Peace
Region 3333 - 22nd
Avenue
Prince George, B.C., V2N
1B4 Chelsea Coady, Peace Region
Manager
chelsea.coady@bchydro.com
250-561-4884 fwcp.ca

Peace Region fish and wildlife project list 2020-2021

The Fish & Wildlife Compensation Program (FWCP) conserves and enhances fish and wildlife in watersheds impacted by existing 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 licence 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.

In 2020-2021 our three regional boards – Coastal, Columbia, and Peace – approved funding for 99 fish and wildlife projects valued at approximately $8.7 million. 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 Peace Region, the board approved $1.5 million for 28 fish and wildlife projects to be implemented between April 1, 2020 and March 31, 2021. First Nations, stewardship groups, consultants, and agencies are leading the 10 fish and 18 wildlife projects that will help conserve and enhance fish and wildlife impacted by BC Hydro dams.

About our 2020-2021 project list

This is a final list of projects conditionally approved by the FWCP Peace Region board as of April 1, 2020.

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 2020-2021 includes budgets approved for future work this fiscal year to be further defined by the regional boards (i.e., directed projects).

We deliver funding and projects through our annual grants, long-term agreements, and partnerships. Our board may also choose to direct projects and approve funding to address regional priorities. All of the projects below align with our Peace Region action plans. Priority actions in those plans that are identified as "Open" and "Directed / Open" are eligible for a grant. Actions identified as "Directed" are not eligible for a grant, and these are projects that our board directs through the appropriate procurement process (e.g., a request for proposal).

Contact us

Contact Chelsea Coady, Peace Region Manager at 250-561-4884 or chelsea.coady@bchydro.com to learn more about our work in the Peace Region. Subscribe and stay informed about the projects we fund and how you can apply for a grant.

Learn more at fwcp.ca

FWCP Peace Region 2020-2021 Project List

#	Project ID	2020-2021 Grant-Based Fish Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Sub-Region
1	PEA-F21-F-3172	**Assessing Bull Trout spawning in Williston Reservoir** *Bull Trout Spawner Abundance and Critical Habitats 2019–2020: Year 2* This multi-year project will estimate Bull Trout spawner abundance in order to identify important populations and critical habitats. The results will inform conservation and enhancement actions. This project addresses priority monitoring needs identified in the FWCP's Bull Trout Information Synthesis and Monitoring Framework.	Ministry of Forests, Lands, Natural Resource Operations and Rural Development, Omineca Region	$ 83,806	Monitoring and Evaluation	Streams Action Plan	Basin-wide
2	PEA-F21-F-3176	**Improving knowledge about Columbia-origin Kokanee in Williston Reservoir** *Spawning Site Fidelity of Columbia Kokanee in Williston Reservoir* This project, led by the University of Northern British Columbia, will use otolith microchemistry to identify whether spawning Columbia-origin Kokanee are homing and returning to their natal streams. Columbia-origin Kokanee were introduced into the Williston Reservoir Watershed, and within seven generations after stocking, Kokanee have distributed throughout the reservoir, suggesting considerable straying. Results of this project will fill information gaps about introduced Kokanee and inform future conservation and/or management actions.	University of Northern British Columbia	$ 16,485	Research & Information Acquisition	Reservoirs Action Plan	Basin-wide
3	PEA-F21-F-3178	**Studying Arctic Grayling and Bull Trout interactions in Williston Reservoir** *Spatial Ecology of Arctic Grayling in the Parsnip Core Area* This project, led by the University of Northern British Columbia, is year three of a multi-year project, which will investigate the spatial ecology of subadult and adult Arctic Grayling, and their interactions with Bull Trout in the Parsnip River and its tributaries. Objectives will be addressed using a combination of approaches.	University of Northern British Columbia	$ 176,492	Research & Information Acquisition	Streams Action Plan	Parsnip Sub-Region
4	PEA-F21-F-3198	**Studying Arctic Grayling in Williston Reservoir with eDNA** *Williston Grayling Distribution: Parsnip, Peace, Dinosaur* This project, led by Stamford Environmental, builds on work funded by FWCP in 2017 and 2018, and will include eDNA sampling in priority streams identified in earlier work. Surveys will be expanded to investigate the distribution and habitat-use of Arctic Grayling in small tributaries.	Stamford Environmental	$ 68,325	Monitoring and Evaluation	Streams Action Plan	Basin-wide
5	PEA-F21-F-3201	**Improving knowledge about Bull Trout in our Peace Region** *Williston Bull Trout Population Structure and Life History* This Seed Grant project, led by John Hagen and Associates, will support development of a larger project that aims to address two critical information gaps, identified in the FWCP's 2019 Bull Trout Synthesis Report: 1) the lack of genetic data indicating population structure, which is needed to confirm conservation units (core areas) and assess the effects of reservoir creation on gene flow; and 2) the lack of biological sampling to assess changes in age, life history, and growth across time.	John Hagen and Associates	$ 4,988	Monitoring and Evaluation	Streams Action Plan	Basin-wide
6	PEA-F21-F-3203	**Studying Arctic Grayling in our Peace Region** *2020 Parsnip Arctic Grayling Abundance and Critical Habitats* This multi-year project, led by John Hagen and Associates, in partnership with the BC Ministry of Forests, Lands, Natural Resource Operations, and Rural Development, McLeod Lake Indian Band, and the University of Northern British Columbia (UNBC), will address important information gaps identified in the FWCP's Arctic Grayling Synthesis and Monitoring Framework. This project includes the third consecutive year of Arctic Grayling abundance monitoring in index sections of the Anzac and Table rivers using replicated snorkeling surveys validated by mark-recapture. It also encompasses snorkeling to estimate Arctic Grayling abundance and critical habitats in previously unsurveyed reaches of the Parsnip River Watershed.	John Hagen and Associates	$ 78,360	Monitoring and Evaluation	Streams Action Plan	Parsnip Sub-Region

FWCP Peace Region 2020-2021 Project List

#	Project ID	2020-2021 Grant-Based Fish Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Sub-Region
7	PEA-F21-F-3209	**Studying Arctic Grayling in our Peace Region's Ingenika River** *Ingenika Watershed Arctic Grayling Monitoring 2020–2021* This project will continue work from 2018 and 2019 performing Arctic Grayling snorkeling surveys in the Ingenika River. This work supports a proposed framework of long-term population monitoring in three rivers (Ingenika, Finlay, and Mesilinka) within the Tsay Keh Dene traditional territory. Snorkeling surveys provide key information indicating abundance, trend, critical habitats, potential threats, and limiting factors for Arctic Grayling. The population is of importance within FWCP's Arctic Grayling Monitoring Framework because of: 1) high cultural importance to the Tsay Key Dene people; 2) high feasibility of the methodology, due to exceptional water clarity; and 3) the population is one of concern, due to isolation from the Finlay Arctic Grayling population and small population size.	Chu Cho Environmental LLP	$ 83,219	Monitoring and Evaluation	Streams Action Plan	Finlay Sub-Region
8	PEA-F21-F-3217	**Improving eDNA science for Bull Trout in our Peace Region** *Developing an Aquatic Survey eDNA Degradation Rate Assay* This Seed Grant project, led by the University of Northern British Columbia, will help develop a common environmental DNA (eDNA) degradation rate assay that could be applied to a range of aquatic systems/eDNA surveys. It is anticipated that the results of this Seed Grant project will lead to a future grant application for a larger project to investigate degradation rates throughout the Peace Region, which will improve eDNA use assays to test for the presence of a species in aquatic environments by providing an estimate of the last occupancy.	University of Northern British Columbia	$ 4,788	Research & Information Acquisition	Streams Action Plan	Basin-wide
			Fish Project Total:	**$ 516,462**			

FWCP Peace Region 2020-2021 Project List

#	Project ID	2020-2021 Grant-Based Wildlife Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Sub-Region
9	PEA-F21-W-3170	**Building capacity of local First Nations to address invasive species** *Indigenous Partnerships and Invasive Species Management: Peace* This project, led by the Invasive Species Council of BC, will increase the capacity of Saulteau and West Moberly First Nations and potentially others to identify, manage, and monitor new and emerging invasive species in the Peace Reach. This program will build on the Indigenous community toolkit for managing invasive species. It will provide employment skills training and mentoring as well as regionally relevant resources, signage, and community presentations. A key deliverable will be the development of specific invasive plant management plans for Indigenous communities in the region.	Invasive Species Council of British Columbia	$ 47,520	Habitat-based Actions	Uplands Action Plan	Peace Sub-Region
10	PEA-F21-W-3173	**Helping UNBC share fish and wildlife knowledge** *2020–2021 Colloquium Presentation Series* This project, led by the University of Northern British Columbia, provides education and outreach by building connections and developing relationships through a series of free presentations focused on research that is underway in, or could be applied to, our Peace Region. The project will consist of a series of three invited speaker events in the fall, winter, and spring. It will feature researchers from British Columbia or Alberta and a national or international speaker, who will present on topics related to fish and/or wildlife species in the Peace Region.	University of Northern British Columbia	$ 16,648	Research & Information Acquisition	Peace Basin Plan (Section 4.3)	Basin-wide
11	PEA-F21-W-3179	**Identifying priority wetlands for restoration and cultural use in our Peace Region** *Identifying Opportunities for Wetland Restoration 2020–2021* This project, led by Chu Cho Environmental, will improve the understanding of historical distribution of wetlands in the Finlay Reach of Williston Reservoir, prior to inundation. This work will also document the cultural importance of wetlands to the Tsay Keh Dene (TKD) Nation, and quantitatively assess the current health of the wetlands. The results of this study will identify opportunities for wetland restoration that will enable TKD citizens to continue to utilize these wetlands for food and medicine in the future.	Chu Cho Environmental LLP	$ 69,442	Research & Information Acquisition	Riparian and Wetlands Action Plan	Finlay Sub-Region
12	PEA-F21-W-3181	**Assessing health of Stone's Sheep in our Peace Region** *Health and Behaviour of BC's Southern-most Stone's Sheep* This multi-year project, led by the Wild Sheep Society of BC, will focus on the two southern-most, functionally viable Stone's Sheep populations: the Dunlevy and Schooler herds. Due to their proximity to domestic farms and overlap with elk, these wild sheep are at high risk. The project will reassess their health and examine population demographics, behaviour, distribution, and habitat use of Stone's Sheep through use of GPS collars. Information gained from this project could be used to inform future conservation and enhancement actions for Stone's Sheep.	Wild Sheep Society of British Columbia	$ 59,768	Species-based Actions	Species of Interest Action Plan	Peace Sub-Region
13	PEA-F21-W-3184	**Restoring caribou habitat for herds in our Peace Region** *Restoring Caribou Habitat in the Klinse-Za/Scott East Herd* This project, led by the Nîkanêse Wah tzee Stewardship Society, will implement functional and ecological restoration of linear corridors identified as near- and long-term priority sites. Outcomes expected include restoration of linear corridors, ultimately resulting in the reduction of human access, and predator use and movement rates, as well as improving caribou habitat at the herd-level.	Nikanese Wah tzee Stewardship Society	$ 67,879	Species-based Actions	Species of Interest Action Plan	Basin-wide

FWCP Peace Region 2020-2021 Project List

#	Project ID	2020-2021 Grant-Based Wildlife Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Sub-Region
14	PEA-F21-W-3186	**Building ecological awareness in our Peace Region** *Williston School Ecology Program* This project, led by Wildlife Infometrics, will improve understanding of local ecology for Peace Region elementary and high-school students. Students will gain hands-on experience with species and habitats of interest in their own communities through field trips, interaction with local First Nations elders, and natural resource experts, in addition to classroom activities integrated with the provincial curriculum. Grade-specific modules are tailored to complement standard curricula. This project will emphasize the importance of natural resources to human livelihoods and well-being, and foster an appreciation of native flora and fauna.	Wildlife Infometrics Inc.	$ 25,218	Habitat-based Actions	Peace Basin Plan (Section 4.3)	Parsnip Sub-Region
15	PEA-F21-W-3188	**Improving understanding of bats in our Peace Region** *Bat Use of Karst Features in Williston Reservoir* This project, led by Zonal Ecosystem and Wildlife Consultants Ltd., will improve understanding of bat use of karst features and a newly discovered large cave hibernaculum (the first discovered in B.C.), which may be very important for long-term monitoring of northern bat populations under threat from white-nose syndrome. This project will continue work with experienced cavers to extend surveys into this newly discovered cave system (almost 200 metres underground), further establish bat use of this feature, record microclimates, and explore additional caves.	Zonal Ecosystem and Wildlife Consultants Ltd.	$ 64,400	Research & Information Acquisition	Species of Interest Action Plan	Basin-wide
16	PEA-F21-W-3190	**Expanding data collection for birds and bats in our Peace Region** *Motus Wildlife Tracking System: Peace Basin Expansion* This project, led by Birds Canada, will expand use of the Motus Wildlife Tracking System to track birds and bats affixed with digitally encoded radio transmitters. Results from this array can track animals across a diversity of landscapes, covering thousands of kilometres, and will support projects on key species, such as Little Brown Myotis Bats. This project will involve community groups, installing stations at schools and other locations, to incorporate the Motus Education Program that builds knowledge about birds, bats, and conservation, for grades 7-12.	Birds Canada	$ 73,474	Research & Information Acquisition	Species of Interest Action Plan	Basin-wide
17	PEA-F21-W-3191	**Detecting songbirds for habitat conservation in our Peace Region** *Detection of Identified Wildlife (Songbirds) for WHAs* This project, led by Zonal Ecosystem and Wildlife Consultants Ltd., will use passive acoustic surveys during the breeding season, to identify upland habitat targeting Bay-breasted Warbler, Black-throated Green Warbler, Cape May Warbler, Connecticut Warbler, and Nelson's Sharp-tailed Sparrow, all designated under the *Forests and Range Practices Act* as Identified Wildlife, for which Wildlife Habitat Areas can be established to conserve important habitat.	Zonal Ecosystem and Wildlife Consultants Ltd.	$ 19,055	Research & Information Acquisition	Species of Interest Action Plan	Dinosaur Sub-Region
18	PEA-F21-W-3193	**Enhancing and maintaining nesting sites in our Peace Region** *Enhancing Waterfowl Nesting Opportunities in the Parsnip Arm* This project, led by Blackbird Environmental Ltd., will locate previously installed nesting structures in the Parsnip Arm, inspect their condition, assess their use by target species, and repair or replace damaged structures, as needed. These structures can provide crucial tools to increase reproductive success of wildlife species in areas where the natural availability of nest sites have been reduced by human activity.	Blackbird Environmental Ltd.	$ 72,218	Habitat-based Actions	Riparian and Wetlands Action Plan	Parsnip Sub-Region

FWCP Peace Region 2020-2021 Project List

#	Project ID	2020-2021 Grant-Based Wildlife Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Sub-Region
19	PEA-F21-W-3195	**Improving caribou calf survival and herd size through maternity penning** *Enhancing Caribou Survival in the Klinse-Za/Scott East Herd Area* The seventh year of this multi-year project, led by Nîkanêse Wah tzee Stewardship Society, is to enhance the survival rate of caribou cows and calves in the Klinse-Za and Scott East herds. Pregnant cow caribou will be captured in early March and transported to a protective maternity pen located in natural calving range. The cows will be fed and monitored through late July, until calves have grown to a point where they are less susceptible to predation by wolves and bears, after which all are released back to the wild. Surveys will be undertaken to assess effectiveness of maternal penning, relative to other management measures undertaken as part of the overall population recovery program.	Nikanese Wah tzee Stewardship Society	$ 50,519	Species-based Actions	Species of Interest Action Plan	Basin-wide
20	PEA-F21-W-3197	**Helping restore wetlands through training and education in our Peace Region** *Advancing Wetland Capacity and Stewardship* The fourth year of this multi-year project, led by the BC Wildlife Federation, in partnership with Doig River First Nation, Kwadacha Nation, and the McLeod Lake Indian Band, will offer wetland inventory and health assessment workshops in Fort Ware, Mackenzie, and Doig River. Workshops will enhance capacity for wetland plant identification, inventory, restoration, and classification. Potential wetland restoration sites will be identified within the FWCP Peace Region, and a wetland will be restored at Mackenzie Secondary School to provide students with an invaluable educational tool.	British Columbia Wildlife Federation	$ 79,700	Habitat-based Actions	Riparian and Wetlands Action Plan	Basin-wide
21	PEA-F21-W-3208	**Assessing Chase Caribou response to habitat alterations in our Peace Region** *Chase Caribou Response to Habitat Alterations: Year 4* In Year 4 of this project, led by Wildlife Infometrics Inc., work will continue to assess the influence of habitat changes on caribou by monitoring collared caribou (habitat use, adult mortality, and calf survival) and their habitat, and contrasting these results to similar parameters, prior to 2009. This contrast will help identify the potential impacts associated with recent disturbances and the conservation measures necessary to ensure the resiliency of the Chase herd for future generations.	Wildlife Infometrics Inc.	$ 79,957	Species-based Actions	Species of Interest Action Plan	Finlay Sub-Region
22	PEA-F21-W-3210	**Increasing understanding of furbearers in our Peace Region** *Effects of Habitat Change on Fisher and Marten Populations* The second year of this multi-year project will improve understanding of the abundance, distribution, and trend of furbearing species, including Fisher and Marten, which have been impacted by significant habitat loss and change (e.g., reservoir-creation, logging of beetle-infested forest). Results of this multi-year project will contribute to functioning and sustainable Fisher and Marten populations in the Williston Basin, by helping to inform decision-making for continuing conservation.	Ministry of Environment and Climate Change Strategy	$ 24,494	Research & Information Acquisition	Species of Interest Action Plan	Finlay Sub-Region
23	PEA-F21-W-3222	**Supporting restoration projects for amphibians in our Peace Region** *Habitat Restoration and Priority Trials for Amphibians* This project, led by Ecologic Consulting Ltd., will support recovery actions for the at-risk Western Toad by filling knowledge gaps on restoration methods, effects of restoration, and monitoring of populations in strategic locations across the species' range.	Ecologic Consulting Ltd	$ 95,086	Habitat-based Actions	Uplands Action Plan	Basin-wide

FWCP Peace Region 2020-2021 Project List

#	Project ID	2020-2021 Grant-Based Wildlife Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Sub-Region
24	PEA-F21-W-3223	**Increasing nesting and roosting structures in our Peace Region** *Enhance Waterfowl Nesting Habitat in the Dinosaur Watershed* This project, led by Blackbird Environmental Ltd., will use existing research and newly available predictive wetland and riparian habitat modelling to identify suitable enhancement areas in the Dinosaur Reservoir Watershed. Results of this review will inform efforts to construct, install, and monitor artificial nesting structures. The Dinosaur Watershed is uniquely suited for this project, as it provides opportunities to engage the public (i.e. Hudson's Hope school, First Nations communities, volunteer groups) and share information about FWCP's habitat enhancement efforts.	Blackbird Environmental Ltd.	$ 17,606	Habitat-based Actions	Riparian and Wetlands Action Plan	Dinosaur Sub-Region
25	PEA-F21-W-3224	**Mapping risk factors to predict invasive plants in our Peace Region wetlands** *Mapping Invasive Plant Risk Factors for Peace Wetlands* This Seed Grant project, led by Blackbird Environmental Ltd., is a desktop review that will utilize newly released predictive wetland ecosystem modelling data, in conjunction with other spatial information (e.g. from local governments and invasive plant committees), to assess risk and identify knowledge gaps and priority areas. It is anticipated that results from this Seed Grant project will lead to a larger future project to conserve the ecological functionality of wetlands threatened by invasive plant species.	Blackbird Environmental Ltd.	$ 4,935	Research & Information Acquisition	Riparian and Wetlands Action Plan	Basin-wide
			Wildlife Project Total:	**$ 867,918**			

FWCP Peace Region 2020-2021 Project List

#	Project ID	2020-2021 Fish and Wildlife Directed Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Sub-Region
26	PEA-F21-F-3363-DC-109837	**Studying Kokanee in our Peace Region** *F21 Kokanee Spawning Surveys (Ministry of Forests, Lands, Natural Resource Operations and Rural Development LoA) : Year 3* This project, managed by the Ministry of Forests, Lands, Natural Resource Operations and Rural Development and delivered by DWB Consultants Ltd., will provide a third year of Kokanee spawning surveys to assess the abundance and distribution of Kokanee within tributaries of Williston Reservoir. Kokanee will be collected from key locations to assess reproductive potential, age at maturity, and whether there is potential genetic introgression of Columbia-origin stocked Kokanee with native Kokanee populations in the region.	Ministry of Forests, Land, Natural Resource Operations and Rural Development	$ 77,800	Research & Information Acquisition	Reservoirs Action Plan	Basin-wide
27	PEA-F21-W-3362-DCA	**Supporting Mugaha Marsh bird-banding station** *F21 Mackenzie Nature Observatory (DCA): Year 4 of Agreement* Mackenzie Nature Observatory operates the Mugaha Marsh Sensitive Area bird-banding station on the Parsnip Reach of Williston Reservoir. The 2020 season will add to the long-term monitoring data set and provide important information on breeding bird population trends, distribution, and health, which can guide species conservation and habitat enhancement initiatives in the region.	Mackenzie Nature Observatory	$ 20,475	Research & Information Acquisition	Peace Basin Plan (Section 4.3)	Parsnip Sub-Region
28	PEA-F21-F-3361-DCA	**Studying Kokanee in Williston Reservoir** *F21 Native Kokanee Persistence in Williston Reservoir* Kokanee gill netted in the Williston Reservoir in 2000 were genotyped and the samples were comprised of both Columbia-origin and the native Williston Watershed Kokanee. Samples from Kokanee caught in 2006 and 2018 from spawning tributaries, however, reveal genetic signatures that are exclusively Columbia-origin fish. By sampling tributaries in mid-September, it is possible to miss the native Kokanee that were not previously observed in tributary streams and appear to spawn later in the fall, based on stage of maturation. A survey similar to that conducted in 2000 should be undertaken to determine whether native Kokanee have persisted in the reservoir. Once this is known, then appropriate management efforts can be made to preserve the native population of Kokanee.	University of Northern British Columbia	$ 16,968	Research & Information Acquisition	Reservoirs Action Plan	Finlay Sub-Region
			Directed Project Total:	**$ 115,243**			
			2020-2021 Project Spend Total:	**$ 1,499,623**			