

FISH AND FISH HABITAT PROTECTION PROGRAM (FFHPP)

Fish Habitat Restoration Roundtable Discussions

Native Women's Association of Canada for Fisheries and Oceans Canada (DFO)

Summary Report | Final



Canada 

Based on its commitment to Indigenous engagement related to the [Fish and Fish Habitat Protection Program](#) (FFHPP), NWAC invited Indigenous women, Two-Spirit and gender-diverse people to contribute to three virtual roundtable discussions related to fish habitat restoration.

NWAC sought the perspectives of Indigenous women, Two-Spirit, and gender-diverse people to identify objectives and opportunities related to fish habitat restoration.

The discussions relate to the work of Fisheries and Oceans Canada (DFO) in Developing a Framework to identify Fish Habitat Restoration priorities. Contributions to the survey will be used to propose improvements to the framework.

The discussions consisted of four themes:

- A. Preserving the values Indigenous women, girls, and gender diverse people derive from fish and fish habitats
- B. Identifying climate and non-climate impact on the values Indigenous women, girls, and gender diverse people derive from fish and fish habitats
- C. Fish habitat restoration priorities and land use change across landscape scales
- D. Fish habitat restoration priorities and Indigenous treaty rights



The Fish Habitat Restoration Priorities Roundtable consisted of three virtual round tables by the Native Women’s Association of Canada on July 18th, 21st and 25th, 2022. Participants were recruited using an open online call.

Participants were limited to Indigenous women, girls, two-spirit and gender-diverse people from across Canada with extensive local and or professional knowledge and/or lived experiences in:

- Recreational and or commercial fishing
- Fish and fish habitat conservation and
- Fish habitat restoration

The round tables included 33 participants across all three sessions. The same questions were asked in each roundtable and hence the responses across all roundtables have been presented collectively. The thematic areas and questions were selected based on a list of considerations and conditions for selecting restoration priorities:

Considerations for selecting restoration priorities	List of conditions
Ecological conditions	<ul style="list-style-type: none"> • Improves conditions for aquatic species • Addresses threats related to invasive aquatic species • Mitigates impacts against climate change • Leads to improvement in landscape connectivity • Considers improvement to the size of the area restored • Considers habitat improvement that benefits multiple species • Considers improvement to habitat buffers around unique, sensitive, or protected areas
Socioeconomic consideration	<ul style="list-style-type: none"> • Improves habitat in areas that are economically valuable or recreational fisheries
Cultural considerations	<ul style="list-style-type: none"> • Addresses restoration priorities that have been identified by Indigenous people

The questions were framed using the considerations for selecting restoration priorities in the table above and three broad guiding questions namely:

1. How does the degradation of fish and fish habitats and measures that respond to degradation affect Indigenous values?
2. How can Indigenous knowledge about the preservation of Indigenous values and the protection of Indigenous treaty rights contribute to the identification of **opportunities** and the development of **objectives** related to fish and fish habitat restoration?
3. How could Indigenous knowledge and the preservation of Indigenous values contribute to the **identification of priority** actions for fish habitat restoration?

The survey also utilized a values-driven, gender-based approach that:

1. Gives a gendered voice to Indigenous ideas and ideals, by including and mainstreaming gender and Indigenous values as a central feature in policy-making related to fish and fish habitat protection
2. Frames fish and fish habitats as **social-ecological systems** that are closely connected to life and livelihoods in Indigenous communities
3. Acknowledges that Indigenous life and livelihoods are affected by the **cumulative effects** from both **climate and non-climate impacts** on fish and fish habitats
4. Includes gender identities as important elements of decision-making processes related to the governance of fish and fish habitats
5. Recognizes **fragmentation** (disconnection and conflicts) as natural features of decision-making processes related to fish and fish habitat management
6. Acknowledges the protection of treaty rights as a central feature of fish and fish habitat governance
7. Acknowledges the value of **two-eye seeing in knowledge production** and **social learning processes** related to fish and fish habitat protection

The roundtable was conducted by NWAC on Fish Habitat Restoration Priorities on July 18, 21, and 25, 2022.

Table of contents

1. Methodology	3
2. Executive Summary	5
3. Theme A	8
4. Theme B	11
5. Theme C	18
6. Theme D	21
7. Roundtable notes	23

Executive summary – key discussion findings

A

Value provided by fish & fish habitats for Indigenous women, girls, and gender-diverse people is interconnected

The top values mentioned by Indigenous women, girls, and gender-diverse people during the roundtable discussions are that fish and fish habitats provide value in the form of food support, recreation opportunities, spiritual and cultural fulfilment, economic empowerment, and environmental protection. Food support was most often mentioned as a value provided by not only fish, but fish habitats for foods such as wild rice. Fishing was also mentioned as providing economic and employment support for members of the community. Spiritual and cultural fulfilment was also mentioned by many participants who provided examples of using fish scales, tanning fish skin, and the healing provided by fish and fish habitats. They further explained how these values are interconnected and hold significant importance to keep traditions alive. Participants expressed that environmental protection is a part of spiritual and cultural practices, which can then produce economic value and food support.

When asked which of the values they mentioned should be given priority, participants mentioned a focus on leaving as little of a footprint on the environment as possible, reconnecting with the land and promoting spiritual and traditional knowledge surrounding fish and fish habitats, as well as access to fish and fish habitats whether it be physical access or access to healthy sustainable ecosystems that provide food security and other values to Indigenous women, girls, and gender-diverse people.

B

Many report losses or decline of benefits due to effects of climate change, and projects in or near water, on fish habitats

Participants mentioned a multitude of effects that climate change and seasonal changes have had on fish and fish habitats in their community or other communities. Mentions included decreasing water levels, impacts on spawning and decreasing fish populations, decreased quality in the fish that are available, flooding, decreased water quality and increased algal blooms, and barriers to connecting with the water in spiritual and traditional ways. Participants also mentioned that these effects are becoming more frequent and over longer periods resulting in a loss of spiritual connection with water.

When asked what actions should be taken to adapt to the impacts and effects of climate change and seasonal weather patterns on the value Indigenous women, girls, and gender-diverse people derive from fish and fish habitats, participants most often mentioned looking at policy through an Indigenous lens and an understanding of interconnectedness.

Executive summary – key discussion findings (ct'd)

C

Ways that fish habitats are affected by land use change in urban areas or inland watersheds

Participants mentioned increased human activity, illegal fishing and overfishing, pollution of lakes and rivers, and decreased water levels as ways fish habitats are affected by land use change in urban areas or inland. Some participants highlighted that changes on land will inevitably affect the waters and fish habitats as everything in nature is interconnected.

When asked what policy actions should be taken to reduce these negative impacts, participants said incorporating an Indigenous lens, more consideration of environmental impacts of infrastructure by policymakers, implementing buffer zones along inland watersheds, being more mindful of the importance of using all of the fish and disposing of fish properly which is especially important with the increased human activity, and updating gravel crossways to bridges. One participant mentioned it would be a priority to create a way to gather input from Indigenous people, groups, and agencies to provide to policymakers.

D

Clear communication and engagement needed to prevent fish habitat restoration from violating treaty rights

The most frequent recommendation was to include meaningful and ongoing engagement with Indigenous communities to prevent fish habitat restoration measures from violating Indigenous treaty rights. Most responses highlighted the need to ensure it is not a one-time notification type of engagement, but that Indigenous voices are included throughout the entirety of the process and that open lines of communication are kept open. One participant said that projects or activities that violate treaty rights to practice culture on the land and water due to environmental impacts should NOT be approved. Another participant mentioned that for government policies to succeed for Indigenous people, there needs to be a lot more engagement with the Indigenous community and respect for Indigenous treaties and resources. Lastly, education was also mentioned as an important part of preventing fish habitat restoration measures from violating Indigenous treaty rights.

Actions that should be given high priority

1. Fish habitat restoration policies that focus on the interconnectedness of values and prioritize protecting the benefits that Indigenous women, girls and gender-diverse people receive from fish and fish habitats.
2. On-going and meaningful engagement with Indigenous communities that build relationships and prevent fish habitat restoration from violating Indigenous treaty rights.
3. Increased monitoring and post project follow ups to help reduce the impacts of land use changes in urban areas or inland watersheds on fish habitats.
4. Adequate planning to manage flooding and fish habitat restoration policies that minimize the impacts of climate change and changes in seasonal weather patterns on the benefits Indigenous women, girls, and gender-diverse people receive from fish and fish habitats.
5. Environmental impact assessment planning that focuses more on minimizing the impacts of projects in or near water, e.g., jetties, wharves and dams on the benefits Indigenous women, girls, and gender diverse people receive from fish habitats

THEME A:

Preserving the value Indigenous women, girls, and gender-diverse people derive from fish and fish habitats

A person is silhouetted against a sunset sky, standing on a wooden pier or dock in a large body of water. The water is calm, reflecting the sky. In the background, there are dark hills or mountains. Several small boats are visible in the distance. The overall scene is peaceful and serene.

QUESTION

Within your community or in other communities, how does fish and fish habitats provide value in the form of food support, recreation opportunities, spiritual and cultural fulfillment, economic empowerment, and environmental protection for Indigenous women, girls, and gender-diverse people? **(see follow up question on slide # 10)**

Values provided by fish and fish habitats

- i. Interconnectedness between values
- ii. Connections between fish and wild rice, fish scales and craft and economic empowerment
- iii. Values and spiritual healing
- iv. Loss of connections with traditional fishing practices
- v. Acknowledgement of the oneness between Indigenous people and nature

“

*They provide value because we're provided with food, from the fish and also wild rice. Fish provide me with **fish scales** and **leather** for **traditional crafts** which in turn provides an **economic boost** for my family.*

I participated in a winter camp in my community with my little sister, where we learned about setting up nets under the ice for fishing. We also learned about how to use different parts of the fish, like using scales for arts and crafts and tanning the fish skin. We also heard stories and learned a bit of the language.

My dad ran a bait shop for a while and that would create employment within the reservation.

*It's important to have a healthy ecosystem so we can continue fishing, like I did growing up. Stock fishing is good for supply, but it's unfortunate that we can't just have fish in their habitat naturally. **Fishing is becoming more recreational, rather than traditional.** I think traditional methods are starting to be forgotten, and fishing needs to continue to be a traditional culture and food support, above recreation and sport.*

There's a reason our ancestors didn't leave a 'footprint' because we were just as much part of the ecosystem as the plants and water.

”

QUESTION

Which value(s) should be given priority? Why?

Priority for values provided by fish and fish habitat

1. On land access to fish habitats

*"One of the **priorities** for us up north [North Bay] would be access to bodies of water. Sometimes we need better access through trails or roads."*

2. Food security and cultural fulfilment

*"Food security I think is a **priority** and cultural also; I grew up fishing and I want my boys to experience the same."*

"It's very expensive to buy salmon filets in the store. My mom knew how to filet a salmon impeccably, but I was never taught as it wasn't deemed valuable. I think salmon will be coming back, so we need to understand the value of taking care of fish and their habitat"

"As an Indigenous woman, I wish my mother had given me that skill set. She thought I was better off with a degree, but I wish others had that skill."

Values are interconnected and must be examined as a whole. For example, environmental protection is a part of spiritual and cultural practices, which can then produce economic value and food support.

THEME B:

Identifying climate and non-climate impact on the value Indigenous women, girls, and gender-diverse people derive from fish and fish habitats

QUESTION

- A. How has climate change or seasonal changes in weather patterns affected fish and fish habitats in your community or other communities? E.g., has there been changes in fish size, emergence of invasive fish or plant species, reduction in catch or changes in water quality, fish kills, or other changes?
- B. And what effect has these changes had on the value Indigenous women, girls, and gender-diverse people derive from fish and fish habitats? **(see follow up question on slide # 13)**

Impacts of climate change or seasonal changes in weather patterns on fish and fish habitats

Key Concerns/Issues

- i. Changing water temperatures in spring affecting start of fishing season
- ii. Rainwater pollution and chemicals affecting health of fish
- iii. Changing water temperature affecting spawning
- iv. Location of dam affecting water levels and fish size
- v. Declining fish size and fish stock
- vi. Drying up of brooks, creeks, and streams affecting spawning grounds
- vii. Declining fish stock and depletion of small water bodies linked to loss of income
- viii. Changing migration patterns due to decreasing water levels
- ix. Increase in flooding linked to outsourcing of fish supply
- x. Loss of spiritual connection with water

Participants expressed that climate change and seasonal weather changes have led to changes in water temperature, water quality and water levels, which has resulted in the decline of fish populations, a decrease in fish size and disruption of fish habitat and spawning grounds.

Due to these changes the start of fishing season has been altered, people are having to purchase fish or find new places to fish, and there is a loss of income and a loss of spiritual connection to water.

The water pollution and decline in the number of fish have resulted in periods of fishing bans and signs saying do not swim. This is a general concern for how the future generations will connect to the water in these communities.

QUESTION

What actions should be taken to adapt to the impacts and effects of climate change and changes in seasonal weather patterns on the value Indigenous women, girls, and gender-diverse people derive from fish and fish habitats? **(see follow up question on slide # 14)**

Actions to adapt to impacts and effects of climate and changes in seasonal weather patterns on values received from fish and fish habitats

Implement widespread and systemic changes in fish habitats management

"We need to think of how this works systemically. How climate change is affecting how predators, like killer whales, are appearing in habitats where they are normally not found with the frequency we are seeing today."

Need to apply Indigenous knowledge to adaptation actions

*"Start by looking at it through an **Indigenous lens**. That will make a huge change."*

Need for widespread consultation among Canadian First Nations

"A coast-to-coast in-person meeting with representatives from every Canadian First Nation and the agencies involved to do what we're doing today on a larger scale."

An Indigenous lens needs to be applied to fish habitat management. Consultations should be held with Canadian First Nations representatives and agencies and Indigenous knowledge should be used to develop adaptation actions.

Priority should be given to education at the community level from a young age and **introducing conservation practices** to save at risk species.

QUESTION Which action(s) should be a priority? Why?

Priority Actions to impacts and effects of climate change and seasonal changes in weather patterns on fish and fish habitat

Focus on community level education about fish and fish habitat from a young age

"Education at the community level and in the curriculum is important to learn from a young age. Sometimes fishing can become a competition of who gets more fish, but there won't be a competition when there is no fish left. Our community needs some education."

"Western science tends to try to harness mother nature, instead of working with her."

"We can't share with our community like we used to because we don't have access to the resources we used to have. We need to start from the source of where the problem is coming from."

"Water is spirit and carries our ancestors."

Introduction of conservation practices to save at risk "Indigenous" plant species

"Save species by introducing plants that are at risk that may be forgotten about. We tend to use unnatural new technologies, when we could just go back to basics."

QUESTION

A. How have projects, [e.g., dams, seawalls and jetties or other infrastructure works] in or near water affected fish habitats in your community or other communities? E.g., have there been changes in water quality, fish kills, disruption of spawning grounds and fish migration routes?

B. And what effect has these changes had the values Indigenous women, girls, and gender-diverse people derive from fish and fish habitats? **(see follow up question on slide # 16)**

Impacts from projects in or near water on fish habitats

Key Concerns/Issues

- i. Water polluted by farming and small-town development
- ii. Flooding destroying spawning grounds causing late spawning
- iii. Power plant causing changes in water levels
- iv. Unilateral changes in government policy have caused a loss of historical uses and access to waterway at “Daki Menan”
- v. Construction of break wall has resulted in changes in water levels
- vi. Need for adequate planning related to the introduction of man-made structures in and around water
- vii. Construction of fish gates to facilitate changing land use practices in the flood plains in the Bay of Fundy has led to low salmon populations

“

This year we had a bad flooding year. Our fish are spawning late, spawning territories aren't suitable due to the flooding in some areas. I wonder if timely actions to open the dams and mitigate the flooding would have had a better impact on the fish population.

The water levels of lake Temagami are now changing drastically, because these changes are made by the MNR or OPG - and these changes are made with power generation as a priority, not the health of the lake and its connected waterways.

These government changes affect everything, from the safety of the ice in April, to the fishing of the people on “Daki Menan,” which has been changed from historical use (some waterways are no longer readily accessible at certain times of the year). These kinds of unilateral changes are detrimental to all life living there, human and otherwise.

Sometimes we get higher or lower water levels. We had a break wall to separate the river from the boat launch. Removing the break wall affected our fish species and did a lot of damage.

”

QUESTION

What actions should be taken to reduce the impacts of existing or future projects in or near water on fish and fish habitats? [\(see follow up question on slide # 17\)](#)

Actions to reduce impacts of existing or future projects in or near water on fish and fish habitats

Need to incorporate gendered lens into Environmental Impact Assessment [EIA] of infrastructure projects

"Infrastructure projects need to have an environmental impact assessment. It can also be done through a gender lens."

Improve the close out or follow up stage of projects and incorporate restoration in the area. Remediation of mining extraction sites should focus on restoration that "makes the land as it was before"

"..... new projects need to make the land as it was before. The lack of care is astonishing."

A gender-based analysis into Environmental Impact Assessments would help examine how diverse population groups experience the impacts of projects differently and bring awareness to these issues.

QUESTION

Which action(s) should be given priority? Why?

Priority actions to reduce impacts of existing or future projects in or near water on fish and fish habitats

Provide financial support for new ideas

"More funding should be put into testing new ideas, so environmentally friendly materials, machines etc. are given opportunities."


Include traditional knowledge in decision-making processes

"Local Elders should be hired for their knowledge and show companies how it was before technology etc. took over."

Address conflicting land use policies

"Here on the east coast, the intertidal Bay of Fundy salmon have been basically wiped out mainly from the installments of fish gates due to the need for agricultural space on the floodplains."

"In order to remediate that, there would be impacts on agriculture which our provincial government doesn't want to make."



THEME C:
Fish habitat restoration priorities and land use
change across landscape scales

QUESTION

In what ways are fish habitats affected by land use change in urban areas, or inland watersheds? E.g., from residential, or commercial development, mining, or logging.

Impacts of land use change on fish habitats

- Increased human activity
- Illegal fishing and overfishing
- Pollution of lakes and rivers
- Decreased water levels
- Decrease in water quality

“

Change to the environment can affect fish and pollute lakes and rivers.

Increase in foot traffic and possible overfishing.

Negative impacts of residential developments aren't just related to building, but also to human use increasing in those areas. I often find that in new residential developments, people aren't respectful of the waterways and I often come across illegal fish or minnow nets or pollution in the streams.

The river back home is only ankle deep, and it used to be head deep.

If insects are hurting, that relates to fish as well. Everything is interconnected.

Everything connects to each other. Everyone should work together to understand this impact.

”

QUESTION

- A. What actions should be taken to reduce the negative impacts of land use change in urban areas or inland watersheds on fish habitats and how might these actions contribute to fish habitat conservation?
- B. Which action(s) should be given priority? Why?

Priority actions to reduce negative impacts of land use change on fish habitats

- Strengthen regulation/policies around infrastructure with a greater focus on environmental protection through an Indigenous lens.
- Implement buffer zones along watersheds,
- Implement proper caught fish or fish waste disposal measures
- Hold ceremonies to have the space to share salmon stories and continue teaching how to use all parts of the fish properly
- Updating gravel crossways to bridges
- Create comprehensive ways to gather input from Indigenous people, groups, and agencies to provide to policymakers.

“

If there were a buffer area around proposed initiatives, that could help reduce the negative impacts.

Include the voice of the people for the people. There needs to be a safe space for all Indigenous people from all of Canada in order to have a holistic change in policy.

Create a survey, create a presentation, collect representatives from the communities who understand the problem and gather their input, create a space to add further information, create a report and bring it forward to policy-makers. Include representatives from Indigenous groups and agencies so they are included at the table. Have an in-person roundtable to have our voices heard.

Viewing the issues with an Indigenous lens so we can start over.”

THEME D:

Fish habitat restoration priorities and Indigenous treaty rights

QUESTION

- A. How can fish habitat restoration measures, e.g., habitat banking or offsetting violate Indigenous treaty rights? i.e., the right to:
1. Protect traditional and customary governance of traditional lands
 2. Protect waters and resources including fisheries
 3. Protects rights to institute laws related to fishing
 4. Other rights
- B. What actions would you recommend to prevent fish habitat restoration measures from violating Indigenous treaty rights? e.g., actions that focus on changing legislation, or actions that focus on changes to policy.

Habitat restoration measure and violation of Indigenous treaty rights

Key Concerns/Issues

- Lack of meaningful engagement and relationship-building with Indigenous communities, and respect for Indigenous treaty rights.
- Need for greater involvement in decision-making, as well as ongoing dialogue.
- Need for clearer communication and explanations of key concepts. For example, participants requested information on elements of the framework and an explanation for habitat **banking**.

Recommended actions to prevent violation of treaty rights

• Need for meaningful and ongoing consultation

"When government agencies engage with Indigenous communities, it has to be ongoing. It can't be one-time. Notification is not meaningful consultation. The Indigenous voice and history need to be represented. There has to be a mechanism to ensure meaningful Indigenous engagement on an ongoing basis."

"For government policies to succeed for Indigenous people, there needs to be a lot more engagement with the Indigenous community and respect for Indigenous treaties and resources."

• Need for clarification of the concept of habitat banking

"The concept of habitat banking is not very clear, and suggests that a proponent could offset future development, but by what criteria? Economic?"

Roundtable notes

