetric data) and variable parameterization (e.g., waste feed settings, carbon concentrations, random walk, settling velocities) must also be submitted.

C3. INTERTIDAL AND SHALLOW SUBTIDAL HABITAT SURVEYS

3.1 Nearshore Swim – SCUBA

Assessment Area: The entire shoreline, foreshore and nearshore area to a depth of 10 meters within the proposed tenure must be surveyed in order to obtain a qualitative assessment of the physical and biological characteristics of fish and fish habitat.

Information to be collected:

- Habitat type
- Presence of organisms
- Macrophytes

Habitat observations should be recorded throughout the swim and significant changes noted (include depths).

Observations must be summarized in the Foreshore Transect Species List Table.



3.2 Foreshore Transect Survey

The entire shoreline, foreshore and nearshore area to a depth of 30 meters within the proposed tenure must be surveyed in order to obtain a qualitative assessment of the physical and biological characteristics of fish and fish habitat including critical or sensitive habitats, abalone (or other species at risk) or unique habitats within the foreshore area.

3.3 Juvenile Wild Salmon Beach Seine Survey

A survey must be conducted along the entire nearshore area within the proposed tenure to obtain a quantitative assessment, including average mass and weight distribution profile (by species), of migrating smolts.

3.4 Benthic ROV Surveys

A baseline survey of the seabed associated with all proposed footprints as predicted by modeling associated with the proposed location(s) of the containment structure array(s), and two reference stations must be completed to achieve the following objectives;

- Description of bathymetry and topography;
- Identification of bottom substratum types;
- Identification of megafauna and macrofauna.

3.5 Sediment Sampling:

A baseline survey of the sediment identified by the baseline ROV survey within each predicted footprint associated with the proposed locations(s) of the containment structure array(s), and two reference stations must be completed to achieve the following objectives:

- Description of physical parameters;
- Description of chemical parameters;
- Description and identification of biological taxa.

C4. CURRENTS METERING

Ocean current characterization must be completed at each proposed location of an individual containment structure array in a tenure by deployment of current meter devices:

- a. within 30 meters of the edge of the proposed containment structure array or within 100 meters if the array is already in place;
- b. at the following depths:
 - i. 15 meters below the surface;
 - ii. 5 meters above the bottom; and
 - iii. mid-water if the depth is greater than 50 meters;



- c. recording speed and direction instantaneously or as averages from continuous measurements over 2 minutes at least once every 30 minutes over a period of at least 30 days;
- d. recording current direction in degrees true; and
- e. recording current speed in centimeters per second.

SECTION D. MANAGEMENT PLANS

D1. FISH HEALTH MANAGEMENT PLAN

A written, up-to-date Fish Health Management Plan must be completed that outlines the actions or procedures that operators must use at a facility to meet fish health requirements.

Required elements of a Fish Health Management Plan include the following:

- Characterization of the health status of fish at the culture facility;
- Identification and management of risks to fish health;
- Reduction of exposure to, or spread of disease causing agents;
- Use of drugs and chemicals in fish health management.

D2. MARINE MAMMAL CONFLICT MANAGEMENT PLAN

A written and approved Marine Mammal Conflict Management Plan is required that describes measures to deter and minimize predator interactions. Upon approval, this management plan will be incorporated into the Conditions of Licence and must be complied with by regulation. Required elements of the plan include:

- Site analysis of local abundance of marine mammal species;
- A description of all proposed infrastructure designed to minimize marine mammal interaction;
- A comprehensive conflict response plan; and
- A comprehensive lethal control plan.

D3. MORTALITY MANAGEMENT PLAN

A written, up-to-date Mortality Management Plan is required that outlines the actions or procedures that operators must use at a facility to properly dispose of fish mortalities.

Required elements of a Fish Mortality Management Plan include the following:

1. Collection, storage, and disposal of normal operational levels of fish mortalities including biosecurity protocols;
2. Procedures to manage incidental catch mortalities; and
3. Mass fish mortality disposal plan

D4. ESCAPE MANAGEMENT PLAN

A written, up-to-date Escape Management Plan is required which will outline the infrastructure and practises employed to prevent the escape of cultivated fish into



the marine environment. Upon approval, this management plan will be incorporated into the Condition of Licence and must be complied with by regulation.

Required elements of the Escape Management Plan include the following:

- A description of infrastructure;
- A detailed escape prevention and maintenance program;
- A detailed escape response plan;
- A description of stock monitoring and recording practices to account for inventory discrepancies; and
- An identified recapture vessel, within appropriate response distance to the site.

D5. CHEMICAL AND OTHER SUBSTANCES MANAGEMENT PLAN

A written, up-to-date Chemical and Other Substances Management Plan is required that outlines the management, handling and disposal of therapeutants, disinfectants, pesticides, anti-fouling agents, hydrocarbons, and bloodwater.



PART IV – INFORMATION FOR TRANSPORT CANADA

The following information is required for the adjudication of the NWPP Approval under the *Navigable Waters Protection Act*.

Parts I, IV and V are required to apply for your NWPP Approval.

ADDITIONAL PROJECT INFORMATION

Waterway:

Width (m):

Depth (m)

Work Description (Finfish, Shellfish rafts,
bottom culture, submersed):

Nearest Community:

Is this Work: Proposed Existing Modification of Existing Work

To help with the review process please include the following:

Photographs at the site of the proposed/existing work and surrounding area



PART V – INFORMATION FOR ALL AGENCIES

APPLICANT SIGNATURE(S)

All applicable components of this application package must be complete (as per the checklist in the interim reference materials). Incomplete applications will be returned to applicant. Applicable fees must be submitted at time of application.

Provincial **Fees** (in the amount indicated below), to **Minister of Finance** (cheque or credit card authorization form attached or pay in person with debit card or cash)

Finfish Application Fee – \$ 5516.00

Shellfish Application Fee - \$ 1344.00

Finfish tenure replacement, conversion, or expansion fee - \$ 2758

Shellfish tenure replacement, conversion or expansion fee - \$ 672

(For Amendment fee, contact FrontCounter BC)

PLEASE NOTE: Additional items may be required (eg. Advertising, Security Deposit, Proof of insurance, Letter of consent). Some items may have additional associated costs or require additional processing time

The Province of British Columbia, Fisheries and Oceans Canada, and Transport Canada do not consider the information submitted in this form to be confidential unless defined as such in the *Freedom of Information and Protection of Privacy Act* or the *Access to Information Act*. I understand that the information supplied will be used to review my applications under the *BC Land Act*, the *Federal Fisheries Act* and the *Navigable Waters Protection Act* and information will be shared amongst the other agencies, First Nations and/or with the public.

**Signature(s) of Applicant(s)
or authorized representative***

**Name(s) of Applicant(s)
or authorized representative***

Date



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***If signature is by an authorized representative please supply a letter granting authorization to act on behalf of the applicant.**

Submit completed application, and additional supporting information (if applicable) to:

**Front Counter BC
2080a Labieux Road, Nanaimo, BC V9T 6J9**

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