Cohen Commission Recommendations: A Brief Status Update
Some Cohen Milestones

• 20 participant groups
• 181 witnesses
• 128 days testimony
• 2145 exhibits
• 33 expert and in-house reports
• extended to hear new disease evidence
• 75 recommendations tabled October 31, 2012
• $37 million budget
And Some Cohen Misses

• Way too many missed deadlines (Cohen tracker)
• Way too much vagueness from Fisheries & Oceans:

“We are acting consistently with the recommendations of Justice Cohen’s report.”

• Way too little in terms of a considerate, written response/workplan.
Cohen: Harm Associated with Farming

“I accept the undisputed evidence that Fraser River sockeye face some likelihood of harm occurring from disease and pathogens on salmon farms.” Vol. 3, page 21

“I therefore conclude that the potential harm posed to Fraser River sockeye salmon from salmon farms is serious or irreversible.” Vol. 3, page 22

Or...why action is urgently needed, especially with ongoing regulatory work
Trudeau’s Mandate Letter to Minister

“Use scientific evidence and the precautionary principle, and take into account climate change, when making decisions affecting fish stocks and ecosystem management.”

“Act on recommendations of the Cohen Commission on restoring sockeye salmon stocks in the Fraser River.”

November 13, 2015
“Use scientific evidence and the precautionary principle, and take into account climate change, when making decisions affecting fish stocks and ecosystem management.”

“Act on recommendations of the Cohen Commission on restoring sockeye salmon stocks in the Fraser River.”

“Because it’s 2015.”
DFO Responds August 9, 2016

Many Thoughtful Recommendations

- #22, 23, 24 - Salmon enhancement concerns
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- #25, 26, 30 - Sockeye harvest rules/planning
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- #28, 29, 31, 32, 33, 34, 35 - Stock assessment/catch monitoring
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- #28, 29, 31, 32, 33, 34, 35 - Stock assessment/catch monitoring
- #58, 61, 62 - Enforcement
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- #28, 29, 31, 32, 33, 34, 35 - Stock assessment/catch monitoring
- #58, 61, 62 - Enforcement
- #68 - Sockeye health research
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• #58, 61, 62 - Enforcement
• #68 - Sockeye health research
• #71, 72 - Cumulative effects of stressors
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- #25, 26, 30 - Sockeye harvest rules/planning
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- #28, 29, 31, 32, 33, 34, 35 - Stock assessment/catch monitoring
- #58, 61, 62 - Enforcement
- #68 - Sockeye health research
- #71, 72 - Cumulative effects of stressors
- Further 8 on pollutants, water, riparian regulations

(https://news.gov.bc.ca/stories/bc-responds-to-cohen-commission-recommendations)
#3. Resolve DFO’s Conflicted Mandate

“The Government of Canada should remove from the Department of Fisheries and Oceans mandate the promotion of salmon farming as an industry and farmed salmon as a product.”

Also echoed by Canada’s Royal Society
Fisheries Minister’s Response?

This recommendation is directed to the Government of Canada. DFO’s oversight of the salmon farming industry is consistent with its mandate.
#41. Implement 1986 Habitat Policy

Given the changes to legislation, policy, and programs, recommendations with respect to the 1986 Habitat Policy and Habitat Management Program are out of date and have not been implemented.
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As per the Minister’s mandate letter, DFO plans to review the previous government’s changes to the Fisheries Act, to “restore lost protections, and incorporate modern safeguards.” At such time as the review is completed, this recommendation may be reconsidered.
#4. Wild Salmon Policy

The Department of Fisheries and Oceans should immediately create a new position in the Pacific Region at the associate regional director general level with responsibility for:

• developing and implementing the Wild Salmon Policy implementation plan recommended under Recommendation 5; and

• supervising the expenditure of funds provided under Recommendation 6 for implementation of the policy.
Fisheries Minister’s Response?

The creation of an ongoing senior level position, parallel to the Associate Regional Director General, dedicated to implementation of the WSP would require additional funding, and would represent a high cost relative to benefit...

DFO is implementing this recommendation through development of a strengthened governance and oversight regime at the senior management level rather than through establishment of a new position.
#14. One-year Licences Discovery Islands

Fisheries Minister’s Response?
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Agree…..but only for Discovery Islands’ farms
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Everywhere else we will increase farm licence period to 6 years (with limited consultation); and also expand some farms.
Revise/apply Farm Siting Criteria

#15. DFO should explicitly consider proximity to migrating Fraser Sockeye when siting farms

#16. After comment from First Nations, stakeholders and scientific peer-review, DFO should revise criteria by March 31, 2013 and every 5 years after

#17. Revised criteria should apply to all farms. Farms that no longer comply should be removed.
#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 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.
Place Burden of Proof Where it Belongs

#19. On September 30, 2020, the Minister of Fisheries and Oceans should prohibit net-pen salmon farming in the Discovery Islands 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. The Minister’s decision should summarize the information relied on and include detailed reasons.
Fisheries Minister’s Response?

#18. This recommendation has been implemented. Scientific research is being conducted and a disease risk assessment process is underway and will be completed by 2020.

#19. This recommendation has not been implemented as the timeline on this recommendation is September 2020; however, scientific research is being conducted to address the question raised.
Insidious Burden-of-Proof Trap

Much of the rigidity in the system comes from the burden of proof: the complexity of ecological systems is such that activists must convince people to act without “sufficient evidence.”

(Gunderson & Holling 2002)
A Decade of Misplaced Burden

Peacock et. al. 2012
Louse Control Helps Broughton Pinks

![Graph showing estimated mortality (%) over return years from 2002 to 2010, with error bars indicating variability.](image)
A New Science Culture?

Substantial evidence entered at Cohen Inquiry by “Conservation Coalition” and others pointing to systemic agency bias likely linked to mandate conflict.
“Authors conveniently omit data”
“curious in failing to mention farm hosts”
“errors of omission and their selective use of their own and others' data lead the naïve reader to a conclusion that cannot be substantiated.”
Nearly 5-year vain effort by ENGOs to reform DFO’s Aquaculture Management Advisory Committee (AMAC)

Main issue is NGO request to broaden and balance science input, against persistence of DFO that such input remains sole purview of agency scientists.

Remember DFO lip service yesterday, and in response to Cohen Recommendation 16, to incorporate new science?
Are Farms Harming Sockeye?

DNA = 30 Fraser sockeye stocks

Sea Louse Infection of Juvenile Sockeye Salmon in Relation to Marine Salmon Farms on Canada’s West Coast

Michael H. H. Price¹, ²*, Stan L. Proboszcz³, Rick D. Routledge⁴, Allen S. Gottesfeld⁵, Craig Orr⁵, John D. Reynolds⁶

¹ Department of Biology, University of Victoria, Victoria, Canada, ² Raincoast Conservation Foundation, Sidney, Canada, ³ Watershed Watch Salmon Society, Coquitlam, Canada, ⁴ Department of Statistics and Actuarial Science, Simon Fraser University, Burnaby, Canada, ⁵ Skeena Fisheries Commission, Hazelton, Canada, ⁶ Earth to Ocean Research Group, Department of Biology, Simon Fraser University, Burnaby, Canada
Farms Amplify Lice on Sockeye

![Graph showing the abundance of Lepeophtheirus salmonis in different regions and years.](image)
Farms Amplify Lice on Sockeye
Caligus Also a Problem?
Caligus Impair Feeding/Growth

Sea lice, sockeye salmon, and foraging competition: lousy fish are lousy competitors
Sean C. Godwin, Lawrence M. Dill, John D. Reynolds, and Martin Krkošek

Species not considered in regulations
A New Science Culture?

January 12, 2017 meeting of NGO Conservation Regulatory Working Group and DFO Science Staff

Response from senior DFO louse expert when asked if DFO would consider revising aquaculture regulations, based on new academic science on Caligus impacts on sockeye:
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Again, I have to ask, how exactly is this consistent with DFO’s response to #16?
A New Science Culture?

You're invited to attend: Collaborations on the Coast
BCSFA Marine Environmental Research 2017 Review & Seminar Series

Erin Rechisky
Acoustic tagging of juvenile salmon in Johnstone Strait and Strait of Georgia

Brian Hunt
Juvenile salmon survival program

Gary Marty
Government audit records inform us that BC salmon farm diseases pose no more than minimal risk of serious harm to wild salmon

Mark Polinski
Continued investigations into PRV pathogenesis

Simon Jones
Marine reservoirs of infectious agents associated with PGD
A New Science Culture?

Same “minimal risk” conclusion presented by Dr. Marty in March 16, 2015 presentation, “Information Regarding Concerns about Farmed Salmon – Wild Salmon Interactions,” to Minister of Agriculture’s Advisory Council on Finfish Aquaculture

Prompted academic critique by Dill et. al. (2015).
A New Science Culture?

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4. Dr. Marty omitted evidence that contradicts a number of his claims
5. Dr. Marty failed to mention genetic tests that suggest infectious salmon anemia virus is present in BC
6. Dr. Marty failed to consider emerging and evolving diseases that have the potential to impact wild salmon populations.
#75. Create Independent Oversight Body

Report to the Standing Committee on Fisheries and Oceans and to the public as follows:

• By March 31, 2014, and every two years thereafter during implementation of the Wild Salmon Policy, on progress in implementing the policy in relation to Fraser River sockeye salmon.

• By September 30, 2015, on the extent to which and the manner in which this Commission’s recommendations have been implemented.

DFO’s response: This recommendation is directed at the broader Government of Canada.
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2020 Fast Approaching

Cohen’s Legacy?
“It's 2017!”