

# Wetlands Update

2023 Edition



The newsletter of the  
B.C. Wildlife Federation's  
Wetlands Education Program

## In This Issue

### Feature

Quadra Island Schoolyard  
Given New Life

### Wetlands Institute

BCWF Celebrates 20 Years  
of the Wetlands Institute

### Wetlandkeepers

Slocan, Rossland &  
Chawathil First Nation

### Map our Marshes

Chilliwack & Parksville-  
Qualicum

### Outreach & Education

### Wetlands Watch

Upcoming Workshops

Our Funders

Social media & the

Bog Blog



Cassie surveying work to be done at  
Quadra Island Elementary School.



# Quadra Island Schoolyard Given New Life

A schoolyard on Quadra Island is being given a new life as the B.C. Wildlife Federation, Quadra Island Elementary School, and School District 72 restore a historic wetland, to provide habitat for native plants and animals as well as creating an outdoor classroom for students.

At first glance, the school's large sports field surrounded by towering trees seems perfectly suited for students to run, play and enjoy the outdoors. But each year when the summer ends and the rainy season begins, the field is consistently flooded and muddy, leaving the outdoor space unusable for a large portion of the year.

Historically the site of a waterway and wetland, the school field is saturated with groundwater and has difficulty absorbing and retaining rainwater. Evidence of this distressed wetland can be seen in the ditch surrounding the field, where even in the summer, small pools of water persist. Locals recall catching tadpoles there in the spring. Restoring this wetland system will enhance habitat for wildlife, support climate adaptation and resilience, and provide experiential learning opportunities for local youth.

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



**“This project will restore functioning wetlands to this site, increasing stormwater detention and retention capacity and reducing risks to downstream infrastructure,” said Cross. “Wetland restoration on this site will regulate water flow in the area, increase wildlife habitat, and provide opportunities to learn about wetlands as a part of outdoor learning and nature-based play”**



On the brisk morning of October 5, 120 young students began to get their hands dirty, planting 500 native plants into a newly restored wetland that will serve as an outdoor classroom for decades to come.

“It just struck me that this place really wanted to revert back to being a wetland,” explained Etheridge, “These types of projects are a great way to show children, or anybody in the community, that we can be a part of projects that are healing.”

The October planting day opened with a ceremony led by June Johnson of We Wai Kai First Nation, with a large cedar and a crabapple juvenile tree being planted to commemorate the event. Following the ceremony, each class learned about wetland habitat in an educational session led by the BCWF Youth Program. The students then had the opportunity to participate in installing several plants with their peers, We Wai Kai Land Guardians, and the Wetlands Workforce Southwest Pod.

Immersive experiences like the planting day in October provide opportunities for youth to become engaged with conservation and protecting wild, outdoor spaces.

A recently announced \$100,000 EcoAction grant from Environment and Climate Change Canada has propelled the Quadra Island wetland build forward, providing money to buy native plants and saplings and to support continued maintenance on the newly created wetland.





# Wetlands Institute



Wetlands Institute participants showing off their "Wetlands W"

This year marked the 20th annual Wetlands Institute – a world-class, immersive watershed restoration training for British Columbians. Since 2002, this program has engaged British Columbian ecological professionals in restoration techniques, impacting a variety of wetlands across the province in multi-phase and continual projects.

From September 19 to 25th, 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. The 2022 Wetlands Institute (WI) brought together 31 diverse and driven participants from a variety of professional backgrounds, including biologists, field technicians, consultants, water resources scientists, cultural conservationists, watershed planners, and more. Each participant came to the Institute with a wetland project in mind and was excited to learn how to successfully complete their ideas.

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. Moreover, a key component of this program is learning from the group's diverse backgrounds; each participant has an opportunity to present their passions, projects, and personal knowledge.



**“You know when you throw a rock in the water and the ripples grow and grow?” said Rosanna Stamberg, Entrepreneur and Traditional Medicine specialist of the Splatstin First Nation in her presentation, “That is how I see most things in the world working. I am learning that everything is all connected. When you learn about your body system each system relies on the other. It seems that is the way it works with everything. Without water, nothing lives.”**

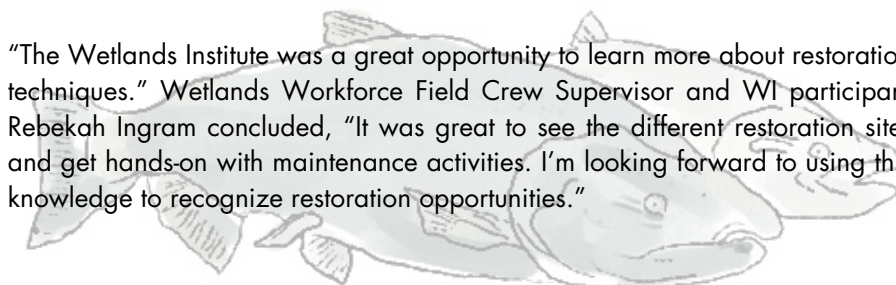
Participants were guided through restoration in a multi-faceted lens. They began their journey with restoration theory, with concepts such as historical draining, restoration goals, wetland design, site selection, and restoration challenges highlighted. The theoretical was complemented with hands-on field visits to Boothman’s Oxbow Provincial Park, North Wetland, and Christina Lake, where participants learned how to conduct the Wetland Ecosystem Services Protocol (WESP) and Rapid Health Assessments which provide a uniform way of measuring wetland habitat and their functions, benefits, and overall health.

After the participants got a grasp of wetland classification and restoration techniques, the group excitedly 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. Each site posed a different set of ecological and cultural challenges and benefits; through guided tours, participants gained an intimate understanding of the breadth of work wetland restoration aims to achieve.

“The project at Ravine Creek felt very inspiring and grounding from a restoration and ancestral perspective” fondly recalled participant Cait Hurley. As with the BCWF’s wetland restoration projects, the Institute emphasized cross-cultural collaboration with an emphasis on local Indigenous engagement communities for any project in the spirit of ongoing reconciliation and inter-cultural sharing.

As the seven-day intensive workshop concluded, each participant possessed an extensive toolbox of restoration techniques to bring back to their own projects. Plus, they became a part of a network of like-minded individuals to support them in their restoration endeavors.

“The Wetlands Institute was a great opportunity to learn more about restoration techniques.” Wetlands Workforce Field Crew Supervisor and WI participant 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.”



# Wetlandkeepers



Wetlandkeepers is a free 2.5-day workshop that teaches participants about wetland delineation, plant and animal identification, soil sampling, and other wetland classification and stewardship skills through a mix of hands-on fieldwork and presentations. From June 1st to 12th, the Wetlands Education Program (WEP) team ventured to the Kootenays for the first Wetlandkeepers workshops of the summer. The focus of these workshops was to provide participants with a working knowledge of wetlands and an understanding of their undeniable value.

Our first stop on the trip was in Slocan, B.C, where the Slocan Waterfront Society invited the BCWF to the community to help educate community members on wetlands and look at the potential for wetland restoration and enhancement in the village. Situated at the southern tip of the Slocan River, participants began the workshop by practicing their classification skills at a rainy Upper Little Slocan Lake. As the clouds began to clear later in the day, the group was introduced to the potential of wetland restoration by Gregoire Lamoureux of Slocan River Streamkeepers at the Crooked Horn Farm Project. Completed in the summer of 2017, the Crooked Horn Farm Project features a shallow wetland habitat that now houses a diversity of wildlife including Western toad, Columbia spotted frog, Western painted turtles, brown bats, numerous birds as well as a variety of benthic invertebrates.

One of the main focal points of this workshop was the Slocan Mill site. Built in the 1960s, the mill sits on top of the historic Springer Creek wetlands. After providing employment to the residents of Slocan River Valley for over forty years, the mill closed in 2013. The 20-acre site was put up for sale until the village of Slocan purchased it 2020. The site remains undeveloped; however, the municipality is in the process of creating an official community plan for the space.



Pacific Logging's mill at Slocan, 1960's.  
(Nelson Star, 2014)



Slocan waterfront today.  
(Royal LePage, 2020)



Wetlandkeepers Participants learning about Slocan's milling history.



Yvette, Chawathil First Nation Elder, sharing knowledge on traditional plant uses.

## Reconciliation through partnership; WEP Partners with Indigenous Communities for Wetland Conservation

One of the key tenets of the BCWF’s Wetlands Education Program (WEP) is a commitment to the process of reconciliation and creating an open dialogue to listen, learn, and grow. We strive to foster enduring, mutualistic partnerships to ensure the preservation, conservation, and restoration of wetlands through knowledge exchange and cooperation. This summer, the WEP team continued its long journey of reconciliation by partnering with the Stó:lō Research and Resource Management Centre and Chawathil First Nation, and ʔaq’am First Nation along with members of the Ktunaxa Nation, to put on two more Wetlandkeepers workshops.

While with Chawathil First Nation in May 2022, our classroom session was followed by a guided walk with Chawathil Elder, Yvette John. Yvette is an archeologist and specializes in traditional plant use. With over 30 years of study and experience, she shared some of her knowledge and stories related to the traditional uses of plants such as western red cedar bark, licorice ferns, Oregon grape root and other plant species native to the pacific northwest. A highlight of this field trip was helping with traditional cedar stripping.



On day two, workshop participants gathered at Thacker Regional Park on what looked to be a rainy morning. Following our resident wetlands specialist, Neil Fletcher, participants were led along a decommission stretch of the Kettle Valley Railway to Thacker marsh. Backdropped by snowcapped mountains, participants entered a complex wetland system teeming with life. Red-winged black birds formed a chorus of echoing chirps while cobalt blue tree swallows swooped and dived between cattails and hardhack. For the rest of the day, participants built an intimate knowledge of the marsh by using variety of tools and techniques.

**"It was another wonderful reminder of what a community can accomplish when dedicated individuals work together for the greater good of all."** - MIKAELA CANNON OF ARMSTRONG/SPALLUMCHEEN CLIMATE ACTION

# Map our Marshes

Map our Marshes is a 1.5-day crash course that teaches the values and tools of community mapping and inventory of wetlands. This information will help communities identify conservation needs at a wetland or watershed scale and share their data publicly with other interested parties. Unless wetlands are identified and mapped, they could go unrecognized and be inadvertently destroyed by agriculture, development, ranching, or invasive species. Learning how to track changes to wetland landscapes through GPS and mapping apps lays a foundation for habitat protection and conservation.

The 2023 Map our Marshes workshops were held in Chilliwack and Parksville-Qualicum Beach in partnership with the Friends and Neighbours of Bell Slough, and the Arrowsmith Naturalists and Mid Vancouver Island Habitat Enhancement Society, respectively. The BCWF Wetlands Education Program was invited into these communities because they were concerned about their local waterways and wanted to learn what they could do to help protect, conserve, and enhance them. Community engagement and advocacy are vital for the protection of wetlands, and both of these workshops highlighted this.

In Chilliwack, the Friends and Neighbours of Bell Slough were concerned about Bell Slough, a once thriving wetland full of Great blue heron, osprey, kingfishers, eagles, beavers, and more, that had recently been impacted by development changes and water flow blockages. In Parksville, local wetlands had been fragmented and impacted by new roads and trails, while other intact wetlands were at risk of being developed for housing. Both communities had full turnouts at the workshops where passionate individuals took time to dive into the values of wetlands, investigate what may be impacting the wetlands near them, and learned how to use GPS technology and smartphone apps such as Avenza, iNaturalist, and Google Earth to map and identify what habitat features are present, where wetland boundaries are, and how to continue monitoring the ecosystems for changes. Information that is tracked over time can be shared with decision makers, local governments, naturalist groups, and other interested organizations to help ensure wetlands are conserved.

Map Our Marshes participants making their way to the field training site.



# Outreach & Education

In addition to training adults, the Wetlands Education Program attends outreach events, hosts public talks, and visits schools to teach the public (especially kids) about the exciting world of wetlands!



Outreach and Education are some of the B.C. Wildlife Federation's core values. Around the world, wetlands are disappearing at an alarming rate - three times faster than our world's forests. More than 85% of the world's wetlands have been lost since the 1700s, and B.C. is no exception. British Columbian wetlands currently comprise around 5.28 million hectares in the province, however many historic wetlands have entirely degraded or lost.

Each year, the Wetlands Education Program strives to spread awareness through education and outreach with the hope that we can inspire local community members, Land Guardians, technicians, and more to help protect British Columbia's valuable wetlands.

In 2022, the Wetlands Education Program was thrilled to join the Squamish River Watershed Society's Naturalist Ambush, Burnaby Village Museum's B.C. Rivers Day event, the West Coast Women's Show, and Burns Bog's International Bog Day celebration. Overall, we engaged over 800 individuals through our outreach events.



Emma teaching community members about wetland health using the program's Wetlands model.

# Get Involved With the BCWF

## Volunteer

Volunteering with the B.C. Wildlife Federation is an enriching, fulfilling experience. By becoming a BCWF volunteer, you can contribute to conservation efforts in your community and make an impact that will benefit everyone, now and in the future.



BCWF volunteers work in a variety of different capacities. They work to assist our various programs and services, with youth and accomplishing hands-on-conservation work. They also assist in our Surrey office, helping with fundraising, advocacy, education, administrative support, special events and so much more.



## Advocate

Now is the time to invest, conserve, protect and restore our landscapes and wildlife to stabilize and restore what makes British Columbia special. This requires a commitment from the Province to re-establish British Columbia as a world leader in fish, wildlife and habitat management.



As passionate conservationists, hunters, anglers and outdoor enthusiasts, it is important to voice your concerns to your elected officials on government decisions effecting fish, wildlife and their habitat.

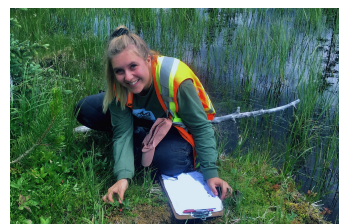


## Collaborate

Every year, the Wetlands Education Program team works to restore, enhance, and conserve wetlands across our beautiful province. We collaborate with BCWF clubs and members, non-governmental organizations, naturalist clubs, First Nations communities, and more to create unique and inclusive educational workshops in communities throughout the province. We aim to provide the knowledge and tools for participants to be wetland stewards in their own communities.



Have an idea for a workshop in your community? Reach out to us!



# Ways to Give



## Buy a Membership

Support the BCWF in ensuring the sound, long-term management of British Columbia's fish, wildlife, park and outdoor recreational resources in the best interests of all British Columbians. Check out all the ways your BCWF membership benefits you!

- Excess Third-Party Liability insurance covering a wide range of outdoor activities, plus the use of ATVs and other vehicles while engaged in hunting and angling
- Six issues of B.C. Outdoors Magazine
- Member discounts at Marks, Bass Pro Tsawwassen, Coast Hotels, and more!
- Complimentary BCWF vehicle decal
- Exclusive member update newsletters and communications
- Growing knowledge of the value of fish and wildlife management to the public and government
- Access to the decision-makers making timely and trusted advocacy efforts to all levels of government



## Become a Monthly Donor

A monthly gift is one of the most significant ways you can make an impact. Your monthly contribution provides a ready and reliable source of funding to support the BC Wildlife Federation's important programs and initiatives, while reducing fundraising and administrative costs. Easily increase, decrease, pause or stop your monthly gift at any time.

## Start a Fundraiser

Raise funds to honour someone you love, celebrate a special occasion, support a personal challenge, or mark any other special life occasion!

Here's how:

- Login or create a FREE CanadaHelps account.
- Choose the BC Wildlife Federation as the charity recipient
- Create your page in just minutes. Tell your story, set your fundraising goal, upload pictures or videos, and more!
- Share your fundraiser with your friends and family to ask for their support!



# Wetlands Watch

## 2023

### Upcoming Workshops

#### Wetlands Institute

Kamloops & Chu Chua  
September 17th - 23rd

#### Wetlandkeepers Workshops

Houston Wetlandkeepers  
July 27th - 29th

#### Map our Marshes Workshops

Maple Ridge Map our Marshes  
June 2nd - 3rd

Whistler Map our Marshes  
August 19th - 20th

Virtual Map our Marshes  
November 4th

#### Other Workshops

Wetlands Institute: Virtual Speaker Series  
November 8th, 15th, 22nd

## The Bog Blog

[www.bcwfobogblog.com](http://www.bcwfobogblog.com)

A multi-layered website set up to share wetland steward experiences and knowledge on how to protect BC's remaining bogs, fens, marshes and swamps. It also features links to resources that might suit people monitoring and conserving wetlands.

Follow us on Facebook & Twitter!

@BCFWWetlands

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For more information, or to make a donation, please contact: [wep@bcwf.bc.ca](mailto:wep@bcwf.bc.ca)



The B.C. Wildlife Federation is a province-wide voluntary conservation organisation of hunters, anglers and outdoor recreationalists, representing all British Columbians whose aims are to protect, enhance and promote the wise use of the environment for the benefit of present and future generations.