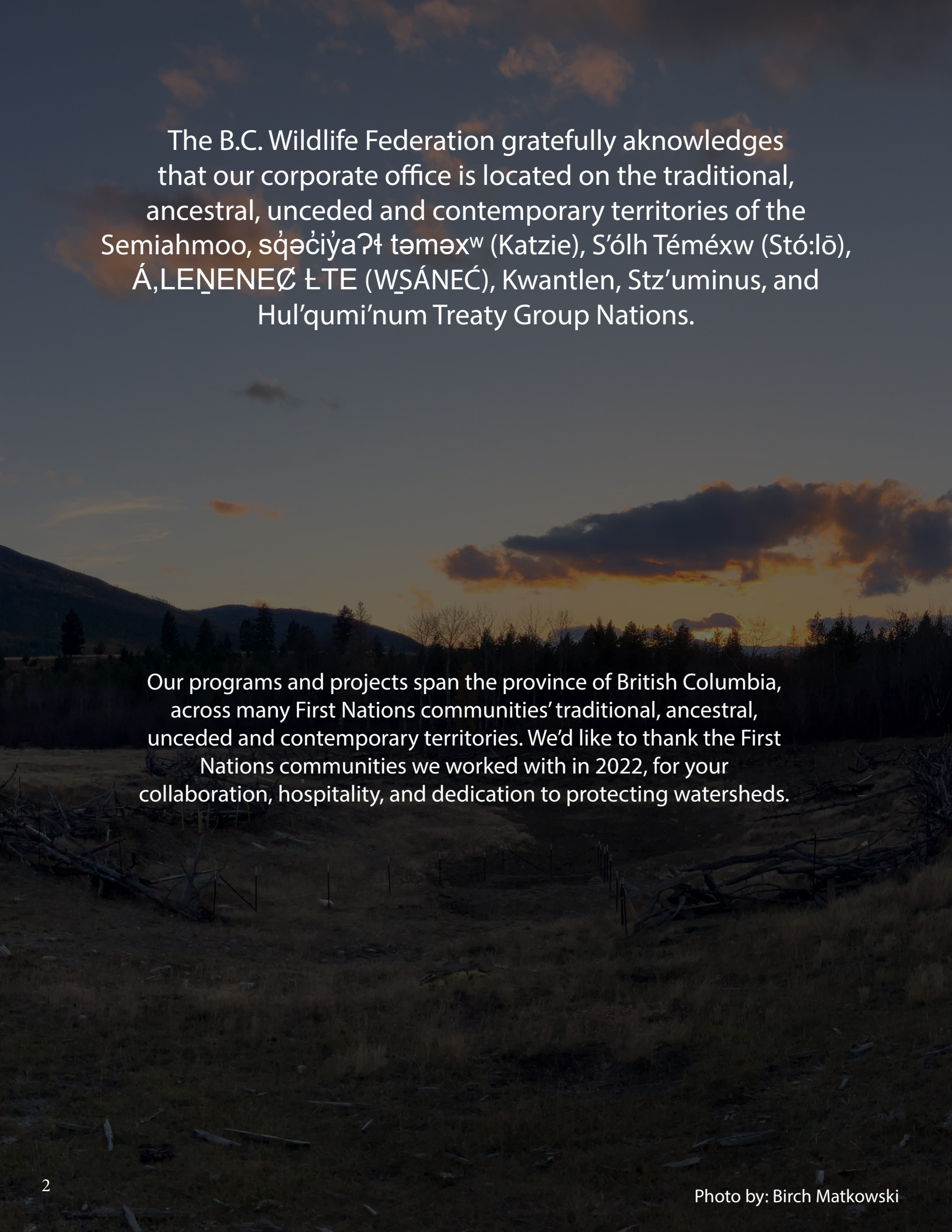


2022 WATERSHED REPORT



The background image is a landscape photograph. It shows a field in the foreground with a rustic fence made of logs and wire. In the middle ground, there is a line of trees, and in the background, rolling hills or mountains are visible under a sky with scattered clouds, suggesting a sunset or sunrise. The overall tone is dark and moody.

The B.C. Wildlife Federation gratefully acknowledges that our corporate office is located on the traditional, ancestral, unceded and contemporary territories of the Semiahmoo, sq̓əci'yaʔt̓ təməxʷ (Katzie), S'ólh Téméxw (Stó:lō), Á,LENENEØ ŁTE (W̱SÁNEĆ), Kwantlen, Stz'uminus, and Hul'qumi'num Treaty Group Nations.

Our programs and projects span the province of British Columbia, across many First Nations communities' traditional, ancestral, unceded and contemporary territories. We'd like to thank the First Nations communities we worked with in 2022, for your collaboration, hospitality, and dedication to protecting watersheds.

DIRECTOR'S MESSAGE

It gives me great pleasure to share with you the results of our 2022-2023 Wetlands Workforce activities in the pages of this report. The 2022 Provincial Watershed Security Funding provided to BC Wildlife Federation is the second major investment to advance watershed security. While BC's Watershed Security is still a critically important investment, British Columbia is in a much different situation than it was just over a year ago. The economy strengthened with the easing of many Covid 19 restrictions, and the unemployment rate has decreased significantly. Several key events in 2021 affecting British Columbians have influenced the direction of the second investment to BC Wildlife Federation in order to remain relevant and responsive: (1) the recovery of residential schools students emphasizing the need for a strengthened renewal of reconciliation and advancing DRIPA implementation, and (2) an unprecedented and devastating heat-dome, intense wildfires, and record-breaking flood damage from the atmospheric river event, all emphasizing the need for urgent and strategic investments in our watersheds.

The 2022 Provincial Watershed Security Funding enables us to build upon past successes as well as pivot to respond to these emerging issues. The longer timeframe of investment, was welcomed relief as it helps BC Wildlife Federation retain staff, strengthen relationships with First Nations, and invest in the technical capacity of a future generation of watershed leaders. The funding is allowing for the continuation of maintenance and monitoring of past restoration projects as well as funding required to continue the development of much needed tools, such as an improved wetland inventory and the calibration of a Wetland Ecosystem Services Protocol within 5 ecoprovinces of BC. Furthermore, the fund is also enabling for investments in multiple on the ground wetland and stream restoration initiatives in collaboration with local partnering organizations and providing support for local indigenous involvement wherever possible.

Since the start of 2022, we've collaborated/trained/contracted 27 different First Nation organizations and offered financial support to their priorities, specifically where their stated priorities and interests align with the intent of advancing watershed security. Each participating non-indigenous organization who we collaborate with is asked to share their plan to collaborate with First Nations, and should their plan be deemed inadequate, then BC Wildlife Federation, through the retainment of a First Nation liaison and financial resources, ensures that First Nations have an opportunity to be involved in the project. This has involved elder engagements, and also collaborations with First Nation's stewardship staff, to support the projects within their territory. Where Indigenous Knowledge is shared, BC Wildlife Federation takes effort to incorporate it into project results where appropriate and in a respectful manner.

I hope this report provides all our partners with a sense of accomplishment towards advancing watershed security.

Neil Fletcher
Director of Conservation Stewardship
B.C. Wildlife Federation

TABLE OF CONTENTS

Year in Reflection.....6-7

Indigenous Engagement.....8

Connecting with Communities.....9

Illustration Highlight.....10

Engagement in the Field.....12

Watershed Work.....14-15

Restoration Highlights.....18

Wetlands Ecosystem Services
Protocol.....22

Canadian National Wetland.....24
Inventory

Map of Wetlands Activities.....25

Education & Training.....26-27

Events in Review.....29

Wetlands Workshops.....31

Fish Habitat Restoration
& Education.....34

Habitat Assessment Tools.....36

Youth Engagement.....38

Water is life.

Protecting water has always been a key tenet of B.C. Wildlife Federation's mandate to protect, restore and enhance British Columbia for fish, wildlife and habitat. For over 20 years, the Federation's Wetlands Education Program has been a leading educational force inspiring British Columbians to become wetland stewards through workshops, training sessions, and restoration projects.

Over the years, BCWF has successfully worked in collaboration with First Nations communities and partners help B.C.'s government and communities learn to view wetlands and watersheds as essential ecological landscapes, rather than wastelands. In the face of the devastating environmental impacts of climate change, working to restore and protect watersheds provides a hopeful path forward.

In 2021, BCWF received a one-year \$5-million grant by the Healthy Watersheds Initiative. The \$27-million project, supported by the Province of British Columbia, aimed to stimulate B.C.'s economic recovery through the COVID-19 pandemic through investments in community-driven watershed conservation and restoration projects. What resulted from this grant was the Wetlands Workforce, the largest collaborative wetland initiative of its kind in Canada.

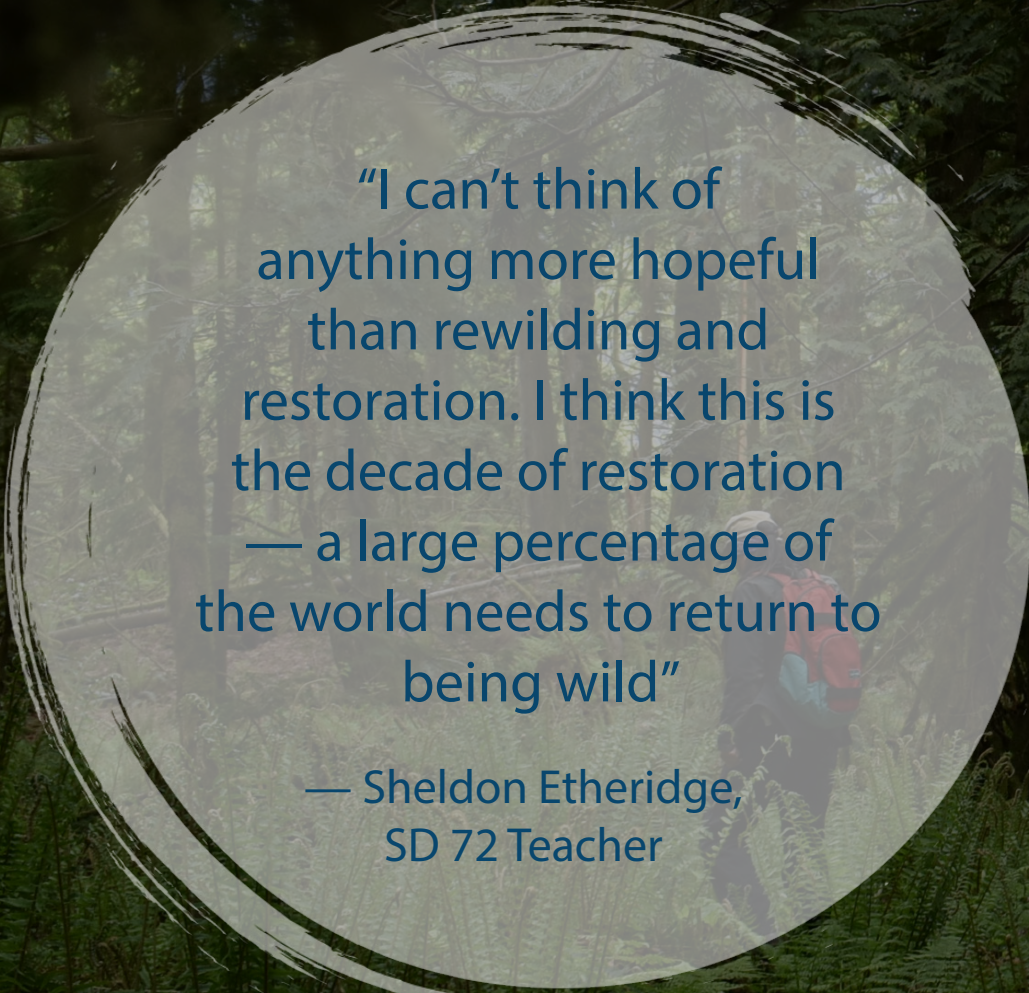
Our Wetlands Workforce team accomplished a remarkable amount in 2021. Thanks to an additional \$5.5 million in bridge funding from the Province of B.C., the Wetlands Workforce was expanded into a multi-year project. The investment into the Wetlands Workforce funded essential employment and on-the-ground work towards the enhancement, maintenance, and restoration of wetlands and riparian zones across the Province.

The funding received to date for the Wetlands Workforce are the initial investments of the Province's direction towards establishing a more long-term Watershed Security Fund, in tandem with the development of a Provincial Watershed Security Strategy.

BCWF is proud to protect watersheds across British Columbia, and provide on-the-ground restoration, monitoring, maintenance alongside education to better our world for generations to come.



We gratefully acknowledge the financial support of the Province of British Columbia through the Ministry of Environment and Climate Change Strategy.



"I can't think of
anything more hopeful
than rewilding and
restoration. I think this is
the decade of restoration
— a large percentage of
the world needs to return to
being wild"

— Sheldon Etheridge,
SD 72 Teacher



YEAR IN REFLECTION



Photo by: Bishop Casaquero

INDIGENOUS ENGAGEMENT



Photo by: Bishop Casaquero

Connecting with Communities

From its inception, the keystone of the Wetlands Workforce project has been engagement with First Nations and Indigenous-led organizations. In the first year of the Wetlands Workforce, Indigenous Advisors Diana Cote and the late Glenn Auger guided staff in fostering new relationships with First Nations communities with respect and humility.

As our work-pods continued their wetland stewardship into 2022, they continued to strengthen the relationships which were forged in the previous year, under the guidance of Diana Cote. All new staff received the custom Indigenous training sessions designed by Solomon Reece, First Nations Consultant to the BCWF, and Glenn Auger, supplemented by reflective discussion sessions led by Diana Cote.



Photo by: Kyla Rushton

Through the Wetlands Workforce's enhancement, restoration, and engagement projects, 27 First Nations communities across British Columbia were collaborated with and engaged. As we continue to do wetland work throughout the province, we express our utmost gratitude for the collaboration and knowledge shared from the First Nations communities we have worked alongside.

LEGEND



Cloud



Mountain



Butterfly



Water



Star

Illustration Highlight:

Over the past two years, Chenoa Goa, Muskeg Lake Cree Nation member and Conservation Illustrator has been working with the BCWF and HWI to illustrate the narratives of First Nations Elders, youth, and community members across B.C. Over 10 comics are being collectively published as a graphic novel titled *We are of Water*.

In January, Chenoa presented their illustrative body of work at the HWI webinar “Words of Water”, which brought together some of the Elders, youth, and community members who shared their stories, representatives and students from School District 6, and others involved in the project. The graphic novel will be freely accessible after publication through the Healthy Watersheds Initiative, with a limited run of 1000 physical copies gifted to participating First Nations Committee and others who supported the project.



“The graphic novel *We are of Water* bridges together traditional knowledge from Elders with youth and communities. It provides light in a time of climate uncertainty, reconciliation, cultural degradation, water rights, and job security. It highlights the work that we are doing, continuing to do, and what is possible. It gives purpose to those who have lost themselves and shows them a future they can see themselves in. The webinar highlighted First Nations people as more than a derivative, it shows us as knowledge holders with an intense love and understanding of water, how it touches everything and everyone. Our knowledge must be brought to the forefront and given a seat at the table of policy makers.”

— Chenoa Gao, Conservation Illustrator.



We Are of Water



ILLUSTRATED by Chenoa Gao

Engagement in the Field:

Johnny Jackson, and elder of the Lower Nicola Indian Band (LNIB) performs a ceremony song at the Logan Lake Restoration site.



Photo by: Ceryne Staples

Ceryne Stapes, an Ecosystems Biologist with Simpcw Resources LLP works with Kyla Rushton to complete a Wetlands Ecosystem Services Protocol assessment.



Photo by: Macus Ong

Lower Similkameen Indian Band (LSIB) Technicians stand beside the Ginty's Pond restoration sign alongside Robin Annschild and BCWF's South West pod.



“We honor and respect our relationship and connections we made with our Indigenous communities. Spending time with our Elders has provided us to look at the Land through a new cultural lens. The teachings have deeply touched us all.”

— Diana Cote,
Indigenous Liason,
B.C. Wildlife Federation





WATERSHED WORK

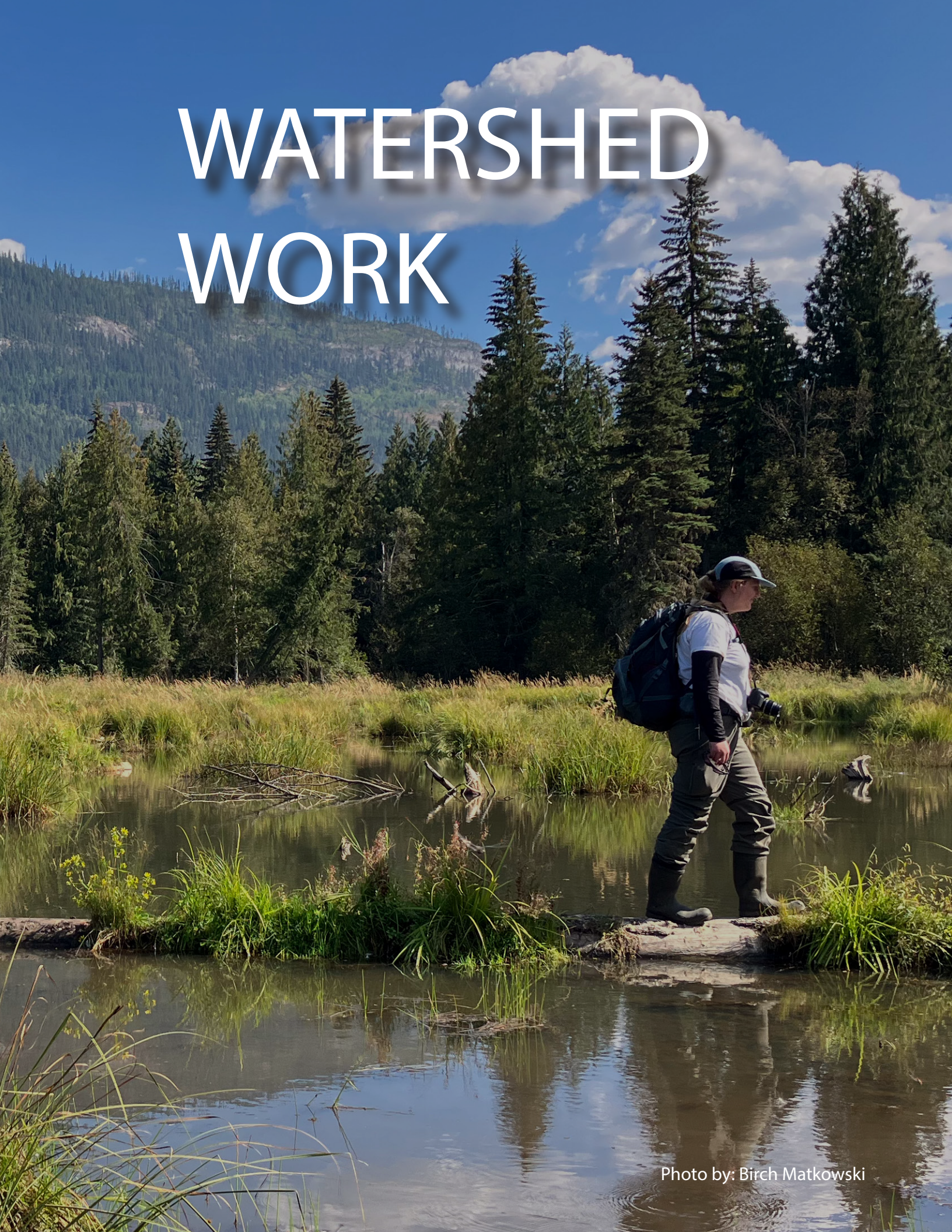


Photo by: Birch Matkowski

Making a Difference, One Wetland at a Time.

This year, the B.C. Wildlife Federation had three Wetlands Workforce work-pods working to restore, enhance, monitor & maintain watersheds across the province; specifically, pods were located in the Peace region, the Kootenay region, and Southwest B.C. At wetland sites, the teams worked in tandem with First Nations partners, community groups, and partner organizations to best benefit the wetlands they were supporting.

In 2022, our crews conducted restoration, enhancement, maintenance and monitoring work for 49 wetland sites across British Columbia in four Eco-Provinces: Boreal and Taiga Plains, Georgia Depression, Southern Interior Mountain, and Sub-boreal.



Boreal & Taiga Plains

Georgia Depression

Southern Interior Mountain

Sub-boreal Interior

Within the sites visited, invasive species were removed from an area of 5,902.9 m², and native species were planted encompassing an area of 12,683.4 m². This measurement is a combined amount incorporating the work of our work-pods, First Nations communities/Land Guardians, volunteers, and project partners.

Work-pods provided maintenance work at 25 wetland restoration sites in the Southwest and the Kootenays, which included:

- Invasive species mapping & treatment
- Native seed collection for future planting
- Planting of native plugs & seedlings to improve vegetation communities
- Vegetation plots to understand plant growth post exclusion fence-building
- Live stake installation
- Protective fencing & other deer proofing
- Various forms of habitat improvement

To continue to effectively serve target wetland sites, ongoing monitoring was established using wildlife cameras. This past year, 36 Wildlife Monitoring Stations were deployed across 22 restored wetlands in Southern B.C.



“Restoring wetlands
helps reverse greenhouse
gas emissions by sinking
carbon and providing
critical habitat to all
sorts of critters.”

— Miranda Cross,
Restoration Specialist,
Rewilding Earth & Water Inc.

Restoration Highlights

Harrop Wetland Restoration

Restoration efforts transformed the degraded Harrop Wetland in 2022. Located in Sunshine Bay Regional Park, B.C. Wildlife Federation was happy to support this process, led by Friends of Kootenay Lake Stewardship Society, thorough funding and by providing on-site support from our Kootenay work-pod.

Harrop Wetland's restoration journey began in 2014, where Friends of Kootenay Lake worked in partnership with consultants, community organizers, and individuals to increase water retention and climate resilience.

Our Kootenay Field crew joined Friends of Kootenay Lake in October to help salvage native plants like sedges, rushes and seeds.

Later in November, the Kootenay work-pod returned alongside Friends of Kootenay Lake Stewardship Society, Central Kootenay Invasive Species Society, 11 community volunteers, and representatives from Kinseed Ecologies and Kootenay Permaculture to help revegetate the wetland. Nearly 19 million seeds were distributed on this revegetation day, with over 1,700 live stakes, seedlings, trees, and forbs planted.



Photos by: Birch Matkowski

Gardom Lake Restoration

In 2022, BCWF continued to support the Gardom Lake restoration project financially and through fieldwork. The Gardom Lake restoration project is in its second phase, which aims to restore wetland and ecological function in Upper Gardom Creek.

This site is located on the traditional, ancestral and unceded land of the Secwepemc Nation. The BCWF, Ministry of Transportation and Infrastructure (MoTI), and Gardom Lake Stewardship Society worked with the Splatstin Band throughout this project.

Prior to restoration efforts, this wetland site had poor water quality, low biodiversity, and was generally degraded. Since restoration efforts began in 2018, there has been a noticeable increase in diversity. In the second phase, wetland pools were enlarged and incorporated into the creek to further improve ecological function. These larger wetland areas will not only improve the area for local flora and fauna, but will enable the ecosystem to hold more water during spring runoff and therefore reduce the risk of flooding.

Throughout field season, our Southwest work-pod frequently visited the Gardom Lake site to provide invasive species management and native plant installation. The site had been particularly encroached by Canada thistle, which were treated in favor of native Nootka rose and willow live stakes. As the expanded wetland is barren of fish, it provides unique habitat to several aquatic species of special concern, such as Western Painted Turtle and Long Toed Salamander. Habitat for these species was improved by enhancing nesting habitat, adding basking logs, and adding dead birch logs to the upland wetland area.

During construction in Phase 2, the BCWF, Gardom Lake Stewardship Society, and MoTI were honoured to host middle school students from Splatstin's Shihiya School for an engagement and planting day. Students joined field staff in planting native trees and spreading mulch. We look forward to collaborating with Splatstin's youth and larger community into 2023!



Photo by: Jessie Spence

Nʔaɫɫw̓t "Ginty's Pond" Restoration

After many years of planning, restoration efforts in 2022 brought the return of open water at Nʔaɫɫw̓t, otherwise known as Ginty's Pond. An essential wetland habitat in the interior, the conservation efforts at this wetland will protect several federally listed species at risk, such as the Yellow-breasted Chat, Western Screech Owl, Interior Snakes, Great Basin Spadefoot, and Western Painted Turtles.

Although this unique oxbow wetland was visibly cut off from the Similkameen River due to diking, it was connected to the river through the water table underground. Not only will restoration efforts support B.C.'s native species and biodiversity, but it will also provide opportunities for community members to work together on future enhancements.

In September of 2022, our team worked alongside the Southern Interior Land Trust, Nature Trust of BC, the Lower Similkameen Indian Band, and the Province of British Columbia to deepen and restore 1.2 hectares of open water wetland habitat and 0.5 hectares of new riparian woodland-shrub habitat.

In addition to the pool enhancement, collaborators and volunteers worked on ongoing maintenance and monitoring efforts to support the habitat. Youth from the Keremeos Secondary School visited the site in September to disperse native milkweed seeds and add small woody debris to the site. In October, 40 Grade 8 students from Similkameen Elementary Secondary School installed 150 native plants on the site. An additional 650 plants were installed by project collaborators.



Quadra Island Elementary Restoration

A schoolyard on Quadra Island has been given new life in 2022 as BCWF, Quadra Elementary School (QES), and School District 72 worked to restore a historic wetland on the school's sports field.

The project broke ground on August 15, when Restoration Specialist Miranda Cross of Rewilding Earth & Water Inc. supervised the excavation of two shallow basins along a section of the ditched stream on an underutilized portion of the sportsfield.

We Wai Kai First Nation ecological and archaeological guardians oversaw the work, and members of the Quadra Island Climate Action Network Supported the wetland build and volunteered for Fire Watch duties.

The project will increase stormwater detention and retention capacity while reducing risks to downstream infrastructure, plus increase habitat and biodiversity.

On October 5, 120 young students supported restoration efforts by installing 500 native plants to the newly restored wetland. This space will serve as an outdoor classroom for decades to come.

To protect the new plants from deer, fencing was installed around the plants and repellent was applied to species by We Wai Kai Land Guardians, the Wetlands Workforce Southwest work-pod, and members of the Quadra Island Climate Action Network.



Wetlands Ecosystem Services Protocol

Wetlands are essential on the landscape, providing many ecosystem services to British Columbia such as flood attenuation, carbon storage, contaminant filtering, and a diversity of wetland habitat. The functions and benefits that wetlands provide can vary widely, and capturing the diversity can be difficult.

In B.C. there has been no standardized tool for assessing and measuring the relative performance of a wetland's various functions. Knowing and assessing a wetland's key functions and benefits can empower British Columbians to make better informed decisions that impact wetlands.

The Wetlands Ecosystem Services Protocol (WESP) is a standardized method for rapidly assessing important natural functions of wetlands.

WESP utilizes over 60 field questions and over 40 office/GIS questions as input to determine 17 functions and attributes of a wetland complex relative to other wetlands in the region. In 2021-22, the Wetlands Workforce's Conservation Illustrators, Chenoa Gao and Charisma Thomas, and Wetlands Workforce Communications Coordinator, Cheyenne Bergenhenegouwen, completed an illustrative field assessment form for WESP to support wetlands work in B.C. This document is supplemented by training opportunities, enabling other organizations and First Nations communities to conduct their own WESP assessments.

Since 2021, the Wetlands Workforce has conducted randomized WESP assessments of natural wetlands across our four target Eco-provinces in B.C. This year, 61 WESP assessment sites were conducted, with 6 in the Georgia Depression, 26 in the Southern Interior Mountain (four of which were conducted by the Simpcw First Nation), 15 in Boreal and Taiga Plains, and 14 in the Sub-boreal Interior.

In addition to assessments at these sites, work-pods also facilitated four WESP training sessions with representations from the Simpcw First Nation, Saultea First Nation, West Moberly First Nation, Nak'azdli First Nation, as well as a training session at the 2022 Wetlands Institute.



An aerial photograph of a vast wetland landscape. The foreground and middle ground are filled with a mosaic of green marshes, small blue ponds, and areas of exposed brown earth. In the background, a range of dark, forested mountains rises against a clear blue sky with light, wispy clouds. A large, semi-transparent white circle is overlaid on the center of the image, containing text.

“WESP could be a key tool in the toolbox for land managers, helping them identify and conserve wetlands across the landscape. This tool has been adapted in other states and Canadian provinces, and we feel it will be a great addition to wetland conservation in B.C.”

— Neil Fletcher,
Director of Conservation Stewardship,
B.C. Wildlife Federation

Canadian National Wetland Inventory

To conserve wetlands effectively and efficiently, better mapping on the location and types of wetlands that occur on a particular landscape is needed. For decades, wetland practitioners have identified the need more more accurate data layers in B.C.

A predictive wetland map is a data layer, generated from computer algorithms, that identifies locations, extent, and type of wetlands based on probability. However, for the outputs of predictive mapping to be useful, the input must be verified and accurate.

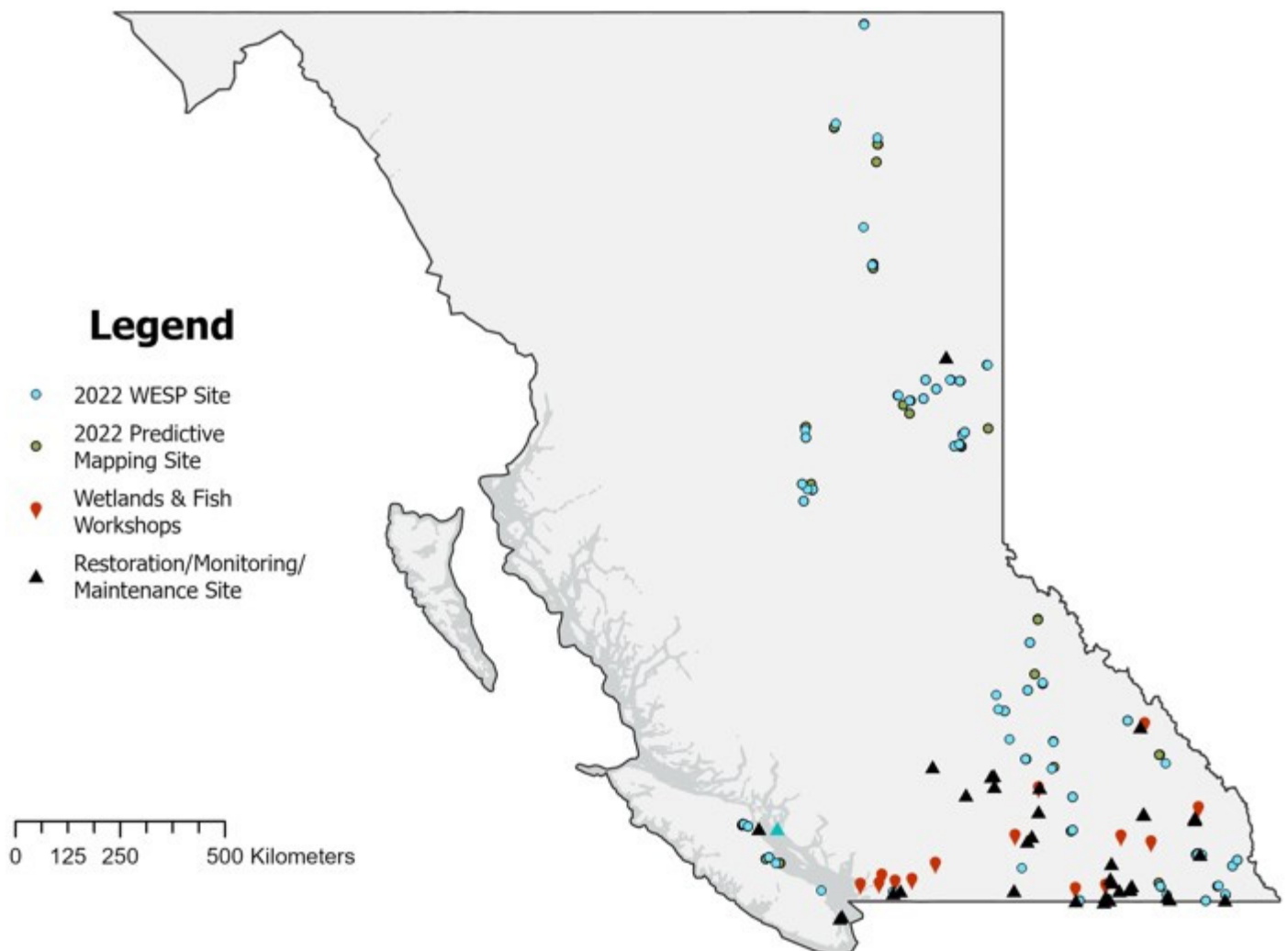
While our work-pods assessed wetland sites using WESP, they also gathered information to support the Canadian National Wetland Inventory (CNWI) initiative run by Environment and Climate Change Canada, which is supporting the development of wetland predictive mapping tools. Field crews collected drone imagery and information on vegetation, water, and soil at the wetland sites they visited to verify the observed wetland class.

In 2022, Wetlands Workforce work-pods conducted a total of 95 predictive mapping plots, including 12 in the Georgia Depression, 32 in the Southern Interior Mountain, 25 in the Sub-boreal Interior, and 26 in the Boreal and Taiga Plains. This wetland data will contribute to more accurate predictive mapping of wetland locations in areas that have not yet been visited, enabling better and more efficient wetland management and conservation across the province.





Map of Wetlands Activities





EDUCATION & TRAINING



Photo by: Christina Borring-Olsen

Empowering our Community to Protect B.C. Watersheds

At the B.C. Wildlife Federation, we understand the importance of collaboration and knowledge sharing across the province's communities. One of our core values is education and research, to enable stewards across British Columbia to protect essential watersheds.

With the ever-growing threats of climate change affecting British Columbia's daily life, it is important now more than ever to empower the public with the tools, knowledge, and ability to become watershed champions in their communities. Wetlands in particular are extremely effective in building climate resiliency, as they serve as carbon sinks, protect from flooding, mitigate droughts, and increase wildlife habitat and biodiversity.

Historically, wetlands have often been regarded as "wastelands", and have been drained, filled, diked, and channelized -- this has had significant detrimental ecological impacts. Education is essential in shifting the perception of wetlands in the public eye, ensuring they are understood as necessary to the landscape. With increased awareness and education, grows an increased capacity to restore and steward wetlands.

In 2022, the B.C. Wildlife Federation held a total 53 education, outreach, and training events about watersheds for 1,334 participants across B.C. Events ranged from children's outreach to high-level wetland training.



Photo by: Haiden MacDonald

Events in Review



16

Wetlands Education Program workshops, events & training for 368 participants.



6

Training sessions held for Forest & Range Evaluation Programs (3) and the Wetlands Services Ecosystem Protocol (3) for 180 total participants.



1

Training session held for the Canadian National Wetland Inventory.



16

Fish Habitat Restoration & Education workshops, events & training for 206 participants.



2

Watershed-focused outreach events reaching 169 participants.

Photo by: Bishop Casaquero



TRAINING

Wetlands Workshops

In 2022, the Wetlands Education Program (WEP) held 10 wetlands training workshops for 234 environmental stewards across the province. This consisted of seven Wetlandkeepers Workshops, two Map our Marshes workshops, and the 20th annual Wetlands Institute. These workshops enable scientists, students, community members, First Nations communities, and more to learn crucial wetland conservation skills to steward wetlands in their backyards.

Map our Marshes Workshops

This Wetland Mapping and rapid assessment workshop is a 1-day crash course on the values of wetlands and how to map them using GPS technology. Targeted towards anyone who is passionate about the health of their local wildlife and watersheds, this workshop helps takes participants of all skill levels gain valuable wetland assessment tools. Attendees range from community volunteers, schools, consultants and planners.

This year, two Map our Marshes workshops were held in the following communities:

- Chilliwack — April 30
- Parksville-Qualicum — August 20-21



Photos by: Bishop Casaquero



Wetlandkeepers Workshops

These 2.5 day workshops educate participants about wetland conservation, including mapping, hydrology, plant & animal ID, soil sampling, and more. Every year, the Wetlands Education Teams visits a variety of communities by request to offer hands-on fieldwork and teach the technical skills to enable participants to steward their own wetland.

This year, Wetlandkeepers Workshops were offered in the following seven communities:

- Chawathil — May 12-14
- Slocan — June 3-5
- Crawford Bay — June 6-8
- Rossland — June 10-12
- Armstrong-Spallumcheen — June 15-17
- Canal Flats — July 22-24
- ʔaq'am — July 27-29



Armstrong-Spallumcheen Workshop Highlight

This Wetlandkeepers Workshop in Armstrong and Spallumcheen provided the unique opportunity to look at how to help wetlands thrive in urban environments. In the Okanagan, where the communities are located, there has been significant losses of wetlands since colonization with increasing agricultural and urban development. In 2017 & 2018, the communities experienced back-to-back flooding events leading to a state of emergency; the necessity of wetlands and their ecological benefits was apparent.

Our team was invited to the community by the BC Small Wetlands Association and the Armstrong Wetlands Association to garner support for the education, preservation, and restoration of wetlands in this small community. The workshop was honoured to be joined by representatives from the Splatshin First Nation and the Neskonlith Indian Band. Through the workshop, participants partook in site tours, lectures, and hands-on stewardship activities.



The Wetlands Institute

2022 marked the 20th annual Wetlands Institute, a world-class, immersive watershed restoration training for British Columbians. This program engages ecological professionals in restoration techniques, impacting a variety of wetlands across the province in multi-phase and continual projects.

From September 19 to 25, 31 participants from across the province joined the BCWF on the traditional, ancestral, and unceded territories of the Sylix, Sinixt, Secwépemc and Ktunaxa First Nations in Grand Forks, Slocan Valley, and Trail. Each participant joined the Institute with a wetland project in mind; they came from a variety of professional backgrounds including biologists, field technicians, consultants, water resources scientists, cultural conservationists, watershed planners and more.



The Institute utilizes a combination of hands-on field work, site tours, presentations, and virtual classroom sessions to give participants a well-rounded understanding of the world of watershed restoration from industry experts.

Participants were guided through restoration in a multi-faceted lens, beginning their journey with theory and applying concepts in the field with site visits to Boothman's Oxbow Provincial Park, North Wetland and Christina Lake. At field sites, participants learned how to conduct the Wetland Ecosystem Services protocol and Rapid Health Assessments.

Participants also toured restored and built wetland habitat, including the in-progress North Ruckle floodplains, Summit Lake, Hunter Siding, Ravine Creek Farm, the decommissioned Cambridge and Violin Dams, Centennial Wetland, and North Jubilee Wetland.

"The Wetlands Institute was a great opportunity to learn more about restoration techniques," Wetlands Workforce Field Crew Supervisor Rebekah Ingram concluded, "It was great to see the different restoration sites and get hands-on with maintenance activities. I'm looking forward to using this knowledge to recognize restoration opportunities."

Fish Habitat Restoration & Education

In 2022, the Fish Habitat Restoration & Education Program engaged over 200 British Columbians in education & training workshops. Thanks to dedicated volunteers, participants, Indigenous communities, and other project partners, 4343 square meters of fish habitat was enhanced and surveyed, with over 450 native plants installed at riparian sites.

Juvenile Sturgeon Conservation Workshops

For the third consecutive year, the Fish Habitat Restoration & Education Program hosted the Juvenile Sturgeon Conservation Workshops in partnership with the Fraser Valley Angling Guides Association (FVAGA). Throughout January and February of 2022, FHREP hosted webinars with experts in white sturgeon conservation for participants across B.C.

In February, FVAGA donated their time and expertise (valued at over \$5,000) to take participants in the field and educate them on the process of catching and tagging juvenile sturgeon in the Fraser River. This portion of the workshop was attended by 22 participants.



Fish Habitat Restoration & Planting Workshops

In partnership with local stewardship groups and First Nations communities, FHREP hosted Fish Habitat & Riparian Stewardship Workshops throughout the summer and fall, reaching a total number of 118 participants across 6 communities. These two-day workshops are a mix of hands-on fieldwork and presentations providing participants with the technical skill set to help steward a local stream.

At FHREP workshops, presenters educated volunteers about water chemistry, invasive and native plant species, stream morphology and ecology, Salmonid enhancement and conservation, freshwater invertebrates, stream nutrient and sediment input, the overlap of agriculture and fish habitat, wetlands, and much more. The BCWF staff also guided workshop participants through riparian and stream health assessments, vegetation biodiversity surveys, water quality monitoring, and native vegetation planting to enhance the project site for fish



Photos by: Haiden MacDonald

Habitat Assessment Tools

In 2022, the B.C. Wildlife Federation facilitated six habitat assessment tool trainings across the province. Three trained participants in the Forest and Range Evaluation Program (FREP), and the other three trained participants in the Wetland Ecosystem Services Protocol (WESP). Through these trainings, the BCWF enables other organizations and communities to contribute to the larger wetland knowledge base in the province to inform better watershed decisions.

Forest and Range Evaluation Protocol

FREP is a protocol that was designed to assess wetlands that have been impacted by forestry operations, with broader applications for other industry, NGOs, First Nations Communities to make use of the protocol for other watershed and wetland assessment initiatives.

In 2022, the BCWF held three FREP trainings: one in Merrit with the Government of B.C., one in Williams Lake with the Government of B.C., and another in Haida Gwaii with the Haida First Nation and Government of B.C.

Wetland Ecosystem Services Protocol

WESP is a standardized tool for rapidly assessing important ecological functions of a wetland. This year, the BCWF held three WESP training workshops. One in Slocan at their Wetlandkeepers Workshop, one with the ʔaq'am First Nation at their Wetlandkeepers Workshop, and one in the Kootenay-Boundary Region at the Wetlands Institute.

Additionally, the three sessions at each workshop also trained participants about the Canadian National Wetland Inventory mapping initiative.





“Along with encouraging conversations about the need for improved wetland management tools in BC, WESP collaborations provide opportunities to discuss the amazing diversity of habitats and functions of BC’s wetlands with the people on the land who are often managing these places.”

— Kyla Rushton,
Wetland Assessment and Field Coordinator,
B.C. Wildlife Federation

YOUTH ENGAGEMENT



Inspiring the Next Generation

Children are our future, which makes it essential to engage youth to protect watersheds for generations to come. The B.C. Wildlife Federation has a wide variety of youth programs that aim to teach the next generation the value of wetlands and other watersheds on the landscape. In 2022, the BCWF had 16 watershed-focused youth engagement events, which reached over 500 children and teens.

Classroom Education

One of the primary modes of youth engagement in 2022 was through in-class program, such as classroom education sessions, the virtual “Wetlands Situation Room”, and planting days.

The BCWF Youth Program team two wetland-specific classroom education sessions, one with Heritage Christian School and another with Quadra Island Elementary. Additionally, five virtual “Wetland Situation Room” workshops were facilitated in classrooms to teach youth the importance of wetlands and how to effectively incorporate them in agricultural and urban planning.

Our teams also held two planting days, one at Gardom Lake with the Shihya School, and another with Quadra Island Elementary School. Prior to the planting day at Quadra Island Elementary, students also participated in a site tour.



PARTNERS

Alouette River Management Society

Armstrong Wetland Association

Arrowsmith Naturalists

̓aq'am Band

BC Parks

BC Small Wetlands Association

Bonaparte Indian Band

British Columbia Institute of Technology

Burns Bog Conservation Society

Canadian Wildlife Federation

Canadian Wildlife Service

Chawathil First Nation

Cougar Creek Streamkeepers Society

City of Trail

City of Grand Forks

Columbia Basin Fish and Wildlife

Eastshore Freshwater Habitat Society

Friends and Neighbours of Bell Slough

Friends of Kootenay Lake Society

Gardom Lake Stewardship Society

Golden and District Rod and Gun Club

Lower Kootenay Band

Lower Similkameen Indian Band

Mid Vancouver Island Habitat Enhancement Society

Ministry of Water, Land and Resource Stewardship

Nicomekl Enhancement Society

Mount Arrowsmith Biosphere Region

Nature Trust of British Columbia

Province of British Columbia

Shuswap Indian Band

Southern Interior Land Trust

Victoria Golden Rod and Reels

THANK YOU

FUNDERS & SPONSORS

Province of British Columbia, Ministry of Environment
and Climate Change Strategy

Healthy Watersheds Initiative

Wildlife Habitat Canada

Columbia Basin Trust

Fish and Wildlife Compensation Program

Environment and Climate Change Canada

Government of Canada

Government of British Columbia

TD Friends of the Environment

Habitat Conservation Trust Foundation

THANK YOU

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