



The SOS Marine Conservation Foundation

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December 19, 2011

The Honourable Bruce Cohen

Commissioner

Commission of Inquiry in to the Decline of Sockeye Salmon in the Fraser River

Filed Electronically

Dear Commissioner Cohen,

Re: **SOS Marine Conservation Foundation – Public Submission #2**

In response to the Commission's question *What is required to secure the future of Fraser River Sockeye?*, on September 16, 2010, Eric Hobson, President of the SOS Marine Conservation Foundation, presented to the Commission a three point strategy to mitigate impacts of salmon aquaculture on wild pacific salmon and the marine environment:¹

1. Develop and implement a workable fallow and farm management plan to protect wild juvenile salmon.
2. Create a more transparent and accountable regulatory regime for open net-cage salmon aquaculture.
3. Catalyze a "Made in Canada", world class closed containment salmon aquaculture industry.

Since the time of that submission there have been several important developments:

- A significant body of new information has been made available through the Commission's evidentiary hearings;
- The Department of Fisheries and Oceans' (DFO) regulatory regime for finfish aquaculture is taking shape; and
- Construction has begun on a 300 metric tonne land-based Atlantic salmon recirculating aquaculture system demonstration project on Northern Vancouver Island.²

¹ The September 16, 2010, powerpoint presentation and related documents, including a submission to the Department of Fisheries and Oceans of a *New Regulation and Regulatory Framework for the Management of Aquaculture in B.C.*, dated February 26, 2010, are filed with the Commission as Public Submission 0244-TSMCF_226000.

² For an updated Backgrounder on the 'Namgis First Nation's K'udas Closed Containment Project, see <http://www.namgis.bc.ca/CCP/Documents/Project%20Backgrounder%20updated%202011-12-01.pdf>, as of December 16, 2011.

In response to these developments, we are writing to provide further recommendations on the three point strategy to improve the future sustainability of the Fraser Sockeye:

1. Develop and implement a workable fallow and farm management plan to protect wild juvenile salmon.
 - i. In light of the information and uncertainty about disease in farmed salmon that interact directly with the marine environment, all farmed salmon brood stock in Canada should be tested for a full suite of potential pathogens, including Infectious Salmon Anemia Virus, prior to stocking of smolts in open net-cages.
 - ii. Immediately establish a broad based, mandatory pathogen and parasite monitoring program for fish farmed in open net-cages, with test results publicly available and subject to a secondary audit by an independent laboratory.
 - iii. Establish a mandatory pathogen and parasite monitoring program for Fraser River Sockeye that recognizes the interactions with open net-cage farms.
 - iv. Where tissue samples are taken for testing purposes, require samples to be stored in a tissue bank to facilitate future testing if required.

2. Create a more transparent and accountable regulatory regime for open net-cage salmon aquaculture.
 - i. In addition to giving express priority to DFO's statutory obligation to protect and conserve fish and fish habitat over the growth and promotion of the aquaculture industry, establish an independent aquaculture licensing board and monitoring body, establish an independent science body such as the defunct National Fisheries Research Board of Canada to direct/oversee research into fish and fish health.
 - ii. Ensure that the data and disease records from salmon farms provided through the evidentiary hearing process continue to be gathered and made available to researchers and the public.
 - iii. Prioritize implementing the Wild Salmon Policy (WSP) and require DFO to develop and implement the Pacific Aquaculture Management Framework and the associated licencing regime, including Integrated Management of Aquaculture Plans, consistent with the WSP and related conservation units.
 - iv. Restrict open net-cage aquaculture licence renewals to one year terms and prohibit expansion of productive capacity of marine finfish sites, including licensing of new sites, until: a baseline of disease and pathogen data for farmed fish and wild fish is developed; there is greater certainty surrounding the ability to manage impacts of farmed salmon on wild salmon; and the feasibility of land-based, closed containment salmon aquaculture is fully assessed.

3. Catalyze a “Made in Canada”, world class closed containment salmon aquaculture industry.
 - i. For five years, direct all government funding for development of marine finfish aquaculture to the optimization of fish performance in recirculating aquaculture systems (RAS);³ the development of revenue streams from RAS waste streams, such as aquaponics; the development of new technologies to enhance RAS efficiency; and the development of value added processing capacity and branding/marketing strategies to increase the market premium for more sustainably farmed salmon.

On behalf of the SOS Marine Conservation Foundation’s Board and Solutions Advisory Committee, thank you for the Commission’s diligent hearing process and this opportunity to provide a second written submission. We look forward to the release of your report and recommendations in 2012.

Sincerely,



Eric Hobson
President
SOS Marine Conservation Foundation

³ For example, the University British Columbia’s *Initiative for the Study of the Environment and its Aquatic Systems* (InSEAS) research facility will be completed in early 2012. The InSEAS facility has flexible research infrastructure designed to manipulate and precisely control environmental condition in replicated recirculating aquaculture systems to systematically test the effects of variations in rearing conditions (salinity, temperature, ammonia, carbon dioxide, etc.) on growth and performance of salmon in multiple life stages at multiple rearing densities. Another example of relevant research InSEAS can investigate is alternate diets to reduce costs and develop sustainable feeds in closed containment.