HABITAT CONSERVATION TRUST FOUNDATION

2021-22

APPROVED PROJECT LIST

FESBC Forest Enhancement Society of British Columbia

*Projects highlighted in green are co-funded by the Forest Enhancement Society of BC

*Final Grant amount may be subject to funding condition(s)

Projects Taking Place in Multiple Regions

Project #	Project Name	Project Description	Board Approved	Project Address
0-247	Ducks Unlimited Canada BC Wetland Conservation Partnership Program	This is a Province-wide wetlands conservation program to restore and enhance wetland habitat. This year, 90ha of wetland habitat restoration will include 148 Mile Marshes near 150 Mile House; Mayook Marsh in the East Kootenay; Sugar Cane Jack wetland in the Chilcotin; and collaboration on Windy Marsh on Denman Island. Work will also involve collaboration with the BC Cattlemen's Association to identify opportunities to collaborate with ranchers to restore wildlife habitat on ranchlands.	$248,224	Sarah Nathan Ducks Unlimited Canada 778-888-1706 s_nathan@ducks.ca
0-406	White Sturgeon Angler Questionnaire: Catch and Effort Monitoring of the Recreational Sturgeon Fishery	This project will continue to monitor guided and non-guided recreational catch and effort of white sturgeon in the lower Fraser River. The project involves the distribution and assessment of annual electronic fishery questionnaires to licensed sturgeon anglers as well as analysis of guided angler catch and effort reporting data. Data are combined to give estimates of total white sturgeon catch and effort and angler demographics well as track white sturgeon conservation surcharge statistics. Results are used by fishery managers to monitor catch and effort trends in the fishery as well as provide critical information on the impacts of potential angling regulation and management changes.	$5,500	Colin Schwindt Ministry of Forests, Lands, Natural Resource Operations and Rural Development 604-572-2180 colin.schwindt@gov.bc.ca
0-451	Conservation Land Operations and Management	This program provides funding for conservation lands owned by by the Nature Trust of BC or the Ministry of Forest, Lands and Natural Resource Operations and Rural Development through an application submitted together from both organizations. Funding provided by HCTF will assist with the operation and management of approximately 115 significant wildlife habitat areas across British Columbia.	$552,200	Christina Waddle Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250 356-7669 Christina.Waddle@gov.bc.ca
0-466	BC Wild Sheep Conservation and *M.ovi* Control Program	This multi-stakeholder program is focused on finding effective long-term solutions to a controversial wildlife health issue. We are using innovative science and piloting novel techniques, guided by a formal strategic advisory group of NGOs, industry representatives, and provincial government staff. We work on partnered projects with the overall goal of developing scientifically supported provincial policy to solve the problem of pathogen spillover from domestic sheep and goats to wild sheep across BC.	$61,268	Jeremy Ayotte Phyla Biological Consulting Inc 250-804-3513 jeremy.ayotte@gmail.com
0-467	Grizzly Bear Coexistence Solutions	This project promotes coexistence between grizzly bears and rural residents using correctly installed and maintained electric fencing to prevent and mitigate conflicts and provides grizzly bear safety education. As conflicts are reduced, and people are better educated about grizzly bear behaviour and provided with tools to mitigate conflicts, there will be an improvement in grizzly bear conservation status in BC. The focus of these efforts will be to enable habitat connectivity between core populations of grizzly bears and areas of high grizzly bear conflicts.	$19,500	Gillian Sanders Sanders Environmental Services 250-353-1137 grizzlybearsolutions@gmail.com
0-476	Got Bats? B.C. Community Outreach, Conservation and Citizen Science Project	"Got Bats?" is a network of community bat projects across BC that promotes bat conservation through education and outreach to raise awareness of threats to bats, recruitment of local bat stewards, detection, protection and monitoring of bat roosts, installation of bat boxes, and a province-wide Citizen Science bat count to engage the public and detect population declines due to White-nose Syndrome and other threats. Implemented by local, established stewardship organizations with direct landowner contacts in each region, the importance of this initiative has been widely recognized by the BC Government and BC Bat Action Team, and support for the program is a high priority action item in the BC Bat Action Plan (BC Bat Action Team, 2019).	$77,237	Katie Calon British Columbia Conservation Foundation 604-576-1433 kcalon@bccf.com

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0-511	NABat, BatCaver, and Beyond: Monitoring and Next Steps to Protect BC's Bats	White-Nose Syndrome is a deadly fungal disease affecting bats that is spreading in the west. In preparation for its arrival in BC, we are urgently working with biologists and citizen scientists to identify and monitor important bat habitats. We are acoustically recording bats at over 50 sites across B.C. to establish pre-WNS species diversity and relative abundance, and detect and measure population changes over time. We are monitoring maternity and hibernation roosts, studying winter ecology at roost sites, and continue to collaborate on conservation with cavers. This year we are working on roost enhancement and recovery with First Nation and community partners in the Kootenays.	$62,538	Cori Lausen Wildlife Conservation Society Canada 250-353-8204 Clausen@wcs.org
0-519	Provincial White Sturgeon Management Working Group Support	This project will obtain support for the coordination and development of a management working group for White Sturgeon in BC. Concerns related to White Sturgeon in the Fraser River that require management attention include re-assessment by COSEWIC and potential re-designation under SARA, increased First Nation concerns, rapid growth of the recreational fishery and other potential stressors to the populations from anthropogenic factors (habitat, pollution and by-catch mortality).	$7,624	Greg Andrusak Ministry of Forests, Lands, Natural Resource Operations and Rural Development 778-698-9237 greg.andrusak@gov.bc.ca
0-536	Field Trials of a Probiotic Prophylaxis for White-Nose Syndrome in Bats	This project is field-testing a probiotic consisting of bacteria for reducing or preventing the spread and bat mortality from white-nose syndrome (WNS). Sourced from bats in British Columbia, and applied at summer maternity roosts, our probiotic WNS prophylaxis may delay or prevent the onset of WNS during winter, allowing building-roosting bats to survive this disease each year. The goal is to eventually upscale this mitigation tool using a citizen science approach, to protect more bats across southern BC where the fungus is likely to appear first.	$55,239	Cori Lausen Wildlife Conservation Society Canada 250-353-8204 clausen@wcs.org
0-539	Increasing Fisher Habitat Stewardship in the Forest Sector	This project strives to increase the ability of the forest sector to improve habitat outcomes for fishers in their operations by increasing the knowledge, skills, and abilities of forest professionals to retain fisher habitat in their operations and inspiring them to use this new capability in their forest management decisions.	$31,202	Rich Weir Ministry of Environment and Climate Change Strategy 778-698-4390 Rich.Weir@gov.bc.ca
0-541	Determining factors affecting moose population change	This project will enable new and continued information flow on moose population trends required for management decisions by assessing calf and cow survival rates and calving rates. These demographic parameters are primary drivers of population trend and key research gaps identified from the initial 5-year (2013-2018) Provincial Moose Research Project.	$70,000	Morgan Anderson Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-649-4392 morgan.anderson@gov.bc.ca
0-545	Quality Waters Strategy - West Coast	This project focusses on the Classified Waters of Haida Gwaii. The work will include a River Guardian program to assess and enhance regulatory compliance of sport steelhead fisheries. Stock assessment will also be undertaken on the Yakoun River and an assessment of fishery impacts to cutthroat trout on the Tlell River.	$39,575	Mike McCulloch Forest, Lands and Natural Resource Operations and Rural Development 250-751-3156 mike.mcculloch@gov.bc.ca
0-546	Invasive Mussel Lake Monitoring in the Columbia Shuswap Regional District	This project will undertake plankton tow sampling in lakes in the Columbia Shuswap region to monitor for the presence of invasive mussels.	$31,764	Sue Davies Columbia Shuswap Invasive Species Society 855-785-9333 sdavies@columbiashuswapinvasives.org
0-567	Cougar predation and harvest in a changing landscape.	Cougars are one of the most important predators of BC's big game species, yet we know little about their abundance, habitat needs, and response to cougar harvest. We are capturing and GPS-collaring cougars to quantify their predation rates, movement behaviour, and link habitat supply to the sustainable harvest of cougars. This project will inform provincial cougar management objectives and build on existing projects to better examine the role of cougars in shaping prey distributions.	$98,715	Adam Ford University of British Columbia 250-807-9773 adam.ford@ubc.ca

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0-573	Stewardship Training through Yellow Flag Iris Control Workshops	Agrowest Consulting has been working for 5 years to research the most effective methods for controlling yellow flag iris. To ensure land managers and stewardship groups are given the best information and tools for success, we will partner with 11 land management and stewardship groups to conduct 10 half-day technology transfer workshops across the southern portion of the province.	$25,200	Catherine Tarasoff Agrowest Consulting Scientists 250-572-2132 catherine@agrowest.ca
0-587	Columbia Shuswap Invasives Restoration	The objective of the project is to improve water quality through restoration and improvement of freshwater aquatic habitat degraded by invasive species, in Blanket Creek Provincial Park and through the removal of yellow flag iris in the Shuswap (approximately 2 hectares of shoreline). At Blanket Creek, approximately 0.33 hectares of important habitat will be restored by planting of 160+ indigenous shrubs and re-seeding, thereby improving natural infrastructure and freshwater quality, and restoring important ungulate winter range and kokanee spawning habitat.	$11,400	Robyn Hooper Columbia Shuswap Invasive Species Society 855-785-9333 rhooper@columbiashuswapinvasives.org
0-595	Development of a coordinated research program for southern range edge Stone's sheep in Region 6 and 7A	Very little information exists on the herd boundaries, seasonal ranges, demographics, limiting factors, or health baselines of Stone's sheep populations, particularly along the southern range boundary and in low density snowbelt regions. We propose a 1-year planning project, expected to result in coordinated proposals integrating multiple provincial and regional priorities for Stone's sheep management and drawing on the expertise and concerns of First Nations, government, NGO and stakeholder groups.	$4,938	Robin Routledge Wild Sheep Society of British Columbia 250-961-1908 robin.wssbc@gmail.com

Project #0-511: NABat, BatCaver, and Beyond: Monitoring and Next Steps to Protect BC's Bats

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Approved Projects on Vancouver Island

Project #	Project Name	Project Description	Board Approved	Contact Information
1-72	O&M - (Fsh) - Vancouver Island	Operation and maintenance of the aeration program at Glen Lake, flow augmentation in Sandhill Creek, inspection and maintenance of fishways located in the Gordon River and Colquitz Creek and an Annual Dam Inspection at Keogh Lake.	$11,750	Scott Silvestri Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-751-3128 Scott.Silvestri@gov.bc.ca
1-319	Keogh River Steelhead Population Dynamics	The purpose of the project is to support research initiatives to aid in the management of BC steelhead and provide a collaborative forum for government, First Nations, academia and non-government organizations to investigate questions about the ecology and life-history of steelhead and other fish species in the Keogh River. The project has been in operation since 1976 to annually enumerate the Keogh river steelhead smolt and adult population, evaluate habitat remediation strategies and conduct research to understand steelhead ecology.	$100,000	Trevor Davies Ministry of Forests, Lands, Natural Resource Operations and Rural Development 778-698-9218 trevor.davies@gov.bc.ca
1-538	Georgia Basin Western Bluebird Reintroduction Project	By supporting the recovery of reintroduced Western Bluebirds (WEBL) through in-depth population monitoring and extensive nesting support, a local community is engaging in long-term Garry oak ecosystem stewardship with the goal of returning Western bluebirds to their historic range in the Salish Sea.	$20,182	Jacquie Taylor British Columbia Conservation Foundation 250-889-1892 cowichanbluebird@gmail.com
1-644	Vancouver Island Small Lake Enrichment Program	Through the addition of liquid nutrients, altered stocking regimes and modified angling regulations, this program has been shown to improve fish growth and produce large fish available for angling on Vancouver Island. Physical, biological monitoring in addition to angler response is used to determine project success. This Project will provide the continued enrichment of at least four lakes on Mid/Southern Vancouver Island to provide regionally unique trophy fisheries for Kokanee and Rainbow Trout.	$41,927	Jeramy Damborg British Columbia Conservation Foundation 250-390-2525 jdamborg@bccf.com
1-647	Martha's Place	This Land Stewardship Grant will support invasive species management and a baseline inventory.		Paul Chapman Nanaimo Area Land Trust 250-714-1990 paul@nalt.bc.ca
1-651	Matson Conservation Area	This Land Stewardship Grant will support operations and management on this important conservation land. Funding amount is for three-year term.		Wendy Tyrrell Habitat Acquisition Trust 250-995-2428 wendy@hat.bc.ca
1-666	Restoring the Englishman River Estuary: Improving Habitat for Fish/Wildlife	This is Year 4 of a 5 year project to restore coastal processes and improve fish and wildlife habitat in the Englishman River estuary. In partnership with government, First Nations and local stewardship groups, this project seeks to restore coastal process in the estuary and improve fish and wildlife habitat by removing historical dikes, berms and other anthropogenic features in the lower river and estuary, enhancing tidal channels, increasing habitat complexity, monitoring water quality, removing invasive plants, restoring native vegetation and conducting public outreach.	$69,234	Tom Reid The Nature Trust of BC 250-751-3218 treid@naturetrust.bc.ca

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1-673	Little Qualicum River Estuary - Mill Pond Restoration Project	Fish and wildlife habitat in an abandoned industrial log storage pond (Mill Pond) is being restored as part of a larger Estuary Restoration Project. In years 1 and 2 an outlet channel was constructed to improve water quality, Large Woody Debris was added for habitat complexity, and upland and riparian vegetation was planted for habitat improvement and soil stabilization. Year 3 will involve project monitoring, evaluation, and invasive species management. The project is a collaboration between the BCCF, Qualicum Beach Streamkeepers, Guardians of Mid Island Estuaries Society, and adjacent private landowners.	$8,684	Jamieson Atkinson British Columbia Conservation Foundation 250-390-2525 jatkinson@bccf.com
1-675	Seasonal habitat supply for the management and restoration of Roosevelt elk	We will use fine-scale GPS-telemetry data from 67 Roosevelt elk to build models of seasonal habitat selection in the West Coast Region. Outputs will be used to validate expert-based winter habitat suitability indices, assess the effectiveness of Ungulate Winter Ranges, and inform the linkage between habitat supply and population management objectives.	$113,700	Carl Morrison Ministry of Forests Lands Natural Resource Operations and Rural Development 250-850-1798 carl.d.morrison@gov.bc.ca
1-684	Ecocultural Restoration of Vancouver Island Estuaries	Eco-Cultural estuary restoration is the application of Indigenous fish weir techniques for a modern purpose to restore productive sedge marsh habitat vital to the survival of many fish and wildlife species. This project will implement a phased estuary restoration plan for Carex channel edge habitat at the Nanaimo River estuary in partnership with Snuneymuxw First Nation and the Nanaimo River Estuary Management Committee. In 2021 we plan to construct several habitat exclosures to stop goose herbivory and speed up recovery by transplanting 10,000 Carex plants.	$38,000	Tim Clermont Guardians of Mid Island Estuaries Society 250-327-2987 TimClermont@shaw.ca
1-693	Reestablishing Vancouver Island Marmots in Strathcona Provincial Park	The Marmot Recovery Foundation will build and expand on efforts to reintroduce Vancouver Island Marmots to Strathcona Provincial Park and create a self-sustaining population of these endemic mammals. Efforts will focus on translocations, food enhancement, and monitoring.	$49,450	Adam Taylor Marmot Recovery Foundation 250-390-0006 adam@marmots.org
1-694	Gold River Steelhead Stock Decline Investigations	This project will evaluate the current abundance of wild summer and winter-run steelhead during all life-stages in the Gold River. Gold River historically supported one of the most productive winter-run steelhead sport fisheries on the Pacific Coast. Subject to project outcomes and funding in future years to support additional work, an action plan may be developed with management recommendations for activities to assist this dwindling wild stock.	$20,088	Danny Swainson British Columbia Conservation Foundation 250-390-2525 dswainson@bccf.com
1-700	Promoting Wildlife Habitat Protection and Enhancement on Salt Spring Island	Salt Spring Island Conservancy will protect and enhance wildlife populations and rare ecosystems on the Island by acquiring lands, conservation covenants and stewardship agreements; restoring and enhancing Garry oak and wetland ecosystems in four SSIC nature reserves; surveying target species; and sustaining SSIC's native plant nursery to supply restoration and education initiatives. Stewardship education is integral to SSIC's protection and enhancement projects and includes collaborative hands-on nature education, a diversity of events for the public, building relationships with land owners, and informative signage.	$49,005	Penelope Barnes Salt Spring Island Conservancy 250-538-0318 penny@saltspringconservancy.ca
1-702	Restoring North Vancouver Island Estuaries - NICF	This project aims to restore coastal processes and improve fish and wildlife habitat in the Quatse River Wildlife Management Area (WMA) and the 2015 property addition to the Salmon River Estuary Conservation Area. In partnership with government, First Nations and local stewardship groups, we will breach the Goodspeed Road dike and enhance fish and wildlife habitat in the Quatse WMA; and, remove invasive species, improve riparian habitat, construct and enhance wetlands, and conduct habitat enhancements for Roosevelt Elk in the 2015 addition to the Salmon River Estuary Conservation Area.	$33,369	Tom Reid The Nature Trust of BC 250-751-3218 treid@naturetrust.bc.ca

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1-713	Investigating impacts of Ultraviolet Filters on the Cowichan River Ecosystem	This is a multi-year, collaborative project investigating UV filter (sunscreen) contamination within the Cowichan River watershed and its potential impacts on aquatic organisms. The project's overarching goal is to improve ambient water quality in the Cowichan River, thus improving habitat quality for freshwater aquatic organisms, specifically Rainbow, Cutthroat and Brown Trout. In Years 1-3, we will characterize the variation of UV filter contamination in the Cowichan River, support the development of a rapid procedure to analyze UV filter contamination in water, sediment and biota, and provide a scientific baseline against which to study contamination mitigation efforts.	$27,779	Jamieson Atkinson British Columbia Conservation Foundation 250-390-2525 jatkinson@bccf.com
1-721	Ecosystem restoration for Taylor's Checkerspot and other species at risk in Garry Oak ecosystems	The Taylor's Checkerspot butterfly project is a collaborative science-based, ecosystem restoration project that includes habitat enhancement for this species at three sites, the establishment of a third subpopulation at a local park, local community engagement and stewardship opportunities, and public outreach for this butterfly. This work benefits many of the other butterflies, bees, beetles and other pollinators, birds and plant species at risk within the endangered Garry Oak and associated ecosystems of southeastern British Columbia.	$60,000	Jennifer Heron British Columbia Ministry of Environment and Climate Change Strategy 778 572-2273 Jennifer.Heron@gov.bc.ca
1-722	Tranquil Creek Salmonid Recovery Project	Tranquil Creek Watershed Wild Fish Recovery Project is a partnership between the Tla-o-qui-aht Nation& CWFS Restoration and community and industry partners aimed at restoring watershed health and recovering wild salmon and trout populations. Restoration effort is part of a larger, long-term watershed recovery project. The project will use engineered wood structures and live willow staking to promote the development of a more complex and connected floodplain to slow flows, ease erosion and reduce the movement of sediment downstream, promoting an increase in habitat quality at the site as well as downstream.	$85,750	Jessica Hutchinson Central West Coast Forest Society 250-726-2424 jessica@clayoquot.org
1-728	Fishing and Natural Mortality of Cutthroat Trout in Cowichan Lake	This is a five year study that will use acoustic telemetry and high reward tags to estimate fishing and natural mortality of wild cutthroat trout in one of Vancouver Island's most popular fresh water fishing destinations, Cowichan Lake. Tracking data will also provide information on the utilization of the lake by sub-adult and adult fish, including spatial and temporal distribution. These results will be used to support an objective and transparent evaluation of the regulations currently in place as well as alternative approaches.	$99,293	Erin Rechisky Kintama Research Services 250-667-6951 erin.rechisky@kintama.com
1-730	Tsolum River Gravel Bar Live Staking and Riparian Restoration Project	The Tsolum River Restoration Society (TRRS) Recovery Plan ranked the stabilization of aggraded gravel bars as the number one priority for restoring the mainstem of the Tsolum River. The project will revegetate 2.2ha of barren gravel bars along the Tsolum River with willow/cottonwood cuttings (live staking), and enhance the riparian buffer with 6,000 conifer seedlings in 2019, 2020 and 2021. This project will benefit and enhance the instream fish habitat quantity and quality, and will reduce the movement of gravel through the lower reaches of the Tsolum River.	$17,910	Caroline Heim Tsolum River Restoration Society 250-897-4670 trrs.educationoutreach@gmail.com
1-731	Plankton Tow Sampling of Elk Lake	This project will undertake substrate monitoring on Vancouver Island lakes.	$3,147	Don Hare Coastal Invasive Species Committee 250-710-2010 donhare@coastalisc.com
1-733	Central Denman Conservation Complex (Year 2 of 3)	This Land Stewardship Grant will support operations and management on this important conservation land. Funding amount is for three-year term.	$33,243 For three years	Erika Bland Denman Conservancy Association 250-702-7773 dcalandmanager@gmail.com

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1-734	Millard Learning Centre (Year 2 of 3)	This Land Stewardship Grant will support operations and management activities on this important conservation land. Funding amount is for three-year term.	$43,780 for three years	Adam Huggins Galiano Conservancy Association 250-539-2424 restoration@galianoconservancy.ca
1-735	Chemainus Estuary Lands owned by Ducks Unlimited Canada (Year 2 of 3)	This Land Stewardship Grant will support operations and management activities on this important conservation land. Funding amount is for three-year term.	$20,328 For three years	Jordan Bromley Q'ul-lhanumutsun Aquatic Resources Society 250-210-0800 jordanbromley@qars.ngo
1-738	Assessment of Marbled Murrelet nesting habitat and population trends	This project will use a retrospective analysis of population counts and habitat loss from 2002-2022 to examine the influence of habitat factors on population persistence of Marbled Murrelet. The outcomes of the project are to test future methods of effectiveness monitoring and providing guidance on landscape configuration of protected habitat to improve conservation outcomes for this species.	$52,950	Jenna Cragg Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-739-8277 Jenna.cragg@gov.bc.ca
1-752	Mayne Island Community Stewardship Program	The Mayne Island Community Stewardship Program will engage residents and visitors of Mayne Island in hands-on nature stewardship. Community members will contribute to habitat restoration projects while developing the knowledge and skills they need to steward endangered ecosystems in a fragmented, privately owned landscape.	$27,297	Rob Underhill Mayne Island Conservancy Society 250-539-2535 biologist@mayneconservancy.ca
1-761	Englishman River Large Woody Debris Re-vitalization	This project will restore a minimum of 0.6 ha of habitat through the rehabilitation of aging large wood structures on the Englishman River and tributaries, on the east coast of Vancouver Island, BC. Large wood structures provide numerous benefits to riverine environments including sediment capture and retention, and the creation of structural complexity. Large wood structures also create habitat for fish and invertebrate populations and have been shown to positively affect species richness in restored river reaches.	$42,040	Jeramy Damborg British Columbia Conservation Foundation 250-390-2525 jdamborg@bccf.com
1-765	Detecting Sharp-tailed Snake on Mount Maxwell: eDNA vs Traditional Surveys	The federally Endangered and provincially Red-listed Sharp-tailed Snake is a cryptic fossorial species, spending most of its life underground. Terrestrial environmental DNA (eDNA) sampling protocols were developed to detect this species in the field. This project will apply the sampling protocols to Mt. Maxwell, a highly suitable habitat where the species has not yet been detected. Traditional snake monitoring will be done in conjunction with eDNA sampling. New occurrences of Sharp-tailed Snakes will be used to increase the known distribution of this species, propose Critical Habitat designation and guide on-the-ground management activities.	$47,388	Carrina Maslovat 250-893-7305 maslovat@telus.net
1-766	Habitat Protection and Connections for Western Toads	This project will improve the survival of juvenile Western Toads by addressing two key threats: reducing recreational disturbance and trampling of the shoreline habitat where toads emerge after metamorphosis, and reducing road mortality by developing a plan for creating dispersal pathways through wildlife culverts under the Bamfield Road.	$24,484	Barb Beasley Association of Wetland Stewards for Clayoquot and Barkley Sounds 250-726-2536 beasley@island.net
1-769	Thermal Refugia Identification in Salmon-bearing Streams on Vancouver Island	The goal of this study is to identify and map areas in ten streams on Vancouver Island where water temperatures are primarily affected by groundwater input. Groundwater serves as a source of cold water during warm summer months, providing thermal refugia for Pacific salmonids and other cold-blooded fish. Knowing the locations of these thermal refugia will benefit wild Pacific salmon stocks by allowing us to prioritize locations for stream restoration and protection. Identifying stream thermal refugia can also inform management decisions regarding future groundwater allocation.	$15,000	Kate O'Neill Current Environmental Limited 250-871-1944 kate.oneill@currentenv.ca

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1-770	Kus Kus Sum – Un-paving Paradise	The Kus Kus Sum project is the re-naturalization of a former industrial sawmill site. The site is located alongside the short confluence of the Puntledge and the Tsolum rivers, known as the Courtenay River. Of particular concern is a steel cladded retaining wall bordering the river, which has resulted in a narrowing of the river channel and created a key pinch point for all the fish, including both out-migrating juveniles and returning spawners. This human architecture is opportunistically used by seals to prey upon fish. The restoration will restore the river's riparian habitat. Species that will benefit include pink, chum, coho, chinook (summer and fall) salmon as well as steelhead and cutthroat trout, as well as many birds, plants and amphibians.	$21,473	Jennifer Sutherst Comox Valley Project Watershed Society 250-703-2871 estuary.projectwatershed@gmail.com
1-771	Empowering Stewards of Garry Oak Ecosystems: A Good Neighbours Project	The Program intends to engage, inform, inspire, and train stewards in endangered Garry Oak and Associated Ecosystems on Southern Vancouver Island through outreach, landowner contact, stewardship events and workshops, and supporting Indigenous communities. This Project will increase the stewardship of one of Canada's most endangered habitat types by increasing understanding, participation, and regional leadership in conservation with the aim of fostering the development of new habitat stewards in our communities.	$29,677	Katie Blake Habitat Acquisition Trust 250-995-2428 Katie@hat.bc.ca
1-777	Testing Mitigation to Reduce the Impacts of Roads on Amphibians	This seed project will develop a proposal to test the effectiveness of a system of wildlife culverts and guiding fences in reducing amphibian road mortality and connecting habitats across the Pacific Rim Highway. British Columbia is in the early stages of developing ways to mitigate the impacts of roads on amphibians and there is uncertainty about how well the best management practices developed in other areas will work for B.C.'s unique set of species and physical landscapes. It is important to monitor the mitigation efforts that are being installed to improve our knowledge, ensure that we are investing in the most effective techniques.	$5,000	Barb Beasley Association of Wetland Stewards for Clayoquot and Barkley Sounds 250-726-2536 beasley@island.net
1-778	Junior Stewardship Series at Swan Lake Christmas Hill Nature Sanctuary	Swan Lake Christmas Hill Nature Sanctuary Society has designed a 'Junior Stewardship Series' to offer environmental stewardship with a hands-on approach to support Western Painted turtles and Garry Oak ecosystem species on our site. Created for students ages eight to twelve, the series engages young stewards to learn how to support our local habitats by taking action in community. Students work outside alongside program naturalists and other local community leaders in a collaborative framework to make meaningful, positive changes to the Nature Sanctuary's sensitive Garry Oak and marshland ecosystems.	$1,850	Cara Gibson Swan Lake Christmas Hill Nature Sanctuary Society 250-479-0211 cgibson@swanlake.bc.ca

Project #1-636: Reestablishing Vancouver Island Marmots in Strathcona Provincial Park

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Approved projects in the Lower Mainland Region

Project #	Project Name	Project Description	Board Approved	Contact Information
2-349	Enhancing Upland Farmland for Wildlife in the Fraser River Estuary	Approximately 1,295 hectares of upland agricultural habitat will be enhanced annually in the Fraser River estuary for migratory and resident bird species. The Fraser River estuary is designated Canada's top Important Bird Area where an estimated five million birds pass through the region each year. In partnership with farmers in the Cities of Delta and Richmond, grassland habitat will be established on agricultural land, in the form of winter cover crops and grassland set-asides, to provide high-quality feeding and resting habitat for resident and migratory waterfowl, shorebirds and birds of prey.	$30,000	Drew Bondar Delta Farmland & Wildlife Trust 604-940-3392 drew@deltafarmland.ca
2-530	Lower Fraser White Sturgeon Telemetry Study	This long-term (10 yr.) study is monitoring the movement and migration patterns and habitat use of acoustically tagged adult white sturgeon within the Lower Fraser, Pitt and Harrison River systems. Individually tagged fish are tracked using an extensive array of permanent and seasonal receivers strategically placed within the river systems to assess movement behavior during critical life-history events (i.e., over-wintering, feeding and spawn migrations) as well as behavioural response to capture in the recreational catch and release fishery. Results from this Project are used to support habitat protection measures within the Lower Fraser River system as well as map and monitor critical habitats and behaviours.	$29,906	Colin Schwindt Ministry of Forests, Lands, Natural Resource Operations and Rural Development 778-572-2180 colin.schwindt@gov.bc.ca
2-587	Seymour River Rockslide Mitigation Works	The rockslide remains a fish passage barrier to salmonids and urgent works are required in summer 2021 to re-establish fish passage. As adult salmon will begin returning to the Seymour in August to October, we have a small window of opportunity to undertake in-river works. Without the urgent rock breaking works this year the returning adult salmonids cannot access the spawning grounds in the watershed.	$80,000	Reece Fowler Seymour Salmonid Society 604-288-0511 reece@seymoursalmon.com
2-641	Goshawk diet and foraging requirements across habitat types in South Coastal BC	To determine Northern Goshawk breeding success, this project will assess diet and spatial foraging habitat requirements in relation to landscape condition of coastal and transitional forests in South Coastal BC. Research addressing prey requirements and improving the understanding of spatial foraging habitat areas relative to landscape condition will provide information needed to support the provincial Implementation Plan and ongoing provincial decisions during implementation to ensure species recovery while mitigating resource use conflicts.	$65,000	Melanie Wilson Ministry of Forests, Lands, Natural Resource Operations and Rural Development 778-572-2271 Melanie.L.Wilson@gov.bc.ca
2-644	Invasive Mussel Lake Monitoring in the Sea to Sky Region	This project will undertake plankton tow sampling in lakes in the Sea to Sky region to monitor for the presence of invasive mussels.	$11,004	Clare Greenberg Sea to Sky Invasive Species Council 604-698-8334 info@ssisc.ca
2-645	Fraser Valley and Metro Vancouver Invasive Mussels Lake Monitoring Program	This project will monitor lakes in the Metro Vancouver region for invasive mussels through veliger sampling and substrate monitoring. Lakes proposed to be monitored include Cultus, Harrison, Pitt, Burnaby and Buntzen.	$13,551	Kathy Ma Fraser Valley Invasive Species Society 778-548-3847 admin@fviss.ca
2-660	Chilliwack Lake Bull Trout Fishery Assessment	The project will assess sustainable fishing opportunities for Bull Trout on Chilliwack Lake. Similar to other large lake tag-return studies, the project has direct implications for conservation and management of Bull Trout. The goal of the proposed work is to improve angling quality and provide opportunity in recreational fisheries on large lakes in BC.	$49,199	Greg Andrusak Ministry of Forests, Lands, Natural Resource Operations and Rural Development 778-698-9237 greg.andrusak@gov.bc.ca

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2-661	Upper Pitt River Bull Trout Risk Assessment	The upper Pitt River provides a unique angling opportunity on a large river and lake just north of Vancouver. The project intends to develop a better understanding of the Bull trout distribution and assess angler use on this river. In addition, the goal of the work is to better understand the conservation and management of Bull Trout in the in Pitt River system and risks associated with their contribution to a larger year-round fishery on the Fraser and Pitt rivers.	$38,512	Greg Andrusak Ministry of Forests, Lands, Natural Resource Operations and Rural Development 778-698-9237 greg.andrusak@gov.bc.ca
2-668	Native Plant Landscaping to Increase Native Bird Populations in Vancouver	The project will engage youth in hands-on multi-week programs and school workshops to grow bird-supporting native plants and create a birdscape teaching garden in Vancouver's Downtown Eastside, while connecting with nature and developing skills and confidence in environmental stewardship. The plants will be distributed to over 50 local community organizations and schools to support urban bird habitat projects. The multi-week programs serve youth who self-identify as BIPOC, LGBTQ2, racialized new immigrants, living with a disability, in the foster care system, and/or living on low incomes.	$21,501	Emily Keller EYA Environmental Youth Alliance Society 604-689-4446 emily@eya.ca
2-673	Conservation – Rodgers (Year 2 of 3)	This Land Stewardship Grant will support operations and management activities on this important conservation land. Funding amount is for three-year term.	$7,779 for three years	Liz Webster Savary Island Land Trust 604-483 4743 silts@telus.net
2-674	Conservation - Savary Island Road (Year 2 of 3)	This Land Stewardship Grant will support operations and management activities on this important conservation land. Funding amount is for three-year term.	$7,953 for three years	Liz Webster Savary Island Land Trust 604-483 4743 silts@telus.net
2-675	Conservation - Vancouver Boulevard (Year 2 of 3)	This Land Stewardship Grant will support operations and management activities on this important conservation land. Funding amount is for three-year term.	$7,952 for three years	Liz Webster Savary Island Land Trust 604-483 4743 silts@telus.net
2-676	Frenchies Island (Year 2 of 3)	This Land Stewardship Grant will support operations and management activities on this important conservation land. Funding amount is for three-year term.	$9,900 for three years	Sarah Nathan Ducks Unlimited Canada 778-888-1706 s_nathan@ducks.ca
2-687	Earthwise Agassiz Habitat Stewardship Initiative	The Earthwise Agassiz Habitat Stewardship Initiative is a comprehensive community engagement project that commits individuals and groups to take action to protect habitat. The project takes place on a 58 acre site in BC''s eastern Fraser Valley that encompasses restored wetlands, riparian habitats, and pollinator meadows within the context of a small-scale working farm. The project increases awareness of habitat and freshwater conservation and involves individuals in citizen science and stewardship activities.	$22,000	Patricia Fleming DRS Earthwise Society 604-946-9828 pfleming@earthwisesociety.bc.ca
2-692	Juvenile White Sturgeon Monitoring Program	The intent of this project is to provide data to better understand juvenile White sturgeon recruitment, abundance and distribution in the Fraser river and tributaries from Delta to Yale, BC., provide data to improve abundance estimates and distribution, improve knowledge of seasonal movements of juvenile sturgeon, improve knowledge of locations of juvenile sturgeon concentrations, and continue providing high priority, cost-effective data collection.	$57,468	Marc Laynes Fraser Valley Angling Guides Association 604-793-8800 fraservalleyanglingguides@gmail.com
2-695	Re-design and Modernization of the Provincial Angling Guide Catch and Effort Reporting Platform	This project intends to re-design and modernize the current angling guide catch and effort reporting system, beginning with a pilot phase in Region 2 (last year), with Province wide implementation this year. The project includes repurposing an existing catch and effort reporting platform (ELog) developed by M.C Wright and Associates for DFO. The platform will include both desktop and mobile versions for both classified and non-classified waters allowing anglers to better log, visualize and report data in real-time, reducing workloads and errors, and significantly increasing data quality. Results of the improved system would allow resource managers to better track changes in high use fisheries and provide valuable information to decision makers regarding impacts of potential regulation changes such as time-area closures.	$15,000	Colin Schwindt Ministry of Forests, Lands, Natural Resource Operations and Rural Development 778-572-2180 colin.schwindt@gov.bc.ca

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2-696	Renewal and Retention of Nature Stewards in the Fraser Valley	Created in 2006, the Nature Stewards program engages private landowners in the Fraser Valley to conserve, improve, and enhance habitat for wildlife on their properties. This project is designed to support previously recruited landowners to ensure their stewardship actions are successful. It implements a renewal process to help these landowners focus their efforts by providing personalized stewardship advice and securing a signed commitment agreement, which increases the ability to track their progress over time. Incentives are included to encourage long-term participation.	$36,498	Joanne Neilson Fraser Valley Conservancy 604-625-0066 joanne@fraservalleyconservancy.ca
2-715	Juvenile White Sturgeon Critical Habitat in the Pitt River Watershed	The project will complete a 5-year telemetry study to address knowledge gaps regarding the migration behaviour and habitat use of juvenile sturgeon throughout the Pitt River watershed across all habitat types, including major tributaries. Focused research on the juvenile life stage will be key for recovery, as juvenile survival has the greatest effect on sturgeon population growth. The resulting high-resolution data will identify and confirm critical habitat for juvenile White Sturgeon, which will provide managers the information required to develop and justify habitat conservation and restoration initiatives in the Pitt River watershed.	$79,402	Allison Hebert InStream Fisheries Research Inc. 604-428-8819 allison@instream.net
2-716	Othello Falls Fish Passage Improvements, Coquihalla River	Seasonal upstream migration of adult summer steelhead and bull trout past Othello Falls on the Coquihalla River has been impeded since 2014 when the river undermined a concrete bridge abutment resulting in mobilization of large boulders within the falls, constricting flow and rendering the falls almost impassable. This project will use rock work (blasting using low-velocity explosives and/or physical removal/repositioning of boulders) to restore access to high quality spawning and rearing habitats in the upper reaches to a point where most of the returning steelhead and bull trout are able to pass the barrier, eliminating future need for physical transport of fish over the barrier.	$30,000	Mike Willcox Ministry of Forests, Lands, Natural Resource Operations and Rural Development 604-586-5400 michael.willcox@gov.bc.ca
2-721	White Sturgeon Catch & Release Video, hand out and Questionnaire Project	With sturgeon being a catch and release fishery, proper handling, care and release of these fish is imperative to help the survival of this old growing species. This project will develop a tutorial and questionnaire that anglers wishing to purchase white sturgeon conservation licenses would need to complete prior to receiving their sturgeon license. It is our hope that this will raise public awareness as well as ingrain ownership of the importance of taking care of this valuable resource.	$5,000	Dean Werk Fraser Indigenous Research Corp (FIRC) 604-792-3544 info@greatriverfishing.com
2-724	Cattermole Slough Restoration Project	This SEED project will identify the ideal location for a flow control structure under the CN Rail Spur Line which isolates Cattermole Slough (CS) from the Squamish Estuary. Reconnecting CS would create a minimum of 5000 m2 of salmonid habitat, link communities, and increase biodiversity. The project aims to examine the feasibility of constructing a wetland to treat the stormwater drainage outfall into CS. The constructed wetland would address the on-going pollutant stressor found in the stormwater runoff coming from downtown Squamish by filtering and storing contaminants. This would increase habitat and water quality in the slough for the target species.	$5,000	Davina Dube British Columbia Institution of Technology (BCIT) msdavina.dube@gmail.com
2-725	Assessing Coho and Steelhead Salmon Spawning and Rearing Habitat and Restoration Potential in the Seymour River	This SEED project will provide the Seymour Salmonid Society with a multi-species and multi-parameter habitat overview of past conditions and previous salmonid habitat restoration work, present salmonid spawning and rearing habitat conditions, focusing on gravel and large woody debris (LWD) availability, an assessment of the current functional conditions of salmonid habitat restoration treatments, and recommendations for future salmonid habitat restoration work on the Seymour River.	$5,000	Rory Cleveland Seymour Salmonid Society 438-862-9990 roryleecleveland@gmail.com

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Approved projects in the Thompson-Nicola Region

Project #	Project Name	Project Description	Board Approved	Contact Information
3-60	O&M - (FSH) - Headquarters	Maintain the Kane Valley Ranch for fisheries research. Maintain property, repair fences, pay the Hydro for aeration system, maintain caretakers house (plumbing, wiring, mechanical).	$3,500	Shannon Harris Ministry of Environment 778-868-9855 Shannon.Harris@gov.bc.ca
3-94	O&M - (FSH) - Thompson-Nicola	Operation and maintenance of existing lake aeration, stream diversions, outlet fence, riparian fencing, open diversion ditches and dam structures that enhance the angling opportunities of high use lakes within the Thompson-Nicola region.	$68,500	Andrew Klassen Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-371-6237 andrew.klassen@gov.bc.ca
3-154	O&M - (FSH) - Bonaparte	Operation and maintenance of the Bonaparte Fishway and the Bonaparte Lake Dam.	$27,500	Robert G. Bison Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-371-6244 Robert.Bison@gov.bc.ca
3-251	Interior Fraser Wild Steelhead Conservation	This project is for the continued monitoring of abundance, productivity and conservation status for wild Interior Fraser steelhead which includes Thompson and Chilcotin steelhead. The project will provide scientific knowledge to inform provincial, federal, and First Nation fisheries management planning, processes and decisions for conservation and responsible use.	$98,677	Robert Bison Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-851-1076 robert.bison@gov.bc.ca
3-272	Wetlands Institute 2021: Comox Valley and Gulf Islands	The Wetlands Institute workshop provides training to individuals involved in wetland stewardship projects in BC. The 2021 Institute will be hosted jointly in Galiano Island and the Comox Valley on Vancouver Island, and will be a hybrid of virtual lectures and outdoor, hands-on learning with COVID-19 protocols. The Institute will provide high quality training and hands-on wetland restoration and design experience while supporting regional initiatives. Following the Institute, participants are offered ongoing support to successfully complete their projects. This year BCWF will also offer a virtual Speaker Series on topics of value to wetland practitioners, to support a greater and more diverse audience.	$54,800	Neil Fletcher BC Wildlife Federation 604-882-9988 ext. 232 Neil.fletcher@bcwf.bc.ca
3-406	Lillooet Region Aquatic Sampling	This project will monitor lakes in the Lillooet area for invasive mussels through veliger sampling.	$4,760	Jacquie Rasmussen Lillooet Regional Invasive Species Society 250-256-4292 info@lriss.ca
3-419	Fraser River Bighorns: Fraser West Disease Assessment and Herd Recovery	This project year will build on disease prevalence and herd health and movement data collected during Year 1 as well as the preliminary results of Year 2 selective removal effort. In Year 3 we will continue to apply the selective removal approach to remove adults ewes shedding *Mycoplasma ovipneumoniae* (*M.ovi*) to improve pathogen fade-out and recover a second band of Fraser River bighorn sheep that is currently infected with *M.ovi*. GPS collar data will continue to be used to monitor connectivity among herds and investigate mortalities.	$47,190	Jeremy Ayotte Phyla Biological Consulting Inc 250-804-3513 jeremy.ayotte@gmail.com
3-420	Monitoring the Stein/Nahatlatch grizzly bear population during recovery	This isolated and Critically Endangered grizzly bear population has been monitored using DNA sampling since 2005. To avoid an extended break in research continuity, we plan to continue the monitoring every two years as the Province and Indigenous groups implement recovery actions. The project's structure is consistent with the spirit of Reconciliation and with the principals of the United Nations Declaration on the Rights of Indigenous Peoples, "The UN Declaration emphasizes the Indigenous peoples' rights to live in dignity, to maintain and strengthen Indigenous institutions, cultures and traditions and to pursue self-determined development, in keeping with Indigenous needs and aspirations".	$135,519	Ellen Reyes St'át'imc Government Services 250-256-0425 enviromgr@statimcgs.org

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3-422	Adams Groundhog Road Rehabilitation and Reforestation Project	This project will benefit the Groundhog caribou herd by restoring and estimated 50-100 kms over multiple years to reduce predator movement and access to caribou habitat.	$199,500	Doug Lewis Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-312-6777 doug.w.lewis@gov.bc.ca
3-425	Turtle Valley Farm/Toad Hollow Invasive Plant Management and Rehabilitation Project (Year 2 of 3)	This Land Stewardship Grant will support operations and management activities on this important conservation land. Funding amount is for three-year term.	$45,051 for three years	Danielle Cross The Nature Conservancy of Canada 250-216-8502 Danielle.cross@natureconservancy.ca
3-428	Mid Fraser Sturgeon Monitoring Program	This proposals seeks to develop a multi-year priority White sturgeon monitoring program in the Mid Fraser River near Lillooet BC. The goals are to 1) assess the distribution of Nechako origin hatchery fish in Mid Fraser and develop a mitigation strategy for potential removal 2) improve spatial assessment of fish densities Region 3 downstream of Lillooet; 3) obtain updated information on abundance in Region 3 & 5 to inform COSEWIC and SARA review processes and 4) assess current recreational fishery and determine whether it is operating sustainable	$40,250	Greg Andrusak Ministry of Forests, Lands, Natural Resource Operations and Rural Development 778-698-9237 greg.andrusak@gov.bc.ca
3-441	White Sturgeon Monitoring in the Thompson River Watershed	The White Sturgeon population in the mid-Fraser River is especially vulnerable to extirpation due to its low abundance, vulnerability to fishing pressure, and lower genetic diversity compared to other sturgeon populations. Secwepemc Fisheries Commission is leading a multi-year research partnership to help fill critical data gaps in population assessment and life history data. Guided by existing programs and using standardized fish capture and monitoring techniques, SFC will document White Sturgeon presence in the region and will begin identifying the critical habitats.	$5,000	Michelle Walsh Secwepemc Fisheries Commission 778-471-8222 mwalsh@shuswapnation.org
3-442	Nahatlatch Watershed Bull Trout Assessment	Bull trout (Salvelinus confluentus) are an endemic species of char widely distributed within BC. This project will address data gaps for the conservation and management of Bull Trout within BC, especially within the core area of Middle Fraser Ecological Drainage Unit (EDU), as detailed in Hagen and Decker (2011). The Nahatlatch watershed has been identified as a major data gap in the distribution and status of Bull Trout.	$3,800	Greg Andrusak Ministry of Forests, Lands, Natural Resource Operations and Rural Development 778-698-9237 greg.andrusak@gov.bc.ca

3-272: Wetlands Institute 2021: Comox Valley and Gulf Islands

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Approved projects in the Kootenay Region

Project #	Project Name	Project Description	Board Approved	Contact Information
4-64	O&M - (FSH) - Kootenay	Operation and maintenance of two West Kootenay kokanee spawning channels which support a genetically unique strain of kokanee, and associated ecosystem and sport fishery benefits.	$53,500	Molly Teather Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-354-6948 molly.teather@gov.bc.ca
4-248	Gerrard Rainbow Trout Critical Monitoring	The purpose of this project is to monitor the conservation status of the Gerrard stock of a rare ecotype of rainbow trout that supports a socially and economically significant recreational fishery. The project focuses on monitoring escapement, monitoring quality of critical habitat for Gerrard rainbow trout, estimating fishing effort and harvest of Gerrard rainbow trout for management decisions, and public education and protection of Gerrard rainbow trout spawners through presence at spawning site.	$34,000	Molly Teather Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-354-6948 molly.teather@gov.bc.ca
4-345	Kootenay Conservation Program: Fostering a Collaborative Approach to Conservation	The goal of this project is to foster a landscape approach to conservation in the Kootenays. The Program is a successful partnership of over 80 organizations, well positioned to coordinate the development and delivery of this approach. This project includes four complementary components: 1) Strengthening the delivery and coordination of stewardship activities through Conservation Action Forums; 2) Ensuring coordinated securement of highest priority private properties; 3) Developing a Conservation Ambassadors training program focused on providing access to leading-edge information and expertise that stewards and other practitioners can incorporate into their work; and, 4) Building financial capacity through communicating benefits and engaging local governments in Local Conservation Fund expansion.	$30,000	Juliet Craig The Nature Trust of BC 250-352-2260 manager@kootenayconservation.ca
4-444	Kootenay Region River Guardian Program	River Guardian presence in eight Kootenay Region classified watersheds with objective to maintain or improve the quality of angling in these systems and protect native sport fish populations. River Guardians will provide a compliance presence, educate public, anglers and other stakeholders, and collect angler survey data and biological/inventory data.	$130,500	Kevin Heidt Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-489-8556 Kevin.Heidt@gov.bc.ca
4-461	Boundary Restoration and Enhancement Program	The Boundary Restoration and Enhancement Program aims to improve habitat quality, ecosystem resiliency and forage availability for ungulates and other native species by restoring or enhancing degraded habitats and ecosystems in the Boundary. This project will build community stewardship and technical capacity through partnerships.	$67,380	Lisa Tedesco Ministry of Forests, Lands, Natural Resource Operations and Rural Development 778-671-9183 lisa.m.tedesco@gov.bc.ca
4-539	Determination of Gerrard Rainbow Trout Stock Productivity at Low Abundance	This project will obtain critical information on the stock productivity parameter for Gerrard Rainbow Trout at low abundance. The information is vital in defining important biological reference points for conservation and management of this unique ecotype on Kootenay Lake. Data will provide important information on the maximum reproductive rate of this stock which can only be obtained under low stock abundance.	$54,959	Greg Andrusak Ministry of Forests, Lands, Natural Resource Operations and Rural Development 778-698-9237 greg.andrusak@gov.bc.ca
4-551	Fort Shepherd Conservancy Area (Year 2 of 3)	This Land Stewardship Grant will support operations and management activities on this important conservation land. Funding amount is for three-year term.	$47,188 for three years	Karen Iwachow The Land Conservancy of BC 250-479-8053 kiwachow@conservancy.bc.ca

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4-555	Determination of Bull Trout Stock Productivity at Low Abundance	This project will obtain critical information on the stock productivity parameter for Bull Trout at low stock abundance. The information is vital in defining important biological reference points for conservation and management for this species on Kootenay Lake. Due to the extenuating circumstances associated with the collapse of the Kokanee population on Kootenay Lake, continuing the Bull Trout monitoring is considered a high priority for the region and supported by staff and managers.	$48,400	Greg Andrusak Ministry of Forests, Lands, Natural Resource Operations and Rural Development 778-698-9237 greg.andrusak@gov.bc.ca
4-556	Invasive plant management on bighorn sheep winter ranges	This project involves a comprehensive and collaborative approach to managing invasive plants on 3 critical bighorn sheep winter ranges: Wigwam Flats, Bull River and Columbia Lake East. The quality of existing forage within low elevation bighorn sheep winter ranges was extremely compromised at Bull River and Wigwam Flats. Invasive plant infestations are extremely large at Wigwam Flats and Bull River. This project is attempting to increase the quality of grasslands by reducing invaders and increasing forage species within selected high use bighorn sheep areas. As Columbia Lake East has few invasive plants the goal is to conduct regular monitoring and treatments to maintain this status.	$45,000	Irene Teske Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-489-8551 irene.teske@gov.bc.ca
4-563	Quantifying rates and mechanisms of grizzly bear mortality in the Elk Valley	This project will use radiotelemetry to identify the rates and causes of bear mortality (reported and unreported) in a population of bears facing one of the highest human-caused mortality rates in the province. Currently, the degree of under-reporting is unknown and suspected to be high. This project builds on a large body of research and previously collected data to provide actionable recommendations to alleviate threats to bear populations and human-bear coexistence. A major goal of the project is to take evidence through to action, which we have done in a variety of ways including attractant management, conflict solutions, habitat protection, and working to mitigate highway collisions.	$16,000	Clayton Lamb Ministry of Forests, Lands, Natural Resource Operations and Rural Development 778-215-0334 ctlamb@ualberta.ca
4-571	Invasive Fish Species Eradication at Fussee Lake	This project is year 2 of eradicating largemouth bass at Fussee Lake in the East Kootenays of BC.	*Pending	Matt Neufeld Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-354-6354 matt.neufeld@gov.bc.ca
4-576	Longevity of Mustelid and Prey Responses to Woody Debris Piles on Large Clearcuts - New Phase	This project will investigate the responses of small mustelids and their prey species to piles of woody debris arranged in a linear configuration across large (40+ ha) clearcut openings. Presence of these mammals in piles will indicate that these structures are effective as habitat for up to 5-6 years post-harvest in large clearcut openings. Restoration of furbearer populations in areas of extensive forest removal is much needed to support B.C. fur trappers, maintain mammalian biodiversity, and assist with regulation of vole populations.	$30,000	Dr. Thomas Sullivan Applied Mammal Research Institute 250-494-7160 tom@appliedmammal.com
4-581	Preserving the Ecological Function of BC's Freshwater	This project will undertake plankton tow sampling in lakes in the Central Kootenay region to monitor for the presence of invasive mussels.	$15,000	Erin Bates Central Kootenay Invasive Species Society 844-352-1160 ebates@ckiss.ca
4-582	East Kootenay Invasive Mussels Monitoring Project	This project will monitor lakes in the East Kootenay region for invasive mussels through veliger sampling.	$22,367	Danny Smart East Kootenay Invasive Species Council danny@ekisc.com

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4-593	Evaluating grizzly conservation management: quantifying recovery in the South Selkirks	This project will evaluate 15 years of conservation activities applied toward recovering a threatened grizzly bear population in the South Selkirks using a DNA-based population survey. The results will allow BC's first detailed, scientifically documented recovery process to be compared to target population metrics outlined in our Recovery Management Plan. Our results will provide valuable input to the developing BC Grizzly Bear Management Plan, and inform conservation management of grizzly bear populations across BC by providing a blueprint for managing stressed grizzly bear populations.	$93,500	Michael Proctor Birchdale Ecological 250-353-8072 mproctor@netidea.com
4-604	Pend d'Oreille River Veliger Sampling	This project will undertake plankton tow sampling on the Pend d'Oreille River including Seven Mile and Waneta Reservoirs.	$8,717	Evan Smith Okanagan Nation Alliance 250-707-0095 esmith@syilx.org
4-606	Morrissey Meadows (Year 2 of 3)	This Land Stewardship Grant will support operations and management activities on this important conservation land. Funding amount is for three-year term.	$19,256 for three years	Richard Klafki The Nature Conservancy of Canada 250-688-6270 richard.klafki@natureconservancy.ca
4-610	Elk Valley bighorn sheep winter range habitat condition re-assessment	This project will determine whether high elevation grasslands and ungulate winter range in the Elk Valley continue to be impacted by coal development and ungulate overgrazing since the last bighorn sheep habitat assessment in 2009. Our research seeks to 1) Compare present-day and historical (2009) data on vegetation community composition, structure, function, and forage productivity and quality, 2) Re-assess the condition of high elevation grasslands to identify remaining high-quality grasslands and reasons for condition changes, and 3) Assess the success of remediation of roads and mining-related infrastructure as it occurs within or adjacent to high value ungulate winter range.	$67,600	Irene Teske Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-489-8551 irene.teske@gov.bc.ca
4-611	Elk Valley West bighorn sheep population dynamics and habitat condition	The bighorn sheep estimates in the Elk Valley West population during the winter 2019 and 2020 surveys were the lowest recorded and a continuation of a 10-year decline. This study will identify survival rates and causes of mortality, seasonal range use and movement corridors, and health sampling, and will evaluate existing habitat to provide information to help make informed wildlife management decisions.	$49,645	Sam Medcalf Sparwood and District Fish & Wildlife Association 250-425-5531 smedcalf83@hotmail.com
4-613	Kootenay Lake head recovery and data collection program	This project assists with recovery of Kootenay Lake kokanee by encouraging increased angler participation in the public fishery. The project involves collection of Bull Trout and rainbow trout heads and relevant data. A monthly reward incentivizes anglers to fish and submit rainbow and bull trout heads. The intent is to increase angler activity and reduce predator numbers thus improving survival of Kokanee. Based on the initial success of this project, this year's project includes prize incentives for young anglers. This is expected to involve more family participation fishing on Kootenay Lake.	$52,150	Gord Grunerud BC Wildlife Federation 250-229-5245 gordongrunerud@shaw.ca
4-616	Safe Passages for Wildlife in the Southern Canadian Rockies	This project is working to improve wildlife connectivity and human safety along Highway 3 in the southern Canadian Rockies. Project partners have collaborated for over a decade to identify hotspots of wildlife collisions and crossings that would benefit from highway mitigation. The current phase of the project focusses on the Alexander Michel Linkage, a 6 km stretch of Highway 3 near the Alberta border. Last year two existing structures were retrofitted to create suitable wildlife underpasses. This year, works on Alexander bridge will be completed, fencing between the three complete structures will be installed, and the monitoring program will continue.	$50,000	Emily Chow Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-420-6325 Emily.Chow@gov.bc.ca

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4-617	Restoring Functional Habitat in the Elk Valley	The high road density in the Elk Valley is a threat to multiple terrestrial and aquatic ecosystem values. To reduce risks to wildlife and restore ecosystem function, this project has restored habitat by deactivating 28 km of road in 2020, with an additional 24 km planned in the next two years. The deactivated roads will be planted with trees to speed up the ecosystem recovery process. The project will have benefits for multiple terrestrial and aquatic species, including moose, grizzly bears, and westslope cutthroat trout.	$63,782	Meghan Anderson Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-420-6402 Meghan.anderson@gov.bc.ca
4-618	Elk Valley Invasive Plant Management - Year 2	This project provides a multi-stakeholder framework which aims to minimize and contain the presence of invasive plant species and support biodiversity and ecological function in the upper Elk Valley, with an emphasis on areas of high habitat value (i.e. bighorn sheep habitat and conservation properties). The project will act as a mechanism to build community stewardship through connecting land managers and user groups with shared values.	$58,320	Kendal Benesh East Kootenay Invasive Species Council 250-919-7826 Kendal@ekisc.com
4-621	Upper Bigmouth Creek	The Upper Bigmouth Restoration project was initiated in 2017 with restoration of approximately 5280 m of a 6700 m linear feature. Restoration work was conducted in 2017 with subsequent ecological restoration (planting) conducted in 2019. Monitoring is on-going through use of motion cameras as well as through established long-term monitoring plots.	$28,431	Corey Bird Yucwmenlucwu (Splatsin Caretakers of the Land) 250-838-0775 corey.bird@splatsindc.com
4-622	Mica Creek	The Mica Creek Restoration Project is a functional and ecological restoration project aimed at restoration of 2 linear resource road networks within protected, high-value early winter habitat for Columbia North caribou subpopulation. This project brings experiences learned on the Bigmouth Restoration Project to aid in the development of restoration strategies targeted at reducing predator movement and creating suitable growing conditions.	$268,461	Corey Bird Yucwmenlucwu (Splatsin Caretakers of the Land) 250-838-0775 corey.bird@splatsindc.com
4-627	Enabling management changes for recreation-sensitive species (grizzly bear, wolverine, woodland caribou) in the Upper Columbia	Our three-year project will help better understand when/where/how people recreate using a cutting-edge approach combining 'traditional' data, input from local recreation experts, and newer technologies. In 2021-22, we will build recreation and wildlife models (recreation-sensitive species: wolverine, grizzly, caribou) and identify potential conflict hotspots in areas heavily used by recreationists and key wildlife. We will develop tools to facilitate their use by government partners (Indigenous, federal, provincial, local), conservation and recreation groups for conservation action, management, and planning –so that wildlife and diverse user-groups can thrive and continue to enjoy the Upper Columbia for generations.	$70,675	Natalie Bourbonnais-Spear Yellowstone to Yukon Conservation Initiative (403) 609-2666 ext. 115 natalie@y2y.net
4-628	Galton Range Habitat Enhancement for Bighorn Sheep and Mule Deer	Invasive plant management will enhance winter and transitional habitat to support Rocky Mountain bighorn sheep and mule deer populations in the Galton Range. This project builds upon ongoing efforts to enhance forage and restore ecosystem function, diversity and resiliency on winter ranges. Invasive plant management will reduce the establishment and spread of invasive plants, and promote native plant growth to enhance winter forage for ungulates.	$72,960	Allana Oestreich Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-420-6281 allana.oestreich@gov.bc.ca
4-638	Evaluation of the Upper St. Mary River Bull Trout Population	The purpose of this project is to better understand bull trout population dynamics in the upper St. Mary River system, provide point in time population/inventory data, establish critical habitats and inventory indexes and gather genetic samples to evaluate the population and determine relationships within the overall upper Kootenay River metapopulation. Ultimately, this project will inform fisheries management decisions to ensure effective long-term conservation measures and a balance between species sustainability, angler opportunity and quality of the fishery.	$20,000	Kevin Heidt Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-919-8480 Kevin.Heidt@gov.bc.ca

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4-642	Temporal and Spatial Effects of Recreation on Wildlife	This project aims to measure how human trail use affects spatial and temporal use of wildlife trail use and assist local non-profit recreation groups to minimize their impacts on wildlife. Camera traps will be set on biking/hiking trails and wildlife trails in a recreation area, and on wildlife trail outside the recreation area, but in an ecologically similar area. This method will allow us to detect how humans affect wildlife use of trails while controlling for ecological variables. This project aims to decrease the impacts of recreation locally and regionally by providing science-based guidance and strategies for trail maintenance and development.	$29,888	Michelle McLellan 236-972-6080 mclellan.wildlife.research@gmail.com
4-643	Kootenay-Lardeau Burbot Investigation	Burbot (*Lota lota*) in the lower Kootenay system are provincially red-listed and considered to be critically imperiled. This SEED project is designed to inform uncertainties related to the life history of Burbot in the Lardeau River system to better understand their contribution to the Kootenay Lake Burbot population. The initial year of the program (2021) includes trial use of various capture methodologies in the Lardeau River and life history sampling including genetic material collection and PIT tagging. Results will be used to develop a multi-year passive telemetry program.	$5,000	Crystal Lawrence Wood Environment & Infrastructure Solutions 250-354-1600 crystal.lawrence@woodplc.com

4-582: East Kootenay Invasive Mussels Monitoring Project

*Final Grant amount may be subject to funding condition(s)

Approved Projects in the Cariboo Region

Project #	Project Name	Project Description	Board Approved	Contact Information
5-44	O&M - (FSH) - Cariboo	This project will enhance fisheries through: lake aeration on Skulow, Irish and Simon lake; operation and maintenance of Haines Cr diversion to the 11 sister lakes; dams, weirs, and fish passage restoration on other lakes and stream.	$53,000	Scott Horley Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-302-5817 Scott.Horley@gov.bc.ca
5-196	Mid-Fraser River Sturgeon Assessment	This multiyear project will fill knowledge gaps of sturgeon habitat use and behavior in the mid-Fraser. Specifically, this study will improve understanding of stock structure, juvenile recruitment and adult habitat use in northern sections of the mid-Fraser.	$33,000	Lynn Avis Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-706-6253 lynn.avis@gov.bc.ca
5-239	Quality Waters Strategy - Cariboo Region	The Dean River guardian program will collect the necessary creel information to administer the Dean River draw and implement the Dean River angling management plan. River guardians on the Chilcotin River will monitor steelhead fisheries closure due to extreme conservation concern.	$139,401	Lynn Avis Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-706-6253 lynn.avis@gov.bc.ca
5-286	Implementation of Cariboo Core Area Bull Trout Monitoring	This project will implement recommendations from the Middle and Upper Fraser Bull Trout Management Plan. The overall purpose is to achieve desired outcomes that support sustainable opportunity (angling) and long term stock conservation.	$47,700	Lynn Avis Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-706-6253 lynn.avis@gov.bc.ca
5-296	Chilko Lake bull trout movements and exploitation	This project is tracking the movements of bull trout from Chilko Lake (via acoustic telemetry) to determine their residency and potential dispersal throughout the Chilcotin and nearby systems. Exploitation rates for Chilko bull trout will also be estimated via high-reward tags, and important biological information (i.e., length, weight, and age) will be obtained.	$48,930	Scott Hinch University of British Columbia 604-822-9377 scott.hinch@ubc.ca
5-297	Central Interior lake trout exploitation study	This is a multiyear project to evaluate lake trout mortality on six popular fisheries in British Columbia's Central Interior. Project results will include an improved management and assessment framework and a long-term angling regulation and assessment plan to improve angling and/or lake trout conservation.	$85,271	Russell Bobrowski Ministry of Forests, Lands, Natural Resource Development and Rural Dividend 250-398-4258 Russell.bobrowski@gov.bc.ca
5-306	Horsefly River - Rainbow Trout Enumeration and Habitat Use Study	This project will develop a cost-effective method to index abundance of Quesnel Lake rainbow trout. The project will provide the basis for long term management of the stock. Acoustic telemetry will also be used to identify critical habitats across the Horsefly River watershed. Information will be used to implement legislative habitat protection measures.	$53,000	Lee Williston Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-302-5705 Lee.Williston@gov.bc.ca
5-307	Assessing cougar density in The Cariboo Region through non-invasive survey techniques	This is a mark-recapture DNA science-based project utilizing closed spatial mark-recapture modelling to estimate cougar population densities in a study area of region 5. This project will incorporate a citizen science component for estimating cougar populations by including stakeholders.	$22,936	Shane White Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-302-4600 Shane.White@gov.bc.ca

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5-310	Invasive Mussel Monitoring for 11 Priority Lakes in the Cariboo Regional District	This project will monitor lakes in the Cariboo region for invasive mussels through plankton sampling for veliger detection.	$15,678	Ksenia Kolodka Invasive Species Council of British Columbia 250-305-1003 outreach@bcinvasives.ca
5-327	Dean River Steelhead Stock Assessment	Although the Dean River hosts one of the world's most popular steelhead sport fisheries, detailed population assessment has been lacking. This five-year project will apply telemetry, mark-recapture, and adult counts to evaluate if conservation measures are needed. This study will also prescribe a cost-effective monitoring plan to ensure required information is collected to implement necessary management actions if the stock does decline to unsustainable levels.	$112,071	Russell Bobrowski Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-398-4258 Russell.bobrowski@gov.bc.ca
5-332	Big Bar Slide Sturgeon Assessment	This project will evaluate sturgeon movement patterns across the Big Bar slide to inform fish passage structure design. Key knowledge gaps on sturgeon habitat use and behavior in the Mid-Fraser will also be addressed. The study will improve understanding of migration routes and timing, and the identify critical overwintering habitat.	$36,000	Lynn Avis Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-706-6253 lynn.avis@gov.bc.ca

5-306: Horsefly River - Rainbow Trout Enumeration and Habitat Use Study

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Approved Projects in the Skeena Region

Project #	Project Name	Project Description	Board Approved	Contact Information
6-227	Restoring Whitebark Pine Ecosystems to Enhance Subalpine Bear Habitat	This is a multiyear, multi-partner project to restore endangered whitebark pine ecosystems with high value for bears in southern Skeena Region. 2021-22 plans include: (1) planting seedlings from blister rust-resistant parent trees in wildfire areas. (2) stratifying seeds for future plantings; (3) monitoring and maintaining 3 whitebark pine restoration trials; (4) contributing seedlings and seeds to BC's white pine blister rust screening program; (5) scoping-out the 2022 seed year; and (6) finalizing project reports, publications, and communication and outreach activities.	$50,000	Sybille Haeussler Bulkley Valley Centre for Natural Resources Research & Management 250-643-9054 Sybille.Haeussler@unbc.ca
6-252	Determining population management unit boundaries for mountain goats in the Skeena Region	Using GPS collar and genetic data, we will quantify home ranges and habitat selection, and determine genetic relatedness of mountain goats on three adjacent complexes near Smithers, BC. Results from these analyses will allow us to delineate biologically meaningful population management unit boundaries, and potentially inform boundaries across the remainder of the Skeena region.	$33,600	Kara MacAulay Ministry of Forests, Lands, Natural Resource Operations, and Rural Development 250-876-7085 kara.macaulay@gov.bc.ca
6-259	Old Fort Mtn. Moose Winter Range Browse Enhancement Project	This project will increase winter moose browse supply and availability within the Morice TSA, with manual treatment of Scouler's willow (*Salix scouleriana*). Manual hinging of willow brings willow sprouts into access for moose and promotes significant basal and bole sprouting for many years post treatment. The project treatment area is along the east side of Babine Lake, Old Fort Mountain. This project has been co-ordinated with Skeena Regional Moose Enhancement Activities and Program Development, and includes a monitoring component that will contribute to long-term collaborative moose enhancement assessment monitoring.	$107,847	Len Vanderstar Bulkley Valley Rod & Gun Club 250-847-9729 lvanderstar1761@citywest.ca
6-268	Quality Waters Strategy - Skeena	This project includes fishery development and planning activities on the Bulkley, Kispiox and Morice Rivers, including review of angler effort targets and feasibility of lottery booking systems. The project also includes stock assessment activities on the Skeena, Kitwanga, and Bulkley Rivers.	$167,000	Kenji Miyazaki Ministry of Forests, Lands, Natural Resource Operations, and Rural Development 250 847-7292 Kenji.Miyazaki@gov.bc.ca
6-283	Tweedsmuir caribou winter range - Chelaslie road restoration	This project will benefit the Tweedsmuir – Entiako caribou herd by using functional and ecological techniques to restore up to ~78 km of road in high value low elevation winter range. Roads and techniques were identified based on objectives to contribute to intact habitat and/or to reduce predator movement in high value winter habitat.	$70,671	Anne-Marie Roberts Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-876-7040 annemarie.roberts@gov.bc.ca
6-288	Bulkley River Watershed Fish Passage Restoration	This project will restore fish passage at road crossing structure barriers in the Bulkley River watershed through GIS planning/data analysis as well as through a collaborative implementation of the four-phases of the strategic approach protocol developed by the Fish Passage Technical Working Group. Work in 2021/2022 includes fish passage assessments at road and rail stream crossing structures followed by detailed habitat assessments and fish sampling in streams where culvert barriers are identified. We are conducting research and collaborating with First Nations, road tenure holders, and stakeholders to develop "road maps" for fish passage restoration.	$53,603	Allan Irvine Society for Ecosystem Restoration Northern BC 250-777-1518 al@newgraphenvironment.com
6-289	Cutblocks in caribou habitat: when are they considered restored?	The overall goal of this project is to develop a sampling protocol and conduct a retrospective study in Southern Mountain Caribou – Northern Group & Central Group (SMC-NG&CG) caribou low elevation winter and summer ranges to assess whether older-aged cutblocks (20-40+years) 1) no longer function as alternate prey habitat and 2) have started functioning as preferred caribou habitat. The results from this project will support priority restoration planning for low elevation NG&CG caribou ranges, restoration	$29,805	Deborah Cichowski Caribou Ecological Consulting 250-877-7558 caribou@bulkley.net

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		activities that target cutblocks on low elevation ranges, and caribou habitat supply planning.		
6-291	Skeena Goldfish Eradication	Goldfish have been illegally introduced into Lost Lake, an isolated waterbody adjacent to the Kitsumkalum River in the lower Skeena watershed. There is risk that these fish have entered other waterbodies, including the Kitsumkalum River and lower Skeena River. A RISC survey in June 2019, visual observations throughout the summer/fall of 2019 and anecdotal evidence provided by local residents confirm that the goldfish are successfully reproducing and have been present in the lake for several years. This project will use eDNA and a variety of fish capture techniques to determine the extent of Goldfish presence in the Kitsumkalum watershed.	$20,000	Kris Maier Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-847-7321 Kris.Maier@gov.bc.ca
6-292	Skeena Region Fluvial Char Baselines	This project will seek to identify species composition, geographical distribution and exploitation rates of fluvial chars (Bull Trout and Dolly Varden) in various fisheries in the lower Nass and middle Skeena Rivers using high reward floy tagging and genetic sampling.	$42,000	Kris Maier Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-847-7321 Kris.Maier@gov.bc.ca
6-299	Atlin East Sheep Movement Monitoring & Baseline Health Assessment	The Taku River Tlingit First Nations (TRTFN) and the Province of BC have partnered to monitor habitat use, migration, and health of Tawéi (Tlingit word for thinhorn sheep (*Ovis dalli dalli*)), near Atlin, BC. Results of this study will provide information on home range, seasonal habitat selection and movement, survivorship outcomes and population management unit boundaries, traditional migration routes, habitat use and will support a baseline collection of sheep health. This research will support understanding potential effects from a hydro-dram and will build on traditional and known scientific knowledge on the Atlin East herd that will help provide support to better manage for Tawéi.	$24,062	Ryan LaPointe Taku Wildlife 250-651-7900 wildlife.coordinator@gov.trtfn.com
6-302	Upper Yukon River Bull Trout eDNA	Bull trout within the upper Yukon River watershed are considered data deficient and new information on species presence is required to complete a status report on this population. This project will collect presence/absence information using environmental DNA (eDNA) in three drainages of the upper Yukon River watershed were there are a small number of records of this species or local knowledge indicates they may occur, these include the Morley, Smart and Swift river systems. This project will provide new information on bull trout within the upper Yukon River watershed to help facilitate a status report of the species and help to ensure this unique population of bull trout.	$10,830	Sandy Smarch Teslin Renewable Resources Council 867-390-2919 teslinrrc@northwestel.net
6-306	Whitesail	This project will restore ~ 73 km of roads to reduce predator and human access within the Whitesail Priority Restoration Area for the Tweedsmuir-Entiako caribou herd, decreasing road density from 1.3 km/km2 to 0.08 km/km2 and creating 7176 ha of near-contiguous low elevation summer habitat from the shoreline of Whitesail Reach to intact no-harvest areas.	$87,174	Kari Stuart-Smith Canadian Forest Products Ltd. 250-426-9380 kari.stuart-smith@canfor.com

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Approved projects in the Omineca/ Peace Region

Project #	Project Name	Project Description	Board Approved	Contact Information
7-98	O&M - (FSH) - Peace	Operation & Maintenance of HCTF - funded projects and assets will include winter aeration of Inga and Sundance Lakes, educational trips to the Inga Lake spawning channel, Swan Lake fishway maintenance and Stewart Lake weir maintenance.	$21,750	Kristen Peck Ministry of Forests, Lands, Natural Resource Operations and Rural Development Kristen.Peck@gov.bc.ca
7-436	Enhancing caribou survival within the Klinse-Za/ScottE herd area	This multiyear project is one of several complementary emergency measures implemented to avert extirpation, and eventually recover, the population of caribou known as the Klinse-Za/Scott herds located in the south Peace region of northern British Columbia.	$40,000	Tamara Dokkie Nikanese Wah Tzee Stewardship Society 250-778-3676 tamara.dokkie@westmo.org
7-469	Tuchodi Prescribed Burns for Wildlife Habitat	The Tuchodi Prescribed Burn Program will restore and maintain critical winter range for elk, Stone's sheep, moose, mountain goat and mule deer in the Tuchodi River valley of Northern BC. Restoration of habitats through the application of prescribed fire will result in improved forage quantity and nutritional quality in ungulate winter range habitats. By restoring and maintaining a network of early-seral habitats throughout the Tuchodi area, the Tuchodi Burn Program will ensure the long-term sustainability of ungulate populations, hunting and recreational opportunities, and traditional use of wildlife by First Nations.	$96,855	Alicia Woods Ridgeline Wildlife Enhancement 250-262-9630 adwoods04@gmail.com
7-471	Determining the nutritional importance of kokanee to grizzly bears	Through non-invasive hair collection methods, this project will determine the nutritional importance of kokanee to grizzly bears in north-central BC. Diet composition and kokanee consumption will be assessed to provide insight into potential physiological implications of decreasing kokanee availability to these grizzly bear populations considering habitat and climate change. Results of this project will inform habitat protection measures and landscape change aimed to maintain kokanee stocks if they are found to be an important food source.	$32,040	Shelley Marshall Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-739-8428 shelley.marshall@gov.bc.ca
7-473	Wolf predation risk to moose in north-central BC	This project investigates seasonal wolf predation risk to moose in two of the provincial moose research project study sites in Region 7A. We track kill sites of about 5 wolf packs in each site by deploying satellite collars and checking location clusters for evidence and type of prey killed, while also determining habitat selection and movement.	$25,000	Morgan Anderson Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-649-4392 morgan.anderson@gov.bc.ca
7-475	Chase Caribou Herd Response to Habitat Alterations	The Chase herd population in Southern Mountain Caribou has recently undergone extensive habitat alteration possibly resulting in declining habitat quality and increased predation. The project will synthesize and analyze collected data on habitat use, movements, and vital demographic rates and compare to pre-2009 data to help identify potential impacts from the recent habitat alterations. The project will continue to monitor survival of radio-collared adult cows and investigate mortalities as they occur. Outcomes include characterizing major changes in herd population or behavioural dynamics, and identifying conservation measures needed to ensure the resiliency of this herd into the future.	$39,634	Landon Birch Wildlife Infometrics Inc. 205-997-5700 landon.birch@wildlifeinfometrics.com
7-507	Sharp-tailed Grouse Habitat Restoration and Enhancement in the Peace Region	This project will use prescribed burning and manual brushing to restore approximately 88 ha of sharp-tailed grouse lek and nesting habitat by removing encroaching tree cover and reducing dense and tall shrubs. Stewardship activities, such as the creation of undisturbed retention areas on adjacent private lands, will improve habitat for nests and broods. Success of restoration efforts will be measured through pre- and post-treatment population surveys and vegetation assessments.	$38,461	Alicia Woods Ridgeline Wildlife Enhancement 250-262-9630 adwoods04@gmail.com

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7-518	Evaluating elk population trend, habitat use, and potential for competition with moose	Collared female elk in the southern Omineca around Prince George are monitored to determine survival rate, calf recruitment and population trends as baseline information. Resource selection will determine habitat use to inform elk management regionally where extensive logging has occurred. Collared elk will allow regional staff to develop a refined sightability correction factor to facilitate accurate abundance estimates. This project will provide science-based information for decision makers to consider when addressing these concerns.	$42,800	Matt Scheideman Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-649-4279 Matthew.scheideman@gov.bc.ca
7-519	Canada lynx habitat ecology on an intensively harvested landscape	This project will assess the habitat ecology and status (i.e., presence, densities, trends, reproduction) of Canada lynx populations impacted by accelerated salvage harvest and provide applied recommendations for monitoring survey protocols and habitat management. The project uses a combination of non-invasive survey methods such as remote cameras and hair snags as well as GPS collars placed on individual lynx to achieve our objectives. This monitoring program aims to understand the impacts of human activities on wildlife and their habitat and investigate potential ways to improve on existing practices to better incorporate wildlife values into land use planning.	$70,585	Shannon Crowley Chuzghun Resources Corp.- John Prince Research Forest 778-978-0117 crowley@unbc.ca
7-528	Amoco Road Restoration	This project is designed to benefit the Klinse-Za caribou herd by using functional restoration treatments on a road built for oil and gas exploration. This project has resulted in functional and ecological restoration of 970 ha of road in the Klinse-Za caribou herd area; In this project year, we will conduct post-treatment monitoring of treatment effectiveness.	$23,315	Tamara Dokkie Nikanese Wah tzee Stewardship Society 250-788-3663 tamara.dokkie@westmo.org
7-529	Kotcho Lake Restoration Area	The project will benefit the Snake-Sahtaneh boreal caribou herd by functionally and ecologically restoring 45 km of seismic lines to reduce predator movement, with treatment sites strategically located to achieve habitat security over the entire 60,000 ha area.	$175,780	Lana Lowe Fort Nelson First Nation Lands Office 250-774-6312 lana.lowe@fnnation.ca
7-530	Otter	This project used ecological restoration techniques to rehabilitate an entire road (7.5 km) that was fragmenting two blocks of high value winter range, thus adding 15,720 ha of intact habitat for the Hart South subpopulation of caribou.	$6,120	Kari Stuart-Smith Canadian Forest Products Ltd. 250-426-9380 kari.stuart-smith@canfor.com
7-534	Tumuch	This project used ecological restoration techniques to rehabilitate 12.4 km of roads will the goal of restoring secure movement opportunities for caribou between two high value winter habitat patches and creating a 69,931 ha patch of high value winter habitat for the North Cariboo subpopulation of mountain caribou.	$8,720	Kari Stuart-Smith Canadian Forest Products Ltd. 250-426-9380 kari.stuart-smith@canfor.com
7-538	Health and Behaviour of BC's Southern Most Stone's Sheep	This multiyear project 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''. Over the life of the project, the goals are to: reassess their health status, monitor population demographics/behavior, and map seasonal range use. The goal is to provide the necessary information for the continued sustainable management of these two herds.	$32,625	Robin Routledge Wild Sheep Society of British Columbia 250-961-1908 robin.wssbc@gmail.com
7-540	Prescribed Burns for Wild Sheep Enhancement in Northeastern BC	The purpose of the multi-year Wild Sheep Habitat prescribed burn program is to restore and enhance sheep habitat in current and historical range to support healthy sheep populations. Habitats will be treated with prescribed fire to increase the quantity and quality of forage, increase the traverse-ability of sites by removing blow down, and decrease vertical structure to meet the seasonal foraging requirements of wild sheep. Effectiveness of the prescribed burns will be assessed by measuring and comparing vegetation and soil response and nutritional value, changes in wildlife use, sheep health and lamb recruitment before and after the prescribed fire treatment.	$118,730	Alicia Woods Ridgeline Wildlife Enhancement 250-262-9630 adwoods04@gmail.com

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7-543	Peck Creek-Upper Carbon	This project has resulted in functional and ecological restoration of 1,287 ha of road in the Klinse-Za caribou herd area; and, in this project year, we will conduct post-treatment monitoring of treatment effectiveness.	$53,452	Tamara Dokkie Nikanese Wah tzee Stewardship Society 250-788-3663 tamara.dokkie@westmo.org
7-547	Cumulative impacts of residual herbicide on wildlife habitat and food	This project will identify the quality and quantity of food available for wildlife, in terms of leaf forage and fruit, in areas that have been previously treated with glyphosate-based herbicides, and compare this with untreated forest openings. We know very little about the cumulative and long-term consequences of herbicide use in our forests, but we do understand that plant growth and reproduction are altered. We will determine how food available for herbivores, frugivores, and granivores is changed in environments where herbicides are used.	$36,774	Lisa Wood University of Northern BC 250-960-5352 lisa.wood@unbc.ca
7-549	Promoting curlew stewardship among farmers, landowners, and citizen scientists in central BC	This project will promote beneficial stewardship of the Long-billed Curlew, a shorebird and grassland species of conservation concern, in central British Columbia (centered on Prince George). This species has undergone significant declines in the past 40 years, largely as a result of habitat loss and conversion. This project will engage landowners, farmers, and naturalists to build them into a strong community of stewards and Citizen Scientists for curlews and other grassland species.	$30,000	David Bradley Birds Canada 1-877-349-2473 dbradley@bsc-eoc.org
7-554	Callazon-Clearwater Valley: 4000 and 3800 Roads	Approximately 16 km of road will be functionally and ecologically restored in the Klinse-Za caribou herd through implementation of this project, resulting in a 22% reduction in disturbance at the meso-watershed scale.	$122,984	Tamara Dokkie Nikanese Wah tzee Stewardship Society 250-788-3663 tamara.dokkie@westmo.org
7-555	Goldway Road	This project will use functional and ecological restoration techniques to restore up to 16 km of road, reducing lines of sight as well as installing access control, to benefit the Threatened Chase Caribou.	$72,959	Arshad Khan Chu Cho Environmental 250-617-6046 arshad@chuchoenvironmental.com
7-557	Mt. Rochfort	The restoration in this project is being conducted within six meso watersheds (29,174 ha) within a newly protected, central part, of the Klinse-za/Scott East caribou herd area and will address ~156 kms of road, reducing average disturbance in the watersheds from 37% to 10%, adding ~7,865 ha of habitat, and contributing to a total ~16,322 ha of contiguous caribou range.	$192,617	Tamara Dokkie Nîkanêse Wah tzee Stewardship Society 250-788-3663 tamara.dokkie@westmo.org
7-558	East Babcock Restoration Area	This project will benefit the Quintette and Narraway caribou herds by restoring 87.61 km of linear disturbance (12.67 km of roads, 74.94 km of seismic lines) through functional and ecological restoration techniques to reduce predator movement into and within core caribou habitat.	$324,720	Scott Schilds Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-787-6100 scott.schilds@gov.bc.ca

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Approved Projects in the Okanagan Region

Project #	Project Name	Project Description	Board Approved	Contact Information
8-90	Wildlife Habitat Stewardship and Enhancement in the Okanagan and Similkameen	This project continues to build on successes made over the past 7 years of Okanagan Similkameen Stewardship, supporting land stewardship, conservation and enhancement activities on lands within the Regional District of Okanagan-Similkameen (RDOS), Regional District of Central Okanagan (RDCO) and Regional District of North Okanagan (RDNO). This initiative provides assistance and support to landowners and land managers in conservation, stewardship and enhancement of wildlife habitats on private land while maintaining other land use practices such as agriculture and eco-tourism.	$49,100	Alyson Skinner Okanagan Similkameen Stewardship Society 250-770-1467 alyson@osstewardship.ca
8-124	O&M - (FSH) - Okanagan	This request covers Operations and Maintenance of HCTF projects completed around the Okanagan Region. The key O&M activities are: (1) Aeration of high effort small lakes fisheries: Burnell Lake aerator operation and water diversion maintenance, Kidd Lake aerator operation, Yellow Lake aerator operation, Gardom Lake aerator operation, Martins Lake aerator operation; (2) Dam maintenance on 14 Okanagan region lakes with conservation water licenses; (3) Maintenance of kokanee (and rainbow) spawning habitat: Mission Creek spawning channel maintenance, Vaseux Creek fishway maintenance, Peachland Creek restoration structure maintenance and gravel scarification, Vernon creeks restoration structure maintenance.	$80,500	Tara White Ministry of Forests, Lands, Natural Resource Operations and Rural Development 250-490-2287 tara.white@gov.bc.ca
8-320	Mission Creek Restoration Initiative - Monitoring and Restoration Planning	This project is addressing declining kokanee populations and habitat degradation concerns in Mission Creek. This will include a monitoring program to measure effectiveness of recent restoration projects, development of plans for restoring priority creek sections within lower Mission Creek, and a Project Coordinator to manage all aspects of this multi-year, multi-stakeholder undertaking. Activities contained within this project will help recover Okanagan Lake kokanee stocks and improve the quality and economic value of the recreational fishery.	$44,492	Steve Matthews BC Conservation Foundation 250-494-5005 matthewsenvconsulting@gmail.com
8-408	Mule deer response to wildfire and habitat change in southern British Columbia	Identify the effect of wildfire and disturbance on mule deer habitat selection, migration, and population growth in the Boundary Region, West Okanagan, and Bonaparte Plateau areas of British Columbia, and provide management tools and recommendations to increase mule deer abundance.	$90,585	Adam Ford University of British Columbia 250-807-9773 adam.ford@ubc.ca
8-433	Restoring Black Cottonwood Riparian Ecosystems for Species at Risk in the Kettle River Watershed	Encouraging stewardship by assisting with riparian restoration is a tool we use to help conserve Riparian Black Cottonwood Forests in the Kettle River Watershed. This project will help conserve the many species at risk that rely upon these ecosystems is by establishing relationships with private landowners and assisting them in identifying stewardship opportunities and implementing restoration work; working with and encouraging local governments to contribute to conservation through policy and restoration efforts to protect species such as our riparian ambassador the Lewis's Woodpecker.	$51,500	Jenny Coleshill Granby Wilderness Society jenny.coleshill@granbywilderness.ca
8-436	Mussel Sampling Boundary Area	This project will monitor Jewel Lake for invasive mussels through sampling to test for the presence of mussel veligers.	$2,175	Barb Stewart Boundary Invasive Species Society 250-446-2232 manager@boundaryinvasives.com

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8-437	Christina Lake Invasive Mussel Monitoring	This project will monitor Christina Lake for the presence of invasive mussels through sampling for the detection of mussel veligers.	$6,984	Suzanne Adrain-Vincent Christina Lake Stewardship Society 250-447-2504 clss@shaw.ca
8-438	Okanagan Invasive Mussel Monitoring	This project will monitor for invasive mussels in the Okanagan region including plankton tow sampling for veliger detection.	$17,536	Lisa Scott Okanagan and Similkameen Invasive Species Society 250-404-0115 oasiss@shaw.ca
8-452	Enhancement of Winter Range Habitat for Mule Deer	This project will investigate a range of harvesting options in mule deer winter range in the Bald Range west of Summerland. The goal is to maintain overstory cover and stimulate forage production concurrently. The project area is 900 ha and a range of harvesting regimes with replicated openings will be tested.	$22,400	Dr. Sullivan Applied Mammal Research Institute 250-494-7160 tom@appliedmammal.com
8-457	R.E. Taylor Conservation Property (Year 2 of 3)	This Land Stewardship Grant will support operations and management activities on this important conservation land. Funding amount is for three-year term.	$9,130 for three years	Ross Everatt Southern Interior Land Trust Society 250-328-4699 reveratt@siltrust.ca
8-460	Stream temperature modelling and management options for Bessette and Duteau Creeks	Bessette Creek and Duteau Creek provide critical habitat for a diverse aquatic community, including important spawning habitat for large Middle Shuswap/Mabel Lake adfluvial rainbow and historic runs of kokanee. This project will calibrate stream temperature models that consider the cumulative influences of riparian planting, flow management and climate change across the watershed. These models will be used explore effective water temperature management strategies. Outputs from this project will provide a thorough assessment of the cumulative actions that are required to address the current and future temperature challenges and ultimately ensure the long-term sustainability of the diverse aquatic ecosystem.	$71,356	Ryan Whitehouse Ministry of Forest Lands and Natural Resource Operations and Rural Development 250-312-6648 ryan.whitehouse@gov.bc.ca
8-465	Restoration of Habitat for Mustelids and Tree Squirrels in Beetle-Damaged Forest	This project will restore wildlife habitat for small mustelids and tree squirrels in young forests that have developed after salvage harvesting of Mountain Pine Beetle-killed pine stands. Restoration practices include an array of stand thinning regimes to restore coniferous forests and enhance their habitat attributes for small mustelids and tree squirrels. These thinned stands will be compared to uncut old-growth forests in terms of stand structure and measurements of mustelid activity and tree squirrel populations. Changes in coniferous stand structure and understory vegetation will be measured and related to activity patterns of mustelids and populations of tree squirrels.	$31,500	Thomas Sullivan Applied Mammal Research Institute 250-494-7160 tom@appliedmammal.com
8-466	Upper Shuswap River Drainage Bull Trout Assessment	This project will assess the status of the bull trout population in the Upper Shuswap drainage and identify appropriate management options and angling regulations to address conservation concerns and maintain a sustainable quality fishery.	$54,090	Tara White Ministry of Forest Lands and Natural Resource Operations and Rural Development 778-622-6839 Tara.White@gov.bc.ca
8-472	Penticton Creek Restoration Initiative: Construction of Reach 3A Upper and 3B	The project will restore a 266 m section of Penticton Creek, viewed as the highest priority for providing fish habitat as well as the largest production impact on Okanagan Lake fish populations of any potential project in the valley. This project builds on the momentum of previous restoration work, as part of the larger Penticton Creek Restoration Initiative, a $30 million, multi-year, transformative project that will convert a barren concrete flume into a functioning stream with self-sustaining populations of Okanagan Lake kokanee, rainbow trout and anadromous species in Penticton Creek.	$100,000	Mitch Moroziok City of Penticton 250.490.2515 mitch.moroziuk@penticton.ca

*Final Grant amount may be subject to funding condition(s)

8-475	Similkameen River Riparian Restoration	This project will remove a 10 acre vineyard and re-establish riparian forest and ephemeral wetland areas along the east bank of the Similkameen River in Cawston, BC. The area has been historically mapped as Cottonwood-dominant, bordering on waterbirch-red-osier dogwood which has seen an 92% loss from historical abundance (Lea, 2007) and is adjacent to crown land and conservation holdings bordering on the Similkameen River. The restored riparian forest will enhance the area for ungulates, improve soil retention and filtration, thus enhancing terrestrial habitat adjacent to the fish-bearing Similkameen River.	$19,800	Alyson Skinner Okanagan Similkameen Stewardship Society 250-770-1467 alyson@osstewardship.ca
8-476	Region 8 Small lakes aeration upgrade and modernization	This project will upgrade and modernize the aeration systems to 5 of the highest effort fishing lakes in the Okanagan Region: Burnell Lake, Kidd Lake, Gardom Lake, Martens Lake and Yellow Lake. These lakes provide year-round angling opportunities to a spectrum of users, specifically youth, disabled and trophy anglers. Without aeration these lakes will winter kill annually, due to low oxygen levels, having a devastating impact on recreational opportunities.	$63,391	Eric Hegerat Ministry of Forest Lands and Natural Resource Operations and Rural Development 778-622-6840 Eric.Hegerat@gov.bc.ca
8-478	Response Planning - New Pneumonia Outbreak in South Okanagan Bighorn Sheep	This project will collect herd health data during an emerging disease outbreak, assess the connectivity between BC and Montana herds, and develop effective management options that reduce current disease spread and the risk of future outbreaks. GPS collar data, health sampling and strain typing *M.ovi* positive bighorn sheep samples will inform understanding of the sources and routes of pathogen transmission among herds along the international border. The first year of this project will focus on developing a response plan to this pneumonia outbreak, including the creation of a South Okanagan Bighorn Sheep Working group with First Nations, local stakeholders and Washington Department of Fish and Wildlife, Colville Confederated Tribes and US Forest service engaged in similar efforts south of the border.	$15,000	Jeremy Ayotte Phyla Biological Consulting Inc 250-804-3513 jeremy.ayotte@gmail.com
8-480	South Okanagan Antelope-brush conservation and restoration	This SEED project will identify preliminary planning requirements and investigate the information gaps, feasibility, key partnerships, and technical information required to conserve and restore endangered antelope-brush ecosystems, and associated species, in the South Okanagan Valley, with partners in the South Okanagan Similkameen Conservation Program.	$5,000	Orville Dyer Osoyoos Desert Society o_dyer@live.ca

8-408: Mule deer response to wildfire and habitat change in southern British Columbia

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