



**Aquatic Habitat**  
CANADA

**AQUATIC HABITAT CANADA**  
INAUGURAL MEETING + WORKSHOP

# Final Report

MAY 1-2, 2019



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# Executive Summary

Aquatic Habitat Canada is the national network for aquatic habitat protection and restoration. AHC focuses on helping governments, communities, Indigenous organizations, industry and conservation organizations effectively protect and restore healthy and resilient aquatic ecosystems.

Funded by DFO, members and foundation grants, AHC works independently of any single stakeholder to augment and complement the regulatory efforts of government. AHC engages all sectors to build capacity for non-regulatory conservation activities, including stewardship, conservation and science and knowledge transfer.

On May 1-2, 2019, Aquatic Habitat Canada held its inaugural meeting and workshop in the nation's capital. The workshop was a ground-breaking event that brought together 45 professionals from half a

dozen sectors, six provinces, one territory and the federal government to begin to forge a national partnership for habitat restoration.

AHC would like to acknowledge that the land on which the May 1-2 workshop was held is the traditional unceded territory of the Algonquin Anishnaabeg People.

Guided by a steering committee comprised of government, Indigenous people, industry, scientists and conservation organizations, the inaugural meeting and workshop explored how to bridge different experiences and perspectives. The workshop began a dialogue among practitioners and between practitioners and regulators about what constitutes ecological restoration and how to identify areas where experience and contributions can be leveraged in partnership to provide better ecological outcomes.



The event aimed specifically to identify key habitat protection and restoration priorities within each of four core themes:

## **Theme 1: Resources and Capacity Building**

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One of AHC's key roles is to act as a hub for collaboration and resource identification and to function as a clearinghouse of projects on the landscape, including through mapping, so that others can see where and what project are being undertaken.

AHC will play a role in encouraging private funders to invest in aquatic habitat protection and restoration. It will build capacity at all levels to enable regional and local organizations to access and work with private funders.

A broadly diverse membership helps AHC identify opportunities for cooperation between different levels of government, different departments, and between government and the private sector.

## **Theme 2: Knowledge Synthesis and Transfer**

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Part of AHC's role is to identify the data and knowledge gaps that need to be addressed to make progress towards habitat protection and restoration. This work will be accompanied by ongoing efforts to meet those data and knowledge needs.

AHC works to establish a robust science framework for habitat protection. This requires linking the disparate strands of fisheries and habitat management through harmonized actions using an adaptive, coordinated and evidence-based approach.

AHC compiles the best examples of aquatic habitat conservation and restoration, especially those that include historical context, such as stories or information about specific areas, species and people.

## **Theme 3: Restoration Planning and Prioritization**

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AHC members support a national strategy for habitat protection and restoration. To achieve this, restoration planning and prioritization needs to be inclusive of all stakeholders, including private landowners. In many watersheds the majority of the land is private, making it vital to get landowners on board for restoration projects.

The need to incorporate Indigenous Traditional Knowledge is also an important consideration for fish and habitat management planning. Indigenous communities prefer to be involved early in the aquatic habitat planning and prioritization process. AHC can play a role in arriving at a model that provides a proactive framework to guide planning processes with Indigenous communities.

## **Theme 4: Policy and Program**

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AHC has been asked by DFO to review regulations governing freshwater, marine and coastal aquatic restoration and to provide input on their effectiveness, limitations and regulatory gaps. DFO has also asked AHC to provide recommendations for new regulations governing aquatic restoration.

AHC will promote a streamlined authorization process for certain classes of projects, such as those focused solely on the restoration of habitat. Currently, applications for restoration projects are subject to regulations and policies designed for development proposals.

Many AHC members are practitioners who bring considerable technical expertise to the organization. This allows AHC to identify regulatory hurdles to habitat protection and restoration and to propose solutions.

# Why Aquatic Habitat Canada?

Aquatic Habitat Canada plays an important role in aquatic habitat protection and restoration across the country by:

- Networking organizations and individuals across sectors and regions
- Helping bring funding to aquatic habitat protection and restoration projects
- Helping guide DFO's Fish and Fish Habitat Protection Program
- Supporting planning and priority-setting for aquatic habitat protection and restoration
- Bringing a collaborative approach to both Indigenous knowledge and to science in the protection and restoration of habitat
- Building and sharing tools and techniques for habitat restoration
- Amplifying the work of regional organizations working for the protection and restoration of aquatic habitat



# Lead Partners



## BC Wildlife Federation

The BC Wildlife Federation strives to ensure the sound long-term management of BC's fish, wildlife, and outdoor recreational resources in the best interest of present and future generations.



## Canadian Electricity Association

Working together, Canadian electricity utilities and companies that provide products and services to the electricity sector ensure Canadian electricity is some of the cleanest in the world.



## Canadian Wildlife Federation

The Canadian Wildlife Federation's mission is to conserve and inspire the conservation of Canada's wildlife and habitats for the use and enjoyment of all.



## Fisheries and Oceans Canada

Fisheries and Oceans Canada is the federal lead for safeguarding our waters and managing Canada's fisheries, oceans and freshwater resources.



## Pacific Salmon Foundation

Founded in 1987, Pacific Salmon Foundation is a federally incorporated non-profit charitable organization dedicated to the conservation and restoration of wild Pacific salmon and their natural habitats in British Columbia and the Yukon.



## Plenty Canada

Plenty Canada is a registered non-profit organization that facilitates access to and shares resources with Indigenous peoples and other community groups around the world in support of their environmental protection and sustainable development goals.



## Toronto and Region Conservation Authority

With more than 60 years of experience, Toronto and Region Conservation Authority is one of 36 Conservation Authorities in Ontario, created to safeguard and enhance the health and well-being of watershed communities through the protection and restoration of the natural environment and the ecological services the environment provides.

# RESULTS

On Day 1 of the workshop attendees heard from a number of speakers who described some of the challenges inherent in habitat protection and restoration in their region or sector. On Day 2 the focus of the workshop shifted to problem solving and solutions. Attendees self-selected into four breakout groups, each aimed at identifying key habitat protection and restoration priorities within one of four core themes:

## Theme 1: Resources and Capacity Building

### Overview

The Resources and Capacity Building core theme is about supporting strategic coordination and delivery of aquatic habitat conservation resources and building the capacity of the community. Participants believed that one of the key roles for AHC is to act as a “hub” for collaboration and

resource identification, and that this would offer tremendous benefits with respect to building resources and capacity for aquatic habitat protection and restoration across Canada.

### Roles and opportunities

Based on workshop presentations and discussions within the working group, the following roles and opportunities were identified for AHC:

- With its network of members from every sector and region of the country, AHC receives information on programs, guidelines, science, etc. that can be vetted, reinforced and distributed to local and regional groups and practitioners across the country. In many instances this constitutes a sharing of best practices, but in others it simply represents an enhanced flow of information that allows each recipient to employ or utilize the ‘learnings’ of others.



- AHC brings together different sectors with widely varying perspectives, some of which have their own distinct rationale for achieving a common objective of habitat protection and restoration. Apart from increasing the likelihood of achieving these objectives, there is strength in diversity due to sheer numbers, the development of new skills and a reduction in the duplication of effort and resources.
- Diversity also broadens members' perspective on the problems and challenges and heightens everyone's understanding of the complex issues surrounding aquatic habitat protection and restoration.
- From a practical perspective, AHC will eventually have the opportunity to act as a data centre or clearinghouse of projects on the landscape, perhaps including through mapping, so that others may see where and what projects are being undertaken.

## Funding

Participants agreed that AHC should play a role in encouraging private funders to invest in aquatic habitat protection and restoration. It was recognized that AHC will build capacity at all levels to enable regional and local organizations to access and work with private funders. The federal, provincial and municipal governments in Canada have an important role to play in funding aquatic restoration across the country.

Working group participants identified the following opportunities for AHC to add value:

- As an organization with nation-wide scope, AHC will introduce national funders to regional and local organizations.
- AHC will strengthen the impact of philanthropy in support of aquatic habitat protection and restoration by facilitating collaboration and generating and sharing knowledge.

- With industry stakeholders at its table, AHC will help industry and corporate foundations identify the best use of their money.
- When funders work with AHC, it's easier to fill gaps where the resources required to do so can be shared among a group of organizations.
- Projects that are part of a larger cohesive strategy or watershed scale approach, not piecemeal, are more likely to be funded.

## AHC and government

Working group participants made the following observations about the interplay between government, AHC and habitat protection and restoration:

- AHC can help support the types of integrated funding solutions that are required to address the complexities of habitat protection. Governments often work in silos, which makes them inherently challenged in recognizing multi-faceted problems and opportunities.
- Government processes involving multiple stakeholders sometimes suffer from a lack of trust and openness, which can undercut efforts to arrive at useful solutions. On the other hand, the makeup of AHC allows it to identify synergies between different governments, different departments, and between government and the private sector.
- Given its mandate and resources, government has a fundamental role to play in funding rehabilitation, capacity building, and helping ensure that robust data is available and used to underpin all of this work.

## Theme 2: Knowledge Synthesis and Transfer

### Overview

The Knowledge Synthesis and Transfer core theme is about the coordination, synthesis and sharing of methods, data, knowledge and tools. The theme includes the sharing of Indigenous, traditional, scientific and local knowledge, as appropriate, to effect change towards the conservation, protection and restoration of marine and freshwater habitats in Canada. Part of the role of the working group is to identify the data and knowledge gaps that need to be addressed to make progress towards AHC's goals.

Participants discussed how and what AHC might do to synthesize and transfer knowledge at various levels. Information was presented to the group at large and then further discussed in a smaller break-out session. Only Indigenous, traditional, and scientific knowledge were discussed during the session. The synthesis and transfer of local knowledge with respect to aquatic habitat protection and restoration will need to be addressed at a later date by the broader working group.

### Indigenous and Traditional Ecological Knowledge

It was underscored by several participants that addressing *how* knowledge is synthesized and transferred is at least as important as *what* knowledge is used in habitat protection and restoration. Consideration of *how* knowledge is synthesized is imperative to being inclusive of Indigenous and Traditional Knowledge (ITK) as well as community-based knowledge.

The process and recommendations coming out of the Pathway to Target 1 initiative, including the Indigenous Circle of Experts, should guide the *how* of being inclusive of ITK. And the conceptual framework of Ethical Spaces provides a way of thinking about different types of knowledge

in parallel. Most importantly, it is vital to have agreement from the outset about how the sharing of traditional knowledge within AHC is governed.

### Scientific Knowledge

Participants itemized some of the essentials of a robust science framework for the conservation, protection and restoration of aquatic habitats. Part of achieving this will require linking the now disparate strands of fisheries and habitat management through harmonized actions using adaptive, coordinated and evidence-based management based on common goals.

It should be possible to use broad, national goals to inform specific targets, goals and desired outcomes for a given area. And this framework should guide scientific research (with the results communicated through AHC). Goals must be realistic and appropriate, given several factors:

1. Known characteristics of the area being managed
2. Availability of baseline information
3. Current understanding of the mitigation hierarchy (i.e., avoidance, mitigation and offsetting) given multiple stressors and cumulative impacts
4. The use of available or existing tools for conservation, protection and restoration
5. Climate projections and historical context (both human and ecological)

Scientific research and analysis must be conducted at the correct spatial scale in order to be relevant to the habitat goals for an area. Similarly, there is a need for knowledge and tools to help answer key questions, such as: What are the most important restoration actions for a degraded ecosystem? Thus, an important role for the working group would be to compile science questions to fill gaps in the knowledge of the function of aquatic habitats and techniques for remediation or restoration. This can

be achieved by data mining untapped sources of information; through experimental approaches to test unanswered hypotheses; by compiling information about what does and does not work nationally, regionally and locally, and incorporating this information into adaptive management approaches that include both successes and failures; and through assistance in establishing standardized, national monitoring programs that include citizen science.

Participants recognized that landscape scale management is needed to achieve the general goals of AHC, and that determining the scale at which to manage decisions and actions is important. One method is to use nested spatial scale approaches, such as those adopted by the US in the National Habitat Strategy (e.g. HUC system). Watershed level planning involves both fisheries and habitat planning and also includes quality and quantity elements that may not be typical physical habitat considerations (e.g., critical habitat and environmental flow needs are very important for both surface and groundwaters).

It was also noted that the working group could highlight projects and approaches that work, as well as why they work. This could be achieved through:

- Habitat type and industry sector-based reviews of past projects and studies

- Experimental approaches to offsetting harm to aquatic habitat
- Compiling and documenting what does not work, so that we learn through true adaptive management
- Increasing the transparency in aquatic habitat offsetting decisions and restoration project outcomes to improve learning and accountability
- Supporting a national effectiveness monitoring program

### Priority short-term actions

Participants identified the following priority short-term actions:

- Begin with a conceptual framework for knowledge synthesis and transfer by setting the priorities for science, Indigenous and local knowledge needs in general
- Begin compiling good examples of aquatic habitat conservation and restoration, especially those that include historical context, such as stories or information about areas, species and people
- Carefully define the audience for each product coming out of the working group



## Theme 3: Restoration Planning and Prioritization

### Overview

The Restoration Planning and Prioritization core theme is about supporting the planning and prioritization of aquatic habitat protection and restoration activities. Working group participants shared their unique local, regional and organizational perspectives on aquatic habitat restoration planning and prioritization, including at the national level.

### Indigenous involvement

Many participants recognized the need to incorporate Indigenous Traditional Knowledge as an important consideration for future habitat restoration planning. It was noted that the preference of Indigenous communities is to be involved early in the aquatic habitat planning and prioritization process. It was suggested that AHC could play a key role in arriving at a model that provides a proactive framework to guide planning processes with Indigenous communities.

### A National Aquatic Habitat Strategy

It was underscored by participants that planning is of paramount importance, but that there is typically less financial support for watershed conservation and restoration planning than for project implementation. Participants expressed support for strategic planning at the national level, but queried which scale is appropriate for restoration planning.

A national habitat planning initiative needs to reinforce local activities. It needs to be a supportive mechanism for small projects, which need to sit within the larger context of strategic implementation and national significance. Many projects are implemented by local groups and agencies. If they were guided by a national perspective on habitat

planning and prioritization, there is the potential to promote projects that could address national as well as local habitat issues.

### Role and Opportunity for Aquatic Habitat Canada

Working group participants generated the following list of items that AHC could play an important role in facilitating:

- Restoration planning and prioritization needs to be inclusive of all stakeholders, especially private landowners. In many watersheds the majority of the land is private, and it is difficult to get landowners on board for restoration projects.
- There is a need to deal with the issues that complicate planning at a national level, including by addressing different standards and expectations across communities, regions and different provinces.
- Canada needs to take a strategic approach to restoration and move away from the current opportunistic approach. One challenge in implementing policy and performing restoration activities is the absence of a national directive and an overall lack of financial support. Another challenge is a lack of public understanding of (or even apathy towards) restoration, which can weaken the overall effectiveness of habitat projects.

Participants felt that organizations like Aquatic Habitat Canada are needed to help plan and prioritize at a high level and to provide the link between the local and larger scale. Regional groups, provinces and the country as a whole would all benefit from the sharing of national frameworks, directions and the tools that come with a national planning directive. An important first step is to solicit from the community of practitioners, regulators and academics what the common barriers are to effective planning, prioritization and restoration of aquatic habitat.



## Theme 4: Policy and Program

### Overview

The Policy and Program core theme is about facilitating collaborative dialogue on the design and implementation of aquatic habitat conservation programs, both proactively and in response to specific requests from government.

Indeed, DFO has already asked AHC to review existing Canadian regulations governing freshwater, marine and coastal restoration and to provide input on their effectiveness, limitations and potential regulatory gaps. AHC has also been asked to propose recommendations for new regulations governing aquatic restoration.

Working group participants made the following observations about AHC's role in policy and program design:

### **AHC's work does not replace the formal obligation to consult with Indigenous Peoples**

It was underscored by several participants that for any Indigenous person to fully participate in an AHC working group, assurances are needed

from DFO that Indigenous Peoples will be formally consulted further under a separate process. If the working group is to operate as a body with technical expertise around the table, and with Indigenous Peoples participating, a clear signal will be needed from DFO that advice obtained from the group will not replace the duty to consult.

### **Offering multiple perspectives on non-regulatory aspects of habitat protection**

It was noted that, apart from certain exceptions, AHC's work is typically focused on the non-regulatory aspects of habitat protection. Nor is AHC focused on the full spectrum of the *Fisheries Act* legislation. Members each have their own perspectives on how to move the restoration agenda forward and are trying to figure out the best way to interact and cooperate to do so. It was agreed that, despite the strong impetus for working together, AHC does not need to provide joint submissions with a uniform perspective. Instead, AHC's submissions can reflect multiple perspectives in a given matter. It was also suggested that other federal departments, especially Environment and Climate Change Canada as well as Parks Canada, should be included in AHC's policy discussions.

## Streamline the review of restoration project proposals

Participants expressed concern that applications for restoration projects delivered by conservation organizations are handled by government under regulations and policies designed for development proposals (which often involve habitat loss). Conservation organizations are required to provide security for restoration projects even if the potential to do harm is remote. Participants agreed that there is an opportunity to create streamlined authorizations processes for classes of projects, such as restoration projects, but DFO will need to be careful in describing this class of work to avoid creating a loophole. It was pointed out that this topic could be of particular interest to industry, which frequently grapples with the issue of what does/does not formally constitute restoration.

## General topics

Additional topics were raised which could be addressed by the policy and programming working group. These include how orphaned projects are managed, and how land securement factors into aquatic restoration projects (e.g., buffers around restored aquatic habitat). Securement depends on whether lands are privately held or are crown assets, and on Indigenous land rights. And, how can stewardship be provided over the long-term

for restored sites? Could financial support be made available for Indigenous stewards? The working group's role in wastewater, pollution, effluent and deleterious substances remains unclear. How can the group define and identify ecologically significant areas under the *Fisheries Act*, and is this concept compatible with biosphere reserves? Finally, to identify priority topics for the working group, AHC should ask practitioners what regulatory hurdles they are facing and what would ease their ability to implement projects? This review may need to be stratified by jurisdiction.

## Sharing expertise

The working group, and AHC in general, cannot rely solely on non-practitioners who deal only in the realm of policy. It is important that technical people are involved as participants to share their expertise. This way, the group can ask practitioners what regulatory hurdles they are facing and what would ease their ability to implement projects. Participants also agreed that any sole-sector group is only going to create an 'echo chamber'. Further, while it's best to break an unwieldy large group into smaller configurations, the resulting smaller groups must remain multi-sectoral. This ensures that each sector hears from others and better understands their perspectives and concerns.



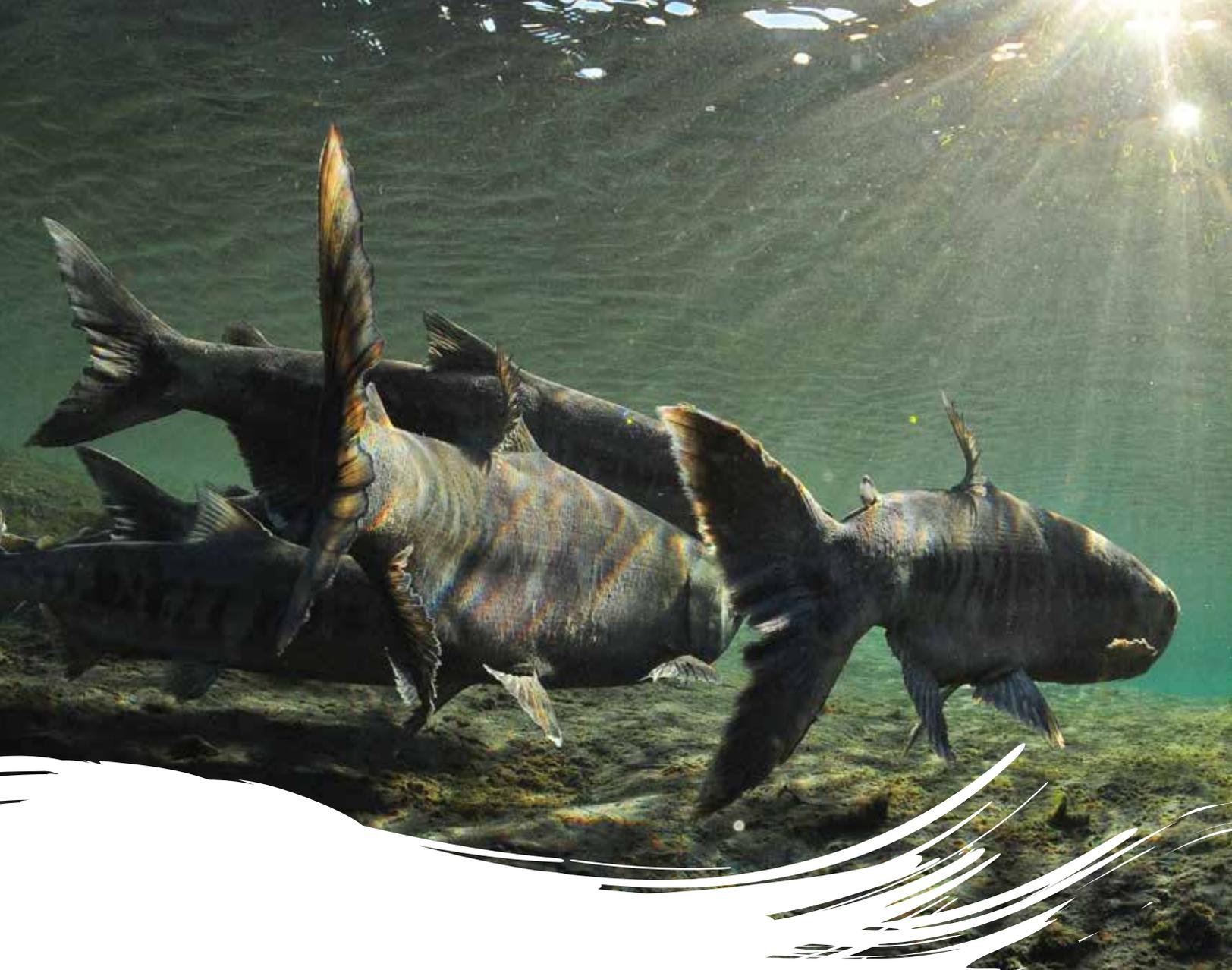
# Conclusion

The outcomes reported above represent the advice and recommendations drawn from the working group discussions that took place during Aquatic Habitat Canada's inaugural meeting and workshop. As such, this report provides a set of principles and proposed next-steps for Aquatic Habitat Canada in furtherance of its mission to help governments, communities, Indigenous organizations, industry and conservation organizations effectively protect and restore healthy and resilient aquatic ecosystems.

## Speakers

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<b>Brooke Nodding</b>	Coastal Action
<b>Carrie Michael</b>	The Confederacy of Mainland Mi'kmaq
<b>Chad Ziai</b>	Fisheries and Oceans Canada
<b>David Browne</b>	Canadian Wildlife Federation
<b>Elizabeth Hendriks</b>	World Wildlife Fund
<b>Janson Wong</b>	First Nations Fisheries Council of BC
<b>John Richardson</b>	University of British Columbia
<b>Joshua McNeely</b>	Maritime Aboriginal Aquatic Resources Secretariat
<b>Kathryn Collet</b>	NB Department of Energy and Resource Development
<b>Mary Finch</b>	PEI Watershed Alliance
<b>Mike Paterson</b>	IISD Experimental Lakes Area
<b>Larry McDermott</b>	Plenty Canada
<b>Nick Lapointe</b>	Canadian Wildlife Federation
<b>Pierre Sadik</b>	Aquatic Habitat Canada
<b>Sean Brilliant</b>	Canadian Wildlife Federation
<b>Tom Whillans</b>	Trent University



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