

Dealing with Salmonid Habitat Impacts by Other Industries

Building First Nations Capacity to be More Involved in Salmonid Habitat Remediation Economic Opportunities

"Recognize the potential of the environmental management sector by investing in a co-ordinated approach to skills training, apprenticeships, mentoring, education and job creation that links wild salmon recovery efforts to new economic opportunities."

Proposed Concept

Capacity-ready First Nations involved in salmonid habitat remediation economic opportunities

Description

The restoration of habitat for salmonids and other fish species is a top technical priority for First Nations in British Columbia. This was made clear during Indigenous Program Review (IPR) when participants in the Aboriginal Fisheries Strategy program ranked the importance of habitat restoration activities as second only to stock assessments. Habitat restoration is also a shared priority of governments and industry in the Province, as documented by the B.C. Wild Salmon Advisory Council in its *Recommendations for a Made-in-BC Wild Salmon Strategy*.

Habitat restoration and remediation are costly and time-consuming activities. The restoration or remediation approach may also differ depending on where the damage has occurred (e.g., along the BC coast, in estuaries and riparian zones, along rivers and streams, or within lakes and creeks) or according to what has caused the damage (i.e., a natural disaster, such as a flood or fire; or manmade damage, such as dams, culverts, or agricultural or industrial run-off).

An important recommendation in the IPR phase two final report was for Fisheries and Oceans Canada to connect First Nations and other Indigenous communities to habitat restoration economic opportunities. The B.C. Wild Salmon Advisory Council also recommended that the Province consider the potential of the environmental management sector as an exciting new employment sector in BC: the restoration economy.

¹ Recommendations for a Made-in-BC Wild Salmon Strategy, B.C. Wild Salmon Advisory Council, February 2019, p. 23.









This proposed project is focused on increasing the capacity of First Nations across BC to be more involved in salmonid habitat restoration activities; especially, as an economic opportunity. It proposes to leverage other federal and provincial programs that have been set up to deal with habitat damage in broad and specific ways. It also proposes to leverage the best practises of First Nations in the Province that have collaborated with various partners to complete habitat remediation projects or have businesses in the community that have completed habitat remediation work for governments and/or others.

Workshop

Following a discussion about the proposed concept and any required changes or input from AAROMs and First Nations without an AAROM, the workshop will focus on identifying the parameters and estimated cost of the project over two to four years.

For example, this project could include the following elements:

Phase One (FY2020-21): Information Collection

- Inventory of existing habitat-remediation programs and partnerships across the province that could involve First Nations members or businesses, such as:
 - Agriculture (e.g., Farmland Riparian Interface Stewardship Program)
 - Mining (e.g., Crown Contaminated Sites Program)
 - Dams and culverts (e.g., Fish & Wildlife Compensation Program)
 - Major development and/or resource extraction (e.g., Indigenous Habitat Participation Program, Aquatic Habitat Restoration Fund)
- Inventory of innovative tools being used in habitat-remediation activities elsewhere
 - Method to rank dams requiring fish ladders to anadromous salmon in Vancouver Island waterways² or the building of "off ramps" used in California³
 - Stk'emlupsemc Te Secwepemc Nation's traditional knowledge approach to restore the New Afton Mine site⁴
- Inventory of habitat-remediation employment (e.g., fish habitat restoration coordinator)
- Survey existing First Nations' habitat-remediation businesses or individuals with training⁵
 - Training required to work in habitat-remediation activities (i.e., off-channel, instream and field techniques)
 - Training needs
 - Interested workers

⁵ This exercise could leverage the results of a collaborative project presently being undertaken by the Institute to document Indigenous training and skills development.









² https://ibis.geog.ubc.ca/courses/geob479/students/TonyZhang/resultsdiscussion.html This University study is one example of a potential innovative tool that could be used to remediate salmonid habitat

³ https://www.yesmagazine.org/planet/in-california-wine-country-restoring-salmon-habitat-after-more-than-a-century-of-dams-20170530

⁴ https://open.library.ubc.ca/cIRcle/collections/59367/items/1.0354677

Phase Two (FY2021-22): Business and Skills Development, Training and Mentorships

- Matching existing programs and First Nations' businesses
 - Developing and distributing information packages on programs and remediation priorities to First Nations' businesses
 - Partnering with the Canadian Council for Aboriginal Business and/or other Indigenous business development organizations to advance First Nations participation in the restoration economy
- Holding a best practises workshop or conference with AAROMs and interested First Nations to showcase successful habitat remediation partnerships and opportunities for mentorship and skills development elsewhere⁶
- Training interested workers identified in the survey during phase one⁷

Phases Three and Four (FY2022-24): Enabling Business and Employment Successes

- Continuing to match existing programs and First Nations' businesses
 - Developing and distributing information packages on First Nations' businesses and employee skills to existing programs, government departments, and others⁸
- Continuing to offer training opportunities to interested workers and business managers

Why is this Concept Being Considered?

There is consensus among First Nations, governments, and industry that habitat remediation and restoration is critical to the health and recovery of salmonids and other fish species in BC. There is also consensus that these activities are economic opportunities.

The Government of Canada and the Province of BC have both made commitments to reconciliation with Indigenous Peoples. Fisheries and Oceans Canada has interpreted what this commitment means for the Crown by setting 'reduced socio-economic gaps' as one of three core objectives.

This proposed project is an opportunity to meet the priorities of First Nations in BC for healthy salmonid habitat and the priorities of governments for economic reconciliation. It is also an opportunity to meet the priority of First Nations to provide meaningful resource management employment to community members.

Alignment with BCSRIF Priorities

This project is focussed on innovation and infrastructure that supports the creation of partnerships that will help to advance scientific activities related to habitat for salmonids and other species, as well as activities that will protect and restore the abundance of priority wild BC fish stocks, including wild salmon. It also has the potential to adopt new processes or equipment to support the protection and restoration of wild stocks through habitat remediation and restoration activities.

⁸ The development of Indigenous procurement programs could influence other elements of this project in later years.









⁶ This activity could be combined with the Canadian Council for Aboriginal Business partnership activity noted above.

⁷ Any BCSRIF funding for training in this area would first leverage training funds available through the AAROM or AFS.

Alignment with Other Initiatives (Potential Partners)

BCSRIF support may be used to augment the funding or activities of other programs.

BC's Contaminated Sites Program

This program manages contaminated sites on Crown land in BC for which there is no existing responsible party, which are typically historic abandoned mine sites.

Canadian Council for Aboriginal Business

The mission of the Council is to advance sustainable business relationships between Indigenous Peoples and business Canada.

Coastal Restoration Fund

This \$75-million program supports project that help restore coastal aquatic habitat by addressing threats to marine habitats and species. This includes efforts to identify and respond to restoration priorities, to long-term sustainability and to build capacity. It also engages Indigenous groups (and others) in planning, restoration, capacity building, monitoring, reporting and the mitigation of stressors affecting aquatic habitats and marine life.

Coastal Restoration Society

This Society specializes in habitat remediation within traditional First Nations territories, emergency spill response, petroleum pollution mitigation, derelict vessel removal and aquaculture site deconstruction. It has a 'First Nations First' policy to ensure meaningful employment and contract opportunities are provided to local indigenous peoples first.

Indigenous Habitat Protection Program

One part of this \$50M grants and contributions fund is targeting collaborative activities that support the conservation and protection of fish and fish habitat with long-term benefits.

Watershed Watch Salmon Society

The Society has a Connected Waters campaign to reconnect 1,500 kilometers of salmon habitat that is currently blocked by outdated flood infrastructure.







