

#### COASTAL REGION FISH AND WILDLIFE PROJECT LIST 2021–2022

#### Fish and wildlife projects approved in our Coastal Region

In our Coastal Region, our board approved approximately \$2.4 million for 31 fish and wildlife projects to be implemented between April 1, 2021–March 31, 2022. First Nations, stewardship groups, consultants, and agencies are leading the 18 fish and 13 wildlife projects, which will help conserve and enhance fish and wildlife impacted by BC Hydro dams.

These projects will prioritize a wide range of habitats and species, including Chinook salmon, Vancouver Island marmots, northern spotted owls, and more. Visit our interactive project map and learn more about our Coastal Region and 2021–2022 projects.

This project list includes conditionally approved grant-based fish and wildlife projects and directed projects as of April 1, 2021. Grant-based projects are submitted and approved through our annual open application process, and directed projects are identified by our regional boards as priority actions for implementation.

#### We're conserving and enhancing fish and wildlife in watersheds impacted by BC Hydro dams

The FWCP compensates for dam impacts and takes a forward-looking approach to achieve the FWCP's vision of thriving fish and wildlife populations in watersheds that are functioning and sustainable. All approved projects align with one or more priority actions in our regional action plans.

#### Learn more about the FWCP

Visit <u>fwcp.ca</u> to learn more about the projects we are funding across our three regions. <u>Subscribe</u> and stay informed about the projects we fund and how you can apply for a grant. Follow us on <u>LinkedIn</u> and <u>Instagram</u>. <u>Contact us</u> anytime.



#	Project ID	2021–2022 Grant-based Fish Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Watershed
1	COA-F22 F-3389	<b>Supporting salmon hatchery in the Puntledge River Watershed</b> <i>Courtenay and District Fish and Game Salmon Hatchery, Comox</i> <i>Lake</i> This project will help support a new fish hatchery at the Comox Lake property of the Courtenay and District Fish and Game Protective Association. With access to 3,000 l/min of water from a new drinking water intake, the hatchery will have consistently cool water.	Courtenay and District Fish & Game Protective Association	\$ 86,030	Species- based Actions	All	Puntledge River Watershed
2	COA-F22 F-3474	Building awareness of salmon in the Shuswap River Watershed Conservation of Shuswap River Chinook through Education This multi-year stewardship project aims to help protect Shuswap River Chinook by providing place-based, experiential education to thousands of local students. Salmon are a keystone species due to their importance in maintaining the health of ecosystems. Protecting salmon requires knowledge, awareness, and a passion for the species. Education is the key, and this project helps to build compassion, promote action, protect fish, and preserve the Shuswap River Watershed.	Kingfisher Interpretive Centre Society	\$ 10,250	Species- based Actions	All	Shuswap River Watershed



#	Project ID	2021–2022 Grant-based Fish Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Watershed
3	COA-F22 F-3475	Improving fish passage in the Cheakamus River Watershed Squamish Estuary Fish Passage Improvement Project: Year 4 This multi-year project is focused on improving fish passage between the Squamish River and the central estuary. In year four of this project, work will focus on creating an additional opening along the berm for fish passage. In the past three years, two culverts that were limiting fish passage were replaced with large fish-friendly box culverts. Restoration activities started in 2017 with an FWCP-funded feasibility study that identified three main areas of focus: culvert upgrades, spit realignment, and reconnecting tidal flows across the CN spur line.	Squamish River Watershed Society	\$ 348,725	Habitat- based Actions	Rivers, Lakes, & Reservoirs	Cheakamus River Watershed



;	#	Project ID	2021–2022 Grant-based Fish Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Watershed
	4	COA-F22 F-3486	Using technology to improve fish passage Coquitlam River Floodgate Effectiveness and Salmon Passage: Year 1 This multi-year project will use fish tracking technology to assess juvenile salmon passage at three floodgates installed in the Coquitlam River Watershed in 2011. This work will compare fish movement relative to floodgate openings and investigate how gate operation can improve passage. Results will ultimately increase understanding of how and where automated floodgates can be used to benefit salmon species in the Fraser River Watershed. The automated floodgate was installed on a Coquitlam River tributary to allow fish passage and enhance over three km of crucial salmon habitat. There is evidence, however, that it is not allowing fish passage during the crucial time when juvenile salmon are seeking refuge and overwintering on their migration to the Pacific Ocean.	MakeWay Charitable Society	\$ 69,190	Habitat- based Actions	Rivers, Lakes, & Reservoirs	Coquitlam River Watershed



#	Project ID	2021–2022 Grant-based Fish Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Watershed
5	COA-F22 F-3508	Restoring riparian habitat in the Puntledge River Watershed <i>Kus-kus-sum Unpaving Paradise: Year 1</i> This multi-year project on the Kus-kus-sum conservation lands will focus on removing a steel- cladded retaining wall bordering the Courtenay River. This wall has narrowed the river channel and resulted in increased seal predation of salmon, both out-migrating juveniles and returning spawners. The restoration of this former sawmill site is a collaboration between the K'ómoks First Nation, the City of Courtenay, and the Comox Valley Project Watershed Society. This site is part of a salmon migratory corridor for the Puntledge River and Tsolum River watersheds and is of cultural importance to the K'ómoks First Nation.	Comox Valley Project Watershed Society	\$ 160,373	Habitat- based Actions	Rivers, Lakes, & Reservoirs	Puntledge River Watershed
6	COA-F22 F-3513	<ul> <li>Helping rebuild Chinook stocks in the Bridge-Seton Watershed Portage Creek Chinook Conservation Enhancement: Year 5 This multi-year project will support the enhancement and coded wire tagging of 50,000 yearling Portage Creek Chinook smolts. It will provide the population with higher egg-to-smolt survival rates, and the tags will yield important assessment information.</li> <li>This Chinook population is classified as a vulnerable single-site Conservation Unit under the government of Canada's Wild Salmon Policy, and it has had diminishing returns for more than 10 years.</li> <li>Fisheries and Oceans Canada proposes strategic enhancement of a minimum of one generation (i.e., five years) to support the preservation and rebuilding of this population and its unique genetic component, while further investigating the limiting factors contributing to its decline.</li> </ul>	Fisheries and Oceans Canada	\$ 31,766	Species- based Actions	All	Bridge- Seton River Watershed



#	Project ID	2021–2022 Grant-based Fish Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Watershed
7	COA-F22 F-3520	Increasing vegetation to lower water temperatures for chinook Bessette Creek Riparian Restoration Planning Bessette Creek in the Shuswap River Watershed experiences high water temperatures in late summer and early fall. This coincides with the spawning migration of Chinook salmon, which return in low numbers. This riparian restoration project will focus on planning and landowner engagement at high-priority sites to help restore vegetation cover at strategic locations in the watershed to reduce water temperatures to benefit spawning Chinook. This project will build on data from mapping and temperature study projects that pinpoint key areas where re-vegetation has the greatest potential to mitigate rising stream temperatures. The data will also be used to guide site-specific planning and resident engagement.	Okanagan Nation Alliance	\$ 5,000	Habitat- based Actions	Wetland & Riparian	Shuswap River Watershed
8	COA-F22 F-3521	Improving flows and habitat for salmon Gorbuscha Intake and Channel Restoration: Year 1 This multi-year project will restore water flows downstream from the Gorbuscha intake on the east side of the Bailey Bridge in the Squamish River Watershed. Clearing out the intake will improve overwintering habitat for salmon and support spawning and rearing. Currently, the poorly functioning intake dramatically reduces inflows along the off-channel habitat, impacting pink and coho salmon habitat.	Cheakamus Foundation for Environmental Learning	\$ 88,515	Habitat- based Actions	Rivers, Lakes, & Reservoirs	Cheakamus River Watershed



#	Project ID	2021–2022 Grant-based Fish Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Watershed
9	COA-F22 F-3524	Improving fish passage and habitat in the Falls River Watershed Falls River Watershed Fish Habitat and Fish Passage Assessment This project will result in restoration recommendations and connectivity assessment options for the Falls River Watershed. The project entails a thorough fish habitat and fish passage assessment of the Hayward Watershed. It will determine if anadromous salmon and resident trout species can—or have historically been able to—migrate throughout the entire system: from the Ecstall River through the Hayward Creek to Hayward Lake and then into the Falls River Reservoir via Little Beaver Creek. A detailed habitat assessment will provide information on current habitat quantity, quality, and condition, and it will document impacts due to historical forestry activities (i.e., identify migration barriers) and potential restoration projects.	North Coast- Skeena First Nations Stewardship Society	\$ 99,130	Research & Information Acquisition	Rivers, Lakes, & Reservoirs	Falls River Watershed
10	COA-F22 F-3526	Adding nutrients to the Puntledge River Watershed Upper Puntledge River Watershed Chum Carcass Distribution: Year 2 This multi-year project will support the distribution of chum salmon carcasses from a hatchery into the upper Puntledge River Watershed. Their slow decomposition will contribute essential marine-derived nutrients and energy that will benefit the entire food web and sustain the production of fish and other salmon- dependent species within the watershed.	Courtenay and District Fish & Game Protective Association	\$ 2,000	Habitat- based Actions	Rivers, Lakes, & Reservoirs	Puntledge River Watershed



#	Project ID	2021–2022 Grant-based Fish Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Watershed
11	COA-F22 F-3550	Using eco-cultural restoration techniques in the Campbell River Watershed Eco-Cultural Restoration of the Campbell River Estuary: Year 3 This multi-year eco-cultural restoration project builds on recent restoration efforts in the Campbell River estuary. Alder and willow materials will be used to make wooden habitat exclosures that protect the tidal channel-edge habitat, and sites will be prepared for transplanting Carex lyngbyei (i.e., Lyngbye's sedge). The exclosures use Indigenous fish weir techniques to protect and restore vital estuary sedge marsh habitat. The restoration sites will help reduce erosion and provide greater resiliency during peak flows. Wei Wai Kum Coastal Guardians and partners are helping deliver this project.	Guardians of Mid-Island Estuaries Society	\$ 48,805	Habitat- based Actions	Rivers, Lakes, & Reservoirs	Campbell River Watershed
12	COA-F22 F-3555	Improving water flows for salmonids Reeve Slough Salmonid Habitat Reconnection Project 2021 This project in the Coquitlam River Watershed will reconnect the 31,800 m <sup>2</sup> Reeve Slough relic channel to the Coquitlam River. A water supply intake valve and chamber will be installed at the Reeve Park Pump Station pond to sustain year-round inflows. A 600 m field- fit—a shallow excavation following the natural high-flow drainage path—will provide outflows to the river, which will be protected with a proven beaver deterrent device. The outfall will be designed to maintain the water level in the slough to support the existing native aquatic and semiaquatic species of plants and animals, including all seven species of Pacific salmonids, and it will deter non-native fish species.	North Fraser Salmon Assistance Project	\$ 132,972	Habitat- based Actions	Rivers, Lakes, & Reservoirs	Coquitlam River Watershed



#	Project ID	2021–2022 Grant-based Fish Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Watershed
13	COA-F22 F-3560	Feasibility study: large-scale gravel additions Upper Campbell River Bulk Gravel Feasibility This Seed Grant project will collect initial information to determine the feasibility of large- scale spawning gravel additions in the Campbell River Watershed. It will include an engineering assessment and stakeholder input. Results of this feasibility study will be provided to the Campbell River Salmon Spawning Habitat Restoration Committee to inform decision-making about spawning gravel mitigation strategies.	British Columbia Conservation Foundation	\$ 4,998	Habitat- based Actions	Rivers, Lakes, & Reservoirs	Campbell River Watershed
		Fis	sh Project Total:	\$ 1,087,754			



#	Project ID	2021–2022 Grant-based Wildlife Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Watershed
14	COA-F22 W-3393	Helping captive-raise Canada's most endangered owl species Northern Spotted Owl Captive Breeding Program This multi-year project aims to prevent the extirpation of northern spotted owls in Canada by releasing captive-raised owls into areas protected for the species by the Province of B.C., including the Bridge-Seton Watershed. The northern spotted owl is one of Canada's most endangered birds, and its entire Canadian range occurs in southwestern B.C. Currently, fewer than five individuals remain in the wild in Canada, and 28 captive owls reside at the Northern Spotted Owl Breeding Program facility in Langley, B.C.	British Columbia Conservation Foundation	\$ 123,004	Habitat- based Actions	All	Bridge- Seton River Watershed
15	COA-F22 W-3443	Supporting the recovery of endangered Vancouver Island marmots Translocating Vancouver Island Marmots to Strathcona Park 2021 This project will support the transfer of between four and eight Vancouver Island marmots from Mount Washington into Strathcona Park to help re-established colonies persist while future recovery efforts continue. The marmot, which is federally designated as Endangered, is an endemic species that was extirpated from Strathcona Park in the 1990s. Reintroduction efforts have successfully established several marmot colonies in the park.	Marmot Recovery Foundation	\$ 11,825	Habitat- based Actions	Upland & Dryland	Multiple



#	Project ID	2021–2022 Grant-based Wildlife Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Watershed
16	COA-F22 W-3468	Growing endangered whitebark pine in the Bridge-Seton Watershed Whitebark Pine Recovery in the Bridge River Drainage This project will support planting 15,000 whitebark pine seedlings at a density of 500–800/ha to support the recovery of this keystone species in high-elevation ecosystems in the Bridge-Seton River Watershed. Cone collections will continue to support future recovery. White pine blister rust, mountain pine beetle, changes to fire regimes, and climate change have impacted whitebark pine, which is federally designated as Endangered. To combat this decline, seedlings from the healthiest trees will be planted in suitable areas, such as those impacted by wildfire. The region has moderate to high rust infection (>80%), and numerous areas have recently been burned by wildfire.	Moody Tree	\$ 61,190	Species- based Actions	Upland & Dryland	Bridge- Seton River Watershed
17	COA-F22 W 3519	Assessing white-nose syndrome mitigation options in the Stave River Watershed Developing and Evaluating Bat Mitigation Strategies: Year 3 This multi-year project will build on baseline data about bats and their roosting conditions in artificial roosts (e.g., bat boxes) in the Stave River Watershed area to evaluate the use of a probiotic to reduce bat mortality caused by white-nose syndrome. If effective, this disease management strategy could inform mitigation efforts for bats across the province. This project will evaluate mitigation tools to reduce further impacts on bats, which face unprecedented threats, including white-nose syndrome.	Wildlife Conservation Society Canada	\$ 29,501	Habitat- based Actions	Upland & Dryland	Stave River Watershed



#	Project ID	2021–2022 Grant-based Wildlife Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Watershed
18	COA-F22 W-3529	Conserving bats and their habitat in the Clowhom River Watershed Conserving Bats and Their Habitat in Clowhom River Watershed: Year 3 This multi-year project will help conserve bats and their habitat by protecting and monitoring two major bat maternity roosts in the Clowhom River Watershed. It will also identify and protect other bat roosts; undertake white-nose syndrome surveillance; increase community awareness and participation in stewardship efforts; and install and monitor bat houses to determine the ideal design, placement, and temperature. The project will help build healthy and resilient bat populations prior to the expected arrival of white-nose syndrome, helping to increase the survival of the species.	Sunshine Coast Wildlife Project	\$ 17,900	Habitat- based Actions	Upland & Dryland	Clowhom River Watershed
19	COA-F22 W-3531	Increasing habitat for at-risk owls and monitoring effectiveness Western Screech-owl Habitat Enhancement and Monitoring: Year 2 Nest boxes have been installed in the Campbell River Watershed for more than 15 years to benefit western-screech owls. This multi-year project will evaluate the effectiveness of this habitat enhancement effort and compare results with other initiatives. In addition, more nest boxes will be installed where habitat enhancement is required. Riparian and low-elevation forest inventory needs will be assessed through more surveys using automated recording units.	Madrone Environmental Services Ltd.	\$ 28,080	Habitat- based Actions	Wetland & Riparian	Campbell River Watershed



#	Project ID	2021–2022 Grant-based Wildlife Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Watershed
20	COA-F22 W-3546	Restoring ecological function in the Campbell River Watershed Restoring Ecological Function in the Campbell River Estuary: Year 6 This multi-year project aims to help restore ecological integrity and function in the Campbell River Watershed by managing invasive plants in the estuary, including yellow flag iris, purple loosestrife, and Japanese knotweed. The project will provide additional capacity for invasive species management, which will benefit fish and wildlife while protecting both the provincially Red-listed Henderson's checkermallow- tufted hairgrass ecological community and Vancouver Island beggarticks, a species of Special Concern under the Species at Risk Act.	Discovery Coast Greenways Land Trust	\$ 29,920	Habitat- based Actions	Wetland & Riparian	Campbell River Watershed



#	Project ID	2021–2022 Grant-based Wildlife Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Watershed
21	COA-F22 W-3547	Supporting recovery of western painted turtles Western Painted Turtle Recovery in Lower Mainland Watersheds: Year 3 The goal of this multi-year project is to support the recovery of the western painted turtle—B.C.'s only remaining native freshwater turtle species—in the Coquitlam, Alouette, and Stave river watersheds. This project aims to increase turtle populations by releasing head- started western painted turtles, monitoring the populations' recovery, and providing essential habitat, such as basking features and nesting habitat, and monitoring its effectiveness. This Pacific coast population of western painted turtles is designated Threatened by COSEWIC. There are only 18 known sites where the species occurs in the Lower Fraser Valley, and more than half of those sites are in the Coquitlam, Alouette, and Stave river watersheds.	British Columbia Conservation Foundation	\$ 130,235	Species- based Actions	All	Multiple



#	Project ID	2021–2022 Grant-based Wildlife Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Watershed
22	COA-F22 W-3565	Improving bat science and knowledge in the Puntledge River Watershed Puntledge Watershed Bat Project: Year 3 This multi-year project will record and analyze ultrasonic acoustic data of bats in the Puntledge River Watershed to determine which bat species occur there and gather basic information about their life history attributes. This project will also identify maternal colonies and hibernacula and develop strategies to protect high-quality bat habitat in the watershed. The project includes installing permanent acoustic monitoring stations, driving transects, conducting site-specific field investigations with ultrasonic acoustic data recording devices, and community outreach and education.	Comox Valley Land Trust	\$ 10,000	Habitat- based Actions	Upland & Dryland	Puntledge River Watershed
23	-	<b>Supporting community-based projects</b> <i>F22 Community Engagement Grants</i> Our Coastal Region board approved funding for <u>Community Engagement Grants</u> . These grants of up to \$1,000 support multiple projects led by stewardship groups, First Nations, and others to benefit fish and wildlife throughout the year.	-	\$ 7,500	-	-	-
	I	Wildlit	\$ 449,155		I	I	



#	Project ID	2021–2022 Fish and Wildlife Directed Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Watershed
24	COA-F22- PUN-DF0- 01	Supporting Chinook in the Puntledge River Watershed Supporting Aquaculture and summer chinook in the Puntledge River Watershed This multi-year project provides annual funding to the lower Puntledge River Hatchery to support summer Chinook production.	Fisheries and Oceans Canada	\$ 17,000	Species- based Actions	All	Puntledge River Watershed
25	COA-F22- F-3583- DCA	Improving fish passage in the Alouette River Fish Passage Feasibility Studies Our Coastal Region board has approved funds to support fish passage feasibility plans for the Alouette River based on the Fish Passage Decision Framework.	Alouette River Management Society	\$ 25,000	Species- based Actions	Rivers, Lakes, & Reservoirs	Alouette River Watershed
26	To be assigned	Improving fish passage in the Coquitlam River Fish Passage Feasibility Studies Our Coastal Region board has approved funds to support fish passage feasibility plans for the Coquitlam River based on the Fish Passage Decision Framework.	Watershed Watch	\$25,000	Species- based Actions	Rivers, Lakes, & Reservoirs	Coquitlam River Watershed
27	COA-F22- F-3584- DCA	<b>Improving spawning habitat in the Campbell River Watershed</b> <i>F22 Annual Campbell River Salmon Spawning Habitat Restoration</i> <i>Strategy (Post-storm Assessment)</i> Our Coastal Region board has approved funds to be directed toward assessing the condition of salmon spawning habitat in the Campbell River. This aligns with the Campbell River Salmon Spawning Habitat Restoration Strategy.	-	\$ 15,000	Species- based Actions	Rivers, Lakes, & Reservoirs	Campbell River Watershed



#	Project ID	2021–2022 Fish and Wildlife Directed Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Watershed
28	To be assigned	Improving Campbell River salmon spawning habitat Campbell River Salmon Spawning Habitat Restoration Strategy Site 5 Our Coastal Region board has approved funds to be directed toward improving spawning habitat at a priority spawning site as identified in the Campbell River Salmon Spawning Habitat Restoration Strategy. This project follows COA-F21-F-3367-DCA Campbell River Site 5 Gravel Placement Feasibility Assessment.	-	\$ 260,000	Habitat- based Actions	Rivers, Lakes, & Reservoirs	Campbell River Watershed
29	COA-F22- W-3575- DCA	<b>Developing a habitat assessment map</b> <i>Directed Watershed Habitat Assessment Mapping</i> Our Coastal Region board has approved funds to be directed toward the implementation of habitat assessment mapping across the Coastal Region's 14 watersheds. This action is a directed priority across all the Coastal Region action plans.	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	\$ 90,000	Research & Information Acquisition	All	All
30	To be assigned	Habitat assessment mapping tool pilot study Develop and Implement Pilot for a Habitat Assessment Mapping Tool Our Coastal Region board has approved funds to be directed toward developing a consistent approach to using the habitat mapping assessment tool to support FWCP processes and strategic plans across all 14 watersheds.	-	\$ 60,000	Research & Information Acquisition	All	All
31	To be assigned	Securing conservation lands in our Coastal Region Securing Conservation Lands in our Coastal Region Our Coastal Region board has approved funds to be directed toward the future purchase of conservation lands.	-	\$ 347,461	Land Securement	All	All
	Directed Project Total:		\$ 839,461				
	2021–2022 PROJECT SPEND TOTAL:			\$ 2,376,370			