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## Columbia Region fish and wildlife project list 2020-2021

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 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 Columbia Region, the board approved \$5.5 million for 43 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 11 fish and 32 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 Columbia 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 Columbia 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 Crystal Klym, Columbia Region Manager at 250-365-4591 or [crystal.klym@bchydro.com](mailto:crystal.klym@bchydro.com) to learn more about our work in the Columbia Region. [Subscribe](#) and stay informed about the projects we fund and how you can apply for a grant.

Learn more at [fwcp.ca](http://fwcp.ca)

# FWCP Columbia 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	COL-F21-F-3248	<p><b>Restoring habitat for shore-spawning Kokanee in Kootenay Lake</b>  <i>Shore-spawning Kokanee Research and Restoration Project</i> This project, led by the Friends of Kootenay Lake Stewardship Society, focuses on collecting data and restoring habitat for declining shore-spawning Kokanee in the West Arm of Kootenay Lake. Gravel installed at a lower elevation than the current rearing habitat will encourage Kokanee to spawn at elevations unaffected by fluctuations in the hydrograph. It is expected that Kokanee will show a preference for restored habitat, reducing the risk of redds being de-watered in the spring.</p>	Friends of Kootenay Lake Stewardship Society	\$ 18,000	Habitat-based Actions	Ecosystems	West Kootenay
2	COL-F21-F-3278	<p><b>Improving habitat for Bull Trout and Westslope Cutthroat Trout in the East Kootenay</b>  <i>Conservation of Trout Habitat in the East Kootenay</i> This project, led by the Province of B.C., aims to conserve and improve the quality of critical spawning sites and early juvenile rearing habitat for two at-risk salmonid species (Westslope Cutthroat Trout and Bull Trout) in East Kootenay watersheds. This project will prioritize key trout habitat that has been impacted by human activities, and will inventory and assess habitat quality in newly proposed/established Wildlife Habitat Areas (WHAs). A subset of proposed/established WHAs will receive enhancement or restoration treatments.</p>	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	\$ 23,928	Research & Information Acquisition	Ecosystems	East Kootenay
3	COL-F21-F-3292	<p><b>Improving habitat surveys with drones</b>  <i>Lardeau River Juvenile Fish Habitat Drone-mapping Pilot</i> This project, led by Poisson Consulting Ltd. in partnership with the Selkirk Geospatial Research Centre, will pilot methods for surveying rivers with drones in order to map salmonid juvenile fish habitat. The goal is to develop surveying methods that can be used to accurately map habitat in entire river systems and help refine estimates of juvenile abundance, assess changes in habitat quality through time and space, and direct habitat restoration activities.</p>	Poisson Consulting Ltd.	\$ 5,700	Research & Information Acquisition	Ecosystems	West Kootenay
4	COL-F21-F-3323	<p><b>Assessing foreshore health in the East Kootenay</b>  <i>Foreshore Inventory Mapping for Aquatic Species at Risk</i> This project, led by Living Lakes Canada, will evaluate and apply revised Foreshore Inventory Mapping (FIM) standards and methodologies drafted in March 2002 to ensure the long-term credibility of the methods, consider the various types of lakes to be assessed (e.g., regulated, natural, mountain ecosystem, boreal forest ecosystem, etc.), and provide a benchmark by which to compare habitat changes over time. The revised methodology will be applied to priority lakes, both new and re-FIM projects, assessing the rate of change of shoreline health.</p>	Living Lakes Canada	\$ 50,000	Habitat-based Actions	Ecosystems	East Kootenay
5	COL-F21-F-3335	<p><b>Improving Rainbow Trout habitat at the Murphy Creek Spawning Channel</b>  <i>Murphy Creek Spawning Channel Maintenance and Monitoring</i> This project, led by the Okanagan Nation Alliance in partnership with the Trail Wildlife Association, will continue monitoring Rainbow Trout and maintaining the spawning channel for a third year. Activities will include monitoring Rainbow Trout spawning, installing a passive PIT tag-reader system to record tagged fish as they enter the stream, monitoring water temperature, maintaining the spawning channel (removing debris, adding gravel, removing sediment), and managing invasive plant species. Continued maintenance of the spawning channel is imperative to its efficacy in providing spawning habitat for Rainbow Trout.</p>	Okanagan Nation Alliance	\$ 17,701	Habitat-based Actions	Ecosystems	West Kootenay
<b>Fish Project Total:</b>				<b>\$ 115,329</b>			

#	Project ID	2020-2021 Grant-Based Wildlife Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Sub-Region
6	COL-F21-W-3258	<p><b>Protecting endangered Northern Leopard Frogs from invasive Bull Frogs</b>  <i>Northern Leopard Frog Preservation and American Bullfrog Control</i> This project aims to conduct a comprehensive and targeted surveillance and eradication program on American Bullfrogs. The intent of this project is to protect the productivity of the wetland ecosystem and habitats required by endangered Northern Leopard Frogs from the highly invasive American Bullfrog. Eradicating bullfrogs will enhance potential pond habitat for Northern Leopard Frogs, as bullfrogs are an obligate aquatic species that occupy lakes, ponds, swamps, bogs, backwaters, reservoirs, marshes, streams, irrigation ponds, and ditches. In addition, bullfrog tadpoles are considered to be "ecosystem engineers," altering the biomass, structure, and composition of algal communities.</p>	Central Kootenay Invasive Species Society	\$ 44,055	Species-based Actions	Species of Interest	West Kootenay
7	COL-F21-W-3260	<p><b>Conserving wetlands in the North Columbia</b>  <i>Wetlands Inventory and Stewardship in the North Columbia</i> This project, led by Goldeneye Ecological Services, will gather and compile information about different wetland classes and site units found in the North Columbia subregion to identify any unique or rare wetland features, identify disturbances or threats to these wetlands, and make recommendations for restoration or conservation initiatives. This project will raise public awareness about wetlands and engage community members in wetland data collection.</p>	Goldeneye Ecological Services	\$ 5,000	Research & Information Acquisition	Ecosystems	North Columbia
8	COL-F21-W-3263	<p><b>Studying Grizzly Bear populations in the East Kootenay</b>  <i>Rates and Mechanisms of Grizzly Bear Mortality in Elk Valley</i> This project, led by the University of Alberta, will use radiotelemetry to identify rates and causes of Grizzly Bear mortality and reproduction in a population of bears with the highest human-caused mortality rates recorded in British Columbia. This project will focus on the lower Elk, Kootenay, and Bull river drainages, where human settlement, resource extraction, and hydroelectric reservoirs occur in Grizzly Bear habitat, impact connectivity, and contribute to high mortality. This project will result in meaningful stewardship measures for bears and communities.</p>	University of Alberta	\$ 27,400	Species-based Actions	Species of Interest	East Kootenay
9	COL-F21-W-3265	<p><b>Protecting East Kootenay ecosystems from invasive species</b>  <i>Invasive Plant Management and Restoration of Protected Areas</i> This project, led by the East Kootenay Invasive Species Council, aims to retain functional and sustainable ecosystems in protected areas of the East Kootenay by mitigating the impacts of invasive species through control and preventative measures. Benefits include controlling the spread from neighbouring invasive species populations, wildlife habitat conservation, long-term cost-savings through collaborative invasive species management action, and the enhancement of degraded areas with desirable plant species.</p>	East Kootenay Invasive Species Council	\$ 30,750	Habitat-based Actions	Ecosystems	East Kootenay
10	COL-F21-W-3268	<p><b>Restoring wetland and riparian habitat for waterfowl, fish, and wildlife</b>  <i>Ducks Unlimited Canada and FWCP Columbia Region Partnership</i> This project, led by Ducks Unlimited Canada, aims to restore wetland and riparian habitat for waterfowl, fish, and wildlife. The project will restore high-priority habitats to maximize conservation benefits beyond waterfowl in the Columbia Region.</p>	Ducks Unlimited Canada	\$ 64,680	Habitat-based Actions	Ecosystems	East Kootenay

#	Project ID	2020-2021 Grant-Based Wildlife Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Sub-Region
11	COL-F21-W-3272	<p><b>Supporting endangered East Kootenay Whitebark Pine</b>  <i>Whitebark Pine Planting in East Kootenay Wildfire Areas</i> This project, led by Moody Tree, will support Whitebark Pine recovery by planting an estimated 5,000 seedlings over 10 ha, improve growing conditions for naturally regenerating trees, and work with industry to improve management approaches. Whitebark Pine is a keystone species of high-elevation ecosystems. It provides important food for wildlife. Due to the introduced White Pine blister rust, Mountain Pine Beetle, changes to fire regimes, and climate change, numbers of Whitebark Pine have dramatically decreased, leading to it being listed as endangered under SARA.</p>	Moody Tree	\$ 32,870	Species-based Actions	Species of Interest	Basin-wide
12	COL-F21-W-3280	<p><b>Establishing and monitoring bat abundance and diversity</b>  <i>Establishing and Monitoring Bat Abundance and Diversity</i> This project, led by Wildlife Conservation Society Canada, will employ the North American Bat Monitoring protocol to establish baseline diversity and relative abundance of bats and monitor provincial trends. This project will also monitor sentinel roost sites (i.e., significant maternity, hibernation, and year-round roosts) and locate bat hibernacula through collaboration with local stewardship groups and cavers, such as BatCaver.org, because white-nose syndrome kills bats while they hibernate.</p>	Wildlife Conservation Society Canada	\$ 59,312	Species-based Actions	Species of Interest	Basin-wide
13	COL-F21-W-3284	<p><b>Reducing Grizzly Bear conflicts</b>  <i>Grizzly Bear Coexistence Solutions</i> This project, led by Sanders Environmental Services, will promote coexistence between Grizzly Bears and rural residents through education, collaboration, and the use of practical tools, such as correctly installed electric fencing to prevent bear conflicts and associated Grizzly Bear mortalities in low-elevation linkage habitats that often overlap with agricultural lands. As conflicts are reduced, there will be improved Grizzly Bear conservation status in the region, including enhanced connectivity between core Grizzly Bear populations.</p>	Sanders Environmental Services	\$ 21,650	Species-based Actions	Species of Interest	Basin-wide
14	COL-F21-W-3285	<p><b>Supporting Wolverine populations in our Columbia Region</b>  <i>Wolverine Reproductive Dens in the Columbia Mountains</i> Wolverine have low reproductive rates and are vulnerable to disturbance, particularly at denning areas. This project intends to locate wolverine den sites using known female locations, habitat-based modelling, citizen science, and targeted searches with Unmanned Aerial Vehicles (AUVs) to minimize disturbance. This information will enable managers to focus protection and/or access management on areas with the greatest potential for conservation benefit.</p>	Seepanee Ecological Consulting	\$ 30,605	Research & Information Acquisition	Ecosystems	Basin-wide
15	COL-F21-W-3286	<p><b>Addressing invasive plants to improve Bighorn Sheep habitat</b>  <i>Invasive Plant Management on Bighorn Sheep Winter Ranges</i> This project, led by the Province of B.C., will implement a cooperative management and treatment strategy for invasive plants that will improve the existing quality of Bighorn Sheep ranges and reduce invasive plant coverage. Invasive plants are compromising the quality of low-elevation Bighorn Sheep winter ranges, particularly in Wigwam Flats and Bull River. Without a comprehensive invasive-plant management program, the continued rapid loss of forage quality and quantity will ultimately result in Bighorn Sheep population decline.</p>	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	\$ 20,000	Habitat-based Actions	Ecosystems	East Kootenay

#	Project ID	2020-2021 Grant-Based Wildlife Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Sub-Region
16	COL-F21-W-3293	<p><b>Restoring habitat for bears, goats, sheep, and deer in the East Kootenay</b>  <i>Luxor Linkage Forest Restoration Project</i> This project, led by the Nature Conservancy of Canada (NCC), will enhance freshwater values on the Luxor Linkage Conservation Area by increasing soil water availability and helping safeguard nearby communities from high-intensity wildfire. By thinning forests to restore open-forest grassland ecosystems, the NCC will improve the viability of biodiversity and build resilience in a regionally important ecosystem that is susceptible to the impacts of climate change. It is an important corridor for Grizzly Bears, Mule Deer, Mountain Goat, and Rocky Mountain Bighorn Sheep, which migrate across the landscape from the Purcells and Kootenay National Park.</p>	Nature Conservancy of Canada	\$ 32,000	Habitat-based Actions	Ecosystems	East Kootenay
17	COL-F21-W-3298	<p><b>Addressing invasives in the East Kootenay</b>  <i>Elk Valley Invasive Plant Management</i> This project, led by the East Kootenay Invasive Species Council, will provide a multi-stakeholder framework to minimize and contain invasive plant species and maintain biodiversity and ecological function in the upper Elk Valley with an emphasis on areas of high habitat value (such as Bighorn Sheep habitat and conservation properties). With an effective plan in place, multi-stakeholder groups will work collaboratively to coordinate and implement a management plan designed to prevent, educate, inventory, contain, reduce, and monitor invasive plant species in identified priority areas.</p>	East Kootenay Invasive Species Council	\$ 27,885	Habitat-based Actions	Ecosystems	East Kootenay
18	COL-F21-W-3303	<p><b>Restoring wetland habitat in our Columbia Region</b>  <i>Advancing Wetland Stewardship and Restoration in the Kootenays</i> This project, led by the BC Wildlife Federation, will restore up to 93 ha of wetland and floodplain habitat on Yaqaan Nukiy lands near Creston and the Snk'Mip Marsh near New Denver, and prepare for a future restoration project at Earl Ranch near Newgate. This project will include a Wetlandkeepers Workshop to support the Joseph Creek Watershed Initiative in Cranbrook, a Map our Marshes Workshop in Crawford Bay, and a Restoration Workshop in New Denver. Past restoration projects will also be monitored for their success and enhanced where necessary.</p>	British Columbia Wildlife Federation	\$ 200,000	Habitat-based Actions	Ecosystems	Basin-wide
19	COL-F21-W-3304	<p><b>Filling information gaps about pollinators in the West Kootenay</b>  <i>Bee Abundance and Diversity Baseline in Camas Meadows</i> This project, led by the Kootenay Native Plant Society, will document native bee abundance, diversity, and habitat use in wet Camas meadows in the West Kootenay. Camas is a vital food plant for First Nations, and indigenous cultivation likely supported high pollinator diversity in the past. Pollination sustains native ecosystem health and function, but little is known about the identity, status, habitat use, and pollinator-plant relationships in these ecosystems. Eco-cultural restoration of these meadows requires good baseline data to inform conservation efforts and measure recovery of bio-cultural diversity.</p>	Kootenay Native Plant Society	\$ 37,146	Research & Information Acquisition	Cross Ecosystem Plan	West Kootenay

#	Project ID	2020-2021 Grant-Based Wildlife Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Sub-Region
20	COL-F21-W-3307	<p><b>Conserving wildlife corridors in the face of climate change</b>  <i>Kootenay Connect: Riparian Wildlife Climate Change Corridors</i> This project, led by Birchdale Ecological, will identify and develop conservation strategies to identify, protect, and improve management for 12 important wildlife corridors and promote landscape connectivity across the Columbia River Basin. This project will integrate data about large carnivores (Grizzly Bears), ungulates, and other wildlife species with large riparian-wetland complexes that link critical valley bottom and upland habitats at a region scale. Research shows riparian-wetland systems are biodiversity hotspots and climate refugia that also act as wildlife linkages across human-settled valleys.</p>	Birchdale Ecological	\$ 39,900	Research & Information Acquisition	Ecosystems	Basin-wide
21	COL-F21-W-3312	<p><b>Monitoring White-tail Deer in the Columbia Mountains</b>  <i>Monitoring White-tail Deer in the Columbia Mountains</i> The Monitoring White-tail Deer in the Columbia Mountains project, led by the Alberta Biodiversity Monitoring Institute, will evaluate factors influencing White-tailed Deer populations in the Columbia Mountains to support Mountain Caribou management decisions, in a high-stakes socio-economic landscape. This project will also collect baseline data to evaluate the efficacy of White-tail Deer reductions via increased hunter harvest. Understanding and monitoring additional limiting factors that may be preventing caribou population growth is critical for effective adaptive management and recovery.</p>	Alberta Biodiversity Monitoring Institute	\$ 41,860	Species-based Actions	Species of Interest	North Columbia
22	COL-F21-W-3313	<p><b>Reducing wildlife highway mortalities in the East Kootenay</b>  <i>Safe Passages for Wildlife in the Southern Canadian Rockies</i> The Safe Passages for Wildlife in the Southern Canadian Rockies project, led by the Province of B.C. in partnership with others, is working to improve wildlife connectivity and human safety along Highway 3 in the southern Canadian Rockies by identifying hotspots for wildlife collisions and crossings that would benefit from highway mitigation. Year one of this project will see the retrofitting of two existing bridges to create suitable wildlife underpasses and fencing between them. This will guide wildlife to the crossing structures, preventing wildlife-vehicle collisions, and increase ecosystem connectivity in the Alexander Michel Linkage, a six-km stretch of Highway 3 near the Alberta border.</p>	Ministry of Forests Lands Natural Resource Operations and Rural Development	\$ 40,000	Habitat-based Actions	Ecosystems	East Kootenay
23	COL-F21-W-3319	<p><b>Conserving winter range and grasslands for Bighorn Sheep in the East Kootenay</b>  <i>Elk Valley Bighorn Sheep Winter Range Re-assessment</i> This project, led by the BC Conservation Data Centre, will focus on high-value Bighorn Sheep winter ranges that occur primarily on Red-listed high-elevation grasslands in the Elk Valley. Concentrated grazing pressure on a reduced area of winter range is likely to degrade existing intact grasslands and reduce the amount of available forage. To improve future conservation outcomes, this project seeks to gather knowledge to inform ungulate management strategies by identifying where and how changes to high-elevation grasslands have occurred in the past decade. Data on the current condition of high-elevation grasslands will be collected and compared with baseline data on ecosystem condition that was collected from the same locations in 2009.</p>	British Columbia Conservation Data Centre	\$ 42,736	Research & Information Acquisition	Ecosystems	East Kootenay

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24	COL-F21-W-3342	<p><b>Conserving at-risk turtles in the East Kootenay</b>  <i>Increasing Western Painted Turtle Survival at Baynes Lake</i> This project, led by the Baynes Lake Community Society, will focus on road mortality of Western Painted Turtles at Baynes Lake, where at least 15 adult turtles were killed in 2019. This project will incorporate citizen science to collect information about where the turtles are coming from and where they are laying their eggs. It will assess the feasibility and cost of installing wildlife fencing and establishing an alternative nesting site area.</p>	Baynes Lake Community Society	\$ 3,716	Habitat-based Actions	Species of Interest	East Kootenay
25	COL-F21-W-3343	<p><b>Stewarding conservations lands in Columbia Region</b>  <i>NTBC-Land Stewardship Activities F21</i> This project, led by the Nature Trust of BC, will focus crew work on operations and stewardship projects that maintain and enhance biodiversity and wildlife values on conservation properties. This project also has the added benefit of providing crew members with important work-related experience in a career field that they are interested in pursuing.</p>	The Nature Trust of British Columbia	\$ 15,000	Habitat-based Actions	Ecosystems	Basin-wide
26	COL-F21-W-3347	<p><b>Conserving Bighorn Sheep in the North Columbia</b>  <i>Golden Rocky Mountain Bighorn Sheep Project</i> This project, led by the Golden District Rod and Gun Club, will document movements of Bighorn Sheep in the Golden-Kicking Horse River area and collect baseline health data. Movement data will be used to minimize negative impacts on this herd during a spring 2020 highway construction project. Data will be used to adapt highway crossing structures and determine the appropriate population size of this herd. Important habitat features (such as lambing areas) will also be identified, and the habitat analyses will inform future habitat-enhancement projects. DNA samples will also be used to explore questions of genetic inbreeding in this isolated mountain herd.</p>	Golden District Rod and Gun Club	\$ 10,300	Species-based Actions	Species of Interest	North Columbia
27	COL-F21-W-3350	<p><b>Enhancing ungulate winter range in the East Kootenay</b>  <i>Golden Area Ungulate Winter Range Project Development</i> Led by Cirque Environmental Consulting, this project will bring information together to design a future project to restore and enhance ungulate winter range for Elk and Mule Deer in the Golden area. This Seed Grant project will include a literature review and public engagement to gather academic, local, and traditional knowledge to plan a project needing large grant funding.</p>	Cirque Environmental Consulting	\$ 4,654	Habitat-based Actions	Species of Interest	Basin-wide
28	COL-F21-W-3352	<p><b>Improving our understanding of bats in the East Kootenay</b>  <i>Creating a Framework for Evaluating Bat-friendly Communities</i> This project, led by VAST Resource Solutions Inc., will create a framework for identifying and evaluating habitat features that may affect bat abundance and diversity. This will be achieved by collecting baseline data on relative bat abundance and diversity within an urban community and its surrounding natural areas, and identifying metrics to evaluate the bat-friendly community program. It is anticipated that this Seed Grant project will lead to a larger future project.</p>	VAST Resource Solutions Inc.	\$ 4,740	Species-based Actions	Species of Interest	East Kootenay
<b>Wildlife Project Total:</b>				<b>\$ 836,258</b>			

#	Project ID	2020-2021 Annual and Ongoing Fish Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Sub-Region
29	COL-F21-F-3226-DCA	<p><b>Adding nutrients to Arrow Lakes Reservoir</b>  <i>F21 Arrow Lakes Reservoir Nutrient Restoration Program</i> The Arrow Lakes Nutrient Restoration Program addresses the nutrient losses in the Arrow Lakes Reservoir, a result of the construction of the Mica and Revelstoke dams, with a bottom-up approach. It sees the addition of nitrogen and phosphorus, in the form of liquid agricultural-grade fertilizer, to support phytoplankton populations that are suitable for the production of Daphnia, a main food source for Kokanee.</p>	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	\$ 749,736	Habitat-based Actions	Ecosystems	West Kootenay
30	COL-F21-F-3227-DCA	<p><b>Adding nutrients to Kootenay Lake</b>  <i>F21 Kootenay Lake Nutrient Restoration Program</i> The Kootenay Lake Nutrient Restoration Program—North Arm addresses the nutrient losses in Kootenay Lake, a result of the construction of the Duncan and Libby dams, with a bottom-up approach. It sees the addition of nitrogen and phosphorus, in the form of liquid agricultural-grade fertilizer, to support phytoplankton populations that are suitable for the production of Daphnia, a main food source for Kokanee.</p>	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	\$ 903,001	Habitat-based Actions	Ecosystems	West Kootenay
31	COL-F21-F-3228-DCA	<p><b>Supporting Hill Creek spawning channel, Arrow Lakes Reservoir</b>  <i>F21 Hill Creek Spawning Channel</i> This project supports ongoing operations, maintenance, and monitoring at the Hill Creek spawning channel. Monitoring includes Kokanee fry emigration; Rainbow Trout redd counts and fry emergence; adult Kokanee size, fecundity, and escapement; overwintering egg survival; and water quality at the spawning channel. The spawning channel was built as compensation for spawning habitat lost due to the construction of the Revelstoke Dam, and it now provides additional spawning habitat for Kokanee and Rainbow Trout from Arrow Lakes Reservoir.</p>	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	\$ 187,356	Habitat-based Actions	Ecosystems	West Kootenay
32	COL-F21-F-3229-DCA	<p><b>Supporting Meadow Creek spawning channel at Kootenay Lake</b>  <i>F21 Meadow Creek Spawning Channel</i> This project supports ongoing operations, maintenance, and monitoring at the Meadow Creek spawning channel. The channel provides spawning habitat for a large proportion of Kootenay Lake Kokanee, which are the primary prey species for both Bull Trout and Gerrard Rainbow Trout. BC Hydro built the spawning channel in 1967 to compensate for natural Kokanee habitat lost due to the construction of the Duncan Dam.</p>	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	\$ 230,089	Habitat-based Actions	Ecosystems	West Kootenay
33	COL-F21-F-3238-DCA	<p><b>Supporting White Sturgeon recovery in the Columbia River</b>  <i>F21 Upper Columbia Sturgeon</i> This project, implemented through BC Hydro's White Sturgeon Management Plan under the Columbia River Water Use Plan, is contributing to the White Sturgeon Conservation Aquaculture Program in the Canadian portion of the Columbia River Basin.</p>	TBD	\$ 100,000	Species-based Actions	Species of Interest	West Kootenay
<b>Annual and Ongoing Fish Project Total: \$ 2,170,182</b>							

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34	COL-F21-W-3230-DCA	<p><b>Enhancing habitat for upland and dryland species in the West Kootenay</b>  <i>F21 West Kootenay Ecosystem Enhancement</i> This project, led by the Province of B.C., focuses on the oversight, coordination, and implementation of upland and dryland restoration activities in the West Kootenay, including prescription development, slashing, piling, burn planning, burning, post-burn monitoring, and reporting.</p>	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	\$ 175,122	Habitat-based Actions	Ecosystems	West Kootenay
35	COL-F21-W-3231-DCA	<p><b>Enhancing habitat for upland and dryland species in the East Kootenay</b>  <i>F21 East Kootenay Ecosystem Enhancement</i> This project, led by the Province of B.C., focuses on the oversight, coordination, and implementation of restoration activities in the East Kootenay, including prescription development, slashing, piling, pile burning, masticating, burn planning, prescribed burning, and post-burn monitoring and reporting.</p>	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	\$ 384,945	Habitat-based Actions	Ecosystems	East Kootenay
36	COL-F21-W-3232-DCA	<p><b>Enhancing habitat for non-game species in our Columbia Region</b>  <i>F21 Non-game Enhancement</i> This project, led by the Province of B.C., focuses on non-game enhancement. It includes projects that maintain and enhance critical habitat features, such as the roosting, denning, and nesting habitat important for the reproduction and survival of species impacted by reservoir construction and habitat losses.</p>	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	\$ 209,810	Habitat-based Actions	Species of Interest	Basin-wide
37	COL-F21-W-3233-DCA	<p><b>Land securement in our Columbia Region</b>  <i>F21 Land Securement</i> This project will designate funds for high-priority land-securement projects identified in coordination and collaboration with Kootenay Conservation Program's securement committee, as well as local and regional land trusts and other partners. Land securement is a critical action for habitat protection and conservation in the Columbia Region.</p>	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	\$ 753,749	Land Securement	Ecosystems	Basin-wide
38	COL-F21-W-3234-DCA	<p><b>Supporting Caribou recovery in our Columbia Region</b>  <i>F21 Caribou Recovery</i> This project is a multi-agency effort led by the Province of B.C. to recover threatened caribou sub-populations. Actions funded by the FWCP this year include: mortality investigations for Central Selkirk Caribou, Cougar, and Wolves and Wolf pack size determinations; participation in Caribou census and collaring; predator track surveys in the Central Selkirks; and a survey of Moose in the Revelstoke sub-unit.</p>	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	\$ 105,262	Species-based Actions	Species of Interest	Basin-wide
39	COL-F21-W-3235-DCA	<p><b>Supporting Northern Leopard Frog recovery</b>  <i>F21 Northern Leopard Frog Recovery</i> This project involves the inventory monitoring and stewardship of the Endangered Northern Leopard Frog population at the Creston Valley Wildlife Management Area. This population is the majority of remaining Northern Leopard Frogs in the province, and it serves as the source population for re-introductions and captive assurance populations at the Vancouver Aquarium and Calgary Zoo.</p>	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	\$ 197,631	Species-based Actions	Species of Interest	Basin-wide

# FWCP Columbia Region 2020-2021 Project List

#	Project ID	2020-2021 Annual and Ongoing Wildlife Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Sub-Region
40	COL-F21-W-3236-DCA	<p><b>Restoring and enhancing wetlands in our Columbia Region</b>  <i>F21 Wetland and Riparian Enhancement</i> The goal of this project, led by the Province of B.C., is to deliver wetland restoration work, continue to develop new projects, and monitor completed projects. This involves identifying candidate restoration sites, compiling background information, conducting pre-treatment inventory of sites, working with a wetland specialist to complete restoration plans, and developing partnerships, permits, and budgets for the implementation of the restoration projects.</p>	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	\$ 159,808	Habitat-based Actions	Ecosystems	Basin-wide
41	COL-F21-W-3237-DCA	<p><b>Stewardship of conservation lands in our Columbia Region</b>  <i>F21 Land Management Operations</i> This project, led by the Province of B.C., focuses on the coordination, oversight, and implementation of land-stewardship activities associated with conservation lands.</p>	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	\$ 318,874	Habitat-based Actions	Ecosystems	Basin-wide
<b>Annual and Ongoing Wildlife Project Total:</b>				<b>\$ 2,305,201</b>			

# FWCP Columbia 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
42	-	<p><b>Review of Kootenay Lake Nutrient Restoration Program</b>  <i>Detailed Review of Kootenay Lake Nutrient Restoration</i> Undertake a detailed review of the overall effectiveness of the Kootenay Lake Nutrient Restoration Program. It will include a review of the stated objectives of the program and recommendations of frequency of trend monitoring.</p>	TBD	\$ 75,000	Monitoring and Evaluation	Ecosystems	West Kootenay
43	-	<p><b>Assessment of historical wetland restoration projects in our Columbia Region</b>  <i>Effectiveness monitoring of past wetland restoration projects (F14 to F20)</i> Monitor and evaluate the effectiveness of previous FWCP wetland and riparian restoration projects.</p>	TBD	\$ 35,000	Monitoring and Evaluation	Ecosystems	Basin-wide
<b>Directed Projects Total:</b>				<b>\$ 110,000</b>			
<b>2020-2021 Project Spend Total:</b>				<b>\$ 5,536,970</b>			