



**HEALTHY  
WATERSHEDS  
INITIATIVE**

# Our Water, Our Future

Major outcomes report on job creation, economic benefits, watershed restoration, UNDRIP implementation, and climate action

DECEMBER 2022



**Watersheds BC**



**StrongerBC**



## Healthy Watersheds Initiative Partners



The Real Estate Foundation of BC (REFBC) is a philanthropic organization working to advance sustainable, equitable, and socially just land use and real estate practices across British Columbia. Since 1988, REFBC has granted more than \$100 million to organizations working to strengthen communities, protect our shared land and water, and advance sustainable real estate practices.

Learn more: [refbc.ca](https://refbc.ca)



Watersheds BC works to strengthen capacity for local watershed governance and security. Watersheds BC provides training, resources, and peer-to-peer support to local government staff, First Nations, watershed boards and roundtables, regional provincial staff, and other watershed professionals.

Learn more: [watershedsbc.ca](https://watershedsbc.ca)



The Province of BC has invested \$37 million (including \$27 million through the Healthy Watersheds Initiative) for projects that support healthy watersheds, species, and ecosystems, and create new jobs in areas that are critical to help communities adapt to the effects of climate change. This funding is part of the Province's \$10-billion COVID-19 response to help people in hard-hit industries.

Learn more: [strongerbc.gov.bc.ca](https://strongerbc.gov.bc.ca)



## Acknowledgments

Special thanks to the staff of the Real Estate Foundation of BC (REFBC) and Watersheds BC for facilitating the implementation of the Healthy Watersheds Initiative (HWI), including Leanne Sexsmith, Zita Botelho, Mark Gifford, Tara Marsden, Cheyenne Bergenhenegouwen, Stephanie Butler, Adarshana Thapa, Claire Sauvage-Mar, Aanchal Mogla, and Natalie Ord.

Guidance from our **Indigenous Leaders Advisory Circle** and Senior Indigenous Advisor/UNDRIP Fellow has been integral to all aspects of the Healthy Watersheds Initiative and is deeply appreciated.

We would like to thank our Provincial Partners and HWI Steering Committee members Jennifer Vigano and Carys Pinches, for their important support, guidance, and involvement throughout HWI.

We also extend appreciation for the leadership and commitment of the Honourable George Heyman, MLA, the Honourable Josie Osborne, MLA, the Honourable Selina Robinson, MLA, and Parliamentary Secretary Fin Donnelly, MLA.

## HWI Senior Indigenous Advisor and Indigenous Leaders Advisory Circle



**Tara Marsden**  
Senior Indigenous Advisor, HWI  
UNDRIP Fellow, REFBC  
Member of the Gitksan Nation



**Mavis Underwood, ILAC Chair**  
Governor, REFBC  
Member of Tsawout Nation



**Aaron Sumexheltza**  
Practicing lawyer and (former) Councillor  
and Chief of the Lower Nicola Indian Band  
Member of the Lower Nicola Indian Band



**Deana Machin**  
(former) Strategic Development Manager  
for the First Nations Fisheries Council of BC  
Member of Syilx (Okanagan) Nation



**Gordon Sterritt**  
Executive Director, Upper Fraser Fisheries  
Conservation Alliance  
Member of Gitksan Nation,  
Wilps Wii Muuglilxsw



**Kris Archie**  
CEO, The Circle  
Member of Ts'qescen First Nation



**Lana Lowe**  
Director, Lands, Resources and Treaty  
Rights, Fort Nelson First Nation  
Member of Fort Nelson First Nation



**Lydia Hwitsum**  
Chief, Cowichan Nation  
Member of Cowichan Nation



**Dr. Roger William**  
Team Coordinator, Dasiqox  
Nexwagwez'an  
Member of Xeni Gwet'in (Tsilhqot'in)

## We are Water People

*“For Indigenous peoples, water is not a commodity. It is sacred and is the essence of life on our planet.” (ILAC Feedback on WSS&F)*

On behalf of the Board and staff of the Real Estate Foundation of BC (REFBC) and the Indigenous Leaders Advisory Circle; thank you. Over the past two years, REFBC, alongside the Province of BC and Watersheds BC, has had the privilege of working with incredible partners, leaders, and project teams to implement, document, and learn from the \$27 million investment in the Healthy Watersheds Initiative (HWI).

At inception, HWI was seen as an opportunity in a time of crisis to create jobs, stimulate economic recovery, and restore the health of watersheds. It has been so much more. The learning, relationship-building, economic, and ecological benefits that have resulted over the past two years have surpassed our expectations. Throughout, partners have strived to do better, and put principles of people first, meaningful reconciliation, equity, climate action, and economic strength into meaningful practice. As we anticipate the next phases of this commitment from the Province, the insights and experiences shared through the project work, reporting, and stories provide valuable guidance for future funding investments, programs, and approaches.

Despite the context of a pandemic, droughts, flooding, wildfires, legacies of colonialism and residential school traumas, and economic uncertainty – HWI projects have healed lands and waters, created valuable jobs and training, built resilience to climate change, and strengthened relationships and communities. They are breathing life into UNDRIP commitments and providing inspiring examples of what is possible through strong investments in watershed conservation and restoration, community leadership, and relationship building.

Our deep gratitude to the many people whose passion and understanding of this work are reflected in the data and stories of this report. There is much to listen to, build from, and act on if the hopeful outcomes and learnings from HWI are to be sustained for generations to come.

In no small way, HWI has reminded us that water really is life, and its health underpins the economic, ecological, physical, cultural, and spiritual well-being of us all.

We are water, people.

With gratitude and appreciation,



**Mark Gifford**  
CEO, Real Estate Foundation of BC



**Mavis Underwood**  
Chair, Indigenous Leaders Advisory Circle  
Governor, Real Estate Foundation of BC





## Executive Summary | Our Water, Our Future

The Healthy Watersheds Initiative (HWI) final outcomes report documents the successes and challenges of a significant investment in watershed conservation and restoration in British Columbia over 18 months during the coronavirus pandemic of 2021 and 2022.

HWI's goal was to put people back to work on projects that address critical watershed security needs in communities across BC. Job creation and training prioritized young adults, women, and Indigenous people who were hit hardest by the impacts of the pandemic. These projects helped communities adapt to climate change, protect drinking water, restore critical habitat, bolster local economies, and advance implementation of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).

HWI was a tremendous collaborative effort, with 61 projects spanning thousands of sites within the province's eight major drainage basins. In addition to the restoration, monitoring and planning work, HWI project teams' work involved project communications, Indigenous protocols and ceremonies, and community events and outreach, resulting in remarkable levels of community engagement that contributed positively to project outcomes.

Impacts, learnings, and recommendations were extensive. Advancing UNDRIP was by far the most complex, challenging, and important area of learning. However, the extraordinary co-benefits of the work – for ecosystems, economies, community health, and well-being – were also striking.

As global warming accelerates – resulting in record droughts, wildfires, and flooding disasters that have displaced entire communities – actions taken to conserve and renew watersheds have never been more essential.

HWI demonstrates the success and cost-effectiveness of working in partnership to resource and bring communities together to improve local watershed security. HWI projects offer a path forward for investing in nature-based infrastructure to rebuild community resilience and safety at a fraction of the cost of recovery efforts after extreme climate events.

All HWI projects addressed one or more of the Province's nine climate preparedness and adaptation strategies, with a focus on addressing flooding and doing monitoring work.

Restoration of riparian and wetland habitats through HWI projects helped protect important species, increase biodiversity, manage peak water flows and summer droughts, and build habitat resiliency to withstand sea level rises and climate change events. Work included removing physical barriers to migrating salmon, planting vegetation, and building infrastructure. It also included contributions to longer-term watershed and species sustainability plans.

Almost half of the projects focused on specific protected species, and one-third addressed at-risk and culturally significant species. With salmon species in severe and ongoing decline, restoring salmon habitat was a key focus. In addition, most teams conducted research and monitoring and provided data and analysis on project sites.

Watershed planning and stewardship are complex; HWI teams navigated multiple levels of government laws, policies and permits, and incorporated knowledge from diverse cultures, histories, and scientific disciplines.

HWI projects led to expanded education and employment opportunities which are essential for building the watershed sector and getting ahead of growing fresh water issues, creating sustainable career pathways, and avoiding high costs from water-related crises and disasters. HWI jobs and training supported leadership development, advanced career goals, connected people to community and culture, and supported intergenerational engagement and knowledge sharing.

In addition to direct job creation, project teams reported strong spinoff benefits for local contractors, service providers, and businesses – generating high returns on investment overall. Cross-sector economic benefits were cited for fisheries, forestry, agriculture, mining, and recreation. Municipal and provincial cost savings – through increased climate resilience, improved water quality and supply, and social, cultural, and health benefits – were also identified.

HWI made noteworthy progress toward advancing the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), with the majority of projects supporting the exercise of Indigenous rights and incorporating Indigenous Knowledge into planning. One of the significant recommendations from this initiative is that future funding should target Indigenous Nations or organizations as full partners in project design, implementation, reporting, and follow-up monitoring work in watersheds.

Indigenous Peoples experience ongoing trauma from displacement and land theft, the legacy of residential schools, and other impacts of colonialism. HWI project work occurred under these challenging emotional conditions and in the context of a pandemic and extreme climate events, including heat domes and dry forests, record-breaking wildfires, stressed salmon stocks, struggling crops, and catastrophic flooding. Despite these hardships, project teams demonstrated incredible adaptability and achieved remarkable outcomes. They voiced strong support and appreciation for the funding, approach, and program support offered through HWI.

Creating, testing, and sharing collaborative strategies for water stewardship – and grounding land-use planning in Indigenous-led practices – kept water, people, and environmental protection at the center of the work while achieving economic, social, health, and cultural benefits. Understanding and working to address and alleviate challenges and lessons learned from project teams' experiences should be an important goal for future funding.





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## INTRODUCTION

# Benefits of Investing in BC's Watersheds

*Nothing works without water.*

Many people in British Columbia recognize the need to protect and preserve fresh water, to sustain our ecosystems, economy, food security, individual and community health, and to uphold Indigenous rights. Over the past two years, widespread community interest in the Healthy Watersheds Initiative – evident in media and news coverage, community events and celebrations, shared stories and videos, and ongoing calls for continued investments – have illustrated just how central water is to life and livelihoods.

When our watersheds are healthy, they provide fresh water that's safe to drink, good for growing food, and needed to sustain communities and culture. They absorb flood and stormwater and protect against wildfires and drought. They sustain forests and wildlife habitats, store carbon,

purify the air we breathe, and support community and mental health. They help protect and uphold Indigenous Rights. They sustain many economic sectors that depend on water.

Outcomes from the Healthy Watersheds Initiative show that investing in watershed conservation and restoration support these vital functions, while creating jobs, boosting local economies, building relationships, and advancing meaningful commitments to UNDRIP.

Drawing on the experiences and results of 49 of the 61 Healthy Watersheds Initiative project teams – whose work completed between January 2021 and Spring 2022 at hundreds of sites across territories and regions of BC – this comprehensive report shares outcomes and learnings at a scale rarely seen.

It amplifies insights and perspectives from the people, partnerships, and processes behind the projects, revealing that the way investments



are made – *how, when, by and for whom* – are just as important as the investments themselves.

We are deeply grateful to all the project teams whose work and insights made it possible for us to see and understand roles, responsibilities, and actions in the context of UNDRIP commitments, economic recovery, climate action, and watershed health. We are thankful to our Indigenous Leaders Advisory Circle, the BC government and community partners for working with us to guide, implement, and share in this work.

This is an important opportunity to celebrate and learn from the collective efforts of the Healthy Watersheds Initiative in an accountable, actionable, and visible way – so we can reflect and advance future work and commitments with awareness of our successes, shortcomings, and responsibilities for the future. It offers critical insight that can and should be applied to future funding for watershed security in BC to create a legacy of healthy watersheds for future generations so we can all be proud and secure in the places we call home.



**Leanne Sexsmith**  
Co-Director, Healthy Watersheds Initiative  
Director of Strategic Programs and  
Partnerships, Real Estate Foundation of BC



**Zita Botelho**  
Co-Director, Healthy Watersheds Initiative  
Director, Watersheds BC



Wetland site investigation in the Upper Columbia River. (Photo: Living Lakes Canada)

## The Healthy Watersheds Initiative

As part of its \$10-billion COVID-19 economic recovery plan, the Province of British Columbia provided \$27 million for watershed conservation and restoration projects in communities across the province.

The Real Estate Foundation of BC administered this funding through the Healthy Watersheds Initiative and worked in partnership with Watersheds BC to support the successful implementation of 61 watershed security projects between 2021-2022.

HWI-supported projects employed more than 1200 people and created work and training opportunities for people and communities affected by the COVID-19 pandemic, with particular focus on women, youth, and Indigenous people.

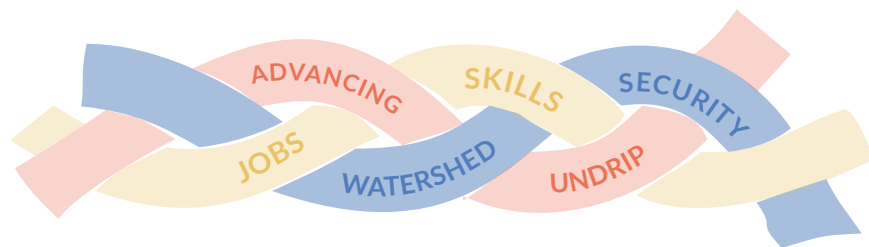
Project teams worked to restore rivers and streams, protect salmon habitat, manage water flows, collect data, and conduct watershed mapping and sustainability planning.

In turn, these projects helped communities adapt to climate change, protect drinking water, restore critical habitat, and advance the implementation of the *United Nations Declaration on the Rights of Indigenous Peoples* (UNDRIP).

### Many People and Priorities, Connected by Water

The Healthy Watersheds Initiative had multiple inter-woven objectives:

- Economic recovery from the COVID19 pandemic, including job creation and training, particularly for Indigenous people, women, and youth
- Watershed conservation, restoration, planning, and monitoring
- Climate change resilience
- Advancing UNDRIP



Fish sampling training through the Clayoquot Sound Watershed Recovery Initiative. (Photo: Graeme Owsianski/Redd Fish Restoration Society)

This report shares outcomes in each of these areas. Advancing UNDRIP was by far the most complex, challenging and important area of learning. To transparently document where we've made progress or fallen short – and where further action can and should be taken – a detailed UNDRIP evaluation can be found in this report: ***United Nations Declaration on the Rights of Indigenous People: Healthy Watersheds Initiative Evaluation Framework and Report*** by Tara Marsden, Naxginkw / Senior Indigenous Advisor.

Report: ***United Nations Declaration on the Rights of Indigenous People: Healthy Watersheds Initiative Evaluation Framework and Report***





## HIGHLIGHTS

# Project Highlights

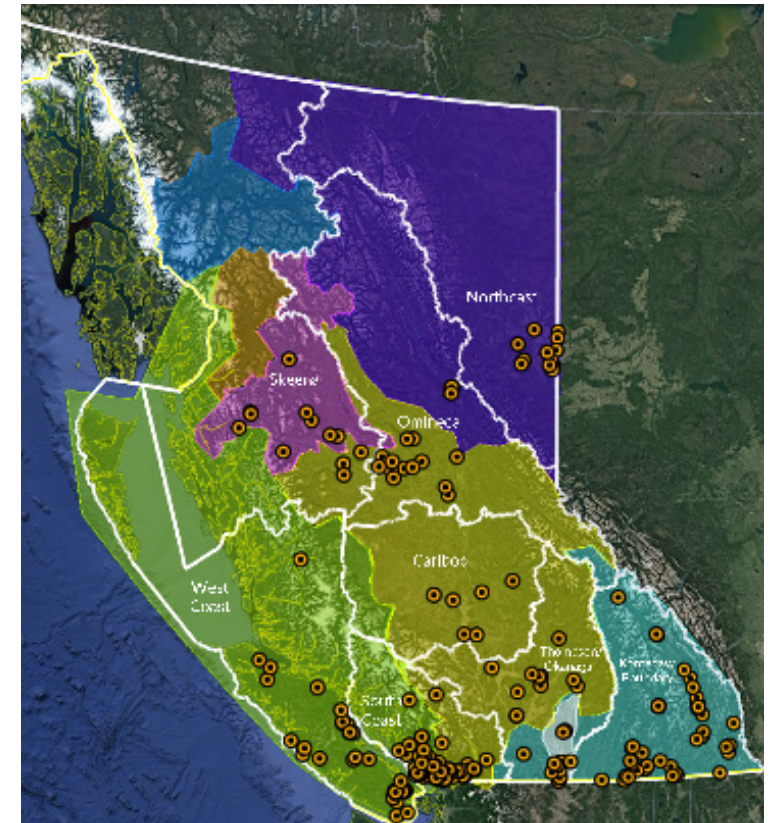
In 2021 and 2022, the Healthy Watersheds Initiative (HWI) supported 61 projects at more than 200 sites in communities across territories and regions of British Columbia.

The map on the right shows the spread of work sites across major watershed basins and geographic regions.

The coloured blocks show the approximate drainage basins of **major river systems** in BC – see the legend at right. The white boundary lines and white text labels show the boundaries of the **natural resource regions** used by the BC Ministry of Forests, Lands and Natural Resource Operations and Rural Development (now Ministry of Lands, Water and Natural Resource Stewardship).

On the HWI Website, an interactive version of this map is available: [Interactive Map](#). You will also find a list of the [61 projects](#).

For more information on how projects were selected, you can see page 14 of our [Interim Report](#).



### Major Drainage Basins

- Columbia
- Fraser
- Mackenzie
- Nass
- Okanagan
- Pacific Coast
- Skeena
- Stikine

## Data Highlights

As of July 2022, 49 of 61 projects had completed their work and submitted final reports. We've analyzed and summarized intake, interim, and final report data from these 49 projects for this *HWI Major Outcomes Report*.

For a full list of HWI-supported projects by region and project type, visit [healthywatersheds.ca/projects](https://healthywatersheds.ca/projects).

49

of the 61 projects that received funding through HWI are the focus of this major outcomes report.

\$20.7M

in HWI grants have been awarded to these 49 projects.

\$180,000

is the median grant amount for HWI-supported projects.

\$6.8M

in additional (leveraged cash) funding from other sources.

1200+

jobs were created from these 49 projects.

3800+

volunteer positions.



90%

of projects conducted work that supports the exercise of Indigenous rights.

80%

of projects incorporated Indigenous knowledge into project planning.

2905 Sites

included research and monitoring activities

1400 Sites

focused on land and water management activities

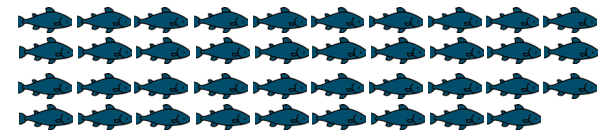
424 Sites

focused on conservation designation & planning

169 Sites

provided species management

39 (80%) projects addressed at-risk or culturally significant species, with Salmon protection being the greatest area of focus.



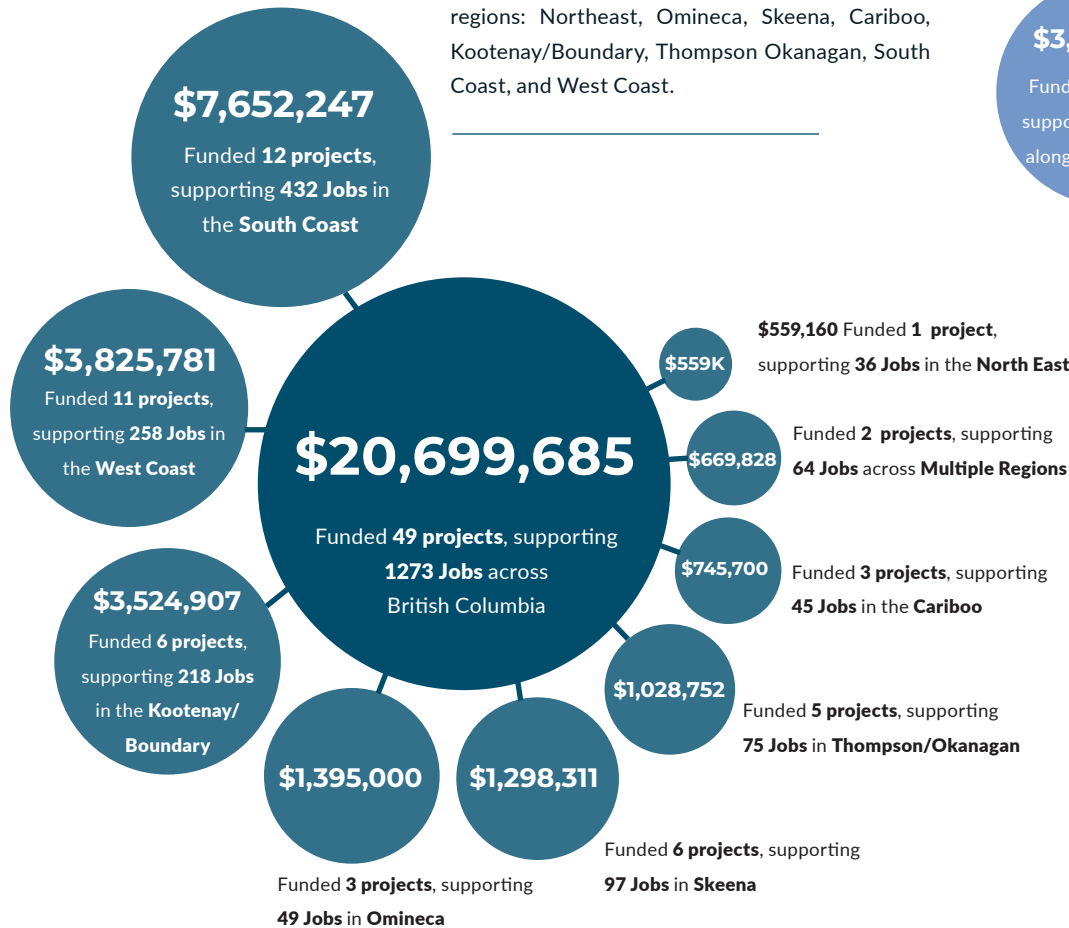
19 (39%) projects addressed invasive species.



All projects addressed climate change - \$7.1 million in HWI funding focused on habitat restoration and \$7.1 million on climate adaptation measures. Substantial HWI resources dedicated to addressing flood mitigation (\$2.3M) and monitoring (\$1.6M) work.

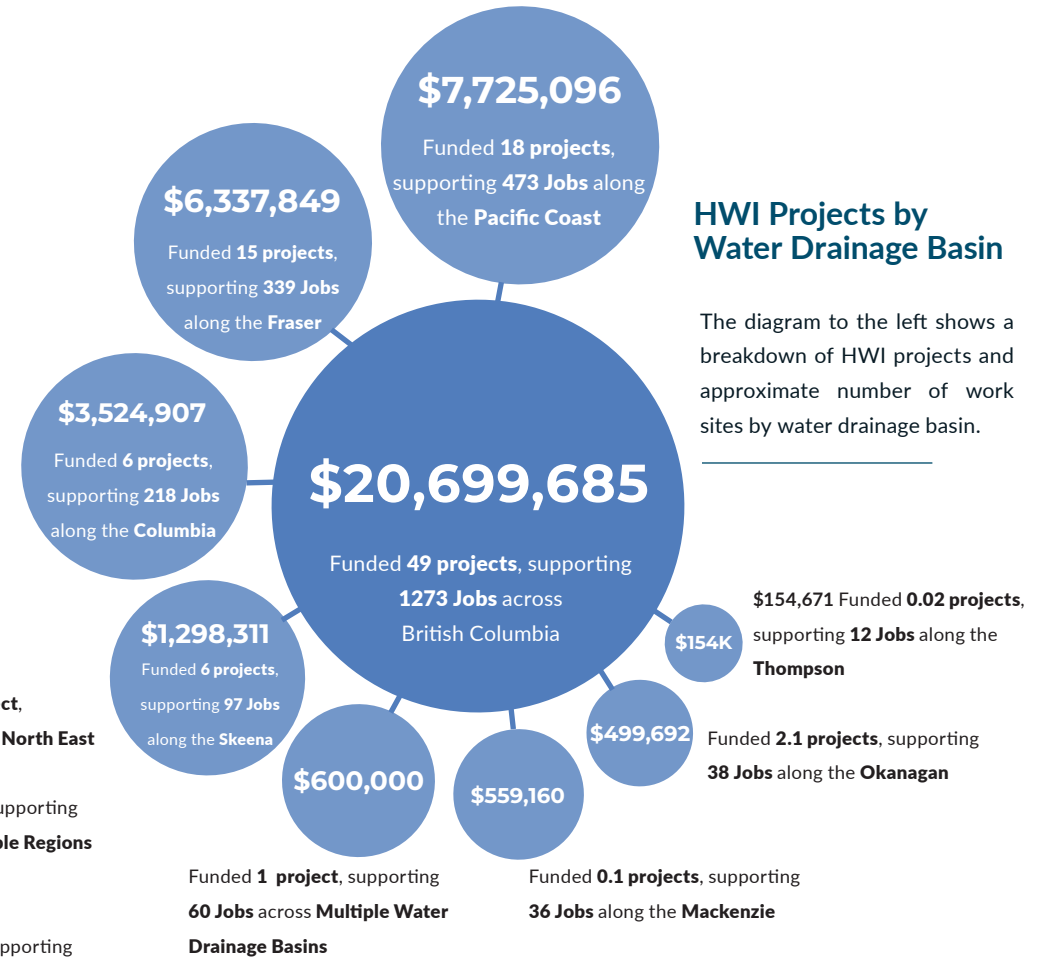
### HWI Projects by Region

The diagram below shows a breakdown of HWI projects and approximate number of work sites by the former BC Ministry of Forests, Lands and Natural Resource Operations and Rural Development (FLNRORD) natural resource regions: Northeast, Omineca, Skeena, Cariboo, Kootenay/Boundary, Thompson Okanagan, South Coast, and West Coast.



### HWI Projects by Water Drainage Basin

The diagram to the left shows a breakdown of HWI projects and approximate number of work sites by water drainage basin.



### Learnings & Recommendations

Although HWI project sites were spread across regions and territories of BC, there were fewer funded projects in the Northeast and Northwest compared to other areas. Funding programs need to strive for regional equity, recognizing that some regions suffer deficits in terms of water-related funding and may also be at greater risk in terms of climate impacts and the need for restoration stemming from cumulative industrial development. (HWI Principles and Criteria for Future Funding).



## Project Types: Watershed Priorities

HWI project teams worked at the intersections of community, ecosystems, economy, climate and health while also combining Indigenous knowledge and traditions with western methods and tools.

Five watershed security categories, developed by Watersheds BC and the BC Watershed Security Coalition, were used to describe the types of projects supported through HWI funding. While recognizing that most watershed work fits across multiple categories, project teams chose the category that best matched their project (during the intake process).

### HWI / Watershed Priorities



#### Fish-Friendly Flows

Projects that include infrastructure installation or replacement to support the many fish species in our shared waterways.

 7 projects, totaling  
 \$1,377,000 in grants

**Example:**

Gitksan Watershed Authorities is restoring access, connectivity and quality of critical salmon habitat in McCully Creek.



#### Healthy Communities

Projects that create opportunities to improve the health of the communities we live, work, and play in.

 14 projects, totaling  
 \$3,449,599 in grants

**Example:**

Okanagan Basin Water Board is collaborating with Indigenous, municipal, and provincial governments to develop and pilot a source water protection toolkit in the Okanagan.



#### Indigenous Partnerships

Projects that focus on advancing reconciliation and Indigenous participation in freshwater decision-making.

 11 projects, totaling  
 \$4,608,915 in grants

**Example:**

Upper Fraser Fisheries Conservation Alliance, in partnership with Carrier Sekani First Nations, is developing, and implementing a First Nations-staffed water monitoring and data management system.



#### Sustainable Agriculture

Projects that include farmers, ranchers, and food producers in creating healthy watersheds for all water users.

 3 projects, totaling  
 \$1,489,828 in grants

**Example:**

Rivershed Society's Foodlands Corridor Restoration Program is bringing together agricultural landholders, Indigenous rights holders, and environmental specialists to restore parts of privately held land adjacent to waterways in the Fraser Watershed.



#### Watershed Renewal

Projects that support the revitalization of natural areas at the watershed scale.

 14 projects, totaling  
 \$9,814,344 in grants











**Example:**

REDD Fish Restoration Society is working with Hesquiaht, Ahousaht, and Tla-o-qui-aht First Nations' to restore critical salmon populations in Clayoquot Sound by reconstructing rearing habitat.

Another way of looking at the type and the extent of HWI project work is through the Province of BC's 10 Environmental Action Categories, adapted from the **Conservation Measures Partnership's** Conservation Action Classifications (v2.0), an internationally-recognized set of standards for environmental practices.

During HWI's intake process, proponents were asked to identify all the action categories relevant to their project work. The 49 projects in the major outcomes sample address multiple environmental actions, with the majority including research & monitoring (84%), institutional development (84%), education & training (82%), awareness raising (78%) and land and water management (71%).

### HWI / Environmental Action Categories

1	<b>Land / Water Management</b> includes site/ecosystem stewardship and habitat restoration.	35 projects	
2	<b>Species Management</b> includes species stewardship, re-introduction and translocation, and ex-situ conservation.	23 projects	
3	<b>Awareness Raising</b> includes outreach and communications.	38 projects	
4	<b>Law Enforcement &amp; Prosecution</b> includes illegal acts detection, criminal prosecution and conviction, and other non-criminal legal action.	2 projects	
5	<b>Livelihood, Economic &amp; Moral Incentives</b> includes improved products and management practices, market-based incentives, direct economic incentives, and non-monetary values.	16 projects	
6	<b>Conservation Designation &amp; Planning</b> includes protected area designation and/or acquisition, easements and resource rights, as well as land/water use zoning, and conservation.	18 projects	
7	<b>Legal &amp; Policy Frameworks</b> includes laws, regulations and codes, as well as policy and guidelines.	8 projects	
8	<b>Research &amp; Monitoring</b> includes basic research and status monitoring, as well as evaluation, effectiveness, measures and learning.	41 projects	
9	<b>Education &amp; Training</b> includes formal education, as well as training and individual capacity development.	40 projects	
10	<b>Institutional Development</b> includes internal organizational management and administration, external organizational development and support, alliance and partnership development, and financing conservation.	41 projects	

Note: Most projects are aligned with more than one climate action category.

## HWI Relevant UNDRIP Articles

A key objective of the Healthy Watersheds Initiative is to advance the *United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP)*. The following identifies Articles that are directly relevant to Healthy Watersheds Initiative project work.

To assess progress during interim and final reporting, project teams provided quantitative and narrative information describing key activities, successes and challenges relevant to specific UNDRIP articles. Details are provided in the UNDRIP outcomes section of this report and in the **Healthy Watersheds Initiative UNDRIP Evaluation Framework & Report**.

### ARTICLE 18 | DECISION MAKING

Indigenous peoples have the right to participate in decision-making in matters which would affect their rights through representatives chosen by themselves in accordance with their own procedures, as well as maintain and develop their own indigenous decision-making institutions.

### RELEVANCE TO HWI

Decisions regarding funding for watershed projects, decisions regarding access to territories by non-Indigenous projects, decisions regarding future funding and watershed strategies.

### ARTICLE 20 - 2 | JUST & FAIR REDRESS

Indigenous peoples deprived of their means of subsistence and development are entitled to just and fair redress.

### RELEVANCE TO HWI

Redress can include environmental/ecological restoration, returning watersheds to a more natural pre-contact state.

### ARTICLE 23 | DEVELOPMENT

Indigenous peoples have the right to determine and develop priorities and strategies for exercising their right to development. In particular, indigenous peoples have the right to be actively involved in developing and determining health, housing and other economic and social programmes affecting them and, as far as possible, to administer such programmes through their own institutions.

### RELEVANCE TO HWI

Many HWI projects speak of the connection between human and environmental health. Also, as a job creation initiative, HWI is also a social and economic program.

### ARTICLE 24 -1 | TRADITIONAL MEDICINES

Indigenous peoples have the right to their traditional medicines and to maintain their health practices, including the conservation of their vital medicinal plants, animals and minerals. Indigenous individuals also have the right to access, without any discrimination, to all social and health services.

### RELEVANCE TO HWI

With a large proportion of HWI projects focussed on wetland health specifically, traditional medicines are often found in close proximity to wetlands and riparian areas. Restoration needs to ensure appropriate access to traditional medicines.

### ARTICLE 25 | SPIRITUAL RELATIONSHIP

Indigenous peoples have the right to maintain and strengthen their distinctive spiritual relationship with their traditionally owned or otherwise occupied and used lands, territories, waters and coastal seas and other resources and to uphold their responsibilities to future generations in this regard.

### RELEVANCE TO HWI

Participating in non-Indigenous-led projects does not cede rights to the areas in question. Non-Indigenous projects encouraged to respect and include cultural and spiritual protocols and ceremonies into HWI projects.

### ARTICLE 26 | RIGHTS TO LAND

Indigenous peoples have the right to the lands, territories and resources which they have traditionally owned, occupied or otherwise used or acquired.

### RELEVANCE TO HWI

Supporting Indigenous-led projects means greater support for occupation, stewardship, and restoration of Indigenous lands and waters. Future funding should have new targets for % of Indigenous-led projects.

### ARTICLE 28 | RIGHTS TO REDRESS

Indigenous peoples have the right to redress, by means that can include restitution or, when that is not possible, just, fair and equitable compensation for the lands, territories, and resources which they have traditionally owned or otherwise occupied or used, and which have been confiscated, taken, occupied, used or damaged without their free, prior and informed consent.

### RELEVANCE TO HWI

Redress for degradation of watersheds can include ecological/environmental redress, returning the land and water to their original state.



**ARTICLE 29 - 1 | CONSERVATION OF ENVIRONMENT**

Indigenous peoples have the right to the conservation and protection of the environment and the productive capacity of their lands or territories and resources. States shall establish and implement assistance programmes for indigenous peoples for such conservation and protection without discrimination.

**RELEVANCE TO HWI**

HWI can be considered a conservation program, and Indigenous peoples and their projects are welcomed and considered without discrimination. Moving decision-making power for project approval outside of government will further entrench this.

**ARTICLE 36 | RIGHTS TO RELATIONSHIPS**

Indigenous peoples, in particular, those divided by international borders, have the right to maintain and develop contacts, relations, and cooperation, including activities for spiritual, cultural, political, economic and social purposes, with their own members as well as other peoples across borders.

**RELEVANCE TO HWI**

Water does not recognize or conform to colonial borders, thus there are many downstream effects and interests related to several HWI projects. Staff have encouraged project proponents to engage those Indigenous Peoples, regardless of provincial/federal borders.

**ARTICLE 39 | RIGHTS TO FINANCIAL ASSISTANCE**

Indigenous peoples have the right to have access to financial and technical assistance from States and through international cooperation, for the enjoyment of the rights contained in this Declaration.

**RELEVANCE TO HWI**

As a funding opportunity that has been characterized as ‘once in a generation’ in terms of scope and scale, it is imperative that Indigenous peoples have had access to as much as possible to support their watershed priorities. With 1/3 of HWI projects being Indigenous-led, it is a good start but targets to increase this % are needed for future funding.

**Advancing UNDRIP through HWI Projects**

In addition to advancing UNDRIP through HWI projects, as the administrator for provincial economic recovery funding, REFBC and the Healthy Watersheds Initiative are responsible for implementing funding, learning and evaluation, and communications in a manner that supports commitments to UNDRIP.

Guided by the Senior Indigenous Advisor and the Indigenous Leaders Advisory Circle, Healthy Watersheds Initiative approached the advancement of UNDRIP through the key strategies and efforts outlined below.

*As a funding program that links state or Crown funding to Indigenous peoples and non-Indigenous organizations and local governments through an independent granting entity (the Real Estate Foundation of BC), Healthy Watersheds Initiative is in a unique position to advance practices and standards that may not be adopted at the provincial government level. Further, as a funding program aimed at restoring and supporting healthy watersheds, striving for the fullest implementation possible of UNDRIP principles is imperative. **Healthy Watersheds Initiative UNDRIP Evaluation Framework & Report.***

Visibly tracking progress – areas of success and areas where we can do better – is critical.

- PRIORITIZING INDIGENOUS-LED PROJECTS** (Icon: Tree in a circle)
- REPORTING QUESTIONS & DATA ON UNDRIP ACTIONS** (Icon: Document with charts)
- WATERSHED HEALTH SUPPORTS INDIGENOUS RIGHTS** (Icon: Mountains and water)
- DECOLONIZING PRACTICES WORKSHOP NAHANEÉ CREATIVE** (Icon: Feather)
- INDIGENOUS LEADERS ADVISORY CIRCLE** (Icon: Circle with four colored dots)
- INTEGRATING INDIGENOUS KNOWLEDGE INTO PROJECTS** (Icon: Plant with leaves)
- HWI UNDRIP EVALUATION FRAMEWORK** (Icon: Book with photos)
- JOB CREATION PRIORITIZING INDIGENOUS PEOPLE** (Icon: Hard hat)
- RESOURCES FOR CEREMONY & ENGAGEMENT IN PROJECT BUDGETS** (Icon: Hands holding leaves)
- SENIOR INDIGENOUS ADVISOR & INDIGENOUS COMMUNITY CONNECTOR** (Icon: Two people silhouettes)

## Organizations Leading HWI Work

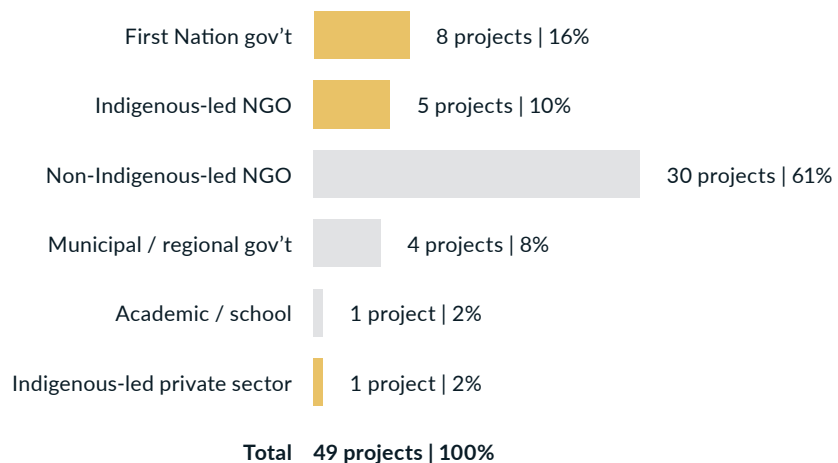
HWI funding supports projects led by a wide mix of organizations.

**Non-governmental organizations** (NGOs), which include registered charities and non-profit organizations, are leading 35 (71%) of the 49 HWI projects in our sample. Of those, five project grants are managed by Indigenous-led NGOs and 30 non-Indigenous-led NGOs.

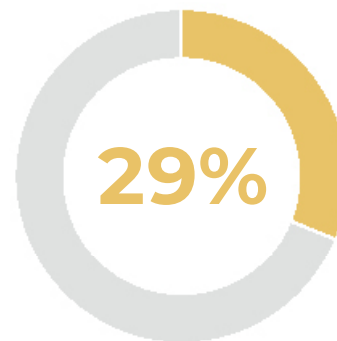
**First Nation** governments are leading 8 HWI projects (16%), and **municipal and regional governments** are leading 4 HWI projects (8%) in the sample.

An **academic institution** is leading one HWI project (2%), and an **Indigenous-led private sector** (LLC) organization is leading one HWI project (2%) in the sample.

### HWI / Proponent Organization Type



## Indigenous Leadership



### Projects Led by Indigenous Leadership

Among our sample of projects, Indigenous-led organizations were directly funded through HWI to deliver 14 (29%) of the 49 funded projects. Of the 61 HWI funded projects overall, 19 (31%) were funded through direct grants to Indigenous-led organizations.

During the HWI intake process, proponents were asked to self-identify whether or not their organization is Indigenous-led. At the time, our team did not provide guidance or a definition of how organizations should make this determination. In future, we recommend including guidelines or resources (such as this **Definitional Matrix** developed by The Circle on Philanthropy and Aboriginal Peoples in Canada) to help organizations make determinations – see sidebar on page 20.

## Learnings & Recommendations

*Water is essential to Aboriginal title lands, integral to Indigenous territories, and a conduit for health and well-being for Indigenous communities. Indigenous people need to be empowered at all levels, including but not limited to: project staff, project leads, partnerships with non-Indigenous project leads, input on project design, the Funder's staff, and decision-making on grant approvals. Efforts to achieve this should be transparent. (HWI Principles and Criteria for Future Funding).*

A key pathway to upholding and advancing the implementation of UNDRIP is to directly fund Indigenous-led organizations and to hold non-Indigenous funding recipients accountable for Indigenous partnerships.





### PERSPECTIVE

“The whole intention of our work between this restoration initiative and the interactive cultural project we’re working on is all aimed at facilitating Gitksan people to be back on their territories in safe ways and sustainable ways. The goal is to hand over all the work and all the skills to the Gitksan People so that they can continue this work forever.”

– Project Lead, Gitksan Watershed Authorities, McCully Creek Restoration Initiative





## Defining & Resourcing Indigenous-Led Work

*“There is also a growing understanding that the best way to enable Indigenous success is to ensure Indigenous-led work, collaborations, movements and nations are funded directly in the pursuit of upholding Indigenous sovereignty.”*  
- from the Circle’s Matrix

**The Circle on Philanthropy and Aboriginal People in Canada** developed a matrix with four broad categories - Indigenous Benefiting, Indigenous Informed, Indigenous Partnerships and Indigenous-led – to help identify levels of Indigenous involvement, collaboration or leadership within organizations.

An Indigenous-led organization has Indigenous leadership at all levels; reciprocal relationship with Indigenous communities; programs that are delivered by Indigenous people; Indigenous cultures and languages are central to daily operations.

Indigenous title, rights, and sovereignty are crucial to watershed sustainability in the unceded territories known as British Columbia. A key pathway to upholding and advancing the implementation of UNDRIP is to directly fund Indigenous-led organizations, and to hold non-Indigenous funding recipients accountable for Indigenous partnerships.

There is also a recognition that it is essential the broader community, organizations and businesses are held accountable for all impacts within a watershed and share the responsibility and labour of restoring and returning watersheds to a more natural state. Refer to **ILAC Submission on the Watershed Security Strategy & Fund**.

Where projects are led by non-Indigenous organizations, evidence of research of Indigenous history and culture in the watershed and efforts to engage and seek partnership should be included in proposals. Watershed work should encourage and empower relationship-building and water stewardship champions that endure beyond 1-2 year funding envelopes. Relationships between Indigenous people and organizations, NGOs, local government, industry, and local communities are all essential to healthy watersheds now and in the future. Refer to **HWI Principles for Future Funding**.

## Partnerships and Collaboration

Watersheds are complex spaces – and communities, industries, and other groups may have different priorities for water and land use. To address these complexities, project leaders must navigate a range of laws and policies, funding models, cultures and histories, scientific disciplines, economic concerns, and planning issues.

Many HWI-supported projects were highly collaborative. Based on final report data, project teams worked with 207 unique project partners, which included: non-governmental organizations, First Nations, municipal and regional governments, provincial and federal governments and agencies, industry and crown corporations, educational institutions, consultants, funders, and others. Some organizations, such as Fisheries and Oceans Canada, were identified as partners by several project teams.

### Levels of Partnerships with Indigenous-Led Organizations

Of the 35 HWI projects funded through non-Indigenous organizations, 23 (or 47% of the 49 sample projects) collaborated with one or more Indigenous partners, i.e., a First Nation or Indigenous-led organization. The degree or extent of partnership varied greatly, from full involvement of the Nation or organization at all stages to partial partnership, to engagement and input, to information sharing only. About two-thirds of the Indigenous Nations or organizations involved in these HWI projects were considered full or partial partners; the third was engaged in more limited ways through input or information sharing.

- 1. Full partner** – Nation or organization involved in project design, implementation, reporting, and follow-up work.

*“Maaqutusiis Hahoulthee Stewardship Society (MHSS) is represented by the Ahousaht hereditary chiefs and works with and for Ahousaht Nation’s chief and council. MHSS Stewardship Biologist and guardians work closely and support all Ahousaht Fisheries programs (Ahousaht Chief and Council).”*  
- Ahousaht First Nation, Anderson Creek Restoration






- 2. **Partial partner** – A Nation or organization is involved in some key milestones, have a say in key elements of project design but may not be involved in all of the operational activities.
- 3. **Engagement** – A project proponent has engaged the Nation or organization, there has been info-sharing; they have sought and received input on project implementation.

*“Much of this project was guided by Squamish Nation and their experience on the Cheakamus River and engagement with the hydroelectric facility. The results of this study are being shared with our Squamish Nation partner” - Squamish River Watershed Society, Fish-friendly Flows for the Cheakamus Generating Station*

- 4. **Info-Sharing Only** – Capacity, time limitations, or other constraints did not allow for fulsome participation in the project, but information sharing was consistent throughout the project.

Projects with deeper levels of partnership or engagement offered valuable examples of how relationships, decision-making, processes and practices were influenced as a result.

**Indigenous Partner Role**

Full Partner		18 Indigenous-Led Partners   29%
Partial Partner		23 Indigenous-Led Partners   37%
Engagement		11 Indigenous-Led Partners   18%
Info-Sharing Only		10 Indigenous-Led Partners   16%
No Information		8 Indigenous-Led Partners
<b>Total</b>		<b>70 Indigenous-Led Partners   100%</b>



**PERSPECTIVE**

“K’omoks First Nation has been a project partner since the project’s ideation. The concept for the project was brought to them for review, and they indicated they would like to partner on the project and have the land rematriated after successful restoration. Since then, we have been working with KFN on land securement, project design and review, economic and job opportunities, and ongoing discussions in monthly partner meetings. KFN Guardians Program is active in monitoring and restoration.”

– Comox Valley Project Watershed Society, Kus Kus Sum Unpaving Paradise - Estuary Restoration





## HWI BENEFITS

# PROJECT OUTCOMES

HWI projects supported economic recovery, created jobs and built skills, restored watersheds and ecosystem health, supported climate resilience, and advanced progress on UNDRIP implementation.

Drawing on data from quantitative and qualitative (narrative) responses to project reporting from the 49 projects included in this sample, outcomes in each of these areas are described below.

### PERSPECTIVE

“Protection of habitat and traditional use areas that are significant to the Nation, both for cultural and economic purposes”

- Kwakiutl First Nation, Kwakiutl Cluxewe River and Estuary Restoration



**1270+**

Jobs created or supported with HWI funding.

**280,620+**

Person hours supported with HWI funding.

**75%**

Environmental Actions completed across 10 Categories.

**100%**

Of projects supported climate change adaptation.

**14**

Projects managed by an Indigenous-led organization.



## PERSPECTIVE

“Completing three instream projects across two sites in this time frame wasn’t easy! We couldn’t have done it without the knowledge, hard work, and humour of Kwantlen member and Elder, Kelly Yates. We are blessed to have forged this friendship.

A statement from Kelly describing his experience: *“From leadership right to boots on the ground, Rivershed is nothing short of first class! Everyone knew their role and what we had to do to get there. One day, I was building fencing and walked over to where the main stem channel connected to the salmon river and was stopped in my tracks. I saw a 6” Coho leave our habitat and enter the river! At that moment, all the hard workdays made it worth it! The feeling of seeing that fish using a habitat I was part of creating will stick with me forever.”*

The contributions from landholders were fantastic. They offered portions of private land, helped us acquire site materials at low cost, and actively participated in activities.

A statement from one of the landholders: *“I have learned so much! Being allowed a hands-on experience counting stickleback and the absolute joy of finding coho fry thriving in our restored marsh. Understanding how oxygen levels work, and about invasive frogs. All such great learning experiences!”*

The first two sites were a major achievement kickstarting more habitat restoration throughout the corridor with unanticipated wins of four more riparian restoration sites - three on private land, and one on a Crown parcel.”

- Project lead and Project Partners – Rivershed Society, Foodlands Restoration Corridor Project

Photo Caption: Honourable Selina Robinson, MLA, visits with project partners from the Rivershed Society, Kwantlen First Nation/səyem Qwantlen, Langley Environmental Partners Society, landholders, and the HWI Team. (Photo: Rivershed Society)





## Creating Jobs & Supporting Economies

As part of the Province of BC’s economic response to COVID-19, the Healthy Watersheds Initiative was designed to create jobs and provide training and skills development, particularly for population groups most significantly affected by the pandemic. In addition, HWI projects resulted in many other significant economic benefits, generating overall high returns on investment.

### Highlights

- Employment, training and leadership development were central economic outcomes of HWI projects.
- Over 1200 valuable jobs were created, with the majority of positions held by Indigenous people, women and youth.
- Many types of positions were supported, including existing organizational positions, new hires, full and part-time positions, seasonal workers, specific skilled workers and professionals.

### PERSPECTIVE

“Our project works provided jobs for multiple contractors, including construction operators, fisheries biologists, contract engineers, and survey technicians.”

- Ducks Unlimited Canada, 148 Mile Marshes Rebuild Project

- Training, mentorship, peer learning and applied on-the-ground work built diverse skills, knowledge and capacity for individuals and communities.
- HWI projects engaged 3862 volunteers.

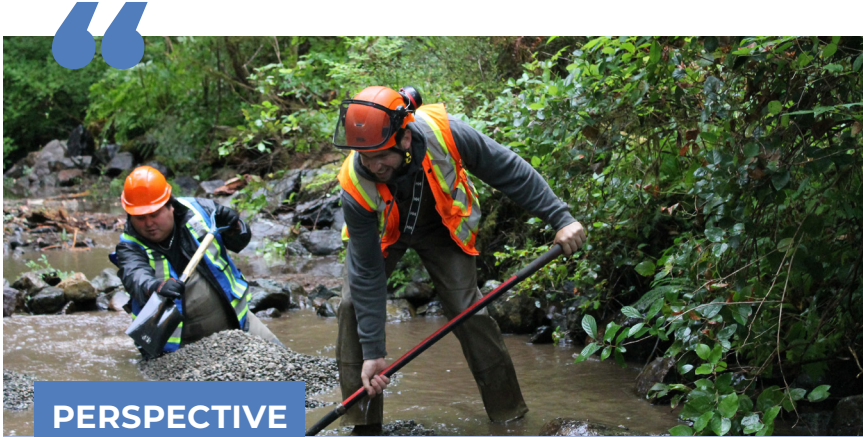
- HWI jobs and training supported leadership development, advanced career goals, connected people to community and culture, and supported intergenerational engagement and knowledge sharing.
- Indigenous-led project teams indicated that HWI projects in their own territories created meaningful work, wages and stability for community members while contributing to the local economy; many Indigenous/member-owned contractors and organizations were hired.
- Many young people and those in the early stages of their careers gained confidence and inspiration to pursue further education and employment opportunities.
- Many cross-sector economic spin-off benefits were cited for fisheries, forestry, agriculture, mining, recreation, local contracting, businesses and service providers.
- Municipal and provincial cost savings – through increased climate resilience, improved water quality and supply, and social, cultural, and health benefits – were also identified.

## Valuable Jobs & Training

### Job Creation

Data from the 49 projects in the major outcomes sample show that over 1200 jobs have been created or supported with HWI funding. These numbers do not include data from the 12 projects that had not yet submitted final reporting, nor jobs created through other sources of funding.

During the HWI intake process, proponents estimated that over 900 jobs would be supported through a combination of HWI funding and other sources of revenue. Thus, HWI projects created 41% more jobs than estimated.



PERSPECTIVE

“The most important economic impact and outcome on the local economy has been the employment of a total of 14 local community members, five non-target demographic and nine target demographic. By helping to restore salmon watersheds within the area of Clayoquot Sound, the entire ecosystem benefits and eventually contributes to the health of a sustainable local community.”

– Ahousaht Nation, Anderson Creek Restoration

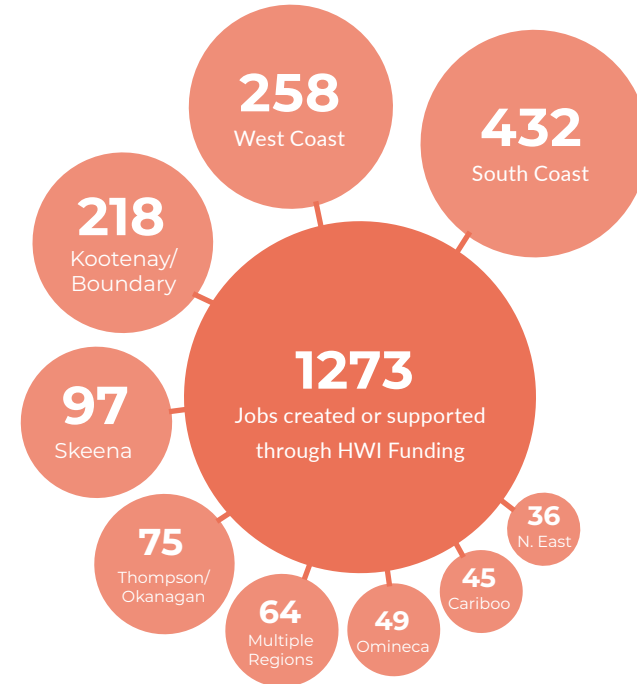
Job Creation and Person Hours

Though a large number of jobs were created with HWI funding, many were short-term in nature, representing part-time and/or seasonal work.

The 1273 jobs represent 280,629 person hours, or 220.4 person hours per job created. This is about 5.5 weeks of work, assuming full time 40 hours per week. The challenges of short-term job creation/funding were described by many grantees.

Job Creation by Region

HWI jobs were not evenly distributed across geographic regions. The majority were in the South Coast, West Coast, and Kootenay Boundary regions. Far fewer were in the Northeast and Central regions.



Learnings & Recommendations

**1200+ valuable jobs** were created through HWI funding; however, many were strikingly short-term. The short timeframe of the HWI funding program meant many teams were scrambling to hire and train people and could not offer longer-term options that would have sustained many of the positive job benefits. Longer-term multi-year funding would go a long way to addressing these challenges and significantly scaling up the many positive outcomes seen in HWI projects. Longer-term funding should ensure regional equity in job creation.





## PERSPECTIVE

“While our team of fish technicians brings a vast area of skills and experiences, it is safe to say that everyone was in search of meaningful employment where a strengthened relationship to the land and a work environment that improves their health were welcomed. Sharing knowledge of the rapidly declining salmon stocks in the watershed and explaining how the problem we are dealing with is largely the outcome of a 100yr old land use decision helps build empathy for the work that needs to be done to rebuild the dynamic floodplain process that creates rearing and spawning habitat in preparation for salmon recovery.”

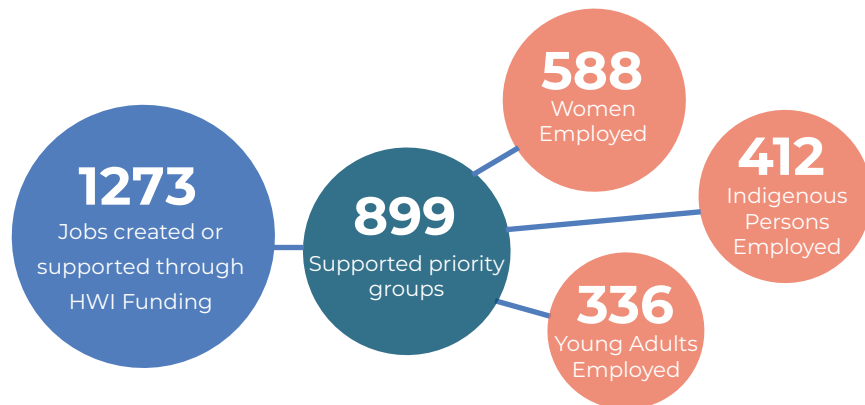
- Upper Fraser Fisheries Conservation Alliance and Lheidli T'enneh First Nation, Chilako River Restoration Demonstration Project



*Job Creation for Indigenous People, Women, and Young Adults*

Almost three-quarters of HWI jobs created (899 of 1273, 71%) were filled by people who identify as Indigenous (412, 32%), adults aged 30 or younger (336, 26%), and/or women (588, 46%).

Statistically, these three groups were the most economically impacted by COVID-19, and the Province identified job creation for these target groups as a key goal for HWI.



These job numbers, and the demographics they reflect, are a strong outcome – especially since project teams reported hiring challenges due to time constraints, COVID barriers, community impacts of residential school findings, and competition from other projects and initiatives.



**PERSPECTIVE**

“Through this project we were able to hire four local youth and as well as the K’omoks First Nation Guardians. Being able to empower local youth with the skills necessary to further their careers and to be able to employ them in the area of expertise that they are passionate about has had a really big impact on our organization.”

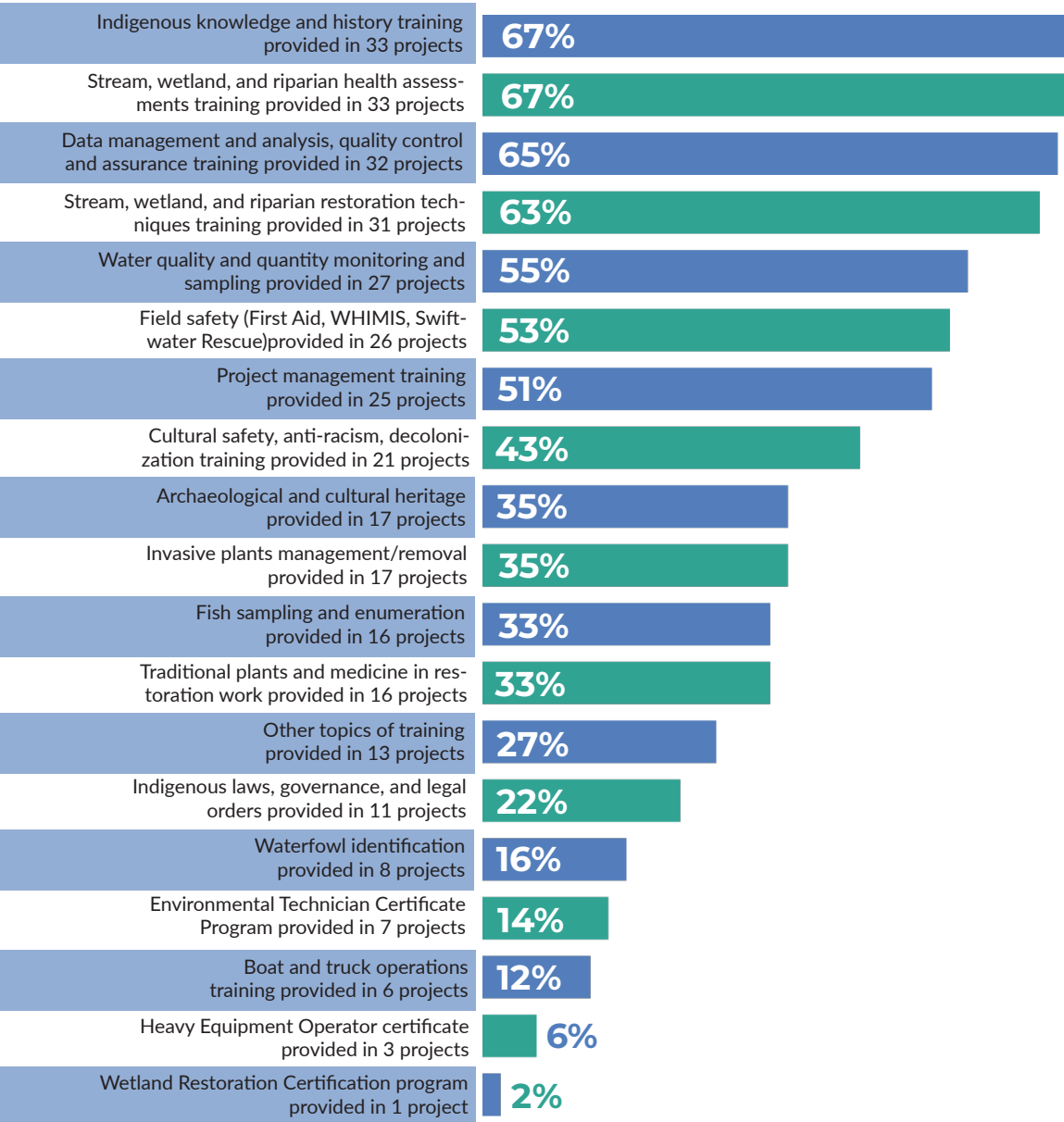
- Comox Valley Project Watershed Society, Glen Urquhart Creek Riparian, Stream Course, and Wetland Habitat Restoration

**Skills and Training**

HWI projects created diverse skills and knowledge for individuals and communities.

More than half of projects engaged in skill development and training around Indigenous knowledge and history, stream, wetland, and riparian health assessments, Data management and analysis, quality control and assurance, and stream, wetland, and riparian restoration techniques, as well as water quality and quantity monitoring and sampling, field safety and project management.

Types of Skills and Training



Volunteers

There were 3852 volunteer positions created across the 49 projects.



PERSPECTIVE

“Project activities significantly advanced restoration of riparian and wetland floodplain habitat throughout the 1.4-hectare Floodplain Re-engagement Project site. Approximately 75% of the project area was successfully revegetated with initial plantings and seeding. [This included] training and mentorship of over 660 students and community volunteers of all ages in riparian and wetland habitat restoration techniques that directly advanced the restoration of healthy watershed and ecological function[...]Volunteers provided over 1010 person-hours of in-kind volunteer effort valued at over \$15K.”

- Okanagan Basin Water Board, Collaborative Source Water Protection in the Okanagan



## Community Economic Benefits

### HWI projects benefited local economies in multiple ways

In addition to direct job creation, many project teams reported strong spin off benefits for a diversity of local contractors, service providers and businesses.

#### PERSPECTIVE

“This project provided 32 different work opportunities for local and regional workers. There was a diversity of opportunities, from First Nations Knowledge Keepers to video production specialists, heavy equipment operators, tree planters and wetland specialists. This project gave a good opportunity to develop the Golden Rod and Gun Clubs profile and ability to manage a large project for the benefit of the community and habitats.”

- Golden District Rod and Gun Club, Blaeberry-Columbia River Confluence Restoration

### High ROI for ecosystem services and healthy watersheds

Overall, project teams point to high returns from investing in healthy watersheds:

- Jobs and training in watershed work.
- Cross-sector economic benefits for agriculture, forestry, fisheries and tourism
- Municipal cost savings through reduced climate impacts on infrastructure.

- Social, cultural, recreational, and other health benefits for individuals and communities.
- Drinking water protection and water supply for businesses and communities.



#### PERSPECTIVE

“These ecosystem services benefit all of society and function more effectively than costly infrastructure[...].Analyses during the pilot phase of the project showed a one-to-ten return on investment through Payment for Ecosystem Services programs like Farmland Advantage.”

- Investment Agriculture Foundation BC, Farmland Advantage - Payment for Ecosystem Services

### Learnings & Recommendations

*HWI funding focused on 'shovel ready' restoration projects, but none of the work happens effectively without planning, partnership development, shared decision-making, and long-term management and monitoring. These activities must be recognized and resourced in combination with on-the-ground restoration work, and funded with continuity over the long term.*

## Supporting Local Communities

*“Finding meaningful employment in your home community is a pillar to quality of life. Many of the dollars earned by local residents were spent at our local stores and restaurants, which all contribute to a healthy local economy.”*

*- Nechako Environment & Water Stewardship Society*

**Hiring local contractors:** The Clayoquot Sound Watershed Recovery Initiative leveraged \$1.1 million in funding from HWI to support staffing costs of \$1 million. A further \$1 million was directed to local contractors in the region, strengthening the local economy, and building sustainable, well-paying jobs.

**Supporting Indigenous businesses:** The Cowichan and Koksilah Sediment Removal Project hired community members working for Cowichan-member construction companies.

*“The Okanagan Lake Responsibility Planning Process and the siw?k? (Water) Responsibility Plan are examples of how all levels of government can work together to co-create a planning process that ensures mutually beneficial outcomes for syilx and non-syilx partners. The implementation of the Plan will facilitate sustainable planning practices that protect the long-term environmental and economic ability of our watersheds and territory to support economic growth for future generations.”* - Okanagan Nation Alliance, Okanagan Lake Responsibility Planning Initiative and Restoration Project

**Boosting income for local landowners:** The Bulkley-Morice Water Sustainability Initiative provided part-time employment to nine local contractors and supporting contracts to landowners whose agricultural businesses needed a boost in income.

**Purchasing plants from local nurseries:** Like many HWI projects, the Slocan Valley Riparian Restoration Project purchased plants and other supplies from local businesses and noted that HWI funding allowed them to leverage additional funds to bring even more money into the local economy.

**Supporting local general stores:** The Columbia Wetlands Project reported the impact of increased business for the local general store, especially for fuel.

**Partnerships with local businesses:** The Vancouver Water Monitoring Program brings people and publicity to partner companies in False Creek, such as Skookum Yacht Services, Maritime Market Marina, Granville Island, and Smart Marine Co.

*“Our project supported five full-time jobs and one part-time job. Additionally, many of the partner companies that our project supports are local businesses. This includes Skookum Yacht Services, Maritime Market Marina, Granville Island, Sea Village Marina, Smart Marine Co, and others. Our work brings people directly to the waterfront of False Creek, providing the local businesses of Granville Island, Olympic Village, and the False Creek Seawall with publicity and potential customers.”* - Fraser Riverkeeper Society, Vancouver

*Water Monitoring Program*



*“Community health, local business and sectors including mining, agriculture, and recreation, all rely upon a predictable water supply. This project is bringing to light the need for a collaborative approach to collect information needed for long-term local economic benefits all supported by healthy watersheds[...]This project has demonstrated transition possibilities towards a green economy.”*

*- Living Lakes Canada, Columbia Basin Water Hub*





## Learnings & Recommendations

The Delphi Group was commissioned by the BC Water Funders Collaborative, the BC Freshwater Legacy Initiative, and the POLIS Water Sustainability Project to develop an understanding and profile of the current economic and employment contribution of BC's watershed sector and its potential for growth. **The Working for Watersheds Report** released in July 2021 shows that BC's watershed sector puts tens of thousands of British Columbians to work each year in jobs and projects that directly contribute to watershed health.

However, the demand for watershed solutions is increasing. Actions to accelerate watershed sector growth and expand training and employment opportunities over the next ten years will be essential to get ahead of growing watershed issues, create sustainable career pathways, and avoid exorbitant costs from water-related crises and disasters.

The **Healthy Watersheds Initiative** has been an important step forward in this direction. The economic outcomes – in terms of extensive jobs and training and co-benefits across multiple economic and community sectors – have been extensive. They have not only strengthened the case for sustained investments and pointed to the importance of creating longer-term jobs and employment opportunities, they have generated employment readiness and appetite within the watershed sector. The 49 HWI projects featured in this report delivered 631 education and training events, and 1662 awareness-raising events. Now is the time to build on the success, momentum and direction generated through HWI, with continued capacity building, and the fullest implementation possible of UNDRIP principles.



## Watershed Restoration & Environmental Benefits

Funding delivered through the Healthy Watersheds Initiative supported community-driven watershed conservation and restoration at over 200 project locations and thousands of sites.

All 49 HWI teams in the sample undertook environmental actions to support the health of affected watersheds and help provide safe, clean water for drinking, growing food, sustaining communities and culture, and powering local economies.

### Highlights

- Project teams restored wetlands and wildlife habitat, protected and promoted the return of species at risk, and managed freshwater resources for people, wildlife, and nature.
- Environmental activities included planting native species, re-channeling streams based on natural functions, preventing erosion using woody debris, and removing and building infrastructure using nature-based and fish-friendly approaches.
- HWI project teams completed 75% of the 929 environmental actions planned across ten categories for the 49 projects in this sample (20% or 188 of the planned actions were in progress at the time of final reporting, and only 5% were no longer being pursued).



### PERSPECTIVE

“The importance of this project to restoring estuarine function and wildlife habitat cannot be overstated. The benefits expand to also include resiliency against sea level rise and global climate change. As well, this project is an important step in reconciliation efforts for Squamish Nation and our community.”

- Squamish River Watershed Society, Central Estuary Restoration Project to Restore Chinook Salmon Populations

- The scale of work was significant:
  - » Land and water management activities took place at 1400 sites, representing 421M square metres of area, and 0.4M linear metres.
  - » Species management took place at 169 sites, representing 172 M square metres of area, and 0.1M linear metres.
  - » Conservation, designation, and planning activities took place at 424 sites, representing 172M square metres of area, and 0.2M linear metres.
  - » Research and monitoring took place at 2905 sites.

- 39 HWI projects addressed at-risk or culturally significant species. The most common species protected was salmon, with 60% of projects (29 of 49) addressing salmon populations through their work. About a third of projects addressed at-risk and culturally significant trees, trout, or birds.
- 19 HWI projects addressed invasive species.

### PERSPECTIVE

“Learning to restore a system for not only specific habitat needs, but further to hold onto water to ensure that the habitat remains wetted and nourished even during phases of drought. Engaging in habitat restoration amidst this climate crisis has re-focused our practice towards drought management and whole system health.”

- Gitksan Watershed Authorities, McCully Creek Restoration Initiative



- Project activities such as research and monitoring, education and training, and planning and policy were also important for building long term community capacity to protect and manage freshwater resources.
- Many HWI projects created high-quality data monitoring and collection protocols and infrastructure. Data will be used to understand changes in species and habitats to inform decision-making and action by project organizations, communities, governments, and Nations.
- Restoration of riparian and wetland habitats helped protect important species, increased biodiversity, helped manage peak water flows and summer droughts, and increased habitat resiliency to withstand sea level rises and climate change events.

- Indigenous-led projects reported positive environmental outcomes and watershed health benefits from having developed models for collaborative land use planning and water stewardship that center values around water and the environment.
- Non-Indigenous-led projects reported how HWI capacity building and engagement with funders, governments, and the broader community is helping to support longer-term projects and active water stewardship.
- COVID-19 significantly constrained plans and opportunities for in-person community education, training and events; however, HWI project teams demonstrated a remarkable ability to adapt, and offered community members, volunteers and project participants many opportunities to engage in environmental restoration work.
- The 49 HWI project teams in the sample collectively held 631 education and training events, and 1662 awareness-raising events.

### Learnings & Recommendations

*Restoration of riparian and wetland habitats through HWI projects contributed to protecting important species, increased biodiversity, helped manage peak water flows and summer droughts, and increased habitat resiliency to withstand sea level rises and climate change events. However, these changes take time to unfold, and many areas of the province are in need.*

***Restoration and protection is an ongoing, long-term process that needs to be expanded and sustained. Governments and communities must work together - supported by resources that transcend political cycles - to achieve outcomes at the scale needed for water security.***

**High-quality data is important for advising, decision-making, and action**

Creating access to high-quality data and information to guide plans, practices and decision-making was an important outcome for the 41 (84%) HWI-funded projects that undertook research and monitoring activities.

Projects undertook monitoring and data collection to fill key information gaps. They established and implemented protocols and infrastructure that will be used to understand changes in species and habitat and created tools for resource management. Baseline inventory and mapping are being used to determine the future success of restoration work, and to prioritize areas for restoration and protection.

Data will be used to inform decisions around emergency planning and management, to empower community action and stewardship, and to advise governments.

**PERSPECTIVE**

“TNG selected, installed, operated, and or set up 13 water quality and or quantity monitoring stations throughout the three critical salmon nursery areas. These stations will be used and are already being used to understand changes in critical salmon habitat and inform decision-making. This data is already being used to inform decision-making for emergency enhancement planning for chinook salmon stocks impacted by Big Bar Landslide.”

- T?ilhqot?in National Government, T?ilhqot?in Nation-led Water Quality and Quantity Monitoring Program



**PERSPECTIVE**

“The Wetlands Workforce advanced the development of tools for wetland management by advancing a Wetland Ecosystem Services Protocol in 5 eco-provinces and contributing to refined mapping products - which will provide practitioners and decision-makers with tools needed to make better decisions on wetland management in BC.”

- B.C. Wildlife Federation, Wetlands Workforce

**Habitat restoration improves biodiversity and supports the return of key species**

Habitat and species restoration was accomplished at hundreds of sites using cost-effective, nature-based solutions. These included physical mitigations and low-tech approaches, such as removing invasive plants, replanting native shrubs and trees, and bolstering natural defences against erosion and flooding. They also included building infrastructure and depositing sediment to curtail erosion and stabilize banks, installing dam analogues, beaver co-existence tools, wetland water and temperature loggers, culverts, and livestock exclusion fencing, as well as creating safe fish passages, and off-channel habitat for overwintering at-risk species.



Projects have reported renewed species populations (particularly salmon) and biodiversity at many sites. Restoration of riparian and wetland habitats have also helped to mitigate peak water flows and summer droughts, and contribute to habitat resiliency to withstand sea level rises and other climate events.

Many environmental benefits have been observed within the short timeframe and scope of the HWI project; however, project teams note that long term positive impacts on habitat and species at larger scales take time to resource, test/demonstrate, and document. Long-term support, commitments, and coordination is needed to build watershed and ecosystem resilience and security.



Aerial View of the Yaqan Nukiy Wetlands Restoration Site in Creston BC . (Photo: Lower Kootenay Band)

**PERSPECTIVE**

“2021 restoration projects restored or improved fish habitat and passage on five Nechako River tributaries, including...increasing instream rearing functionality for fish, and increasing overall stream health and resilience. We have confirmed through our e-DNA program that 11 of our 15 sampled streams have Chinook presence over the two-year sampling period. This is important to DFO and the provincial government agencies when looking for their support and funding.”

- Nechako Environment & Water Stewardship Society, Nechako Valley Watershed Recovery & Primary Salmon Nursery Habitat



**Indigenous-led collaborative land use and stewardship planning is breaking down silos and strengthening environmental protection measures.**

For some Indigenous-led project teams, a key environmental outcome was creating, testing, and sharing collaborative models for water stewardship and land use planning grounded in Indigenous-led approaches that keep water and environmental protection at the centre. These approaches and partnerships can be used to guide other local and provincial strategies, policies, and practices.

*“The implementation of actions in the siw?k? (Water) Responsibility Plan will provide an opportunity for all the partners to engage in a process that will: break down silos that isolate decision-making, strengthen environmental protection measures for siw?k? (water), address cumulative impacts in the watershed, and ensure solutions are embedded in a syilx ecological framework and syilx water laws.”*

- Okanagan Nation Alliance, Okanagan Lake Responsibility Planning Initiative and Restoration Project



## Environmental Actions

Watershed restoration work was supported through many environmental actions. Some highlights on activities from the sample of 49 HWI final reports:

- 41 of 49 (84%) teams incorporated **research and monitoring** in their projects.
- 40 of 49 (82%) teams prioritized **training and education** of new staff and community members in their HWI-supported projects.
- 39 of 49 (80%) teams supported their work through **organizational or partnership development**.
- 38 of 49 (78%) teams worked to raise **community and public awareness** of water security issues.
- 35 of 49 (71%) teams **restored or maintained the quality of existing habitat**.
- 23 of 49 (47%) teams **protected specific species**.
- 18 of 49 (37%) teams **contributed to watershed security plans** to establish the importance of freshwater management in their region or community.
- 16 of 49 (33%) teams put additional **focus on the economic, spiritual, and cultural value of watersheds**.

For all environmental action categories, see table on page 15.





### Addressing Invasive Species and At-risk/Culturally Significant Species

There were 19 projects that addressed invasive species through their work. Projects focused on the removal or mitigation of between 1 and 47 different species (average = 5.9).

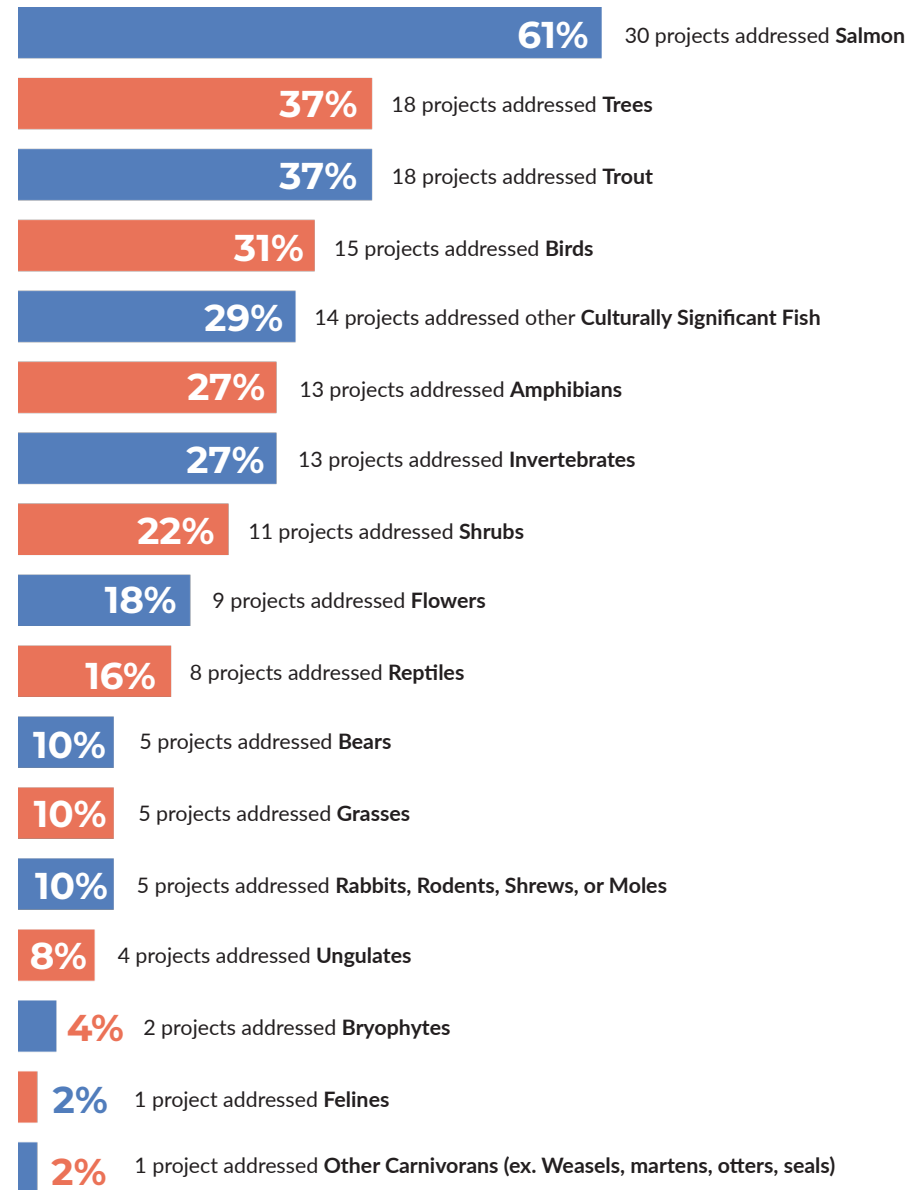
There were 39 HWI projects that addressed at-risk or culturally significant species through their work. Projects focused on between 1 and 34 different species. As outlined in the adjacent table, the most common species protected was salmon, with 61% of projects (30 of 49) addressing salmon populations through their work. About a third of projects addressed at-risk and culturally significant trees (18 projects, 37%), trout (18 projects, 37%), or birds (15 projects, 31%).



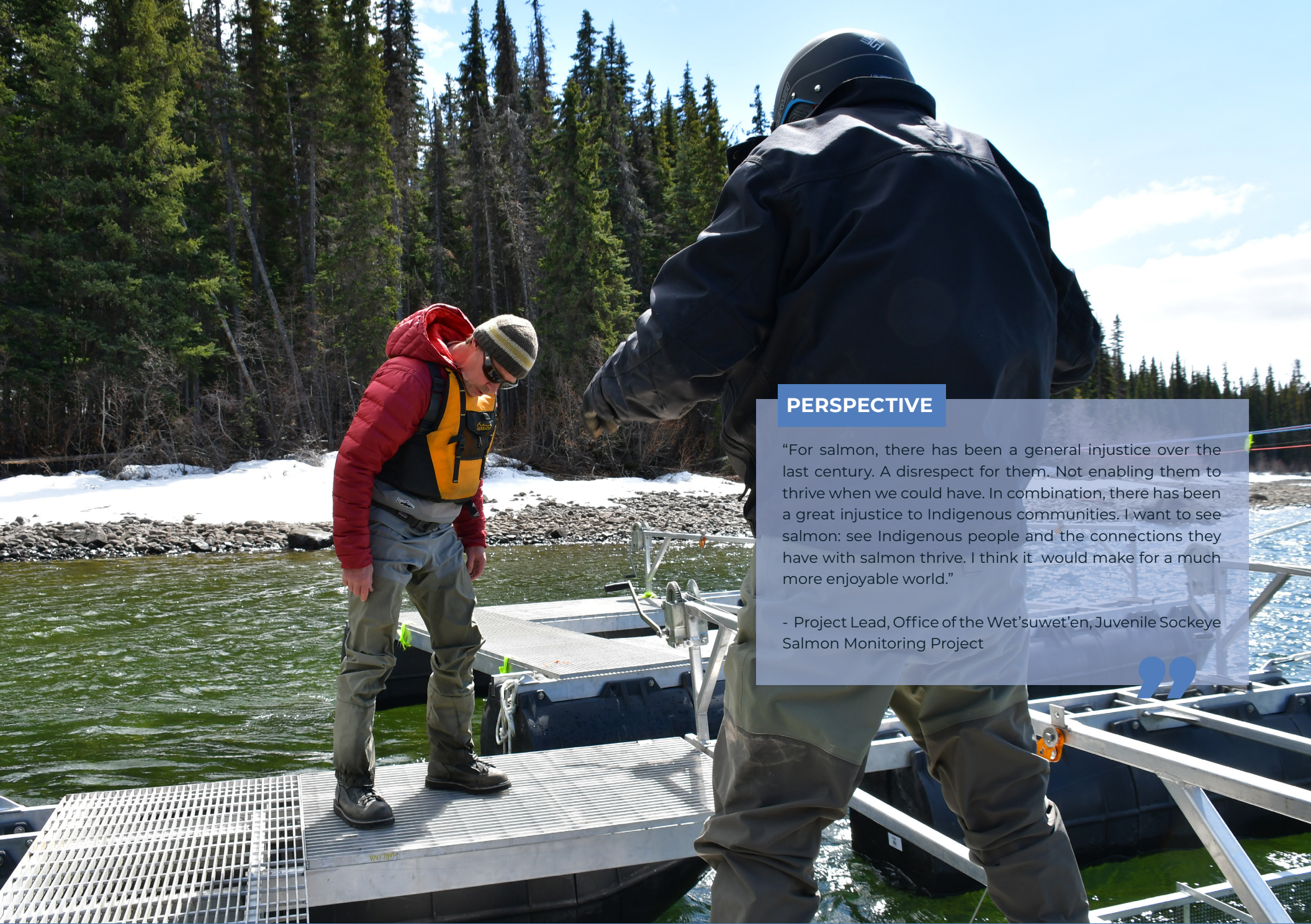
**PERSPECTIVE**

“This project is crucial to restoring Chinook salmon populations by allowing juvenile salmonids to enter the estuary as they emerge from the Squamish River. Furthermore, this project will allow for increased resiliency within the estuary to withstand sea level rise, global climate change, and increased storm and flood events.”

- Squamish River Watershed Society, Central Estuary Restoration Project to Restore Chinook Salmon Populations







## PERSPECTIVE

“For salmon, there has been a general injustice over the last century. A disrespect for them. Not enabling them to thrive when we could have. In combination, there has been a great injustice to Indigenous communities. I want to see salmon: see Indigenous people and the connections they have with salmon thrive. I think it would make for a much more enjoyable world.”

- Project Lead, Office of the Wet'suwet'en, Juvenile Sockeye Salmon Monitoring Project



## Strengthening Climate Resilience

Healthy watersheds strengthen climate resilience. Through jobs, training, community education, and investments in natural defences, HWI has helped advance more climate-ready communities.

### Highlights

- HWI projects demonstrated that healthy, functioning watersheds and wetlands hold and disperse water during floods and droughts, reduce wildfire risk, and strengthen natural carbon sinks. Habitat along rivers and streams prevent erosion, help manage water flows, regulate temperature, and protects salmon stocks.
- By restoring, monitoring, and managing natural defence systems, HWI projects have helped communities respond and adapt to climate change while supporting biodiversity and species recovery.
- All HWI projects in the major outcomes sample addressed one or more of the Province’s nine climate preparedness and adaptation strategies – with almost \$7 million in HWI project funding focused on habitat restoration and another \$7 million on climate adaptation measures. Substantial HWI resources also focused on addressing flooding and doing monitoring work.
- Though climate resilience and adaption will take years to build - with sustained resources and concerted efforts needed at large scales - there are striking examples of HWI projects already achieving incredible results in terms of salmon and wildlife returns, reduced erosion, and flood and drought protection.
- After two years of major climate events (heat domes, droughts, wildfires, and flooding), HWI projects offer a path forward for building resilience at a fraction of the cost of recovery efforts.

### PERSPECTIVE

“An indirect effect of climate events has been the re-direction of resources away from mitigation and resilience-building projects, towards reactionary, direct response actions, typically for restoration after fires and floods. Climate related hydrological issues, such as drought and floods experienced this year were predicted to occur over two decades ago via Columbia Basin-funded reports authored by the Pacific Climate Change Consortium. It is problematic and ironic that work attempting to allow for greater adaptation options in the long-term becomes a casualty of funding shortfalls when redirected reactionary funds are required year after year.”

- Living Lakes Canada, Community-based Water Monitoring and Restoration in the Columbia Basin, Columbia Basin Water Hub



### Learnings & Recommendations

*In the wake of extreme weather events and climate emergencies, senior governments have allocated significant resources to help communities re-build through infrastructure spending.*

*HWI has proven that investing in natural defences that mitigate and help address climate impacts while also supporting healthy watersheds is an effective and cost-effective approach to “**Building Back Better**”. Nature-based approaches can be prioritized by establishing “minimum” spending amounts for natural defences (over hard engineered structures) within government funding envelopes.*





## PERSPECTIVE

“We are just five years into a project that will restore 517 hectares of floodplains, streams and rivers, and the sandhill cranes and blue herons have already returned, Western painted turtles have turned up, and brown bats have begun to patrol the skies.

In the wake of last year’s devastating floods, the restoration of the Yaqan Nukiy Wetland is helping nature do its job again. The floodplain is now able to provide natural flood protection by absorbing freshets, the sudden, large volume of water created by heavy rain or snow melt.”

- Project Leads, Yaqan Nukiy Wetland Restoration Project, Lower Kootenay Band and B.C. Wildlife Federation

Related News Article: **Opinion: Watershed renewal project at B.C. First Nation bearing fruit as wildlife returning**

Photo Caption: Parliamentary Secretary Fin Donnelly, MLA, visits the Yaqan Nukiy Wetland Restoration Project with Lower Kootenay Band project lead Norm Allard, ILAC member Deana Machin, Local Elected Officials, and the HWI team. (Photo: HWI)





**PERSPECTIVE**

*“Strengthening Natural Defences through Healthy Watersheds”*

Through the B.C. Wildlife Federation’s Wetlands Workforce project, HWI supported maintenance of the Fraser Valley Watersheds Coalition’s Peach Creek and Hooge Wetland Restoration Project, which connected streams and wetlands between dikes on the Vedder River floodplain. As a result of this work, during the 2021 November’s catastrophic flooding of the Fraser Valley, salmon were able to escape the high-velocity flow of the Vedder River and safely spawn in the off-channel habitats of Peach Creek. In addition, the Hooge Wetlands absorbed excess stormwater, mitigating the flooding that impacted much of the Fraser Valley.

HWI funded restoration work at MacKay Creek in North Vancouver also demonstrates the value of investing in natural defences. MacKay Creek commonly overflows, flooding its banks and nearby streets. However, immediately after the November 2021 flooding deluge, the water rose barely half a meter with no overland flooding at all. The reason was a small urban wetland, MacKay Marsh, was recently restored by Wildcoast Ecological Society through the Wetlands Workforce project. The restored wetland provided an area for water from nearby storm drains to collect and then slowly flow into the creek. The wetland also absorbs and naturally filters pollutants and provides wildlife habitat.

**Related News Articles:**

[Chilliwack’s Hooge wetlands score a victory for natural flood defence](#)

[B.C. floods: How restoring wetlands and watersheds could help prevent the next disaster](#)



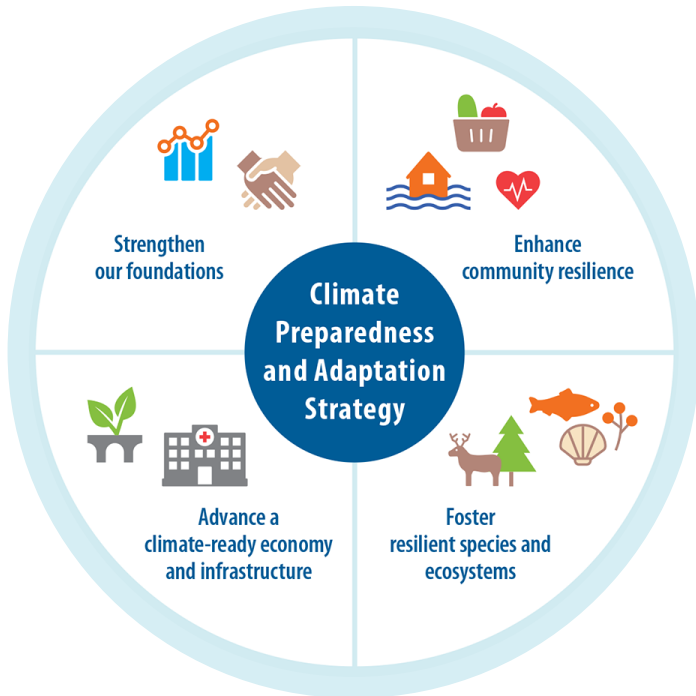
ILAC Chair, Mavis Underwood with team members from the Fraser Valley Watersheds Coalition during a tour of Hooge Wetland. (Photo: Claudia Ferris)

*“Climate change is threatening the health of the watersheds we all depend on for clean drinking water, growing our food, habitat for aquatic species and healthy local economies. Recent climate events, such as the heat dome, forest fires and floods, have created a challenging year, but through the Healthy Watersheds Initiative, we are producing positive results by supporting communities as they adapt to create safer, more resilient watersheds and wetlands.”*

- Minister George Heyman, BC’s Minister of Environment and Climate Change Strategy

Another example of the kind of work supported by the Healthy Watersheds Initiative is the Farmland Advantage program, which connects farmers with local stewardship groups with expertise in tree planting and salmon restoration. Farmers are contracted to restore and conserve wetlands and riparian areas to manage the extra water from a flood event. Natural defences such as forests and wetlands, with trees and deep-rooted plants, offer more effective and less costly long-term, sustainable solutions to excess water compared to dikes, ditches, and pipes.

Province of BC Climate Preparedness and Adaptation Strategy Goals

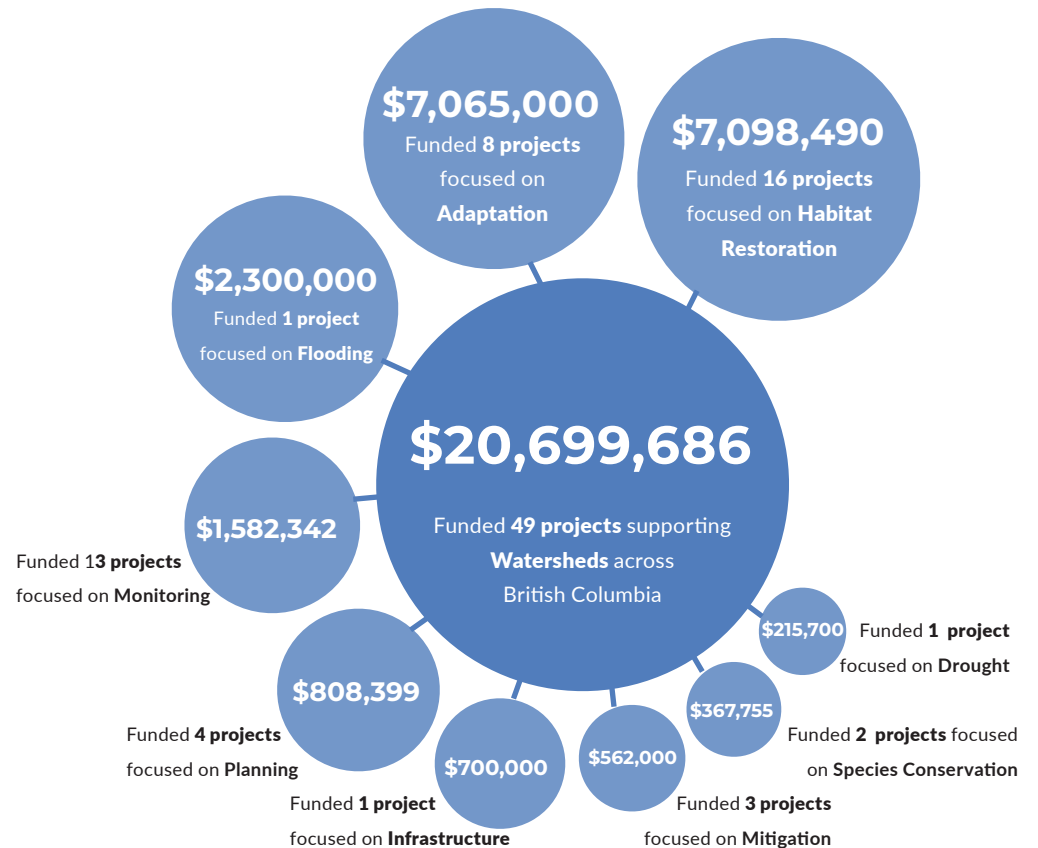


At HWI intake, project teams selected one of nine climate change focus areas that best represented their primary focus. The table and charts below show climate change focus areas by the number of projects and funding amounts.

Based on the 49 projects with final reports, the most common climate change focus area for HWI work was habitat restoration (33%), such as removing invasive species, stabilizing riparian areas, revitalizing salmon spawning grounds, and restoring wetlands.

More than a quarter of projects (27%) were categorized as focusing on monitoring. Monitoring strengthens understanding of changes happening and creates a base of knowledge through data collection, sharing, and training. A number of monitoring projects relied on Indigenous knowledge and practices, as well as provincially-recommended fish and riparian monitoring protocols.

Funding distribution by Climate Change Adaptation/Mitigation Focus







## PERSPECTIVE

“The pieces of this project are laddering up to a holistic, ecosystem-level approach to creating and restoring habitats for a wide range of wildlife (especially salmon) and carbon. This project is an incredible example of Indigenous-led conservation driving positive impact to combat the biodiversity crisis and the climate crisis.”

- World Wildlife Fund Canada, Indigenous-led Watershed Restoration in the Upper Pitt Watershed



## PERSPECTIVE

“We are very appreciative of our work with Nature Trust and the flexibility of this funding to allow us to focus on species that are culturally and historically significant to Kwakiutl. Support for this type of work is rare, and yet the Indigenous Knowledge and teachings about such things are critical to our survival, our health, and healing.”

- Kwakiutl First Nation, Quatse (Gwa'dzi) Estuary Restoration





## Power of Story & Community Engagement

Project communications, community engagement, awareness, and training is building hope, understanding, capacity, resources, relationships, and cultural connections for the future

Engagement with community, funders, partners and governments supported environmental outcomes in multiple ways.

COVID-19 significantly constrained plans and opportunities for in-person community education, training and events; however, HWI project teams demonstrated a remarkable ability to adapt, and offered community members, volunteers and project participants many opportunities to engage in HWI-funded work through workshops, webinars, conferences and other outreach.

The importance of bringing people together to connect and learn about the work – often in life-changing ways – was voiced by many project teams.

Project teams also built and strengthened relationships to enable future collaboration. This included training, mentorship, and active engagement of students, community volunteers, industry, and other stakeholders in riparian and wetland restoration projects.

New or renewed funding commitments to continue the good work were also secured as a result of the visible environmental outcomes and related benefits.

### Project stories online and on the ground

HWI project videos and stories – combined with site visits and other forms of outreach and communications - played an important role in engaging partners, community members, and government leaders in the work.



### PERSPECTIVE

“One of my favourite project highlights was Minister Heyman’s visit to our project site. I really enjoyed watching our young field staff show off their exciting work to the Minister; contact with a cabinet Minister is a rare opportunity for biologists like myself and is especially rare for young field staff.”

- Ducks Unlimited Canada, Alaksen National Wildlife Area Dike Breach and Salmon Monitoring Project

HWI helped host 15 project site visits over the course of two years providing government leaders with an opportunity to connect with project teams and see the work being done first hand.

Project communications have been key in highlighting the importance of watershed work. Blogs, videos, and webinars have been created and shared by project teams and HWI to help amplify project outcomes. What follows are just a few examples of the stories shared online. These stories and many others can be viewed at [www.healthywatersheds.ca](http://www.healthywatersheds.ca).



**Project Story: Reciprocal Relationship with Katzie First Nations and Salmon - A Story of Endurance and Perseverance**

This story and the video included in the blog illustrate the reciprocal nature of watershed restoration work by Katzie First Nation and WWF to protect salmon migration in the Upper Pitt watershed. It has been shared widely through the project partners and through HWI’s “project stories” website page, social media, and many other channels.

**Project Story: Empowering Indigenous Youth on the Land and Water**

This story highlights the Gitksan Watershed Authorities’ work on restoring McCully Creek through the voices of the youth working on the project. The story also features a video of the project lead, who was awarded REFBC 2022 Land Awards for Emerging Leader.

*When in Drought*

The Narwhal’s **“When in Drought”** series reached broad audiences, providing critical and timely information about the restorative work happening in watersheds and wetlands.

*“Freshwater is one of British Columbia’s most treasured assets. But the compounding impacts of human development, industry, agriculture and climate change are dramatically altering the province’s water cycles and putting communities at risk.*

*The summer of 2021 saw the vast majority of B.C. scorched by heatwaves and placed under level four and level five category drought, putting incredible pressure on businesses, homesteads and Indigenous nations – many already facing the devastating impacts of the hundreds of wildfires burning across the province.*

*The climate is changing fast, and B.C.’s watershed management needs to keep up.*

*This series takes a close look at watersheds across B.C., the threats they face and the people working on the ground to reimagine what it’s going to take to keep the water flowing to communities and ecosystems across the province.”* (Narwhal When in Drought Series)

*Engagement Online*

Beyond online stories, project teams have engaged with communities by sharing their work and learnings through online webinars.

The webinar on **“Indigenous Knowledge Aspects of Community-Based Water Monitoring and Data Management”** hosted by the Collaboration Monitoring Initiative features HWI work by the Upper Fraser Fisheries Conservation Alliance (UFFCA) team that links water quality monitoring and decision-making. The UFFCA team is not only doing ground-breaking water monitoring and data collection in their own territories, they are sharing their experiences and practices with other HWI project teams and broader audiences through community-to-community training and online webinars.



### Community Engagement, Training, and Events

Project teams supported varying outreach and communication events to raise awareness about their project and the value of the work. These communications and engagements took the form of reports, social media, ads, marketing, art and person-to-person engagements.

**512** Person-to-Person Engagement Events were hosted

**1000+** Reports and Social Media posts were created and shared

**1662** Awareness Raising activities were supported

### Learnings & Recommendations

*In delivering the HWI program, HWI-funded projects were encouraged to include resources in their budgets to support project communications (stories, videos, social media), Indigenous protocols and ceremony, and community events and outreach. This proved to be important and influential resourcing that resulted in remarkable levels of community engagement that contributed to project outcomes.*

*The HWI program team also had dedicated communications resources to **amplify stories of the work** in accessible ways, and support communications with our provincial partners. The value and importance of sharing project stories that centered Indigenous experiences, voices, and leadership was emphasized by our Indigenous Leaders Advisory Circle.*

**Communications resources build important visibility, understanding and transparency, and should be an important part of future watersheds work and funding programs.**

### Fostering learning opportunities

Encouraging and fostering intergenerational learning between youth and Elders, inspiring youth to become future watershed champions while honouring the knowledge of Elders, was a major outcome of many HWI projects.

### PERSPECTIVE

“By providing training opportunities to Ahousaht First Nation members and the development of the Ahousaht Stewardship Guardian Program, the Anderson Creek Restoration Project, gave the opportunity for members to foster intimate cultural connections and development of indigenous knowledge through stewardship work within the members’ traditional territory. It gave a sense of pride and affirmation for community members involved. It also provided a sense of hope in conservation and rehabilitation of chum and coho salmon for traditional harvest for generations to come.”

- Danny O’Farrell, Ahousaht Nation

**Highlight:** The ability to provide employment to nine Ahousaht members including three held by women and four young adults. As well as providing training opportunities and experience for Ahousaht members in salmon habitat restoration. The knowledge and skills learned, combined with traditional knowledge and the ability to see what was accomplished with the return of salmon to the watersheds, is something that will last for many generations to come.

### The Ahousaht’s Anderson Creek Project offered:

- targeted training for environmental monitoring and safety skills, with certification upon completion (5 events) ;
- one to one mentorships with biologists, and knowledge exchange between hired technicians, community members, stakeholders and practitioners (7 events);
- and community awareness through social media and newsletters (20 events).



## PERSPECTIVE

“From a team lead perspective, the highlight of this project has been to witness the tremendous growth of our Youth Land Restoration Team. When we embarked on this journey together, many of the team members were incredibly shy, had low self-confidence [...] It had been expressed on several occasions how team members did not see themselves ever attending Post-Secondary Education. Holding these beliefs hindered the team members from believing that they ever could.

However, over the course of this year, through a variety of field training paired with online training, the entire team has expressed enthusiastic interest in pursuing Environmental Sciences at a Post-Secondary level. If this were not exciting enough, to have witnessed first-hand, the empowerment and growth of our youth team is the benchmark of my life.

It has been my greatest honour and privilege to have worked with, learned with, but more importantly, grown, with these amazing humans. In addition to this, our team was ignited with curiosity through interactions with amazing volunteers. Their generosity of time, expertise and passion was contagious, and it was through this, that sparks were ignited. It has been echoed by each team member how instrumental each volunteer had been in creating spaces that were conducive to a safe and respectful learning environment”

- Project Lead, Stqeeye' Learning Society



## PERSPECTIVE

### The Stqeeye' Learning Society offered:

- Elder and Knowledge Keeper mentoring (60hrs), eelgrass mapping training (20hrs), Historical baseline research training (30hrs), wetland restoration and planning (35hrs), fish surveys and stream restoration planning (60hrs) (10 events);
- Combined certificate course package: Fisheries Field Skills, Cultural Heritage Monitor, RISC Archaeology and CMT Training (2 weeks); First Aid; Subject area specialist training workshops (10): small mammals, butterflies, amphibians/reptiles, plant identification, bats, intertidal ecology, archaeology, birds, seed collection (25 events);
- Hosted “Youth on the Land” program (15 events) and school group events (3 events).

### Learnings & Recommendations

*Encouraging and fostering intergenerational learning between youth and elders, inspiring youth to become future watershed champions while honouring the knowledge of elders, was a major outcome of many HWI projects. Future projects should continue to embrace and advance intergenerational learning between youth and Elders, focusing on mentorship and long-term stewardship of watersheds. Ensuring opportunities for intergenerational learning should be a priority in future programs and funding decisions. (HWI Principles and Criteria for Future Funding)*

## UNDRIP Outcomes

HWI-funded work helped advance UNDRIP implementation and supported reconciliation, as documented in the comprehensive evaluation report by Tara Marsden, Naxginkw / Senior Indigenous Advisor.

Report: **United Nations Declaration on the Rights of Indigenous People: Healthy Watersheds Initiative Evaluation Framework and Report**

As a complement to the evaluation report, this section focuses on UNDRIP outcomes and impacts drawn from analysis of HWI project team’s final reports, with Indigenous and non-Indigenous led project team responses grouped differently to help better understand their distinct experiences and perspectives.

### Summary Highlights of UNDRIP Outcomes

#### Approaches to advance UNDRIP

- Indigenous-led HWI project teams exercised self-determination and sovereignty to benefit their Nation and members.
- Non-Indigenous-led teams advanced UNDRIP through recognition of Indigenous rights and title, following First Nations priorities and processes, having Indigenous knowledge direct project plans and implementation, and demonstrating respect for Indigenous culture and language.

#### UNDRIP related successes

- Almost all HWI projects (90%) conducted watershed restoration work, and supported the exercise of Indigenous rights. Species and watershed restoration and returning the watershed to a more natural state supports the ongoing exercise of Indigenous fishing, hunting, gathering, and stewardship rights.



### PERSPECTIVE

“With each collaboration effort, we can be more attuned to how to support an effective working relationship, to the needs of our partner and host Nations, and the effective steps to take to empower and recognize them as traditional stewards, knowledge holders, and leaders within our communities.”

- Comox Valley Project Watershed Society, Glen Urquhart Creek Riparian, Stream Course and Wetland Habitat Restoration

- For Indigenous-led project teams, UNDRIP outcome successes included self-determined First Nations watershed leadership, peer learning with other Indigenous-led projects, reconnection with land and water, and building cross-generation connections.
- For non-Indigenous-led project teams, UNDRIP outcome successes included working towards mutual watershed stewardship goals with First Nations partners, holding space for ceremony and recognition of First Nations on whose territory the projects were happening, and contributing to community stewardship, skills, and infrastructure.



**PERSPECTIVE**

“What I feel our greatest accomplishment in advancing UNDRIP has been our ability to stand firmly within our rights to our traditional lands. Historically when Indigenous peoples/ organizations have had “partnerships” with non-Indigenous sectors, more often than not Indigenous voices were not heard or taken seriously. This project has proven that it is possible to achieve the desired outcomes through self-determination.”

- Stqeeye’ Learning Society, Xwaaqw’um Village Watershed Restoration



- Employment and procurement for Indigenous people and organizations was a central feature of how HWI projects advanced UNDRIP. At least 412 Indigenous people were hired through 49 projects – representing 32% of all created jobs reported to the HWI team.
- Gathering and using data to guide Indigenous stewardship and resource management was an UNDRIP success for HWI projects, through building data collaboratives with infrastructure and procedures for data sovereignty. Data sovereignty is central to self-determined stewardship, conservation, and other governance decisions.
- Education and capacity building of non-Indigenous teams, partners, and the broader public through targeted training and collaboration, was another UNDRIP success.

*UNDRIP related challenges*

- For Indigenous-led HWI project teams, UNDRIP challenges included working within colonial structures and policies, the risks and burdens of token partnership, pressures on community availability, leadership skills and participation, and lack of time and space for engagement and collaboration within short project timelines.
- Across non-Indigenous-led teams, there was a spectrum of readiness for advancing UNDRIP. Some projects started without existing First Nations partnerships. This is something ILAC and the Senior Indigenous Advisor are trying to discourage. HWI staff tried to provide guidance on how to start building those partnerships respectfully, recognizing the many demands on First Nation communities. From a funding perspective, a key learning is that projects selected for funding should have existing partnerships in place.

**PERSPECTIVE**

“At times, [our partner] said we were partners, but when the work needed to be done, they had so many bureaucratic barriers. They were not honouring the UNDRIP principles, and that became a massive barrier to completing the work plan. This is really hard to talk about because we are constantly juggling how to safely propel our mandate and advance the Indigenous presence on the traditional lands, and we feel our engagement is sometimes token reconciliation. In one breath, they say yes, but in the other, they say no.”

- Indigenous-led project



- Among HWI projects that started work without existing First Nations partnerships or relationships in place, some reported challenges, barriers, and lack of progress towards UNDRIP (e.g. ideas not appropriate to the context or concerns of local First Nations, no Indigenous knowledge or leadership guiding the project, inability to implement Indigenous engagement, employment, or ceremony).
- In addition to the ongoing monumental work that First Nations are doing in their communities (as well as provincially and nationally), the heat dome, drought, flooding, residential school findings, ongoing trauma from colonialism and COVID pandemic all compounded the demands in responding to non-Indigenous projects within project timelines.

### PERSPECTIVE

“We followed the mantra, “Nothing about us, without us,” which applied to consultation and engagement [with the community] at every step.”

- Kwikwetlem First Nation, KFN Resource Stewardship Program



### Learnings & Recommendations

**The most effective means of advancing UNDRIP is for Indigenous-led teams to design and direct projects to benefit their Nation and members.** This, and other learnings from project reporting, are re-enforced in the Indigenous Leaders Advisory Circle’s **“Principles and Criteria for Future Funding.”**

*“Indigenous people need to be empowered at all levels, including but not limited to: project staff, project leads, partnerships with non-Indigenous project leads, input on project design, the Funder’s staff, decision-making on grant approvals.” (ILAC)*

**For non-Indigenous-led project teams, up-front partnership development and co-design of project objectives with the Nations involved is a key enabler of advancing UNDRIP.**

**Spending time and resources understanding First Nations’ priorities, and aligning relationship building and collaboration with those priorities, will support readiness.**

*“Where projects are led by non-Indigenous organizations, evidence of research of Indigenous history and culture in the watershed and efforts to engage and seek a partnership should be included in proposals.” (ILAC)*

**Readiness also includes having appropriate knowledge and training, decolonizing practices, organizational policies, and formal agreements or process arrangements with First Nations in whose territories the organization is operating.**

*“Decolonizing practices play a pivotal role in capacity and training for projects and staff teams. Training and dialogue should be offered for both projects and Funder staff, and incorporated into budgets and programming.” (ILAC)*



## Learnings & Recommendations Continued

Advancing UNDRIP through **funding non-Indigenous-led projects can create a burden of engagement on Indigenous individuals and communities**, especially where there is a large concentration of non-Indigenous projects in one region all trying to engage affected First Nations.

*“For non-Indigenous led projects, resources in project budgets for Indigenous engagement can and should be adaptable to the host or affected nations’ needs and priorities.” (ILAC)*

**Increasing the number/percentage of Indigenous-led projects through funding programs**, with clear targets and resources for doing so, can help reduce the disproportionate burden on Nations that receive a multitude of requests from NGOs and local governments to engage in project work within their territory.

**Non-Indigenous people and organizations are encouraged to build reconciliation and UNDRIP into regular operations and increase readiness**, and not rely on individual project funding requirements for the impetus or resourcing to do so.

*“Indigenous-led research or watershed work will yield greater outcomes for UNDRIP, reconciliation, and OCAP [ownership, control, access, possession].”*

*– Tara Marsden, Naxginkw / Senior Indigenous Advisor*







## PROCESS & LEARNINGS

# HWI Process & Implementation Learnings

In addition to meeting BC Government goals and mandate commitments, an important goal of HWI is to support the objectives and mandates of the funded organizations – not only through the project work but also through the HWI program delivery approach, supports, and shared learning.

Listening to, responding to, and amplifying the voices and experiences of the project teams have been an important foundational practice in the administration and delivery of HWI, and in our communications with project teams, partners, and the wider community.

This section of the report summarizes feedback and insights from the 49 project teams in our sample on the HWI granting process and implementation of their projects. This includes funding program feedback, their most rewarding highlights and promising practices, challenges, and next steps.

## PERSPECTIVE

“This program has allowed us to highlight the desire for our Nation to contribute to the health of the watershed, get members out on the land, exchanging knowledge and ensuring generational transference of knowledge. We appreciate this funding to push our restoration mandates forward, as it contributes to our cumulative effects data accumulation, and ensures ongoing enhancement efforts are documented and celebrated.”

- Kwikwetlem First Nation, KFN Resource Stewardship Program



In a number of cases, there were distinct experiences between Indigenous led program teams and non-Indigenous led project teams, and therefore some findings are differentiated by these two groups.



## Feedback on HWI Program Delivery & Supports

The Healthy Watersheds Initiative was a \$27 million funding program delivered on a short timeframe to 61 funded projects with an HWI program staff team of 6-8 people. Guidance, supports, and shared learning opportunities were offered throughout the program.

Project teams voiced strong support and appreciation for the approach and program supports offered through HWI.

- The HWI staff team provided support on grants administration and reporting, and worked to reduce burdens on grantees and provide flexibility wherever possible.

*“Want to provide kudos to team and staff that have worked at funding end. Every single one of them has been amazing. They provide feedback and information in a timely manner. They are incredibly kind and supportive and patient in their help and guidance to us. And they also make a point of letting us – the Indigenous communities – know that they are aware of the pressures and demands that we face.” - Kwakiutl First Nation, Quatse (Gwa'dzi) Estuary Restoration*

- Against a backdrop of challenging circumstances (a pandemic, wildfires, droughts, and difficult chapters of re-traumatization for Indigenous communities), the HWI team initiated a modification agreement with the Province that enabled project extensions for any teams that needed them.

*“I also really appreciated the HWI's flexibility, which helped us adapt to the 'one-thing-after-another' year that we experienced.” - Ducks Unlimited Canada, Alaksen National Wildlife Area Dike Breach and Salmon Monitoring Project*

- HWI staff hosted 'virtual coffee breaks' for project team members looking for low-barrier ways to connect with peers and learn about each other's work.

*“The HWI Coffee Break sessions were a wonderful way to network, hear about other projects, and feel connected to other important watershed security work happening across the province. The Decolonization workshops were an extremely valuable resource for project teams across the province to have access to and we appreciated the challenging work and education.” - West Kootenay EcoSociety, Nature-Based Planning and Natural Asset Analysis in Watersheds in Rural RDCK Area E Communities*

- Guidance from the HWI team and Senior Indigenous Advisor helped project teams build and strengthen their UNDRIP approach.

*“The meaningful prioritization of indigenous interests and long term objectives is also highly notable and refreshing.” - T?ilhqot?in National Government, T?ilhqot?in Nation-led Water Quality and Quantity Monitoring Program*

- Through a partnership with Nahanee Creative, 9 facilitated decolonial workshops were provided to 246 HWI project team members, followed by a “Learning & Unlearning Together” gathering to reflect on lessons learned and ways to apply them. **The final report produced by Nahanee Creative** offers an incredible resource for continued reflection and action. For those interested in continued learning, Nahanee Creative offers self-directed, On-Demand Mini-Courses as well. More information on Nahanee Creative and their online courses are available at [www.nahaneecreative.com](http://www.nahaneecreative.com)
- Other workshops provided by the HWI team include: Storytelling and Media Relations (Summer 2021), Event Planning for BC Rivers Day (Summer 2021), Sharing the **HWI UNDRIP Evaluation & Framework** (June 2022 and Oct 2022), Technique Talks (Nov & Dec 2022), and Words of Water: An Illustrated Journey of Connection to Land and Water (Jan 2023)

*"I found the diversity of courses offered to be impressive, and many of our field staff really appreciated these." - Ducks Unlimited Canada, Alaksen National Wildlife Area Dike Breach and Salmon Monitoring Project*

*"Streamlining and communication provided by the HWI team made this program so successful." - Ahousaht Nation, Anderson Creek Restoration*

*"I feel as though we have been supported and included throughout the duration of this project." - Stqee'ye' Learning Society, Xwaaqw'um Village Watershed Restoration*

- HWI's dedicated **website** and program communications played an important role in amplifying and sharing **stories** of the work and people behind the projects in accessible ways and supported communications with our Provincial Partners.

*"Following along on your social media, newsletters and coffee break discussions helped to bring different projects and partnerships together." - Redd Fish Restoration Society, Clayoquot Sound Watershed Recovery Initiative*

*"Getting our project highlighted in the HWI blog post was beneficial in developing our Club's profile in contributing to conservation in our region." - Golden District Rod and Gun Club, Blaeberry-Columbia River Confluence Restoration*

*"It was great to see and hear about the other projects that were implemented across the province with the support of HWI and the funding from the BC Government." - Slocan River Streamkeepers, Slocan Valley Riparian Restoration Project 2021*

- HWI project site visits and events that brought government officials, community members, leaders, Indigenous knowledge keepers, and project staff together "in person" on the land and water connected people to the work in profound ways.
- Throughout program delivery, HWI's Indigenous Leaders Advisory Circle (ILAC) shared advice and wisdom on respectful engagement, relationship building, and storytelling which guided our team's approach to communications and interactions with HWI project teams.

- With direction from ILAC, and feedback from project teams and partners, HWI developed a number of resources and recommendations to help guide future programs and investments in ways that respond to the needs of communities and project teams. These include **Principles & Criteria for Future Funding**, and **ILAC's submission to the Province on the Water Security Strategy and Fund**.

*"All the reporting forms and tools... have been very useful, user friendly and much appreciated. The ability to report this way would be wonderful for all funders to adopt. The BC Watershed Security Fund and Working for Watersheds Reports are progressive, innovative and inspiring." - Yucwmenlúcwu, Salmon River Sensitive Habitat Inventory Mapping*

- The HWI team is planning a Learning and Celebration Symposium to be hosted in February 2023, to celebrate project team's work and offer in-person opportunities to learn and connect.



## Highlights and Successes

### Indigenous-led Projects: Highlights and Success

#### *Indigenous Leadership, Collaborative Processes, & Relationship Building*

For Indigenous-led project teams, a key highlight or success was that Indigenous leadership and Indigenous-led planning processes facilitated collaboration across different levels of government (Nation to Nation, and Nation to Crown), and enabled them to achieve common goals.



#### PERSPECTIVE

“The bringing together of community members from both government structures within Ahousaht First Nation. The elected chief and council (Ahousaht Fisheries) and the hereditary chiefs organization (Maaqutusiis Hahoulthee Stewardship Society) to achieve a common goal and also work together. This was highlighted during the planting of culturally significant trees and grasses along the Anderson Creek Watershed.”

- Ahousaht First Nation, Anderson Creek Restoration

Indigenous-led project teams also noted that relationship building with partners such as the Province, academia, and conservation organizations was strengthened through Indigenous-led planning processes, leadership, and sharing Indigenous world views and water laws in relation to water stewardship and governance.

#### PERSPECTIVE

“The highlights include the use of a syilx-led planning process that brought syilx leadership, community members and elders together with non-syilx partners from all levels of government, academia and conservation organizations to identify the barriers and solutions for greater environmental and cultural protection of our watershed and territory...The outcomes will be formally recognized through the signing of a memorandum of understanding between all partners that will guide the implementation of the siw?k? (Water) Responsibility Plan.”

- Okanagan Nation Alliance (ONA), Okanagan Lake Responsibility Planning Initiative and Restoration Project

#### *Community engagement and stewardship*

Another highlight was the many ways First Nations community members supported and engaged in the project work through stewardship activities, training, project implementation and reporting, and Nations providing community member access to land, habitat mapping and monitoring.

Teams noted that regular communications – about project goals and progress, storytelling through different platforms (e.g., film) as well as ongoing relationship building – was key for community engagement.

**PERSPECTIVE**

“The field crew noted how positively this project is viewed by community members. They are often approached on field days and elsewhere and shown gratitude for the work they do. The UFFCA continues to regularly update the communities on this work, which has built on the extensive engagement conducted at the beginning of this project. Community members know what the goals of this project are and appreciate its continuity.”

- Upper Fraser Fisheries Conservation Alliance, First Nations-led Water Monitoring in the Nechako Watershed

*Meaningful, Employment, Work and Training connected to land, community, culture and stewardship*

A central highlight for Indigenous-led project teams was the ability to create and offer meaningful, sometimes life-changing work for community members.

In particular, hiring and capacity development for youth and young adults enabled meaningful career building for Nation members. Youth training and development happened through a combination of fieldwork, training, and inspirational mentorship models that focused on empowerment, confidence, safe learning spaces, connection to culture/land, future goals. Volunteers (Indigenous Elders) igniting youth curiosity (with their expertise, passion for topics) and creating a safe and respectful space for learning.

Several Indigenous-led project teams described how community stewardship has been a successful way for people to reconnect to the land and culture, including across generations, and exercise self-determination. This includes restoration work that expands understanding and evidence of ancestrally important sites.



**PERSPECTIVE**

“Proud that almost all the Guardian team has now had exposure to fishery habitat assessments and knowledge of the Giyuxw; they are more engaged in their Territory as a result. Proud that this project, in conjunction with other work, has deepened our understanding of this significant cultural site and expanded our inventory of ancestral work as well.”

- Kwakiutl First Nation, Giyuxw Tsuqwa Stone Trap & Fish Habitat Assessment Project



*Community knowledge building, peer learning, organizational capacity, and applied knowledge mobilizations*

Nations' water management and governance were strengthened through developing new skill sets, sharing extensive existing knowledge, and readiness to learn. Having people directly on the land and doing the work promotes community knowledge-building, engagement, and action. Peer, reciprocal, and non-hierarchical learning approaches between community members and intergenerationally across Indigenous communities were effective approaches that built leadership, skills, and connections.



**PERSPECTIVE**

“Our young, indigenous technical leads provided mentorship, training and peer-to-peer learning. TNG staff benefited from the accessible, non-hierarchical and practical guidance from the UFFCA leads, and our UFFCA leads were able to build their confidence as experts in their field, and truly enjoyed the opportunity to reflect on their own experiences and provide training and mentoring.”

- Upper Fraser Fisheries Conservation Alliance, First Nations-led Water Monitoring in the Nechako Watershed

Having space for learning and adapting between planning and execution phases of the project was also a highlight for teams. This included completing the project as planned, while working through challenges.

**PERSPECTIVE**

“Having the ability to be adaptive between planning and execution phases, leaving space for learning and pivoting.”

- Gitksan Watershed Authorities, McCully Creek Restoration Initiative

Gathering and using data, modelling, and results to understand watershed health and taking appropriate action was another highlight. This included technology upgrades to support more accurate data collection and knowledge mobilization. Data from HWI projects are informing decisions around emergency stock recovery, climate mitigation, drought management, and planning.

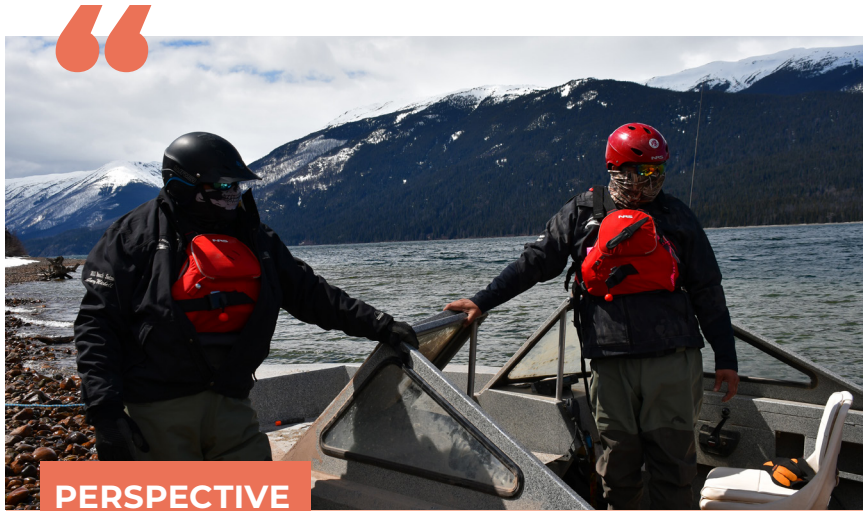
**PERSPECTIVE**

“TNG selected, installed and operated and or set up 13 water quality and or quantity monitoring stations throughout the three critical salmon nursery areas. This data has already been used in decision-making processes for emergency stock recovery activities for T?ilhqot?in Chinook and sockeye populations.”

- T?ilhqot?in National Government, T?ilhqot?in Nation-led Water Quality and Quantity Monitoring Program

*Watershed and species restoration and protection*

The watershed and riparian protection and restoration work itself, which promotes the return and protection of culturally significant species, was another a key highlight for Indigenous-led projects.



**PERSPECTIVE**

“I’m doing this not for me; it’s for the ones yet to be born. Generations from now, we’d like them to have feed from this fish that we love. Not the ones that come from farms. We want the wild stock like what our ancestors had.”

- Fisheries Technician, Office of the Wet’suwet’en

**PERSPECTIVE**

“As a child, I remember going into the smokehouse, and there was salmon everywhere. We’d have hundreds of salmon, and now we don’t take salmon from our rivers.”

- Upper Fraser Fisheries Conservation Alliance, Nadleh Whut’en member

Highlights also included building infrastructure that mitigates against the effects of climate change and helps protect against climate events.

**PERSPECTIVE**

“Innovated design to lower a dike and provide flood attenuation which was tested in the November 2021 floods and worked as designed.”

- Cowichan Tribes, Cowichan River and Koksilah River Sediment Removal

**Non-Indigenous-led Projects: Highlights and Success**

*Partnerships and engagement with Indigenous led organizations*

For non-Indigenous-led project teams, a central highlight was strengthening their understanding of and relationships with Indigenous partners and rights holders through protocols and processes that enabled collaboration, learning and work towards shared goals.



**PERSPECTIVE**

“Many of our projects fall within the traditional and core territories of the K’omoks First Nation. Recognizing where our projects fall and within whose territory is a key first step to each project. Once we’ve established this, we connect with the Nation whose lands we are working on. In this case, the K’omoks First Nation, who we already have a well-established relationship with the Nation and our partnering with them on other projects. As per our 2011 MOU, any project happening on KFN territory will be brought to them first for review, input, and approval[...]Once reviewed by KFN, we integrate any feedback they may have, with the aim being consensus on all project deliverables. From there, we follow their Cultural Heritage Policy and have all projects permitted through their archeological review process. Any restoration plans and activities are sent to KFN Intergovernmental Director for approval and also passed on to the K’omoks First Nation Guardians for review. For each project, we integrate their feedback into project planning and engage them as much as possible in restoration work. Once we’ve established a work plan for any given project, we review potential opportunities for KFN. This can come in many forms; for example, their Guardian Watchmen Program has land managers and monitors that are able to support environmental and archeological monitoring as well as some technical restoration pieces such as habitat complexing works. Furthermore, the K’omoks Economic Development Corporation has a handful of Joint Venture Partners that can be engaged to carry out a wide array of activities within our scope of work. When qualified and appropriate, we engage these contractors as needed for the work to further capacity-building for the KFN. For this project, KFN was engaged through the review and approval process (for environmental and archeological review), through the planning process, and through restoration and monitoring works on site (archeological) through the KFN Guardians Program.”

- Comox Valley Project Watershed Society, Glen Urquhart Creek Riparian, Stream Course, and Wetland Habitat Restoration

Gaining a better understanding of First Nations’ land use planning processes with the Province was also identified as a highlight.

**PERSPECTIVE**

“This project allowed space for more in-depth conversations with other governing authorities and First Nations about watershed protection in the region. The SCRCD learned more about the Shíshálh Nation’s ongoing work with the Province related to land-use planning, which will include watershed governance. Shíshálh Nation and the Province will engage the SCRCD on this work in the future. In addition, Shíshálh Nation agreed that there is important work that they should collaborate with the SCRCD on, including monitoring watersheds used for drinking water supplies. SCRCD shared this information back to other governing authorities and within staff reports that were posted to the SCRCD website. These learnings will also inform the implementation of any programs and strategic planning related to watershed protection moving forward.”

- Sunshine Coast Regional District, Regional Watershed Management Planning

*Cultural Awareness & Relationship Building*

Building relationships and cultural awareness among non-Indigenous partners and staff through training and experiential learning was also a key highlight for project teams.

Ceremonies and gatherings (in-person and virtual) also supported relationship building.



## PERSPECTIVE

“Our work needs to align with the water priorities of Indigenous communities. LLC hired an Applied Reconciliation Coordinator to create meaningful collaborations and partnerships with Indigenous communities. Successful practices of engagement include; a four-part webinar series entitled, ‘Indigenous-led Water Relationships in the Columbia Basin’, facilitated by LLC; internal cultural awareness training provided by an Indigenous consultant for the LLC team; on-the-ground monitoring and training collaborations with several First Nations.”

- Living Lakes Canada, Community-based Water Monitoring and Restoration in the Columbia Basin, Columbia Basin Water Hub



## PERSPECTIVE

“One of the highlights of this project was the opportunity to provide technical water quality data to support Semiahmoo First Nation as they share their story of traditional shellfish harvest practice and the need to restore this food fishery to their community. There has been a beautiful weaving of western science with traditional knowledge and practice that tells a strong story of the importance of the health of this watershed for all of us to flourish into the future.”

- A Rocha Canada, Water Quality Restoration and Monitoring in Boundary Bay



## PERSPECTIVE

“Highlights [included] Successful relationship building with Kitsumkalum First Nation and facilitation of a beautiful ceremony with Kitsumkalum, whereupon our project team was welcomed to Kitsumkalum traditional territory in order to carry out the riparian assessment work.”

- SkeenaWild Conservation Trust, Riparian Restoration Surveys on Streams near Terrace





### Collaboration and Community Engagement

Collaboration and engagement with multidisciplinary teams and community partners were a highlight for non-Indigenous-led projects. This included collaboration and shared learning with foundations, NGOs, local/provincial/federal government(s), and landholders.

#### PERSPECTIVE

“Established partnerships with other NGOs to undertake environmental work on nearly 20 farms - fostering inclusivity and trust between stakeholders.”

- Investment Agriculture Foundation BC, Farmland Advantage – Payment for Ecosystem Services

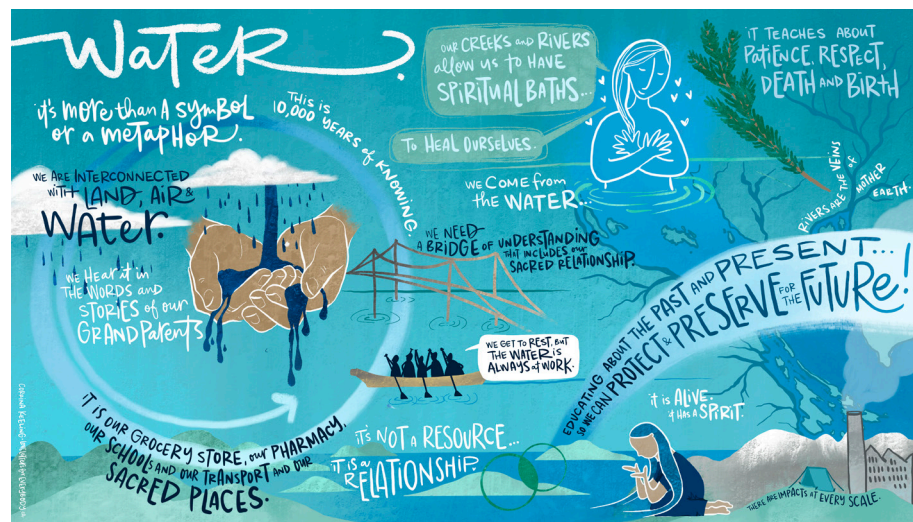
Projects engaged hundreds of volunteers in outdoor experiential education, monitoring, and stewardship efforts. Targeted outreach and engagement with specific members of the community (e.g., farmers and residents) resulted in significant shifts in perspective.

#### PERSPECTIVE

“The Project has found itself in a new chapter with local landowners and stakeholder organizations. We found farmers and ranchers are increasingly open to a new way of managing the land with sustainable outcomes for river health and people.”

- Northwest Research & Monitoring Ltd, Bulkley-Morice Water Sustainability Initiative

### Communications



This graphic recording was created by Corrina Keeling, [LoveLettersforEverybody.ca](http://LoveLettersforEverybody.ca), through Island Trust's Freshwater Sustainability Strategy project.

The ability to dedicate a budget and hire communications and education specialists was a highlight for many project teams. Successful activities included:

- Social media campaigns, videos, and infographics that have engaged thousands of people.
- Media attention through news articles, site visits and recognition with government, NGO, and funders – which contributed to community awareness and informed decision-making.
- Creative communications products such as videos, film, storytelling, and comics that share knowledge and promote active citizenship.

**PERSPECTIVE**

“Indigenous Perspectives film – Provides an opportunity to for Islands Trust to share what we have learned from Cultural Knowledge Holders, youth and Elders. It was the first professional film project for the videographer, a UBC Indigenous planning program student. She says it “changed her life”, providing new perspectives and opening doors to future opportunities to share Indigenous perspectives through film.”

- Islands Trust, The Islands Trust Freshwater Sustainability Strategy



*Employment, Training, and Skills Development*

Employment and training for Indigenous people, women and youth was another highlight.

**PERSPECTIVE**

“The great group of young folks we were able to hire on as Environmental Technicians - teamwork and knowledge-sharing within the group was tangible and together, they furthered the project work in a way that wouldn’t have been possible for us with only the support of volunteers.”

- Comox Valley Project Watershed Society, Glen Urquhart Creek Riparian, Stream Course and Wetland Habitat Restoration



Projects were successful in building skills, creating pathways to new post-secondary opportunities, and supporting job readiness.

Youth development included mentorship and guidance, and connected students with their environment and a wide range of projects and professionals. Project teams worked with Local First Nations to build skills and knowledge for environmental stewardship, and to hire their members as environmental monitors on their territory.

*Project Resourcing and Organizational Capacity Building*

HWI funding enabled project teams to advance long planned for work, build lasting organizational capacity, and support staff positions, administration, and ground-breaking project work.



**PERSPECTIVE**

“The ability to support much-needed monitoring and maintenance of restoration projects came as a huge relief to many project partners who’d struggled to find access to similar resources. The model of the Wetlands Workforce, also enabled institutional capacity building for many of organizations to review past projects or assess the health of sites, to prioritize and improve future projects.”

- B.C. Wildlife Federation, Wetlands Workforce



For example, the Skeena Knowledge Trust increased their trustee positions from four to six, gaining a wider range of perspectives and skills on the board. Living Lakes Canada hired an Applied Reconciliation Coordinator and B.C. Wildlife Federation hired an Indigenous Liaison position to create meaningful, respectful collaborations and partnerships with Indigenous communities. In other cases, organizations were able to hire communications and education specialists, and water-specific technical restoration specialists, who helped them implement and achieve transformative results.

**PERSPECTIVE**

“Hiring a Senior Freshwater Specialist to implement the Freshwater Sustainability Plan Development - contributing to a shift in the organization toward a more integrated and strategic thinking as well as a better understanding of how to integrate Indigenous Cultural Knowledge.”

- Islands Trust, The Islands Trust Freshwater Sustainability Strategy



*Applied Data Use, Knowledge Mobilization and Decision Making*

The use of technology, data and data visualization to support knowledge mobilization and decision-making were another highlight for project teams. HWI projects also developed key research and planning documents (business case, water efficiency plan, water monitoring report) to support source protection and future water strategy work. This included partnering with other HWI projects, sharing data, and combining efforts to engage communities.



**PERSPECTIVE**

“We have been able to show through data that the most significant sources of bacterial contamination are coming from urban stormwater and streams near the TATALU (Little Campbell) River mouth, which is providing significant impetus to local and regional governments to engage with the process and find solutions to improve water quality.”

- A Rocha Canada, Water Quality Restoration and Monitoring in Boundary Bay

*Watershed and species restoration and climate change mitigation*

Achieving successful riparian area and species restoration across the province was another key highlight for project teams. This included removing physical barriers for migrating salmon, planting vegetation, and building infrastructure to protect and support restoration work (e.g., analogue dams and pedestrian bridges). It also included contributions to longer-term watershed and species sustainability plans and interventions to address climate change and help protect against climate events.

## Challenges and Lessons Learned

HWI project work took place during incredibly difficult times. Project teams mobilized, partnered, and organized during a pandemic, record-breaking wildfires, dry forests, stressed salmon stocks, struggling crops, catastrophic flooding, ongoing trauma from residential schools, impacts of colonialism, and difficult chapters for reconciliation and relationship-building between Indigenous Peoples and settlers.

Understanding and working to address and alleviate challenges and lessons learned from project teams' experiences should be an important goal for future funding.

### Indigenous-led Projects: Challenges and Lessons Learned

- A lack of coordinated governance, relationships, and Indigenous representation in governance makes it difficult to advance effective, equitable watershed governance in BC.

*"The challenges for a land and water co-management arrangement within the region range from insufficient formal indigenous representation in governance structures, to lack of a coordinated approach and communication mechanisms across jurisdictions." - Okanagan Nation Alliance, Okanagan Lake Responsibility Planning Initiative and Restoration Project*

- Reconciliation around watershed governance is difficult and disruptive work that requires trust, time, and new ways of doing things

*"Mainly, the biggest hurdle for an inclusive coordinated approach in the Okanagan is that reconciliation for watershed governance is difficult work with no set path. It requires the leadership and knowledge of elders and all parties to work together to create new ways of doing things, and its outcomes have proven to be disruptive." - Okanagan Nation Alliance, Okanagan Lake Responsibility Planning Initiative and Restoration Project*

- Lack of long-term funding and community resourcing to manage projects; long-term resourcing is needed to improve planning, coordination, communication, staff retention, and organizational consistency.

*"Cowichan Tribes has limited capacity to manage projects, though we were very successful with this year's HWI funding, additional internal and long-term capacity is required to improve planning, coordination, and communications with the community and neighbouring jurisdictions." - Cowichan Tribes Cowichan River & Koksilah River Sediment Removal*

- It takes time and trust to work in partnership and time to learn new ways of understanding and acting.

*"We have learned that the challenge in collaboration stems from the differences in worldviews. Syilx values consider humans as being a part of nature, not apart from it, and is inherently different from the western concept of human-centric management of resources for extraction purposes. The bridging of indigenous and non-indigenous epistemologies through an ethical space was brought together in a syilx-led n?awqwnix? methodology, a consensus-based decision-making process that prioritizes the participation of Syilx Traditional Ecological and Cultural Knowledge keepers." - Okanagan Nation Alliance, Okanagan Lake Responsibility Planning Initiative and Restoration Project*

- Community and project team members' re-traumatization from residential school grave recoveries. Mourning protocols were observed to honour the lost and try to heal.

*"The biggest challenge for our team was trying to work through the emotions after the bodies of children were uncovered at the Residential schools. Every time something became public, it re-traumatized the team repeatedly. Although this was not new information to us, as we have all experienced the intergenerational impacts of residential schools, this information brought many emotions and made it extremely difficult to carry on." - Stqee'ye' Learning Society Xwaaq'wum Village Watershed Restoration*



- Longstanding harms to the environment and community differences in worldview between non-Indigenous and Indigenous communities (human-centric resource extraction vs humans as part of nature).

*“The Creston Valley floodplain was drained decades ago to create agricultural land, in line with the settler mindset that wetlands were useless ...” - Yaqa Nukiy Wetlands Project, Lower Kootenay Band and BCWF*

*“Working with Quw?utsun (Coastal Guardians) and partners listed above we continue our efforts to clean up the bay. Legislation is being created to stop this from happening in the future.” - Stqeeye’ Learning Society, Xwaaq’um Village Watershed Restoration*

- Need for community education to address awareness gaps and conflicts with non-Indigenous partners and members of the public.
- Timeline challenges when prioritizing Indigenous ways of knowing while also meeting funding deadlines and accessing funding on time for the summer construction season.
- COVID and climate impacts on project work, safety, coordination, site access, travel logistics, and availability of workers; associated impacts on in-person engagement, which communities adapted to by relying more on virtual communications and meetings.

*“The degree of in-person community engagement was less than hoped as COVID-19 restrictions limited in-person gatherings. Luckily, using the frequent TNG communications, we were able to communicate the progression effectively to communities.” - T?ilhqot?in National Government, T?ilhqot?in Nation-led Water Quality and Quantity Monitoring Program*

- Devastating climate events such as floods, wildfires, drought, and the heat dome on communities.

- Difficulties finding specialists to train staff in more remote areas, which also adds costs and logistical complexity; peer-to-peer training was arranged instead, which offered some unique benefits.



Gitksan Watershed Authorities planting along the banks of McCully Creek. (Submitted by Gitksan Watershed Authorities, McCully Creek Restoration Project).

### Non-Indigenous-led Projects: Challenges and Lessons Learned

- The HWI funding timeline was too short for complex work.

*“An ability to support important early Spring biological fieldwork (which couldn’t occur due to limited runway time - and incidentally is a recurring issue for many biological studies in BC that rely on grants or provincial annual budgets.” - B.C. Wildlife Federation, Wetlands Workforce*

*“We are regularly told in the Thompson-Okanagan that it takes a minimum of 140 days to get a WSA s.11 authorization for works in and about a stream/watercourse. It’s not workable to have these delays with a one-year funding program. We need a better way.” - Fraser Basin Council, Watershed Restoration in the Nicola Watershed*

- Mobilizing quickly and leaning on relationships across sectors are critical to working under time pressure, but these are not always available.
- There is high demand for Indigenous partnerships and meaningful collaboration takes time (beyond single-year project cycles) and long-term funding for consultation, relationship building, and co-management.
- Careful language and pacing are required to address systemic injustices and impacts on Indigenous communities from climate events, COVID, and residential school trauma.

*“Building community collaborations and First Nations engagement based on scientific analysis and planning takes time. Our work-plan structure and belief that this would work seamlessly within the granted period was perhaps optimistic. Novel approaches to long-standing ecological problems take time. Communities and First Nations need to see products so that they can formulate their response.” - West Kootenay EcoSociety, Nature-Based Planning and Natural Asset Analysis in Watersheds in Rural RDCK Area E Communities*

- Projects that had dedicated resources to fully engage with First Nations partners and already had relationships, processes, and protocols to draw from were less challenged by the project timelines.
- COVID and climate events impacted worker availability and retention, supply chain issues, and access to remote sites and required significant pivoting from planned approaches. Turnover of key staff impacted team coordination and knowledge transfer. Project management, funder liaison, volunteer management, and training programs require a lot of time. Extensions and flexibility from the granting team were appreciated.

- COVID and public health restrictions/changing guidelines impacted capacity to deliver in-person programming, particularly for outreach and engagement, collaboration, and access and protocols around onsite work.
- Restoration changes take time to happen and observe. Long-term commitments are required to implement projects of larger scales and scopes and to monitor and assess success.
- Cross-sector collaboration and partnerships require time to understand diverse partners’ requirements and concerns, especially for multi-site or cross-regional projects. With many parties using their own systems, additional resources are needed to support logistics, administration, budget and financial tracking, and reporting.
- Technical upgrades are a significant investment which often takes longer than anticipated
- Government permitting processes and delays, limited provincial and community engagement, awareness, and inequitable access to funding.

*“Some of the biggest challenges to this project was the reticence of the provincial government to participate as a direct partner on this project. While individual departments were very supported and attended meetings and assisted with the various approvals and authorizations it remains a missed opportunity for the province to be a partner along with Fisheries and Oceans Canada and Squamish Nation in this important project. Along these lines, the biggest obstacle faced was the regulatory process that reviewed this restoration project under the lens of construction and development projects, to the extent that, at one point, we were requested to provide compensation for the restoration activities.” - Squamish River Watershed Society, Central Estuary Restoration Project to Restore Chinook Salmon Populations*



- Many organizations and individuals were unexpectedly busier than ever, which made it tough to find qualified, available workers for certain elements of projects. Generally, high-paying industry jobs are hard to compete with in the lower-paying, seasonal, and temporary environmental sector (often where volunteerism is also expected, rather than compensating people for their work) – competition for workers is a real challenge. Often, part-time workers are juggling many jobs to provide income, and sometimes are not available later in the season or for work in remote settings.

*“Other resource-based projects within our area and competing with them for workers. Many large, resource based projects have very high salaries and lure the best workers away. The relationships NEWSS established will help to ensure we are able to find workers when needed in the future.” - Nechako Environment & Water Stewardship Society, Nechako Valley Watershed Recovery, Primary Salmon Nursery Habitat*

- Challenges hiring Indigenous staff, due to lack of prior relationships or knowing how to engage or recruit Indigenous staff.

## Impacts of Climate Events

Climate events reduced impacted access to sites, created challenges for project management and planning, and created difficult working conditions, and altered landscapes and ecosystem functioning.

Climate events are increasing in severity and significantly impacting communities (especially remotes and Indigenous communities). Even though research and modelling have predicted these changes, resources and responses have mainly focused on reactionary, short-term solutions to these long-term, predictable problems.

The climate events that impacted HWI project teams in 2021-22 were the heat dome, flooding, wildfires, a late frost and wet spring, and seasonal drought. Specific impacts are described below.

### Late Frost/Wet Spring



#### PERSPECTIVE

“We were also impacted in the winter by uncommon snowfall accumulations that stuck around longer than normal, meaning that some of our plans required rescheduling multiple times.”

- Discovery Coast Greenways Land Trust, Urban Watershed Protection and Restoration in Campbell River



# Heat Dome

## PERSPECTIVE

“We shortened work days to mornings only and ensured crews had extra water and access to shade during heat domes. We train all of our employees to exercise the right to refuse unsafe work, and to increase their comfort level with refusing unsafe work, we tell them they have a responsibility (not just a right) to refuse unsafe work.”

- Ducks Unlimited Canada, 148 Mile Marshes Rebuild Project



## PERSPECTIVE

“Salt Spring experienced a Heat Dome in August and a 100-year rain event in November. Both of these are thought to be caused by Climate Change. Both events had a significant impact on Xwaaqw’um’s ecosystems.”

- Stqeeye’ Learning Society, Xwaaqw’um Village Watershed Restoration





# Wildfires

## PERSPECTIVE

“It’s noteworthy that it’s increasingly challenging for many restoration projects to work within the designated fish window (best timing for instream works) as BC is increasingly impacted with wildfires or equipment bans at this same time of year - or much equipment is deployed to deal with these disasters. This stresses the importance of having adaptable and supportive staff from the Province and resource sector - who can help the conservation community find alternative solutions (and often deliver a project in a one year timeframe still).”

- B.C. Wildlife Federation, Wetlands Workforce

## PERSPECTIVE

“Throughout the summer, the initiative had to coordinate events around forest fires. Many provincial and local government partners had to shift their efforts to emergency response activities. There was also provincial staff turnover as staff were called to assist with emergency flooding efforts in the lower mainland. These turnovers impacted the project as there was often a delay as partners assigned new representatives to the planning process.”

- Okanagan Nation Alliance, Okanagan Lake Responsibility Planning Initiative and Restoration Project

## PERSPECTIVE

“Wildfires in the Nicola River watershed burned 82 000 ha in 2021. Communities, including that of the contractor, were evacuated. People were stressed.”

- Fraser Basin Council, Watershed Restoration in the Nicola Watershed



### Flooding

#### PERSPECTIVE

“We were evacuated for several weeks following the November floods in Merritt and spent a considerable amount of time working on flood recovery activities ever since. This impacted the amount of time available to work on reporting.”

- Scw'exmx Tribal Council, Monitoring of Agricultural Effluent Impact on Anadromous Fish in the Merritt Area



#### PERSPECTIVE

“Flooding is our biggest issue ongoing. The existing diking system is out of date and inadequate to keep our cultural resources out of the flooding.”

- Kwikwetlem First Nation, KFN Resource Stewardship Program



#### PERSPECTIVE

“Resulting flooding transformed the work site, smothering invasive species infestations intended for removal and greatly altering the stream course and composition of the stream bank where we intended to restore native riparian vegetation. These extreme storm events can be expected to increase in frequency and severity in future, and thus future projects will need to be designed to be flexible, adaptable, and resilient to meet this challenge.”

- Islands Trust, The Islands Trust Freshwater Sustainability Strategy on Anadromous Fish in the Merritt Area



### Sidebar |

## Unanticipated Processes and Outcomes

Unanticipated challenges during HWI work included disruptions due to COVID and climate emergencies, as well as challenges with staffing and recruitment. Many HWI projects had to work in ways that were not planned at the beginning of the project.

In some cases, HWI work was undone by climate events like flooding, heat, and fire. However, climate events also demonstrated the resilience of HWI restoration and protection work, with many of the HWI project sites performing really well during flooding and heat events.

Almost all projects had to pivot their approaches due to external events (e.g., changing COVID restrictions, climate emergencies) which impacted relationships with host Nations and communities, and the availability of people and resources.

In many cases, community outreach and ceremony were delayed, cancelled, or moved to virtual events. Where prior planning and relationships were not established with host Nations, those projects needed to change their approach to allow for the necessary time and direction. In a number of cases, this ultimately resulted in project activities being re-directed to better respond to Indigenous leadership and priorities, thereby advancing knowledge and practice around UNDRIP goals.

One HWI project was not able to secure expert trainers and instead connected with another Nation for non-hierarchical peer learning that was ultimately more effective for both knowledge sharing and community building.

Project teams reported that the flexible support from HWI staff helped them pivot and respond to changing conditions and emerging opportunities and challenges.



## Future Work and Funding

HWI project teams were asked through final reporting, based on project progress and findings, what the next steps would be to progress their work. Project teams highlighted plans for continued collaboration, outreach and engagement, maintaining and expanding project work, as well as steps needed to build community resilience to climate events.

### Partnerships and Collaboration

Project teams expressed a continued need to expand partnerships and collaborative work. Non-Indigenous project teams emphasized building relationships with First Nations needs to be consistent and long-term.

#### PERSPECTIVE

“Our next steps are: 1. Continue reaching out to build relationships with Host Nations. Ongoing consistent and long-term efforts will be needed to truly build trust with Host Nations...”

- Ducks Unlimited Canada, 148 Mile Marshes Rebuild Project

### Engagement, Outreach, and Awareness Raising

Continued engagement varied between different projects, relating to partnerships as well as outreach and awareness raising. Project teams highlighted their next steps and engagement plans with First Nations, youth, partners, communities, and the public.

#### PERSPECTIVE

“The next steps include bringing together the voices of Elders, knowledge holders, Chief and Council, local government and provincial agencies to refine the actions identified to date for the siw?k? (Water) Responsibility Plan. This plan will provide guidance for new land use decision-making processes, policies, and practices for stronger environmental protection for water and the land. Formal support for the action plan will be established through a Memorandum of Understanding (MOU) between all partners outlining responsibilities and commitments for implementing the siw?k? (Water) Responsibility Plan.”

- Okanagan Nation Alliance (ONA), Okanagan Lake Responsibility

### Maintain and Expand Restoration Work on Projects

The work continues. Project teams are building off of their learnings, expanding their project work, and furthering maintenance and monitoring activities to ensure on-going success. Securing funding was identified as being a key next step in order to continue the work, recruit more staff, and provide training opportunities.

#### PERSPECTIVE

“This was the first phase of setting up a water monitoring network in TNG territory. The most immediate priority is recruitment and training. Multiyear funding is essential for this[...]These stations were set up for long-term monitoring; therefore continuity of funding and well thought out siting is essential.”

- T?ilhqot?in National Government, T?ilhqot?in Nation-led Water Quality and Quantity Monitoring Program

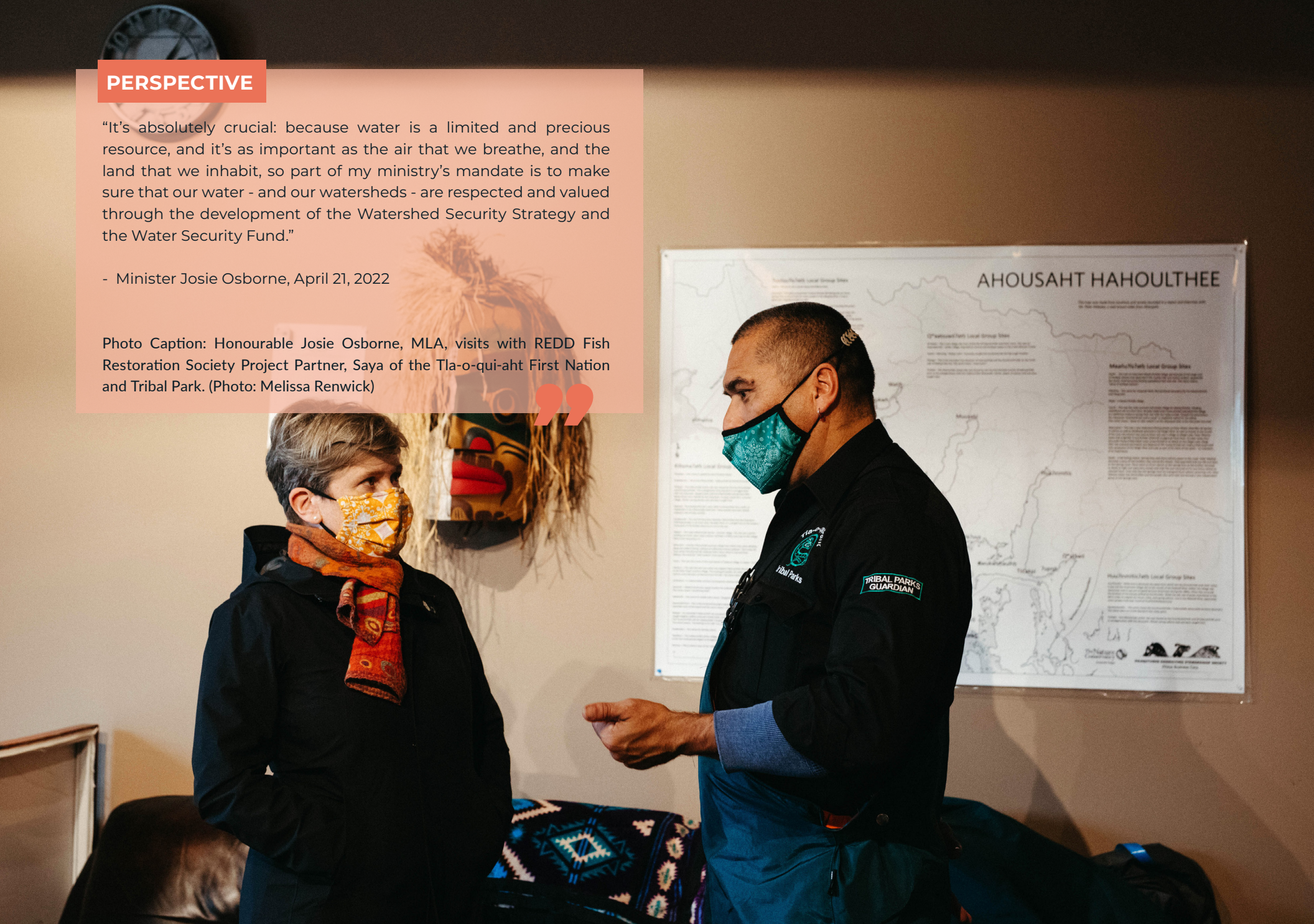


## PERSPECTIVE

“It’s absolutely crucial: because water is a limited and precious resource, and it’s as important as the air that we breathe, and the land that we inhabit, so part of my ministry’s mandate is to make sure that our water - and our watersheds - are respected and valued through the development of the Watershed Security Strategy and the Water Security Fund.”

- Minister Josie Osborne, April 21, 2022

Photo Caption: Honourable Josie Osborne, MLA, visits with REDD Fish Restoration Society Project Partner, Saya of the Tla-o-qui-aht First Nation and Tribal Park. (Photo: Melissa Renwick)





Project teams were also asked what activities they would support if immediate government funding was to become available for their organization to continue their work. The responses included a desire to support current and future employment, provide more training opportunities, support longer-term maintenance and monitoring work, scale up and expand work within the watershed, and continue to build meaningful relationships with First Nations, communities, and partners.



**PERSPECTIVE**

“Workshops and training sessions to increase local capacity, avoid labour shortages, and ensure the cultivation of a new generation of environmental stewards. It is important to increase youth exposure and opportunities for learning and training.”

- Living Lakes Canada, Mitigating the Hydrologic Vulnerability of the 26,000 ha Columbia Wetlands

**PERSPECTIVE**

“Expanding upon habitat assessments and prescribing more small-scale restoration that can be led and carried out by our Gitksan staff is in the planning stages and seeking funds to continue this work in a more continuous and long-term manner. We want to be able to expand our programs and access the funds to hire additional personnel that can focus on habitat restoration and carry it through in meaningful ways to Gitksan people, in collaboration with interested house groups and chiefs occupying their territories.”

- Gitksan Watershed Authorities, McCully Creek Restoration Initiative

**PERSPECTIVE**

“We continue to engage with our Elders, collect stories and learn language from them. We would like to put our language on more signage in the park, educating, and uplifting our culture at Xwaaqw’um.”

- Stqeeye’ Learning Society, Xwaaqw’um Village Watershed Restoration



## CONCLUSION

# The Future of our Watersheds

### PERSPECTIVE

“In my times of trouble, when I feel ill, one of the things I always know is that I haven’t had enough water. When I go back and take some water, take some clean water, I do a lot better. It speaks to me even when I don’t listen. Water is a gift for us from the sky, and we don’t do enough to hold it. We need to create space to hold it. We all need to do our part because climate action isn’t a thing that is happening to us; it is something that we need to take action on so that we can give water the help that it needs right now, which is finding places where we can hold it and where we can store it naturally [...] A small thing, a drop of water and what it does for you. It creates that great ripple, and you need to respond to that.

- Mavis Underwood, Chair, Indigenous Leaders Advisory Circle



The Healthy Watersheds Initiative had multiple inter-woven objectives for economic recovery, watershed conservation and restoration, climate change resilience, and advancing UNDRIP. It was a tall order over a short period of time, and HWI projects far exceeded hopes and aspirations for this critical water security work. Not only did HWI projects help communities adapt to climate change, protect drinking water, restore critical habitat, bolster local economies, and demonstrate a path forward for shared leadership between Indigenous and non-Indigenous communities. They demonstrated the incredible ripple effects of this work for people, partnerships, communities, and ecosystems. This work is the heart and foundation of community health and well-being.

We are deeply grateful to all the project teams whose work and insights made it possible for us to see and understand roles, responsibilities, and actions that are critical to UNDRIP commitments, economic recovery, climate action, and community and watershed health. We are thankful to our Indigenous Leaders Advisory Circle, the BC government, and community partners for working with us to guide, implement, and share in



this work, which has resulted in incredible learning, impacts, and returns from one of the most significant investments in water security in decades.

HWI funding focused on 'shovel ready' restoration projects, but none of the work happens effectively without planning, partnership development, shared decision-making, and long-term management and monitoring. These activities must be recognized and resourced in combination with on-the-ground restoration work and funded with continuity over the long term.

Governments and communities must work together – supported by resources that transcend political cycles – to achieve outcomes at the scale needed for water security.

Project teams expressed a continued need to expand partnerships, training, and collaborative work. There is high demand for Indigenous partnerships, and meaningful collaboration takes time (beyond single-year project cycles). Long-term funding is needed for consultation, relationship building, and co-management.

Increasing the number and percentage of Indigenous-led projects through funding programs, with clear targets and resources for doing so, can help reduce the disproportionate burden on Nations who receive a multitude of requests from non-governmental organizations and local governments to engage in project work within their territory.

The demand for watershed solutions is increasing. In-field and online training paired with new career opportunities for youth, women, and Indigenous People employed through the initiative helped build capacity for the future.

Future projects should continue to embrace and advance inter-generational learning between youth and Elders, with a focus on mentorship and long-term stewardship of watersheds.

The flexibility inherent in HWI's funding approach allowed project teams to respond to changing conditions and community needs ranging from pandemic restrictions limiting in-person gatherings to having wildfires impact restoration planning and work.

Non-Indigenous-led teams undertook decolonization workshops to prepare them to work respectfully in First Nations' territories and to be able to learn about and incorporate Indigenous Knowledge and priorities into their work. Careful language and pacing are required to address systemic injustices and impacts on Indigenous communities from climate events, COVID, and residential school trauma.

HWI was supported by many contributing First Nations and Indigenous and non-Indigenous partners and project teams who worked together to create and implement solutions for a more stable and secure watershed sector. Their shared responsibility and leadership has created hope and a path forward for local and First Nation governments, communities, and non-governmental organizations to work together to protect precious fresh water resources and restore healthy watersheds for all.

Heartfelt thanks go out to all the HWI project teams, partners, and host Nations for the incredible work you have done to respect and restore the fresh water on which we all depend.

## 1 / Methodology

Findings and outcomes in this report are based primarily on qualitative and quantitative data and analysis generated through HWI project reporting from 49 of the 61 HWI funded projects who completed their project work and reporting between January 2021 and June 2022.

The 12 HWI projects not included in the sample were completing work between July and December of 2022. Like the many projects cited throughout this report, they too have incredible stories, outcomes, and learnings to share and celebrate. In some cases we have been able to include photos and quotes from those projects in this report, and we look forward to learning from them in their final reporting.

Where applicable, additional insights from other learnings, reflections, and evaluations generated through HWI have been included and referenced.



## 2 / Project List

Projects listed with an asterisk are the 49 projects that are the focus of this major outcomes report.

### FISH-FRIENDLY FLOWS

*Comox Valley Project Watershed Society	Glen Urquhart Creek Riparian, Stream Course, and Wetland Habitat Restoration	\$50,000
*District of Kent	Lower Agassiz Slough	\$700,000
*Ducks Unlimited Canada	Alaksen National Wildlife Area Dike Breach and Salmon Monitoring Project	\$150,000
*Gitksan Watershed Authorities	McCully Creek Restoration Initiative	\$77,000
*Squamish River Watershed Society	Central Estuary Restoration Project to Restore Chinook Salmon Populations	\$250,000
*Squamish River Watershed Society	Elaho River Chinook Salmon Restoration Project: Phase 3	\$100,000
*Squamish River Watershed Society	Fish-Friendly Flows for the Cheakamus Generating Station	\$10,000

### HEALTHY COMMUNITIES

*A Rocha Canada	Water Quality Restoration and Monitoring in Boundary Bay	\$76,000
*BC Freshwater Legacy Initiative	Capacity Building for Water Leaders Through Learning and Development	\$453,000
*Elk River Alliance	Elk River Watershed Community Based Water Monitoring	\$28,400
*Fraser Riverkeeper Society	Vancouver Water Monitoring Program	\$27,000

## HEALTHY COMMUNITIES (cont.)

*Islands Trust	The Islands Trust Freshwater Sustainability Strategy	\$245,000
*Living Lakes Canada	Community-Based Water Monitoring and Restoration in the Columbia Basin, Columbia Basin Water Hub	\$1,250,000
*Northwest Research and Monitoring Ltd	Bulkley-Morice Water Sustainability Initiative	\$570,000
*Okanagan Basin Water Board	Collaborative Source Water Protection in the Okanagan	\$100,000
*School District 91 (Nechako Lakes)	Koh-Learning in our Watershed: Transforming Education; Connecting Students to Communities and Waterways	\$50,000
*Scw'exmx Tribal Council	Monitoring of Agricultural Effluent Impact on Anadromous Fish in the Merritt Area	\$58,800
*Skeena Knowledge Trust	Knowledge Management with Community-Based Watershed Organizations within the Skeena Watershed	\$260,399
*SkeenaWild Conservation Trust	Riparian Restoration Surveys on Streams near Terrace	\$48,000
*Sunshine Coast Regional District	Regional Watershed Management Planning	\$125,000
Town of Gibsons	Source to Sea Project and Methodology Integration – Phase II and III	\$85,000
*Neighbours United	Nature-Based Planning and Natural Asset Analysis in Watersheds in Rural RDCK Area E Communities	\$450,000
*Yucwmenlúcwu (Caretakers of the Land) LLP	Salmon River Sensitive Habitat Inventory Mapping	\$161,000





## INDIGENOUS PARTNERSHIPS

*Cowichan Tribes	Cowichan River and Koksilah River Sediment Removal	\$2,300,000
Cowichan Tribes	Koksilah Watershed Water Sustainability Planning	\$501,380
*Kwakiutl First Nation	Giyuxw Lower River Channel Restoration and Fish Trap Maintenance Project	\$132,160
*Kwakiutl First Nation	Kwakiutl Cluxewe River and Estuary Restoration	\$250,000
*Kwakiutl First Nation	Quatse (Gwa'dzi) Estuary Restoration	\$100,000
*Kwikwetlem First Nation	KFN Resource Stewardship Program	\$435,000
Lower Kootenay Band	Yaqaan Nukiy Wetlands Restoration Project	\$235,000
*Okanagan Nation Alliance	Okanagan Lake Responsibility Planning Initiative and Restoration Project	\$50,000
*Stqeeye' Learning Society	Xwaaqw'um Village Watershed Restoration	\$160,000
*Tsilhqot'in National Government	Tsilhqot'in Nation-led Water Quality and Quantity Monitoring Program	\$350,000
Upper Fraser Fisheries Conservation Alliance	First Nations-led Flows Management on the Endako River	\$688,000
*Upper Fraser Fisheries Conservation Alliance	First Nations-led Water Monitoring in the Nechako Watershed	\$250,000
Upper Fraser Fisheries Conservation Alliance	Yinka Dene Water Law – Implementing Tools for Fish Habitat Recovery	\$300,000
*Wet'suwet'en Treaty Office Society	Morice Sockeye Salmon Rebuilding Plan	\$206,755
*World Wildlife Fund Canada	Indigenous-Led Watershed Restoration in the Upper Pitt Watershed	\$375,000



## SUSTAINABLE AGRICULTURE

*Agricultural Research and Development Corporation (ARDCorp)	Bertrand Creek Group Environmental Farm Plan - Enhancing Water Quality in Agriculture	\$69,828
*Investment Agriculture Foundation of BC	Farmland Advantage – Payment for Ecosystem Services	\$600,000
*Rivershed Society of BC	Foodlands Corridor Restoration Pilot Project	\$820,000



## WATERSHED RENEWAL

*Ahousaht Nation	Anderson Creek Restoration	\$180,154
*Alberni-Clayoquot Regional District	Bridge Replacement on Log Train Trail at Platzer Creek	\$40,000
B.C. Wildlife Federation	Sun Creek Wetland Restoration, Canal Flats	\$162,000
*B.C. Wildlife Federation	Wetlands Workforce	\$5,055,000
*Redd Fish Restoration Society	Clayoquot Sound Watershed Recovery Initiative	\$1,140,000
City of Port Alberni	Port Alberni Wastewater Lagoon Restoration Project	\$195,000
City of Trail	Cambridge Creek and Violin Lake Dam Decommissioning and Ecosystem Restoration Project	\$561,000
*Comox Valley Project Watershed Society	Kus Kus Sum Unpaving Paradise - Estuary Restoration	\$700,000
*Discovery Coast Greenways Land Trust	Urban Watershed Protection and Restoration in Campbell River	\$378,000
*Ducks Unlimited Canada	148 Mile Marshes Rebuild Project	\$215,700
Elk River Alliance	Elk Valley Stormwater Solutions and Water Awareness	\$19,197



## WATERSHED RENEWAL (cont.)

Fraser Basin Council	Grassland Ecosystem Restoration	\$125,000
*Fraser Basin Council	Horsefly River Riparian and Salmon Habitat Restoration	\$180,000
*Fraser Basin Council	Watershed Restoration in the Nicola Watershed	\$100,000
*Golden District Rod and Gun Club	Blaeberry-Columbia River Confluence Restoration	\$500,000
*Living Lakes Canada	Mitigating the Hydrologic Vulnerability of the 26,000ha Columbia Wetlands	\$50,000
*Nechako Environment and Water Stewardship Society	Nechako Valley Watershed Recovery – Primary Salmon Nursery Habitat	\$1,095,000
*SkeenaWild Conservation Trust	Riparian Restoration Work on Willow Creek near Terrace	\$125,000
*Slocan River Streamkeepers	Slocan Valley Riparian Restoration Project 2021	\$55,490
Upper Fraser Fisheries Conservation Alliance	Chilako River Demonstration Project	\$700,000

## 3 / Credits

This report was prepared by the Healthy Watersheds Initiative staff team and an external consultant, Knowledge to Action, with significant contributions from partner organizations and project leads.

### Data Analysis & Content

Anne Bergen, Knowledge to Action Consulting

Leanne Sexsmith, REFBC/HWI

### Design and Layout

Cheyenne Bergenhenegouwen, REFBC/HWI

### Editing

Claudia Ferris, Production Magic

### Header Illustrations

Chenoa Gao, Conservation Illustrator/BCWF

### Cover: (L-R)

- Water Monitoring. *Ktunaxa, Secwépmc, and Sinixt territory.* (Photo: Elk River Alliance)
- Restoration at Willow Creek. *Kitsumkalum and Tsimshian territory.* (Photo: SkeenaWild Conservation Trust)
- Tree planting. *Kwantlen, Katzie, Semiahmoo and Matsqui territory.* (Photo: Emily Pearson / Rivershed Society of BC)

**Page 5:** *Ahousaht, Hesquiaht, Tla-o-qui-aht, Toquaht, and Yuułuʔiłʔatḥ territory* Photo: Kyler Vos

**Page 8:** Training youth group. *Ahousaht, Hesquiaht, Tla-o-qui-aht, Toquaht, and Yuułuʔiłʔatḥ territory.* (Photo: Lora Tryon / Redd Fish Restoration Society)

**Page 9:** Wetland site investigation. *Ktunaxa, Secwépmc, Syilx, and Sinixt territory.* (Photo: Living Lakes Canada)

**Page 10:** Fish sampling. *Ahousaht, Hesquiaht, Tla-o-qui-aht, Toquaht, and Yuułuʔiłʔatḥ territory.* (Photo: Graeme Owsianski / Redd Fish Restoration Society)

**Page 11:** Shoreline Cleanup. *Tsawwassen, Tsleil-Waututh, and Musqueam territory.* (Photo: Cheyenne Bergenhenegouwen / BCWF)

**Page 19:** Gitksan Watershed Authorities project lead and youth. *Gitksan territory.* (Photo: Cheyenne Bergenhenegouwen / HWI)

**Page 21:** Kus Kus Sum Unpaving Paradise. *K'ómoks territory.* (Photo: Comox Valley Project Watershed Society)

**Page 22:** Project Collaboration with BCWF Wetlands Workforce. *Cowichan territory.* (Photo: Stqeeey' Learning Society)

**Page 23:** Project site visit with Honourable Selina Robinson. *Kwantlen, Katzie, Semiahmoo and Matsqui territory.* (Photo: Rivershed Society of BC)

**Page 25:** Restoring Anderson Creek. *Ahousaht territory.* (Photo: Ahousaht First Nation)

**Page 26:** Stabilizing eroding riverbank. *Lheidli T'enneh, S'aikuz territory.* (Photo: Upper Fraser Fisheries Conservation Alliance)

**Page 27:** Glen Urquhart Creek restoration. *K'ómoks territory.* (Photo: Comox Valley Project Watershed Society)

**Page 28:** Students tree planting. *Syilx territory.* (Photo: Okanagan Basin Water Board)

**Page 29:** Fall feast. (Photo: Investment Agriculture Foundation BC)

**Page 30:** Training and Certifications. *Ktunaxa, Secwépmc, Syilx, and Sinixt territory.* (Photo: Living Lakes Canada)

**Page 31:** Water monitoring. *Ktunaxa, Secwépmc, Syilx, and Sinixt territory.* (Photo: Living Lakes Canada)

**Page 32:** Work on the Elaho River. *Squamish territory.* (Photo: Squamish River Watershed Society)



**Page 34:** Northern Lights College students during Wetlands Ecosystem Services Protocol training. *Sekani and Beaver cultures of the Halfway River and Prophet River territory.* (Photo: Cheyenne Bergenhenegouwen / BCWF)

**Page 35:** Yaqaan Nukiy wetlands site. *Ktunaxa territory.* (Photo: Lower Kootenay Band)

**Page 36:** Columbia Basin water monitoring. *Ktunaxa, Secwépemc, and Sinixt territory.* (Photo: Chris Kaileigh / Elk River Alliance)

**Page 37:** Aerial view of the project site. *Squamish territory.* (Photo: Squamish River Watershed Society)

**Page 38:** Juvenile Sockeye Salmon Monitoring project. *Wet'suwet'en territory.* (Photo: HWI)

**Page 40:** Site visit at the Yaqaan Nukiy Wetland Restoration project with Parliamentary Secretary Fin Donnelly, ILAC member Deana Machin, Local Elected Officials, and the HWI team. *Ktunaxa territory.* (Photo: HWI)

**Page 41:** ILAC Chair sharing knowledge of Salmon Berries with Fraser Valley Watersheds Coalition staff. *Stó:lō territory.* (Photo: Claudia Ferris / HWI)

**Page 43:** Salmon return to the Upper Pitt. *Katzie territory.* (Photo: Claudia Ferris / HWI)

**Page 44:** Minister Heyman at Alaksen National Wildlife Area with Ducks Unlimited Canada. *Tsawwassen, Musqueam, and Tsleil-Waututh territory.* (Photo: Taylor Roades)

**Page 47:** Training in the field. *Cowichan territory.* (Photo: Stqeeye' Learning Society)

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**Page 52:** Water monitoring in the Boundary Bay estuary. *Tsawwassen, Tsleil-Waututh, and Musqueam territory.* (Photo: A Rocha)

**Page 55:** Anderson Creek. *Ahousaht territory.* (Photo: Ahousaht First Nation)

**Page 56:** Giyuxw Tsuqwa Stone Trap & Fish Habitat Assessment Project. *Kwakiutl territory.* (Photo: Kwakiutl First Nation)

**Page 57:** First Nations-led Water Monitoring in the Nechako Watershed. *Carrier Sekani, Yekooche, Lheidli T'enneh territory.* (Photo: HWI).

**Page 58:** Juvenile Sockeye Salmon Monitoring project. *Wet'suwet'en territory.* (Photo: HWI)

**Page 60:** Monitoring in the Columbia Basin. *Ktunaxa, Secwépemc, Syilx, and Sinixt territory.* (Photo: Living Lakes Canada)

**Page 62:** Caleigh Lehan with the Wetlands Workforce. *Cowichan Territory.* (Photo: BCWF)

**Page 63:** Water monitoring in the Boundary Bay estuary. *Tsawwassen, Tsleil-Waututh, and Musqueam territory.* (Photo: A Rocha)

**Page 65:** Stabilizing the banks of McCully Creek. *Gitksan territory.* (Photo: Gitksan Watershed Authorities)

**Page 67:** Planting in the cold. *Wei Wai Kum, Homalco territory.* (Photo: Discovery Coast Greenways Land Trust)

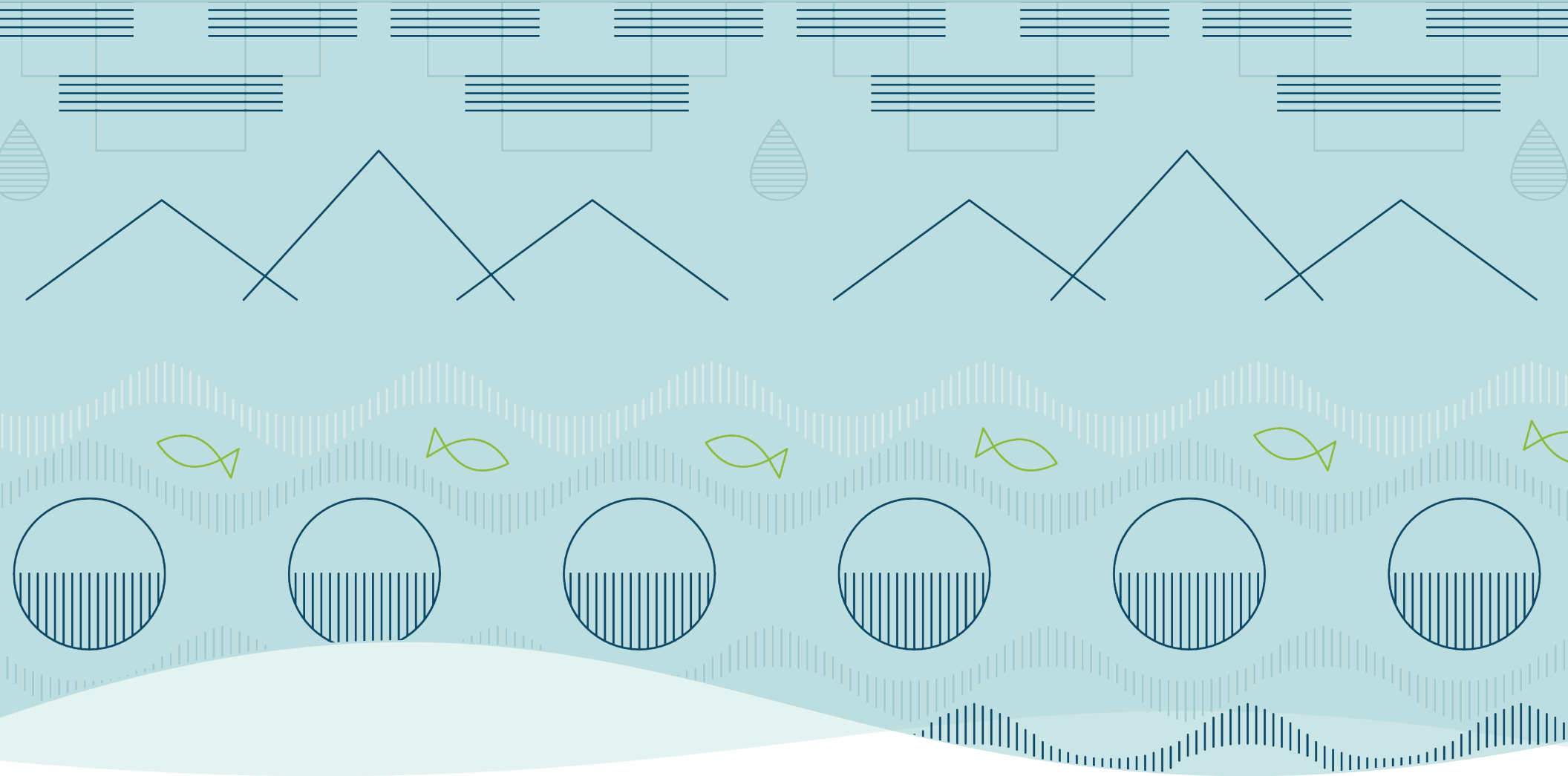
**Page 68:** Cowichan Watershed Board fisheries biologist and resource consultant Tim Kulchyski on the dry North Arm of the Cowichan River. *Cowichan territory.*

**Page 69:** Wildfire smoke comes off the mountains as crew works. *Ktunaxa, Secwépemc, and Sinixt territory.* (Photo: Cheyenne Bergenhenegouwen / BCWF)

**Page 72:** Minister Osborne during visit with REDD Fish Restoration Society. *Ahousaht, Hesquiaht, Tla-o-qui-aht, Toquaht, and Yuułu'it̓'ath̓ territory.* (Photo: Melissa Renwick)

**Page 73:** Restoration. *Ktunaxa, Secwépemc, Syilx, and Sinixt territory.* (Photo: Living Lakes Canada)

**Page 74:** Shoreline Cleanup. *Tsawwassen, Tsleil-Waututh, and Musqueam territory.* (Photo: Cheyenne Bergenhenegouwen / BCWF)



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