Coastal Region
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Coastal Region fish and wildlife project list 2018 - 2019

Conserving and enhancing fish and wildlife in watersheds impacted by BC Hydro dams

The Fish & Wildlife Compensation Program (FWCP) conserves and enhances fish and wildlife in watersheds impacted by BC Hydro dams. The FWCP is funded annually by BC Hydro. The FWCP funds projects in the Coastal, Columbia and Peace Regions, which fulfills BC Hydro's water license obligations and voluntary commitments to compensate for fish and wildlife impacts. The FWCP is a partnership between BC Hydro, the Province of B.C., Fisheries and Oceans Canada, First Nations and Public Stakeholders.

Our three regional boards – Coastal, Columbia, and Peace – approved funding for 118 fish and wildlife projects valued at approximately $10 million for 2018 - 2019. Each project went through a three-stage review and evaluation process prior to a final decision by our local Boards. Each project addresses one or more conservation priorities in our Action Plans.

In our Coastal Region, the Board approved $1.8 million for 33 fish and wildlife projects to be implemented April 1, 2018 - March 31, 2019. First Nations, stewardship groups, consultants, and agencies are leading the 20 fish and 13 wildlife projects that will help conserve and enhance fish and wildlife in watersheds impacted by BC Hydro dams.

About our 2018 - 2019 project list

This is a final list of projects conditionally-approved by the FWCP's Coastal Region Board as of April 1, 2018. Read our annual reports for a final list of projects implemented in 2018 - 2019 and project outcomes.

These approved budgets are to support the delivery of fish and wildlife projects, and do not include the FWCP administration or communications budget.

The total number of projects approved for 2018 - 2019 includes budgets approved for future work this fiscal year to be further defined by the regional Boards (i.e. directed projects).

Grant-based fish and wildlife project descriptions are based on information provided in the lead proponent's 2018 – 2019 grant application and, in some cases, have been modified to reflect Board-approved project activities and budgets.

Directed projects reflect regional conservation priorities and have been identified by our regional Boards for implementation through a request for proposals (RFP) process.

Contact us

Contact Julie Fournier, Coastal Region Manager at 604-528-7998 or Julie.fournier@bchydro.com to learn more about our work in the Coastal Region. Subscribe and stay informed about the projects we fund and how you can apply for a grant.

Learn more at fwcp.ca

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#	Project ID	2018 - 2019 Grant-Based Fish Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Watershed
1	COA-F19-F-2603	**Improving fish passage in the Squamish River** *Squamish Estuary Salmon habitat recovery project* This project is a follow-up to the 2017 feasibility study to examine how the Squamish Training Dike is impacting fish passage for juvenile Chinook salmon and other salmonids from the Squamish River into the Central Estuary. The results of the 2017 feasibility study concluded that the culverts should be replaced either with clear span bridges or lower invert and larger culverts to improve fish accessibility between the river and the estuary. The proposal is to replace Culverts #1 and #4, and improve the intake channels to prevent the build up of sedimentation.	Squamish River Watershed Society	$ 183,075	Habitat-Based Actions	Rivers, Lakes and Reservoirs	Cheakamus
2	COA-F19-F-2680	**Studying Eulachon in the Falls River Watershed** *Eulachon status in the Ecstalls and lower Falls River* This project will evaluate Eulachon adults, eggs and environmental conditions in the Ecstall and Lower Falls River, to determine and compare population status and habitat use in these two water bodies. Our objectives are to determine that the rivers are Eulachon productive and the habitat has sufficient spawning habitat. A monitoring program for Eulachon in the Ecstall and Lower Falls River will be developed. Should the data collected suggest that the region could benefit from a habitat restoration program, one will be developed to sustain and increase the population of Eulachon.	Lax Kw'alaams Fisheries Society	$ 57,200	Research & Information Acquisition	Rivers, Lakes and Reservoirs	Falls River
3	COA-F19-F-2683	**Improving fish passage in the Alouette River Watershed** *Alouette watershed Sockeye - fish passage feasibility - year 2* The Alouette River Sockeye re-anadromization program is a joint initiative between various stakeholders, which works to promote the re-establishment of anadromous Alouette Sockeye (Oncorhynchus nerka) and investigate fish passage feasibility at Alouette Dam. This project is Year 2 of a multi-year plan to address remaining uncertainties in the feasibility of Alouette Sockeye restoration. This project will: 1) initiate a formal Canadian Scientific Advisory Secretariat (CSAS) review of the ARSRP program and Nerkid Model to determine risks of re-establishment of Alouette sockeye and other salmon; and 2) monitor adult Sockeye returns and juvenile outmigration necessary for the evaluation of heritability, long-term Sockeye projections and for eventual FWCP endorsement.	Alouette River Management Society	$ 87,932	Species-Based Actions	Rivers, Lakes and Reservoirs	Alouette
4	COA-F19-F-2697	**Studying summer-run Chinook in the Puntledge River Watershed** *Puntledge summer Chinook parentage-based tagging study - year 5* Genetic methods, known as parentage-based tagging, will be used to identify individual summer-run Chinook Salmon back to parental crosses (both in the hatchery and in the wild) to study the effects of parental Chinook return migration time and bacterial kidney disease (BKD) status on their progeny. The identification of individual fish to parents will enable an examination of the influences of both parental characteristics (migration timing, BKD infection load) and release group/strategy on survival in those programs and provide Fisheries and Oceans Canada (DFO) guidance for the development of appropriate management actions focused on improving wild and hatchery summer Chinook productivity, and preserving the genetic integrity of the stock.	K'omoks First Nation	$ 38,471	Research & Information Acquisition	Rivers, Lakes and Reservoirs	Puntledge
5	COA-F19-F-2705	**Helping rebuild Chinook stocks in the Bridge-Seton Watershed** *Portage Creek Chinook conservation and enhancement* Portage Creek Chinook are classified under the Government of Canada's Wild Salmon Policy as a vulnerable single site Conservation Unit. This stock has had diminishing returns for almost 10 years. Fisheries and Oceans Canada (DFO) proposes strategic enhancement of a minimum of one generation (five years) to support preservation and rebuilding of this population and its unique genetic component, while further investigating the limiting factors contributing to the population decline. The funds secured for this project will pay for the materials required to support enhancement and Coded Wire Tagging (CWT) activities of 50,000 yearling smolts. This enhancement will provide the population with a higher juvenile survival rate, while the tags will provide much-needed assessment information.	Department of Fisheries and Oceans Canada	$ 18,545	Species-Based Actions	Wetland and Riparian Areas / Upland and Dryland / Rivers, Lakes and Reservoirs	Bridge-Seton

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6	COA-F19-F-2708	**Assessing spawning channel function in the Seton River watershed** *Seton River spawning channel fish productivity survey* The Seton River spawning channel fish productivity survey is intended to gather critical data needed to evaluate the functionality of the spawning channels post-complexing in relation to the egg-to-fry survival rate. This data will provide the Spawning Channel Committee, established in 2015, with information needed to develop a sustainable management plan for the channels and provide a baseline on which to gauge the long-term productivity of the channels into the future	Splitrock Environmental Sekw'el'was LP	$ 98,015	Research & Information Acquisition	Rivers, Lakes and Reservoirs	Bridge-Seton
7	COA-F19-F-2716	**Improving spawning habitat at Elk Falls Canyon in Campbell River Watershed** *Elk Falls Canyon spawning gravel bulk delivery - year 3* With the bulk gravel delivery system completed in Elk Falls Provincial Park, this proposal aims to provide funding for the third year of major gravel additions to the Upper Canyon Reach of Campbell River. Using the new delivery system, approximately 300 m^3 of gravel will be added to the first pool tail-out. Based on the 2017 project, costs per-unit of gravel is about 30 per cent of the helicopter method. This gravel will provide valuable spawning habitat for all species of salmon and trout. Also, over time as more gravel is added the canyon, habitat will become more gravel-rich, increasing the spawning capacity further. Given the infrastructure investment by FWCP and others, this is a logical step forward in mitigating the gravel recruitment issue in this system.	British Columbia Conservation Foundation	$ 51,528	Habitat-Based Actions	Rivers, Lakes and Reservoirs	Campbell
8	COA-F19-F-2720	**Improving understanding of Kokanee at Comox Lake in Puntledge River Watershed** *Year 2 assessment of Kokanee spawning in Comox Lake* The main objective of Year 2 is to further investigate Kokanee migration/spawn timing and distribution, and to broaden the scope and methodology for investigating spawning habitat selection to include nearshore and deeper water habitat. Results from this project will build on the data collected in Year 1 and will help provide a greater understanding of the Kokanee life history in Comox Lake, the combination of habitat attributes that attract spawning Kokanee, and the potential limiting factors to Kokanee production. More data will help build a database on longer-term population trends and potential future enhancement opportunities.	Courtenay and District Fish & Game Protective Association	$ 32,463	Research & Information Acquisition	Rivers, Lakes and Reservoirs	Puntledge
9	COA-F19-F-2728	**Improving flows and habitat for Coho in Coquitlam River Watershed** *Coquitlam River habitat restoration 2018: Archery headpond* This high-priority project will repair and restore flow to an enhancement project previously funded by FWCP, which created 8,300 m^2 of high-value rearing habitat and 300 m^2 of high-value spawning habitat by excavating accumulated sediment, reshaping and expanding the existing pond, and installing a water distribution vault with a steel deflector plate to deflect flow and enable future maintenance and clean out. This will reduce future sedimentation and lengthen the maintenance return interval. The sedimentation resulted from an extreme weather event, in February 2017. This critical habitat produces 3,300 Coho smolts and 75,000 Chum fry each year. This project will restore productive capacity and again contribute to increased salmonid abundance in the Coquitlam watershed.	North Fraser Salmon Assistance Project Society	$ 62,789	Habitat-Based Actions	Rivers, Lakes and Reservoirs	Coquitlam

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10	COA-F19-F-2729	**Improving fish passage in the Coquitlam River Watershed** *Monitoring of Coquitlam Kokanee smolt outmigration* The Kokanee smolt outmigration response to optimized reservoir operations will be tested during April-May 2018 in the Coquitlam River ~1.6 km below Coquitlam Dam using a Rotary Screw Trap (RST). Results of the real-time monitoring of Kokanee smolt outmigration in a proven and highly successful location will be used to: 1) identify the timing and volume of releases through the Sluice Tower that optimize the rate of outmigration; 2) identify the timing and degree of constraints on the Buntzen Tunnel required to optimize the rate of outmigration; 3) validate the assumption that passage through LLOG-2 does not result in unacceptable injury rates; and 4) quantify the number of outmigrating smolts to determine smolt-to-adult survival associated with outmigrating Kokanee.	Watershed Watch Salmon Society	$ 16,286	Species-Based Actions	Rivers, Lakes and Reservoirs	Coquitlam
11	COA-F19-F-2751	**Studying Bull Trout in the Bridge-Seton Watershed** *Yalakom River Bull Trout monitoring* It has been identified that information knowledge gaps regarding habitat use and distribution of Bull Trout within the Yalakom River is needed to inform the restoration planning. A habitat use and distribution study for Bull Trout within the Yalakom River is being proposed to inform the integrated restoration and monitoring plans for the Bridge-Seton watersheds.	Coldstream Ecology, Ltd.	$ 5,000	Research & Information Acquisition	Rivers, Lakes and Reservoirs	Bridge-Seton
12	COA-F19-F-2761	**Improving access to salmon habitat in the Cheakamus River Watershed** *Kiwi Chanel connector project - year 2* This project builds upon the work initiated in the 2017-2018 fiscal year (which included upgrades to the intake at Far Point and improved weirs, flows, and channel works) by creating a new extension at the south end of Kiwi Channel south into what will be the new Kiwi Connector Channel that will connect into Emerald Forest Channel on the east side of Paradise Valley Road. This project will provide new spawning and rearing habitat for Coho, Chum, Pink, Chinook, and Steelhead salmon, and is expected to improve Coho productivity by 10,000 smolts, once it is fully realized. This is the second year of a three-year project.	Squamish River Watershed Society	$ 74,618	Habitat-Based Actions	Rivers, Lakes and Reservoirs	Cheakamus
13	COA-F19-F-2762	**Improving Fish Habitat in the Ash River Watershed** *Ash River nutrient enrichment project* This project aims to improve fish habitat by increasing productivity in the Ash River system. In doing so, the project will address four priority actions in the Ash River Watershed Action Plan. The Ash River supports one of the main spawning areas for summer run steelhead (Oncorhynchus mykiss) in the Somass River watershed. Human impacts have contributed to declining biological productivity. The goals of this project are to improve ecosystem productivity by: 1) evaluating the historical performance of nutrient enrichment in the Ash; 2) developing an Ash River nutrient enrichment plan with Hupačasath First Nation (HFN) to guide future nutrient enrichment, based on the analysis of historical results, and; 3) distributing salmon carcasses in the fall to enhance stream and riparian habitats.	Ecofish Research Ltd.	$ 14,030	Research & Information Acquisition	Rivers, Lakes and Reservoirs	Ash

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#	Project ID	2018 - 2019 Grant-Based Fish Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Watershed
14	COA-F19-F-2765	**Improving spawning and rearing habitat near Second Island Channel in the Campbell River Watershed** *Campbell River Second Island channel restoration* The area within and just upstream of Second Island channel on the Campbell River requires in-stream works to deal with severe impacts to spawning and rearing habitats, resulting from very high main-stem flows in the Campbell River last November. Gravel accumulations in the channel are now too high to provide suitable spawning habitat at regular flows, and creates stranding issues for juveniles at low flows, reducing the rearing potential of the Campbell River by over 8000m². Gravel deposition has been accelerated by three rock weirs in the channel that were constructed in the 1990s to retain gravel before the upstream gravel placement program began. This project proposes to remove part, or all, of the weirs and use the accumulated gravel to create spawning habitat in the river mainstem.	Department of Fisheries and Oceans Canada	$ 27,430	Habitat-Based Actions	Rivers, Lakes and Reservoirs	Campbell
15	COA-F19-F-2771	**Improving understanding of deep-water fish species in Clowhom Lake** *Clowhom Lake Reservoir Kokanee assessment* Although there have been a number of fish surveys in Clowhom Lake Reservoir since impoundment, all have relied on shore-based gillnets as the primary fish capture technique. As a result, the survey data have been biased towards shoreline fish with Rainbow Trout being the dominant catch, followed by Cutthroat Trout. Few Kokanee have been captured. The purpose of this project is to focus fish sampling efforts on the pelagic environment to; 1) compliment the shore-based data collected to-date; 2) collect fish biometric data (primarily on Kokanee) to develop robust size at age relationships, as well as condition factor; 3) collect tissue samples for genetic analysis as a preliminary assessment of historical anadromy; and 4) preliminary assessment of diel movements. Deep water gillnets will be used.	Creekside Aquatic Sciences	$ 19,975	Research & Information Acquisition	Wetland and Riparian Areas / Upland and Dryland / Rivers, Lakes and Reservoirs	Clowhom
16	COA-F19-F-2783	**Improving estuary function in the Stave River Watershed** *Stave River restoring freshwater tidal floodplain habitats* The vision of this project is to continue to build on and enhance the tidally influenced freshwater estuary system in the lower Stave River. Particularly, enhancements will occur at Site 2, which is owned by Kwantlen First Nations IR3. Currently the site has undergone significant off-channel tidal channel restoration, as prior to 2016 this site was wetted only during high flows and freshet conditions, and was significantly encroached upon by reed canary grass. Excavation of these historic and new channels has far exceeded the ability to replant the channel riparian areas and aquatic benches, so this proposal is focusing on the replanting, bio-engineering and monitoring works to support these vital freshwater systems, crucial for in- and out-migration of all salmonids and which support a variety of biodiversity and species-at-risk values. In particular, the goals of this proposal are to: 1. Replant Stave Site 2 to support a biodiverse freshwater floodplain system supporting in- and out-migrating salmon species and low floodplain flora and fauna. Anticipated replanting of min 1500 m^2 of habitat. 2. Monitor Stave Site 2 bird usage to begin understanding what bird species use these newly restored lowland scrub-shrub habitats (North American Waterfowl Management Plan (NAWMP)). Anticipated result of monitoring is a species presence summary. 3. Monitor Stave Site 2 and continue to monitor Stave Site 3 for fish usage and Water Quality. Anticipated result of monitoring are a species presence summary and water quality summary. 4. Map the west tributaries entering into the right bank of Stave to assist in directed identification of future restoration opportunities, restrictions/challenges to salmon habitat in the lower river system. Anticipated result is geospatial files of streams and enhancement/challenge features/limitations. 5. Complete an effectiveness assessment of enhancement activities - adaptive management. 6. Engage the community on the importance of freshwater tidal floodplain ecosystems.	Fraser Valley Watersheds Coalition	$ 67,574	Habitat-Based Actions	Rivers, Lakes and Reservoirs	Stave

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17	COA-F19-F-2784	**Protecting K'omoks Estuary marsh habitat in the Puntledge River Watershed** *Restoration of Carex marsh habitat in the K'omoks Estuary* The goal of this project is to protect and restore estuarine marsh habitat within the K'omoks Estuary, now at risk due to overgrazing by locally overabundant Canada Geese populations. This project will implement restoration prescriptions developed by the Guardians of Mid-Island Estuaries Society and the K'omoks First Nations (KFN) guardian watchmen program, and build on the 2011 FWCP-funded estuary restoration plan. Existing Carex sedge habitats and other marsh vegetation will be protected from further Canada Goose herbivory by the construction of a series of enclosures and denuded sites will be restored following Carex transplant prescriptions, successfully implemented by the Guardians at other estuaries.	Guardians of Mid-Island Estuaries Society	$ 47,201	Habitat-Based Actions	Rivers, Lakes and Reservoirs	Puntledge
18	COA-F19-F-2794	**Monitoring Salmon River Coho in the Campbell River Watershed** *Salmon River diversion post decommissioning: Coho surveys* With the removal of the Salmon River diversion dam in September 2017, there is a need to monitor fish passage, distribution and timing of Coho adults throughout the system, and the juvenile rearing densities and biomass. Historically, these parameters were a part of determining the need for the fish passage improvements, but were not considered in the post-decommissioning plan. It is important to continue this monitoring to confirm fish passage improvements. It is assumed that the effects of the removal of the dam and naturalization of the river channel will provide more continuous access for returning Coho populations, where in the past, access was delayed or blocked by high flows and BC Hydro infrastructure. Juvenile assessment (2018) will reflect adult passage success (2017).	A-Tlegay Fisheries Society	$ 20,000	Monitoring & Evaluation	Wetland and Riparian Areas / Upland and Dryland / Rivers, Lakes and Reservoirs	Campbell
			Fish Project Total:	**$ 922,133**			

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19	COA-F19-W-2676	**Helping captive-raise Canada's most-endangered owl species** *Northern Spotted Owl captive breeding program* The Northern Spotted Owl is one of Canada's most endangered bird species. Its entire Canadian range occurs in southwestern British Columbia. Though historic estimates suggest that as many as 1,000 Spotted Owls occurred in the province pre-European settlement, currently fewer than 30 individuals remain in Canada, with more than half of these owls residing in captivity at the Breeding Facility in Langley, B.C. The program's mission is to prevent this species from becoming extirpated from Canada by releasing captive-raised Spotted Owls back into recovery habitats protected for the species in the province. The goal of this project is to produce captive-born Spotted Owls for release into the Bridge-Seton watershed to recover the local population (restore a minimum of 20 individuals).	British Columbia Conservation Foundation	$ 72,000	Habitat-Based Actions	Wetland and Riparian Areas / Upland and Dryland / Rivers, Lakes and Reservoirs	Bridge-Seton
20	COA-F19-W-2686	**Helping Canada's most endangered owl species** *Restoration of the Lillooet sub-populations of Spotted Owls* The project goal is to restore the Spotted Owl population within the northern extent of the Lillooet sub-population of Spotted Owls. This will be achieved by conducting inventories to find and protect the few remaining Spotted Owls in the area, and by releasing captive-raised Spotted Owls back into habitats protected for the species. Furthermore, the removal of Barred Owls will be a priority action, as this will reduce predation pressures and increase the abundance of Spotted Owl prey populations, and make available to Spotted Owls high-quality habitats to occupy, which were previously occupied by Barred Owls.	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	$ 69,418	Habitat-Based Actions	Wetland and Riparian Areas / Upland and Dryland / Rivers, Lakes and Reservoirs	Bridge-Seton
21	COA-F19-W-2700	**Securing and restoring conservation lands in the Salmon River Estuary** *Conserving wildlife habitat in the Salmon River watershed* With funding from the FWCP and others, The Nature Trust of BC (TNTBC) purchased property on the lower Salmon River in 2015, as an addition to the Salmon River Estuary Conservation Area. The overall goal of our project is to identify additional high-value wildlife habitat to secure for conservation in the Salmon River watershed, and to restore degraded riparian forest and wetland habitat in the Salmon River Estuary Conservation Area. This project will protect and improve habitat for birds, amphibians, mammals and salmon. This will be accomplished by: 1) identifying new opportunities for acquiring properties with high-value habitat on the Salmon River; 2) restoring degraded habitat on the new property; and, 3) monitoring and maintaining past ecosystem restoration projects.	The Nature Trust of British Columbia	$ 46,475	Land Securement	Wetland and Riparian Areas / Upland and Dryland / Rivers, Lakes and Reservoirs	Campbell
22	COA-F19-W-2701	**Monitoring bat roosts in Lower Mainland Watersheds** *Assessment of artificial rock roosts for bats* This project entails revisiting nine artificial rock roosts (ARRs) for bats that were installed in 2011, in order to assess their success at re-creating roosting habitat for bats. The nine experimental ARRs were designed, built, and installed as part of a previous FWCP Coastal Region (Bridge-Coastal Restoration Program) project and have not been monitored since their installation. A flexible scope will be used to inspect the ARRs for signs of bat use, and bat guano will be collected for future DNA analysis to species. Repairs and modifications to the ARRs will be carried out, as required.	Ophiuchus Consulting	$ 18,084	Monitoring & Evaluation	Wetland and Riparian Areas / Upland and Dryland / Rivers, Lakes and Reservoirs	Multiple

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23	COA-F19-W-2702	**Securing important land in the K'ómoks Estuary** *Kus Kus Sum land securement for Puntledge salmonids* Project Watershed has a vision to secure and restore a key property, a former sawmill site, in the K'ómoks Estuary. The original riparian salt marsh that existed on the site was filled in, paved over, and the foreshore was artificially armoured with 440 metres of steel-clad retaining wall. This area acts as a "pinch point," where Puntledge Salmon stocks (both out-migrating juveniles and returning spawners) are easily trapped and preyed upon by seals. This project is for funding the purchase pf this property - now referred to as Kus Kus Sum, to acknowledge the long-standing Aboriginal connection to the site. This is the first step in seeing it returned back to a natural functioning condition, so that it will once again support fish and wildlife. **Funded from previous year's property acquisition set aside.*	Comox Valley Project Watershed Society	$ 400,000	Habitat-Based Actions	Rivers, Lakes and Reservoirs	Puntledge
24	COA-F19-W-2725	**Maintaining ecological function by managing invasive plants in the Campbell River Watershed** *Restoring ecological function in the Campbell River Estuary* This project aims to restore ecological functioning in the Campbell River Estuary through management of invasive species including Yellow Flag Iris, Purple Loosestrife and Japanese Knotweed. After a century of industrial use, over $1 million has already been spent on restoring the Campbell River Estuary, but more work remains to be done to ensure that the estuary regains its historic ecological integrity and functioning. The proposed project will provide additional capacity for invasive species management that will improve the ecosystem functioning of the estuary, including protecting the provincially Red-listed "Henderson's Checker-mallow-Tufted Hairgrass" ecological community, and habitat for the Vancouver Island beggarticks, a species of Special Concern under the Species at Risk Act.	Discovery Coast Greenways Land Trust	$ 20,515	Habitat-Based Actions	Wetland and Riparian Areas	Campbell
25	COA-F19-W-2727	**Conserving biodiversity in the Stave River Watershed** *Priority species habitat conservation in the Stave watershed* This project will build upon past works to enable the implementation of priority species- and habitat-related conservation actions in the Stave River watershed. Benefits to overall biodiversity in the watershed will be observed through multiple species and stakeholder habitat management and restoration. Specific project activities for priority species will include follow up monitoring, as well as road mortality mitigation for Western Toads, potentially applying adaptive management to Western Screech-Owl boxes already present, building upon restoration activities undertaken for Western Painted Turtle and protection of bat species. Works will be conducted in partnership with FLNR, BC Parks, First Nations, watershed societies, and private landowners.	Athene Ecological	$ 17,400	Habitat-Based Actions	Wetland and Riparian Areas / Upland and Dryland / Rivers, Lakes and Reservoirs	Stave
26	COA-F19-W-2731	**Growing endangered Whitebark Pine in the Bridge-Seton Watershed** *Whitebark Pine recovery in St'at'imc Traditional Territory* Whitebark Pine is an endangered keystone species of high elevation ecosystems. It is an important food source of many species of wildlife, most notably the Grizzly Bear and Clark's Nutcracker. It is endangered due to the introduced White Pine Blister Rust, Mountain Pine Beetle, fire, and climate change. The most effective means for Whitebark Pine recovery is through promoting the regeneration of blister rust-resistant seedlings via planting or natural means, retaining healthy trees on the landscape, and ensuring the perpetuation of natural recruitment. This project will directly aid in recovery by planting seedlings grown from potentially rust-resistant parent trees and by surveying past planting to determine success level of plantings.	Lillooet Tribal Council	$ 17,665	Species-Based Actions	Upland and Dryland	Bridge-Seton

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27	COA-F19-W-2758	**Conserving and restoring high-value habitat in the Seton River Watershed** *Seton River conservation / restoration management planning* This project is designed to develop conservation, restoration, and/or sustainable management strategies that will benefit fish and wildlife values within the corridor, while also honouring cultural and operational activities. During 2012-16, habitat and wildlife surveys were completed, and partner and stakeholder meetings were held annually. The result is a planning document that was drafted and approved by the partners and stakeholders in spring 2016. The next step proposed is to work directly with the partners and targeted individual stakeholders to develop the necessary management strategies at four specific locations that have been identified as high-value habitat during the planning process.	Cayoose Creek Indian Band	$ 16,450	Habitat-Based Actions	Wetland and Riparian Areas / Upland and Dryland / Rivers, Lakes and Reservoirs	Bridge-Seton
28	COA-F19-W-2776	**Creating and enhancing wetland and riparian habitat in the Alouette River Watershed** *Restoring species of conservation concern and cultural value* The goal of this project is to create and enhance wetland and riparian habitat within the lower Alouette watershed to support healthy populations of five culturally-valued species and 12 species of conservation concern. The project represents the implementation of an eco-cultural restoration plan for Katzie Traditional Territory, which integrates the principles of restoration ecology and adaptive management with Katzie Traditional Knowledge and priorities for conservation. In 2018, an enhancement site started in 2017 will be completed, a third year of effectiveness monitoring will be conducted to evaluate restoration success, and surveys for species at risk will be conducted, to guide conservation and habitat enhancement actions that address management plan priorities.	Katzie First Nation	$ 64,200	Habitat-Based Actions	Wetland and Riparian Areas	Alouette
29	COA-F19-W-2803	**Supporting Mule Deer and habitat in the Shuswap River Watershed** *Mule Deer seasonal ranges and migration in the upper Shuswap* This project seeks to collar 15 adult female Mule Deer. Utilizing high fix rate GPS collars, these animals will be tracked for a period of two years. Upon completion of two years of GPS data, seasonal ranges and migration corridors will be plotted. Combining GPS and ground work, a habitat map and resource selection function model will be developed, which will allow Mule Deer use to be predicted and identify capable and suitable habitats. Completion of these habitat maps and RSF models will allow identification of potential habitat enhancement sites to offset impacts of hydro development. This work is a joint project with FLNR, UBCO and Splatsin first nations.	Ministry of Forests Lands, Natural Resource Operations and Rural Development	$ 38,500	Research & Information Acquisition	Upland and Dryland	Shuswap
			Wildlife Project Total:	**$ 780,706**			

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#	Project ID	2018 - 2019 Fish and Wildlife Directed Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Watershed
30	-	**Supporting aquaculture in Puntledge River Watershed** *Puntledge River Hatchery annual contribution* FWCP annual funding to the Puntledge River Hatchery to support Summer Chinook production in the watershed.	Department of Fisheries and Oceans Canada	$ 17,000	-	-	Puntledge
31	-	**Supporting habitat assessment mapping in the Coastal Region** *Habitat assessment mapping* The Coastal Board has approved funding for the development of methods, measures and a scope of work towards the directed priority action for habitat assessment mapping.	-	$ 50,000	-	Riparian Areas / Upland and Dryland / Rivers, Lakes and Reservoirs	-
32	-	**Addressing fish and flows in the Lower Stave River** *Stave spawning channel rewatering* This project represents a collaborative effort to address the de-watering of Centre-Right (Channel 5) in the Lower Stave River system during low flows, causing the stranding of adult Chum Salmon and the desiccation of some redds. And, reduce the impacts of significant erosion along the right (west) bank at a known archaeological site during higher flows. This project aligns with Action 2-1 and Action 4-1, habitat-based actions for fish and wildlife. Project objectives included: • re-watering of 500 square metres of salmon spawning habitat within the lower Stave River, • stabilization of 250 linear metres along the right bank from erosion that is (a) threatening to destroy a Kwantlen First Nation archeological site, and (b) contributing to fine sediment deposition into the spawning grounds; • replanting and bioengineering, designed in collaboration with Kwantlen First Nation and the archaeologists to help reduce erosion and protect artifacts and sites. • developing strong working relationships between project partners; and • increasing awareness amongst the community about the value of the Stave River system.	Fraser Valley Watershed Coalition	$ 90,626	Habitat-Based Actions	Wetland and Riparian Areas / Upland and Dryland / Rivers, Lakes and Reservoirs	Stave
33	-	**Securing conservation lands in our Coastal Region** *Property Acquisition* Acquiring lands for conservation purposes. The Coastal Region Board has approved annual land acquisition set aside of its funds for the future purchase of lands for conservation purposes in the Coastal Region.	-	$ 318,172	Land Securement	-	Region-wide
			Directed Project Total:	**$ 475,798**			
			2018 - 2019 PROJECT SPEND TOTAL:	**$ 2,178,638**			