

British Columbia Aquaculture Regulatory Regime Identification and Management of Environmental Impacts of Under the British Columbia Aquaculture Regulatory Regime

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1. BACKGROUND

Aquaculture licences issued in accordance with the Pacific Aquaculture Regulations are the central instrument used to manage aquaculture under the British Columbia Aquaculture Regulatory Program (BCARP). A range of conditions may be attached to the licences to which the operator must adhere related to the proper management and control of fisheries and the conservation and protection of fish and fish habitat [*in web version add hyperlink here to licensing approach*].

A major operational decision point under BCARP is the review of applications for new licences and applications for amendments to existing licences that have the potential to increase the environmental footprint (*siting decisions*) – for example, those requesting an increase in biomass production and / or those requesting an increase in the size or array of operations. Such decisions include whether to approve a particular request, and whether to add any site specific licence conditions.

A program foundation is being completed for BCARP that will include a suite of policies, approaches and other documents, organized under a Sustainable Aquaculture Framework, [*in web version add hyperlink here to outline of SAF*] to guide decision making with respect to licence applications, establishment of conditions of licence and other management matters.

In each of these areas, the Department has rigorous processes to ensure that sustainability is considered in decision-making and managed such that there are no significant negative environmental effects¹, as defined by the *Canadian Environmental Assessment Act* (S.C. 1992, c.37) with regards environmental impacts related to the mandate of DFO. In developing its directions for the BCARP, the Department has, or will, carefully consider the environmental assessments of aquaculture operations in British Columbia completed over the past decade, and best available science advice, as well as other inputs.

2. CONSIDERATION OF ENVIRONMENTAL MATTERS IN SETTING PROGRAM DIRECTIONS

¹ The *Canadian Environmental Assessment Act* (S.C. 1992, c. 37) defines “environmental effect” as, in respect of a project, (a) any change that the project may cause in the environment, including any change it may cause to a listed wildlife species, its critical habitat or the residences of individuals of that species, as those terms are defined in subsection 2(1) of the *Species at Risk Act*; (b) any effect of any change referred to in paragraph (a) on (i) health and socio-economic conditions, (ii) physical and cultural heritage, (iii) the current use of lands and resources for traditional purposes by aboriginal persons, or (iv) any structure, site or thing that is of historical, archaeological, paleontological or architectural significance, or (c) any change to the project that may be caused by the environment, whether any such change or effect occurs within or outside Canada.

Environmental considerations have shaped BCARP directions in a number of areas. They informed, for example, the decision to set a broad range of the licence condition provisions under the Regulations. As well, they informed the actual setting of standard licence conditions for licences issued in December, 2010.

In designing the BCARP, the Department ensured that it provided management resources for receiving, analyzing and responding to environmental data obtained as a result of conditions of licence and for responding to compliance issues. Through the Program for Aquaculture Regulatory Research, other Departmental resources and reviews of internal external research, the Department continuously increases its scientific knowledge base for decision-making and policy setting.

Moving forward, the Department will use the outcomes of regulatory data, research and traditional ecological knowledge to inform the review and amendment of its management framework.

3. CONSIDERATION OF ENVIRONMENTAL MATTERS IN SITING DECISIONS

During the consideration of applications for new licences and applications for amendments to existing licences that have the potential to substantially increase the environmental footprint, the Department will conduct environmental reviews that consider potential impacts on valued ecological and social components. These reviews will consider:

- Fish habitat: benthic habitat, water quality, algae and primary production;
- Fish resources: wild fish populations and population health including finfish, marine mammals, sharks, invertebrate populations;
- Species at risk;
- Ecosystem effects per departmental guidance;
- Wild fishery activities;
- First Nations use of land and resources for traditional purposes as well as other matters

As well, the Department will consider applications in light of integrated planning approaches particularly but not limited to Integrated Management of Aquaculture Plans, Integrated Fisheries Management Plans, ocean planning and other planning approaches as are, or may be, in place.

The Department will also apply a number of tools to collect and analyze site specific information to support informed decision-making, including:

- Provisions in license applications for new sites or substantial amendments to existing sites, to require the licence holder to supply baseline environmental data, with specific requirements;
- The use of site impact modelling prediction tools such as depositional modelling (DEPOMOD) ;

- Assessment of the effectiveness of standard or site-specific mitigation measures to satisfactorily minimize risks of negative ecosystem effects resulting from the aquaculture activity; and
- The use of siting guidelines.

Finally, conditions of licence will be in place to ensure that all identified measures, appropriate under the *Fisheries Act*, are undertaken by the licence holders to minimize impacts as identified in the decision process.

4. CONSIDERATION OF CUMULATIVE EFFECTS

DFO intends to use the Integrated Management of Aquaculture Plans (IMAPs) and processes, Integrated Oceans Management processes, and Integrated Fisheries Management Processes to describe and communicate the management of the aquaculture sector in BC at an area level. This approach will support consideration of cumulative effects, as impacts of licences will not only be assessed individually within the sector, but as part of the broader ecosystem management approaches.

5. FIRST NATIONS AND PUBLIC INPUT

Public participation will be improved through IMAP advisory structures, enhanced First Nations engagement and improved communication of the application review process. The following measures will be in place to seek First Nations and public input:

- Integrated Management of Aquaculture Plans. The IMAP process will, as is the case for Integrated Fisheries Management Plans, be used in aquaculture fisheries, and will include an ongoing advisory process that involves multiple stakeholders. This advisory process will support ongoing input from the Province, licence holders, First Nations, industry associations and other interested parties into management and conservation measures;
- Federal/provincial consultative processes on new applications, and on applications for significant amendments that affect land tenures, will be continued. Applications that are under review, as well as decisions on reviews, will be posted on DFO's Pacific Region website;
- Communication will be further strengthened through public reporting on regulatory and sustainability performance.

6. OTHER ASSESSMENTS

Environmental assessments of aquaculture facilities may still be required under the Canadian Environmental Assessment Act (CEAA) as a result of *Navigable Waters Protection Act* (NWPA) approvals, or under Provincial Environmental Assessment requirements. Under the NWPA, individual aquaculture projects are reviewed and approved in their entirety (offshore and near shore components). It is noted here for information only that the NWPA, as revised in 2009, has two main tiers of

approval that are applicable for proposed Aquaculture projects – the first being for projects that may interfere substantially with navigation and, secondly, those projects that may interfere other than substantially with navigation as determined by Transport Canada. For those projects that may interfere substantially with navigation, according to the CEEA Law List, a Transport Canada decision to issue a permit requires that an environmental assessment be done under CEEA.

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