

**Cohen Final Report - *The Uncertain Future of Fraser River Sockeye*
Findings Related to Open Net-Pen Salmon Farming
Summary by the SOS Marine Conservation Foundation**



Background:

The Cohen Commission was established by the Canadian Government to “investigate and make independent findings of fact regarding the causes for the decline of the Fraser River sockeye salmon”. Specifically, with regard to salmon farming, the Cohen Commission was “to examine whether there is a linkage between salmon farm operations and Fraser River sockeye survival, including reductions of sockeye smolt survival from sea lice exposure, impacts of farm wastes on seabed and ocean habitat quality, effects of Atlantic salmon escapes on Fraser River sockeye, as well as any potential for the spreading of disease. Other salmon species will be considered insofar as they inform the analysis of Fraser River sockeye. The commission also intends to evaluate several salmon farm management methods for mitigating risks to Fraser River sockeye, including the use of closed containment marine and land-based systems, scheduling of net pen harvesting to reduce contact with sea lice, manipulation of maturation schedules, optimizing densities, reduction of farm production, re-locating farms, and the use of pesticides such as SLICE to control sea lice.”¹

The Cohen Commission closed the evidentiary hearings in December 2011 and Justice Cohen’s findings and recommendations were made public on October 31, 2012 in a three volume, almost 1,200-page final report entitled “[*The Uncertain Future of Fraser River Sockeye*](#)” (Cohen Final Report / Final Report).

Findings Related to Open Net-Pen Salmon Farming:

It is to be emphasized that Justice Cohen did not find a single cause for the decline of the Fraser River Sockeye. In Volume 2 of the Final Report *Causes of the Decline*, he relates “when population health and disease are being considered, causes are rarely a single entity, event, or condition. Rather, they are much more likely a complex interplay of factors” and, “if any one stressor was indicated to be of particular concern it is climate change”.²

The findings summarized here relate more specifically to the work of the SOS Marine Conservation Foundation to: ***establish B.C. as a leader in creating a globally renowned and sustainable aquaculture industry while protecting B.C.’s wild salmon stocks, and allowing B.C. businesses, First Nations and local communities to thrive.***

Thereby, the information below focuses on Cohen Commissions findings in relation to:

1. DFO’s conflicted mandate and departure from the regulatory objective to conserve wild fish;
2. Potential impacts of open net-pen salmon farms and their management; and
3. The implementation of the Wild Salmon Policy and Habitat Policy

In this regard, Justice Bruce Cohen’s findings strongly acknowledge the conflicted mandate of DFO to promote aquaculture and work for the conservation of wild fish species; the potential for harm to wild salmon from open net-pen salmon farms; the need for changes to the regulation of salmon farms; the failure to implement the 2005 Wild Salmon Policy and 1986 Habitat Policy and the necessity of their being implemented.

In the recommendations, the burden of proof is put on DFO to ascertain that net-pen salmon farms in the Discovery Islands do not pose more than a minimal risk of serious harm to the health of migrating Fraser River sockeye salmon, otherwise - those salmon farms must cease operations.

¹ Cohen Commission of Inquiry into the Decline of Sockeye Salmon in the Fraser River, Discussion Paper titled *Issues that the Commission Intends to Investigate*, June 3, 2010, at p. 9; <http://www.cohencommission.ca/en/pdf/DiscussionPaper.pdf>

² Cohen Commission of Inquiry into the Decline of Sockeye Salmon in the Fraser River, Final Report titled *The Uncertain Future of the Fraser River Sockeye – Volume 2 – Causes of the Decline*, October, 2012 at p. 120 and 123; <http://www.cohencommission.ca/en/FinalReport/>

1. Cohen Commission's findings relating to DFO's conflicted mandate and departure from the Department's regulatory objective to conserve wild fish, and how this relates to disease testing:

- Volume 3 of the Final Report "*Recommendations -Summary - Process*" includes the following statements by Justice Cohen:
 - "I heard evidence that suggests confusion on the part of DFO respecting its paramount regulatory objective to conserve the health of wild fish stocks. For example, several DFO witnesses testified about the need for DFO's Science Branch to provide advice to its "clients," such as the Canadian Food Inspection Agency (whose mandate includes trade and economic concerns, not the conservation of wild fish), or to aquaculture management within DFO (whose focus includes sustainability of the aquaculture industry)."³
 - "As long as DFO has a mandate to promote salmon farming, there is a risk that DFO will act in a manner that favours the interests of the salmon-farming industry over the health of wild fish stocks."⁴
 - "... that, when one government department (in this case DFO) has mandates both to conserve wild stocks and to promote the salmon-farming industry, there are circumstances in which it may find itself in a conflict of interest because of divided loyalties. For example:
 - There is a risk that DFO will not proactively examine potential threats to migrating sockeye salmon from salmon farms, leaving it up to other concerned parties to establish that there is a threat.
 - There is a risk that DFO will impose less onerous fish health standards on salmon farms than it would if its only interest were the protection of wild fish. Farmed salmon may tolerate certain diseases or pathogens differently from wild salmon, such that the farmed fish would not necessarily require treatment except for their potential to spread disease or pathogens to wild fish.
 - There is a risk that DFO will be less rigorous in enforcing the Fisheries Act against the operators of salmon farms."⁵
 - "Senior DFO Science staff that there is a gap in research on wild fish health and that, although DFO is attempting to address it, research priorities are "very much weighted" by the need for DFO Science to provide advice to its "clients," such as the Canadian Food Inspection Agency (CFIA) or to the Fisheries and Aquaculture Management Branch . . . DFO has conducted little research into the effects of pathogens from salmon farms on Fraser River sockeye. I see a difficulty in having DFO Science's research priorities for fish health directed by "clients," such as CFIA, whose mandate is not the conservation of wild fish but trade and economic concerns, or by aquaculture management, whose focus is sustainability of the aquaculture industry."⁶
- Recommendations include:

Recommendation 2: In relation to wild fisheries, the Department of Fisheries and Oceans should act in accordance with its paramount regulatory objective to conserve wild fish."⁷

Recommendation 3: The Government of Canada should remove from the Department of

³ Cohen Commission of Inquiry into the Decline of Sockeye Salmon in the Fraser River, Final Report titled *The Uncertain Future of the Fraser River Sockeye*, October, 2012 at p. 11; <http://www.cohencommission.ca/en/FinalReport/>

⁴ Ibid; at p. 12

⁵ Ibid; at p. 12

⁶ Ibid; at p. 61

⁷ Ibid; at p. 12

Fisheries and Oceans' mandate the promotion of salmon farming as an industry and farmed salmon as a product.⁸

Recommendation 67: The fish health research priorities of the Department of Fisheries and Oceans should reflect its responsibility for the conservation of wild fish. To that end, DFO's science managers should encourage innovation and new research into novel diseases and other conditions affecting wild fish, beyond the interests of specific "clients" such as the Canadian Food Inspection Agency or aquaculture management.⁹

Recommendation 68: The Department of Fisheries and Oceans should undertake or commission research into the health of Fraser River sockeye salmon, including the following issues:

- determining, in conjunction with the research proposed in Recommendations 64 and 65, what pathogens are encountered by Fraser River sockeye salmon along their entire migratory route, and the cumulative effects of these pathogens on Fraser River sockeye salmon;
- the hypothesis that diseases are transmitted from farmed salmon to wild sockeye.

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2. Cohen findings relating to potential impacts of open net-pen salmon farms and their management:

- Volume 3, "*Recommendations -Summary - Process*", includes the following statements by Justice Cohen:
 - "I therefore conclude that the potential harm posed to Fraser River sockeye salmon from salmon farms is serious or irreversible. Disease transfer occurs between wild and farmed fish, and I am satisfied that salmon farms along the sockeye migration route have the potential to introduce exotic diseases and to exacerbate endemic diseases that could have a negative impact on Fraser River sockeye."¹¹
 - "In my view, DFO needs to be even more transparent and should allow non-government and non-industry researchers to have access to the fish."¹²
 - "While routine monitoring looks for known diseases, DFO also needs to look for changes in salmon farms (such as new or novel diseases and pathogens) and to be able to relate conditions it finds in the broader environment (such as conditions affecting wild salmon) to what is happening on salmon farms. The privilege of being allowed to conduct a business that poses risk to wild stocks should carry a concomitant requirement to provide access to government scientists for research purposes beyond the scope of routine monitoring. It is through such research that new discoveries are made which can lead to better monitoring and the implementation of better precautionary measures to protect wild stocks."¹³
- Recommendations 11 through 20 in Volume 3 of the Final Report relate to the regulation of fish farms:
 - Recommendation 11: In order to provide a longer time series of data on which to test for relationships between stressors found at salmon farms and the health of Fraser River sockeye salmon, the Department of Fisheries and Oceans should continue to require the

⁸ Ibid; at p. 12

⁹ Ibid; at p. 61

¹⁰ Ibid; at p. 61

¹¹ Ibid; at p. 22

¹² Ibid; at p. 19

¹³ Ibid; at p. 19

collection of fish health data directly from operators of salmon farms and through DFO audits.¹⁴

- Recommendation 12: For research purposes beyond routine monitoring, the Department of Fisheries and Oceans should require, as a condition of licence, that the operator of a salmon farm provide, on reasonable demand by DFO, fish samples, including live fish or fresh silvers (recently deceased fish), in a quantity and according to a protocol specified by DFO.¹⁵
- Recommendation 13: The Department of Fisheries and Oceans should give non-government scientific researchers timely access to primary fish health data collected through DFO's routine monitoring programs, including data that relate to farmed or wild salmon.¹⁶
- Recommendation 14: Beginning immediately and continuing until at least September 30, 2020, the Department of Fisheries and Oceans should ensure that:
 - the maximum duration of any licence issued under the Pacific Aquaculture Regulations for a net-pen salmon farm in the Discovery Islands (fish health sub-zone 3-2) does not exceed one year;
 - DFO does not issue new licences for net-pen salmon farms in the Discovery Islands (fish health sub-zone 3-2); and
 - DFO does not permit increases in production at any existing net-pen salmon farm in the Discovery Islands (fish health sub-zone 3-2).¹⁷
- Recommendation 16: After seeking comment from First Nations and stakeholders, and after responding to challenge by scientific peer review, the Department of Fisheries and Oceans should, by March 31, 2013, and every five years thereafter, revise salmon farm siting criteria to reflect new scientific information about salmon farms situated on or near Fraser River sockeye salmon migration routes as well as the cumulative effects of these farms on these sockeye.¹⁸
- Recommendation 17: The Department of Fisheries and Oceans should apply revised siting criteria to all licensed salmon farm sites. Farms that no longer comply with siting criteria should be promptly removed or relocated to sites that comply with current siting criteria.¹⁹
- Recommendation 18: If at any time between now and September 30, 2020, the minister of fisheries and oceans determines that net-pen salmon farms in the Discovery Islands (fish health sub-zone 3-2) pose more than a minimal risk of serious harm to the health of migrating Fraser River sockeye salmon, he or she should promptly order that those salmon farms cease operations.²⁰
- Recommendation 19: On September 30, 2020, the minister of fisheries and oceans should prohibit net-pen salmon farming in the Discovery Islands (fish health sub-zone 3-2) unless he or she is satisfied that such farms pose at most a minimal risk of serious harm to the health of migrating Fraser River sockeye salmon . . .²¹

¹⁴ Ibid; at p. 19

¹⁵ Ibid; at p. 19

¹⁶ Ibid; at p. 19, 20

¹⁷ Ibid; at p. 106

¹⁸ Ibid; at p. 106

¹⁹ Ibid; at p. 106

²⁰ Ibid; at p. 106, 107

²¹ Ibid; at p. 107

3. Cohen Commission's findings relating to the Wild Salmon Policy and Habitat Policy

- Chapter 10 of Volume 1 of the Final Report "The Sockeye Fishery" is fully dedicated to an analysis of the Wild Salmon Policy.
- Volume 3, "*Recommendations -Summary - Process*", includes the following statements by Justice Cohen:
 - "At the higher levels within the Department (DFO), I perceived a preoccupation with the development and revision of policies - an attitude that the solution to any problem is a new policy...However, creating a policy is not enough . . . I call for action on two pivotal DFO policies that are yet to be fully implemented: the 1986 Habitat Policy and the 2005 Wild Salmon Policy."²²
 - "Seven years after the release of the WSP, little progress has been made in implementing it beyond developing the methodologies required to monitor and assess the status of salmon Conservation Units and some of their habitats. Although the policy itself promised that an implementation plan would be prepared, that commitment has not been . . .The Government of Canada must step forward and provide the necessary funding for implementation."²³
 - "I conclude that the 1986 Habitat Policy has not been fully implemented. Moreover, DFO has not developed a plan to do so. In my view, implementation of Strategy 2 of the Wild Salmon Policy would advance implementation of the 1986 Habitat Policy by providing DFO with a method to assess Fraser River sockeye habitat loss or gain."²⁴
- Recommendations 5 to 10 in Volume 3 of the Final Report relate to the implementation of the Wild Salmon Policy and include:
 - Recommendation 5: The new associate regional director general should, by March 31, 2013, publish a detailed plan for implementation of the Wild Salmon Policy, stipulating: what tasks are required; how they will be performed and by whom; when they will be completed; and how much implementation will cost, as set out in a detailed itemization of costs.²⁵
 - Recommendation 6: The Government of Canada should establish dedicated Wild Salmon Policy funding sufficient to carry out the Department of Fisheries and Oceans' implementation plan and to cover ongoing operational costs.²⁶
- Recommendation 41 calls for the implementation of the 1986 Habitat Policy:
 - Recommendation 41: The Department of Fisheries and Oceans should complete implementation of the 1986 Habitat Policy. By March 31, 2013, DFO should, for the benefit of Fraser River sockeye salmon, set out a detailed plan addressing these points:
 - how DFO will measure the amount of productive capacity of Fraser River sockeye habitat in order to assess whether the net gain objective is being achieved on an ongoing basis;

²² Ibid; at p. 4

²³ Ibid; at p. 91

²⁴ Ibid; at p. 43

²⁵ Ibid; at p. 104, 105

²⁶ Ibid; at p. 105

- how DFO will take into account the cumulative impact on Fraser River sockeye habitat potentially arising from individual projects that are currently considered only on a project-by-project basis, if at all;
- how the tasks will be performed, and by whom;
- when the tasks will be completed; and how much implementation will cost, as set out in a detailed itemization of costs.²⁷

²⁷ Ibid; at p. 109