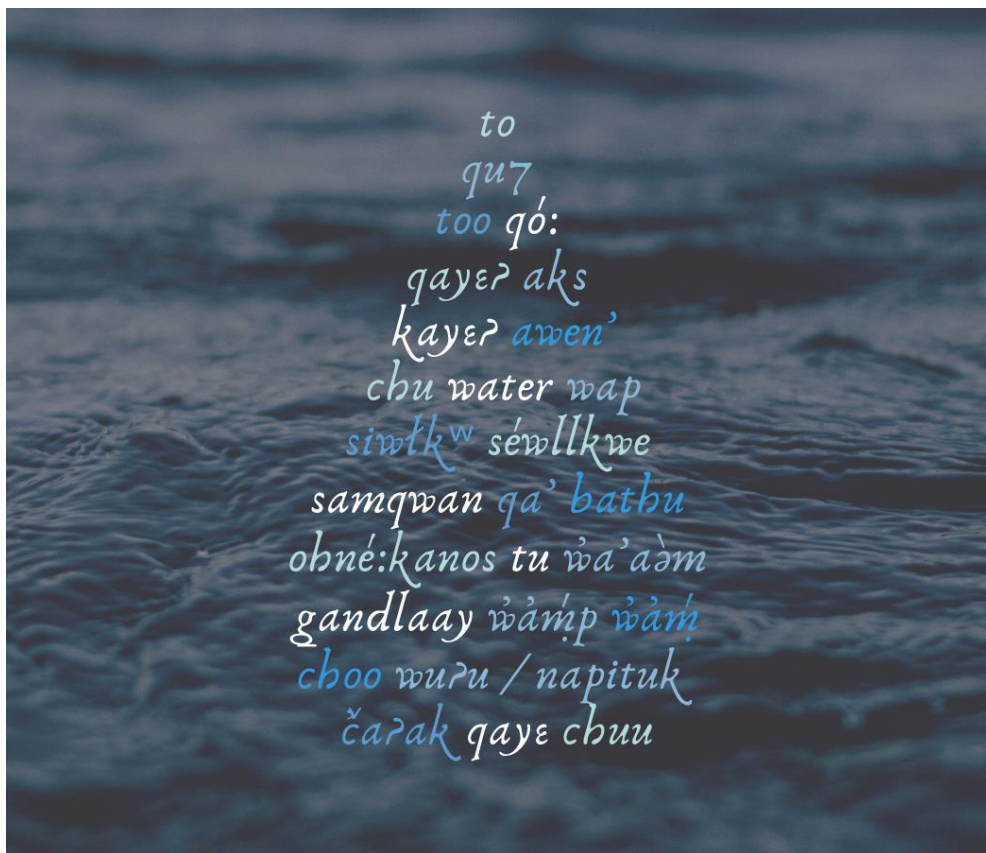


BRIDGE FUNDING FOR THE HEALTHY WATERSHEDS INITIATIVE

September 25, 2021



In recognition of the cultural importance of water, as well as the importance of maintaining the language within all Indigenous Communities, the image above encompasses the word "Water" in several languages of Indigenous Peoples of British Columbia.

Prepared For:

British Columbia Legislative Select Standing Committee on Finance and Government Services

Prepared By:

Glenn Auger, First Nations Liaison, Wetlands Workforce



ISSUE:

The B.C. Wildlife Federation's (BCWF) Wetlands Workforce (WW) Project (see Appendix I for background on project) will cease funding as of December 15th, 2021, resulting in loss of employment for 100 individuals, weaken partnerships with First Nations, and loss of capacity to improve wetlands across British Columbia.

RECOMMENDATION:

Option A: Provide \$27M each year of bridge funding to Healthy Watersheds Initiative (to match the province's 2021 contribution) to support important watershed projects across B.C. until the establishment of the 2023 Watershed Security Strategy and Fund. As an example, the Wetlands Workforce requires \$5 million per year to sustain ongoing deliverables.

Option B: Provide \$5M to the BCWF to extend the WW project for an additional year to provide continuous employment, strengthen existing partnerships with First Nations, and for continued support to improve wetlands across BC.

KEY HIGHLIGHTS:

- The WW Project has advanced reconciliation with Indigenous Peoples of B.C. by:
 - Facilitating paid employment and training opportunities with representatives from 40 First Nations (see Appendix II for description);
 - Engaging with 127 First Nations through letters, virtual collaborative information sharing sessions, data sharing, and community/field site visits;
 - Providing the opportunity for Decolonization and Cultural Awareness training to over 100 non-Indigenous staff members; and
 - Collaborating with Traditional Knowledge Keepers as part of Data Collection for Scientific Wetland Assessment Models.
- The WW Project has preferentially hired populations most impacted by the Covid-19 pandemic, including Women, Indigenous Peoples, and Youth (aged 30 and under) (see Appendix III for Employment Statistics) and provided extensive skills-training to support career development (see Appendix IV for Course List).
- The WW Project has resulted in maintenance of over 70 wetlands in BC, and data collection from over 235 wetlands sites (see Appendix V for description of the Wetlands Ecosystem Services Protocol and Appendix VI for description of maintenance and monitoring activities).
- The WW Project is currently operational in the Northeast, Kootenay Boundary, Thompson Okanagan, South Coast and West Coast FLNRORD Resource Districts.
- The WW received \$5M to create employment for 100 people (as per the funding agreement). As of September 30th, 2021, the WW are estimating that 200 people are forecasted to financially benefit by end of project (December 15, 2021).
- Wetlands play a critical role in storing carbon, filtering contaminants from stormwater and street runoff, buffering homes and communities from flooding, and providing essential habitat for fish and wildlife populations.



BACKGROUND:

The BCWF is B.C.'s leading conservation organization. The organization seeks to ensure the sound long-term management of B.C.'s fish, wildlife, and outdoor recreational resources in the best interests of all British Columbians. Under the guidance of BCWF's Conservation Stewardship Department, the WW Project launched in 2021 to provide maintenance and monitoring work to wetlands across the province.

The project is supported through the Healthy Watersheds Initiative, which is delivered by the Real Estate Foundation of BC and Watersheds BC, with financial support from the province of British Columbia as part of its \$10 billion COVID-19 response. The WW is one of 60 projects supported by the Healthy Watersheds Initiative's \$27-million program.

The WW is delivered in partnership with 7 organizations including:

- Ducks Unlimited
- Nature Conservancy of Canada
- Nature Trust of BC
- Langley Environmental Partners Society,
- Wildcoast Ecological Society
- Lower Kootenay Band
- Fraser Valley Watersheds Coalition

Components of the project are delivered in partnership with post-secondary institutions, BC Parks, FLNRORD, the Government of Canada, First Nations and Local Governments (see Appendix VI for List of Partnerships).

Minister Heyman's 2020 mandate letter includes a commitment with the support of the Minister of State for Lands and Natural Resource Operations and the Parliament Secretary for Fisheries and Aquaculture to create the Watershed Security Strategy and associated Watershed Security Fund. The Ministry of Environment and Climate Change Strategy has repeated its commitment to developing a watershed security fund in an August 31, 2021 Press Release.

DISCUSSION:

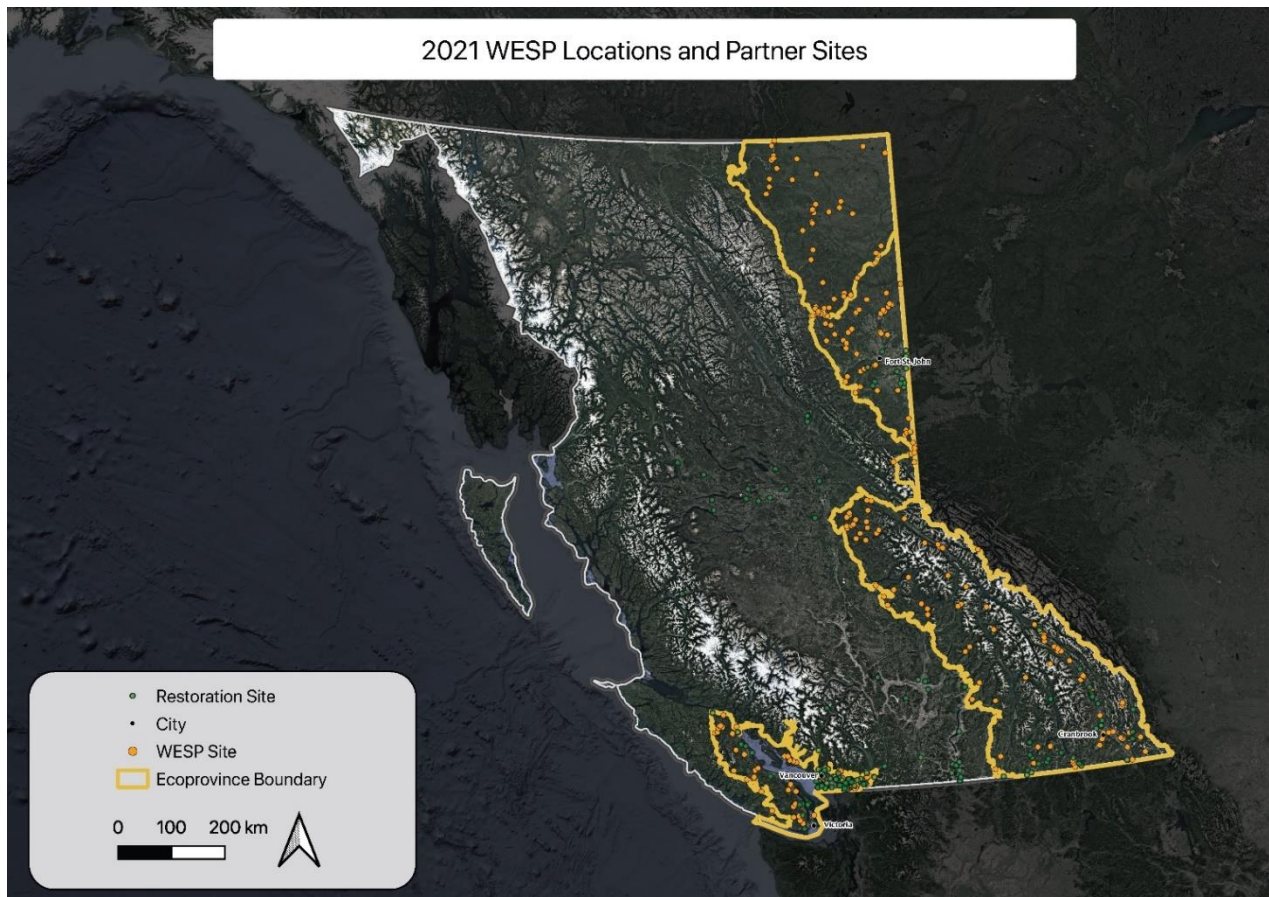
Bridge funding would allow the WW to continue the momentum fostered over the year until the Watershed Security Fund is in place. Many First Nations have provided feedback on the importance of the initiative and expressed interest in longer-term partnerships. With another year of this project, the WW's work and engagement with Indigenous communities can be expanded to encompass more communities, more wetlands, and more watersheds across the province.

BENEFITS:

- Provides employment opportunities for over 100 individuals and sustained investment to more than 70 wetland and watershed conservation projects.
- Enhances critical wetlands that align with implementation of a Climate Adaptation and Preparedness Strategy
- Supports early stages of Provincial mandates towards developing a Watershed Security Fund and Strategy. Bridges funding gaps to secure human and social capital investments.



- Advances Reconciliation with First Nations in BC by strengthening partnerships in collaborating on wetland stewardship.
- Provides extended employment opportunities for women, youth (aged 30 and under) and Indigenous Peoples in BC.
- Strengthens capacity to support the BC Climate Preparedness and Adaptation Strategy by:
 - Strengthening foundations for success: data, monitoring, education and partnerships;
 - Enhancing community climate resilience;
 - Fostering resilient species and ecosystems; and
 - Advancing a climate ready economy and infrastructure.



APPENDICES:

- I. Description of Wetlands Workforce Project | *Page 4*
- II. Employment Statistics | *Page 5*
- III. Wetlands Workforce Course List | *Page 6*
- IV. Wetlands Ecosystem Services Protocol | *Page 7*
- V. Wetland Monitoring and Maintenance | *Page 8*
- VI. List of Partnerships | *Page 9*
- VII. Testimonials | *Page 10-11*

APPENDIX I: Description of Wetlands Workforce Project

THE WETLANDS WORKFORCE PROJECT

The B.C. Wildlife Federation's Wetlands Workforce project is a collaboration with conservation organizations and First Nations that deployed work-pods across British Columbia throughout 2021. The work-pods provided much needed maintenance and monitoring work to over 70 wetlands.

The work-pod partner organizations include:

- Ducks Unlimited
- Nature Conservancy of Canada
- Nature Trust of BC
- Langley Environmental Partners Society
- Wildcoast Ecological Society
- Lower Kootenay Band
- Fraser Valley Watersheds Coalition

In one year, the Wetlands Workforce has:

- Improved riparian area habitat;
- Monitored the effectiveness of wetland restoration sites;
- Advanced collaborative restoration projects with First Nations and communities; and
- Supported Province wide monitoring initiatives that will improve wetland management.



Top Photo: Hans Alvarez and Alex Newall with NCC identify a frog found at the Chase Woods Nature Preserve

Bottom Photo: Robyn Ingham with Ducks Unlimited assesses the vegetation at one of their wetland sites

We provided extensive training to all those employed that were created specifically for the project. The training modules were also offered to First Nation communities.

Apart from our engagement and training, a major piece of work that came out of the Wetlands Workforce was the publication of, *Wetlands of British Columbia: Field Guide to Indicator Species for Wetland Classification*. This comprehensive field guide will continue to benefit experts, enthusiasts, and students when they head out into the field.

As the largest collaborative wetland initiative of its kind in Canada, the Wetlands Workforce project has aimed to bring increased knowledge and understanding of the condition of B.C.'s wetlands at community, regional and provincial scales.

APPENDIX II: Employment Statistics

NUMBER OF PEOPLE HIRED BY WETLANDS WORKFORCE

	As of June 15, 2021	Estimate for September 30 th , 2021	Estimate for December 15, 2021
Women	50*	TBD**	TBD
Youth (aged 30 and under)	48*	TBD**	TBD
Indigenous Peoples	5*	50+***	TBD
Totals	80	150+	TBD

*WW employees self-identified their confidential demographic information through participating in a Gender Based Analysis Plus (GBA+) survey. A survey was administered to WW participants as part of June 15th interim reporting. A final survey is provided to participants as part of off-boarding procedures.

**WW does not currently have estimates on demographics.

*** Total is based on individuals who have self-identified as Indigenous in their participation working with a First Nation as part of WW engagement, or through the Northern Lights College practicum placement.



Left Photo: Maureen Parker & Jordan Neal (Nature Trust of BC work-pod) at Capilano Regional Park during their training on the Wetlands Ecosystem Services Protocol.

Centre Photo: Northern Lights College students, Samantha Cochrane, Tamara St. Pierre and Joy Ann Chipesia help to identify a type of grass found at a wetland site.

Right Photo: Kiana Medicine Crane (Lower Kootenay Band work-pod) stands at a newly constructed wetland at the Yaqaan Nukiy Wetland project site.

APPENDIX III: Wetlands Workforce Course List

Indigenous Awareness - By Solomon Reece and Glenn Auger

- Decolonization: The Inner Journey
- Cultural Awareness: Reconciliation as an Active Practice
- Intergenerational Trauma and How this Impacts Indigenous Communities and Fieldwork

Live Staking Techniques - By David Polster

Wetland Ecosystem Services Protocol (WESP) - By Paul Adamus

Wetland Restoration - By Thomas Biebighauser

Wetland Vegetation

- Wetland Plants by Jamie Fenneman
- Tidal Marsh Vegetation ID by Dan Stewart
- Invasive Plants & Management

Working in Remote Areas

- Wildlife Awareness & Safety Level 1 by WildSafeBC
- Resource Road Driving
- Leave No Trace by Leave No Trace Center for Outdoor Ethics

Drone Operation – By Hummingbird Drones

Chainsaw/Power Tool Operation

Bird Monitoring Protocol – By BC Marsh Monitoring Program

Amphibian Monitoring Protocol - By Elke Wind



Top Photo: Kendall McLaughlin plants a Salmon Berry plant at a wetland site on Salt Spring Island

Bottom Photo: Erin Richan, removes Canadian Thistle at the Earl Ranch wetland site.

APPENDIX V: Wetland Monitoring and Maintenance

The work being done by the Wetlands Workforce aims to enhance current wetland sites around British Columbia through maintenance and monitoring activities.

MAINTENANCE ACTIVITIES

In our aim to conserve our wetlands, the Wetlands Workforce is providing much-needed maintenance to more than 70 wetland restoration sites across the province. Our work-pods are deployed with a focus of maintaining and strengthening these wetlands and riparian habitats.

The maintenance work being done includes:

- Waste and Garbage Removal Installation of Signage
- Beaver Management around Infrastructure
- Removal of Invasive Species, Pest and/or Weeds
- Planting of Native Species
- Installation and Repairing of Protective Fencing

Wetland monitoring is as important as the initial restoration projects that occur across the province. Monitoring and data collection allows us to evaluate the effectiveness of restoration techniques so we can continue to improve the performance and function of future projects. Over the course of the Wetlands Workforce project, we will be monitoring and collecting data at our work sites. Some of the wetland monitoring activities that are being conducted include:

EFFECTIVENESS MONITORING PROGRAM

- Bird Monitoring
- Amphibian Monitoring
- Wildlife Surveys
- Plant Surveys
- Photo Point Monitoring
- Water Quality Monitoring

Through monitoring and data collection we will be able to assess the effectiveness of restoration techniques, the overall health of our wetlands and best management practices to use during future projects.



Left Photo: Kendall McLaughlin and Caleigh Lehan install a water meter.

Centre Photo: Cindy Lu collects and identifies wetland vegetation as part of a macroinvertebrate study in the Kootenays.

Right Photo: Jessie Spence digs hole to install wildlife monitoring station.

APPENDIX VI: Our Partnerships

WORK-POD PARTNERS:

- Ducks Unlimited
- Nature Conservancy of Canada
- Nature Trust of BC
- Langley Environmental Partners Society
- Wildcoast Ecological Society
- Lower Kootenay Band
- Fraser Valley Watersheds Coalition

PROJECT COLLABORATORS PROVIDING LOGISTICAL SUPPORT AND SERVICES:

- Arrowstone Forestry Contracting
- B.C. Institute of Technology
- Bird Studies Canada
- Canadian Wildlife Federation
- Canadian Wildlife Service
- Capital Regional District (CRD)
- City of Abbotsford
- City of Grandforks
- City of Vancouver Parks Department
- District of Logan Lake
- District of Mackenzie
- Ecologic Consulting Ltd.
- Elke Wind Consulting
- Friends of Cortes Island
- Gardom Lake Stewardship Society
- Hummingbird Drones
- James Island Property Management
- Metro Vancouver Parks Department
- Northern Lights College
- Polster Environmental
- Province of BC
 - BC Parks
 - Ministry of Forests, Lands, Natural Resource Operations and Rural Development
 - Ministry of Environment and Climate Change Strategy
- Ministry of Environment and Climate Change Canada
- Regional District of Central Kootenays
- Saanich Parks Department
- Simon Fraser University
- Slocan River Streamkeepers
- Southern Interior Land Trust
- School District (Creston)
- School District (Kelowna)
- School District (Mission)
- School District (Mackenzie)
- Surrey Parks Department
- University of Guelph
- Wild Research



APPENDIX VII: Testimonials

"I'm so happy to see the participation we've had this year from the First Nations and participating individuals from Indigenous communities [...] The reports that are coming back from these communities has been very positive. I hope this collaborative process can continue. More funding would support this initiative moving forward so we can help strengthen our wetlands, while supporting communities, individuals, and society. It is important for initiatives like these to continue. They create a legacy. A legacy of sustainability."

– Glenn Auger, *First Nations Liaison, Wetlands Workforce.*

"This work is important because wetlands are some of the most valuable habitats you can restore that cover a vast majority of everything within the area. In restoring wetlands, you can create habitat for a range of animals, plants, invertebrates, amphibians, and fish. Everything uses them."

– Norm Allard, *Community Planner, Lower Kootenay Band.*

"I just want to mention how excited I am for the opportunity I've had this summer to experience working with B.C. Wetlands and Ducks Unlimited. It's really satisfying to be a part of an organization, or several organizations that are working in conservation and are really fighting for wildlife and, you know, nature and preserving things. That's something I've always wanted to do, and I am finally feeling that my goals are aligning, and I am really excited to be here."



– Robyn Ingham, *Field Technician with Ducks Unlimited work-pod.*



"I've learned so much like the different species of plants, all the different sedges and different mosses. It's so interesting and diverse. I'm going to take this knowledge and use it out in our territory, because we do a lot of land reclamation."

– Tamara St. Pierre is a student with Northern Lights College and works in the Lands Department for Prophet River First Nations.

"This work is so important right now because we need to act. We have beautiful places that are in jeopardy of being lost. We have already lost so much. I think especially coming out of something that we collectively experienced, like COVID, with us being here in this beautiful place, we know that when our world became much smaller, the ability to get out and be around water, around the environment, really helped us. We need these things, and we also need to work together. It's not just one partner or one stakeholder's ability to do all the multifaceted things that help protect our water, our watersheds, and our wetlands."

– Dr. Shannon Waters, *Medical Health Officer for the Cowichan area and is a representative on the Cowichan Watershed Board.*

"I follow traditional knowledge, while [others] follow Western science. Somewhere in between these two are going to get together and they are going to evolve into something that is going to make this a better place to live. That is our goal on both sides."

– Faron Hamblar, Traditional Knowledge Keeper for Kelly Lake First Nation.



"One of the biggest things that has been awesome about this experience is being able to work so closely with First Nations from the local communities in the areas that we are working. They are able to bring a whole set of knowledge that we do not have from those areas. It has also been just a really great experience to work together with all of us having the same goal of trying to protect and keep these ecosystems healthy. That has been amazing to see in action and hopefully more places can do this work."

– Katie Mitchell, Field Technician for BCWF Northern Work-Pod and Ducks Unlimited Northern Work-Pod.



"It is very interesting. It is also very eye opening. This experience will help me when I do environmental monitoring for my community. It is very important to learn from this program because it will help us in doing our jobs and in protecting our land and our water resources."

– Joy Ann Chipesia is a student with Northern Lights College and a member of Blueberry First Nations.

"I don't think we've had a bad day, Angela and I. We work in the weather, it's been really hot, or we've had a really wet day, but as for what we do every day, like the riparian health assessment surveys and workshops, I've enjoyed every second of it."

– Julie Chesley, Field Technician, Nature Conservancy Canada.

"LEPS is thrilled to host a Wetlands Workforce work pod. This project increases our capacity to undertake watershed enhancement and monitoring in the Langley area, and provide good, green jobs to young professionals just launching their environmental careers. In what has been a challenging time, the Wetlands Workforce is providing positive benefits and we are excited for the coming year!"

– Nichole Marples, Executive Director, Langley Environmental Partners Society.