



# APPROVED PROJECT LIST 2014-2015

**Media Alert:** Members of the media are encouraged to contact project leaders directly: they have detailed knowledge of project benefits, may be able to arrange site tours, and often have high quality images available.

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## Multi Region Projects

*(Projects Benefitting Multiple Regions)*

Project Name	Project #	Project Description	Approved Funding	Project Leader/ Organization
Public Conservation Assistance Fund	0-94	Funding to provide opportunities for local conservation groups to participate in and contribute to qualifying fish and wildlife conservation projects in their communities.	\$150,000	Lynne Bonner HCTF 250-940-9785
BC's Family Fishing Weekend	0-229	Taking place on BC's fresh and salt waters, this annual Father's Day weekend event is designed to (re) introduce youth and families to the outdoors and angling thereby increasing awareness, appreciation and understanding for marine and aquatic resources throughout the province of BC. These community events take place because of the participation and organization of local volunteers, various rod and gun clubs and local businesses. In 2013 attendance to the event was the most ever at over 17,000.	\$30,000	Owen Bird Family Fishing Society of BC 604-875-0104
BC Wetland Partnership Program	0-247	Ducks Unlimited Canada (DUC) will use HCTF funds to 1) restore wetland habitat at eleven	\$250,000	Brad Arner Ducks Unlimited

		locations for the benefit of waterfowl and other wildlife, and 2) conduct preliminary work in preparation for eight high-priority restoration projects planned for construction in future years.		Canada 250-374-8307
Vancouver Island Stream Enrichment- Application and Monitoring	0-343	Four Vancouver Island Steelhead rivers (Harris Creek; Chemainus, Tsitika & Nimpkish rivers) will continue to be nutrient enriched to offset low marine survival & bolster stock productivity. Recent monitoring has confirmed primary productivity increases & suggests adult escapement has improved. This project will treat a 2 <sup>nd</sup> generation of juvenile fish & confirm escapements.	\$35,244	Kevin Pellett British Columbia Conservation Foundation (BCCF) 250-716-8776
Angler Market Development Plan	0-353	In cooperation with FLNRO, BCWF clubs, municipalities, regional districts and industry, FFSBC will lead Year 8 of the 10-year Angler Market Development Plan, which aims to increase freshwater fishing in BC by 30% over 2005/6 levels.	\$150,000	Stacy Webb Freshwater Fisheries Society of BC (FFSBC) 250-414-4200
Identifying and securing hibernation habitat for bats in response to risk of White Nose Syndrome	0-390	This project will identify bat species that overwinter in BC, locate overwintering sites, and secure hibernacula as needed from potential human-mediated introduction of the fungus that causes White Nose Syndrome (WNS). We will also investigate key aspects of winter bat ecology to facilitate risk assessment, enable mitigation measures, and establish baseline data for future population recovery efforts in the face of this devastating emerging disease.	\$40,125	Cori Lausen Wildlife Conservation Society Canada 250-353-7339
Young Naturalists' Club of BC: Nature Clubs Project	0-398	The Nature Clubs Project gets children outside discovering nature with a network of over 30 volunteer-led Nature Clubs across BC. Children aged 5-12 discover the wonders of the natural world as they explore the outdoors on Explorer day field trips, read about nature in NatureWILD magazine and take action for the environment with an Action Awards program and Stewardship Projects.	\$20,000	Kristine Webber Young Naturalists' Club of BC Society 604-985-3057
White Sturgeon Questionnaire	0-406	This year's project will use information provided by White Sturgeon recreational anglers and Licenced Angling Guides to report on White Sturgeon fishing effort and catch in the Middle and Lower Fraser River of BC.	\$31,000	Duane Jesson Ministry of Forests, Lands, & Natural Resource Operations (MFLNRO) Reg 2 604-586-3728
Habitat Use and Selection of Mule Deer Bucks in the Southern Interior Fraser River Basin	0-412	This project will provide crucial information on mule deer bucks that is required to improve management of mule deer in BC. Specifically, we will 1) examine fine-scale habitat use and selection of bucks during the rut and post-rut to understand potential survey bias and 2) determine seasonal habitat use and migration patterns to develop appropriate regulatory options and harvest management strategies for this population and to refine modelled winter ranges	\$19,750	Chris Procter MFLNRO Reg 3 250-371-6250

Enhancing Angling Opportunities, Participation Rates and Licence Sales in BC Small Lakes	0-435	This program will determine the best management practices to increase fishing effort, participation and license sales in the BC small lakes fishery. This is being accomplished through a series of experimental changes in current management practices distributed across the Okanagan, Thompson, Cariboo, and Omenica Regions, with assessments of angler effort response and fishing quality assessments. This is a five year, large-scale adaptive management effort, coordinated across regions, which will result in the development of a scientifically sound strategic plan to optimize the BC small lakes fishery.	\$75,000	Adrian Clarke FFSBC 250 414-4200
University of Victoria Libraries Ian McTaggart-Cowan Field Journals Transcription Project	0-438	The University of Victoria Libraries Ian McTaggart-Cowan Field Journals Transcription Project, which is part of the University of Victoria Libraries McTaggart-Cowan Field Journals Content DM Project, will oversee the completion of the transcription of the field journals of Ian McTaggart-Cowan into digital text files and data. Once completed, the digital transcriptions of each page will be edited, proof-read and reviewed before being hosted on the University of Victoria Libraries Content DM online digital scholarship platform and displayed adjacent to the corresponding digitized hand-written pages.	\$12,500	Ken Cooley University of Victoria (UVic) 250-721-6673
BC/TNT Joint Conservation Land Management	0-451	The 2013-16 Wildlife O+M application package is the first comprehensive, province-wide wildlife O+M application using the new, joint MFLNRO/Nature Trust approach. Funding provided by HCTF will assist with the operation and maintenance of approximately 115 significant wildlife habitat areas across British Columbia.	\$572,600	Karen Wipond MFLNRO HQS 250 356-7669
Landscape Genetics Assessment of British Columbia - Southern Yukon Thinhorn Sheep	0-453	This project will delineate genetically discrete herd management units of BC and southern Yukon crossborder thinhorn sheep populations in order to assist with harvest management and allocation, manage/mitigate resource development and anthropogenic impacts on herds, and support forensic investigations of illegal harvest.	\$59,325	David Coltman University of Alberta 780-492-7255
Dock Placement to Enhance Youth & Family Sport Fisheries in Regions 3, 4 & 8	0-454	This project proposes to place fishing docks on three urban lakes, in Regions 3, 4 & 8, allowing easy access for youth and families to experience recreational sport fisheries and angler education programs. The overall goal is to increase angler participation in the BC interior lakes. In year 1, docks will be placed on Cottonwood (Nelson), Shannon (West Kelowna) and Nicola (Merritt) Lakes.	\$50,050	Stephen Maricle MFLNRO Reg 3 250-371-6253
Steelhead Harvest Analysis Modernization Initiative	0-455	The Steelhead Harvest Analysis and mail-out survey have been maintained relatively unchanged since 1967/68 and provide the only standardized annual estimate of effort/catch for all angled steelhead rivers in BC. This project will look at ways to improve the analysis including	\$25,200	Sue Pollard MFLNRO HQS 250-387-3363

		transitioning from the traditional mail-out approach to a potentially more cost-effective electronic survey (if feasible) and reducing statistical biases associated with current survey design.		
Helping trappers ensure sustainable harvests of fishers and wolverines	0-460	This project aims to use landscape genetic analyses to identify functional population units for fishers and wolverines within BC. This information will be used to help trappers and wildlife managers better evaluate sustainable harvest levels for these wide-ranging, low-density species of conservation concern.	\$29,031	Richard Weir Ministry of Environment (MOE) 250-356-8186
Fraser River White Sturgeon Online Handling Tutorial	0-463	This project will create an online visual resource to educate anglers targeting Fraser River White Sturgeon in proper handling practices. It will also provide modules for training new and continuing volunteers with the Fraser River Sturgeon Conservation Society's Lower Fraser Monitoring and Assessment Program.	\$12,760	Sarah Schreier Fraser River Sturgeon Conservation Society 778-322-7345
Wild/domestic sheep and goat separation	0-466	Funding for a part time provincial project coordinator to deliver a multi-stakeholder, government, First Nations program to mitigate the risk of disease transmission from domestic sheep/goats to wild sheep using proven & novel site-specific mitigation methods, especially in high risk areas.	\$50,000	Helen Schwantje MFLNRO HQS 250-953-4285
Southeast BC Grizzly Bear Electric Fencing Project	0-467	Grizzly bear/agricultural conflicts create very real and tangible threats for BC rural residents and recovering grizzly bear populations in low elevation habitats. This project promotes coexistence between grizzly bears and residents of the Kootenay Boundary Region by providing education and outreach about correctly installed and maintained electric fencing to reduce conflicts between grizzly bears and crops and/or livestock. Tolerance for grizzly bears moving through low elevation habitats may increase as conflicts are reduced.	\$18,702	Gillian Sanders BCCF (Kamloops) 250-353-1137
Development of a Provincial Lower and Middle Fraser River White Sturgeon Management Plan	0-472	This project will use existing planning documents and reports to develop a five-year management guidance document for white sturgeon populations in the lower and middle Fraser River, including provincial management objectives and priority actions for implementation. This project will provide an important five-year review of the sturgeon tag licensing program.	\$19,820	Sue Pollard MFLNRO HQS 250-387-3363
Ensuring Sustainability of Least Weasel Populations	0-473	This seed project will compile existing information and identify knowledge gaps in order to develop a full proposal for a project in 2015-16 that will fill the knowledge gaps and provide better information upon which to assess the status and sustainability of populations of Least Weasels in British Columbia.	\$5,000	Helen Davis Artemis Wildlife Consultants 250-546-0531

Got Bats? B.C. community outreach, conservation and Citizen Science project	0-476	"Got Bats?" is a network of community bat projects across BC that will promote bat conservation through detection and protection of bat roosts, education to counter negative attitudes towards bats, installation of bat-houses, and implement a province-wide Citizen Science bat count to detect declines due to White Nose Syndrome and other threats	\$35,000	Katie Calon BCCF (Surrey) 604-576-1433
New Hunter Boot Camp	0-477	This project will not only help recruit new hunters (young and old, male and female) but also ensure safe and practical hunting experience for all.	\$14,000	Kerry Smith B.C. Wildlife Federation (BCWF) 604-882-9988
Genetic delineation of Shiras moose: management implications for BC	0-478	Shiras moose ( <i>Alces alces shirasi</i> ) are the smallest subspecies and are thought to occupy portions of southern BC. DNA samples from moose throughout BC and western North America will be used to develop probabilistic and genetics-based mapping of Shiras moose distribution. This information will help BC wildlife managers understand the genetic delineation of moose in the province and specifically assist in evaluating hunting seasons for moose in the southern interior.	\$9,000	Andrew Walker MFLNRO Reg 8 250-490-8200
North Cascades Grizzly Bear - Jump Starting the Recovery Effort	0-480	We propose to jump start Grizzly bear recovery in the North Cascades Grizzly Bear Population Unit (NCGBPU) through a number of initiatives. A major project deliverable will be a "Fact Sheet" for the general public updating the issue of Grizzly recovery in the North Cascades, including, science summaries, projected next steps and contacts, in a "webpage ready" format.	\$10,000	Anthony Neil Hamilton MOE 250-387-9761
Conservation stewardship in high wildlife and human use areas	0-484	This project will actively encourage responsible access to wildlife areas, promote enjoyment of and participation in conservation by non-wildlife recreational user groups, and provide an alternate model for public stewardship of British Columbia's exceptional wildlife places, through community-based social marketing combined with local government regulation.	\$4,950	Karen Barry Bird Studies Canada 604-350-1988
Provincial Fisheries Operations & Maintenance	0-485	Operations & maintenance of HCTF-funded infrastructures (including spawning channels, aerators and dams) that provide fish habitat and angling benefits.	\$319,639	Vicki Marshall MFLNRO HQS 250-387-9788

## Vancouver Island Projects

Project Name	Project #	Project Description	Approved Funding	Project Leader
Keogh River Steelhead Population Dynamics	1-319	The Keogh river adult and smolt enumeration facility has operated for 36 years to enumerate total salmonid smolt output and steelhead adult return annually enabling accurate smolt-to-adult survival; important as a regional index site as well as a tool to understand recruitment and stock status of steelhead in BC. It periodically also serves research purposes beyond long-term monitoring. This project is to maintain core facility function and develop a strategic research plan.	\$121,000	Sue Pollard MFLNRO HQS 250-387-3363
Wildlife Habitat Conservation Projects on Salt Spring Island	1-490	This project restores wetlands in Blackburn Lake Nature Reserve, prevents off-road vehicle access to wetlands at Makaroff Nature Reserve, increases the size of protected areas, and supports collaboration between the SSI Conservancy and the SS Rod & Gun Club to manage hunting access to a 320 acre SSIC nature reserve.	\$75,000	Christine Torggrimson Salt Spring Island Conservancy 250-538-0318
Flow augmentation to increase steelhead production	1-509	The project will evaluate the benefits of flow augmentation to increase juvenile steelhead summer rearing habitat and smolt production as a restoration method for depressed steelhead populations.	\$46,685	Sue Pollard MFLNRO HQS 250-387-3363
Good Neighbours Craigflower, Mt Newton, & Tod Creek	1-530	The Good Neighbours project will work with residents of three important watersheds in the Greater Victoria area to help steward sensitive natural ecosystems to better support the fish and wildlife that rely on them.	\$18,536	Adam Taylor Habitat Acquisition Trust 250-995-2428
Georgia Depression Western Bluebird Reintroduction	1-538	This project will re-establish a breeding population of Western Bluebirds to their historic range in the Georgia Depression, contributing to building a self-sustaining regional population in the Salish Sea. Through extensive community engagement, it will enhance integrity and protection of endangered Garry Oak ecosystems and build a core of citizen scientists and stewards for long-term habitat conservation.	\$25,000	Kathryn Martell Garry Oak Ecosystems Recovery Team (GOERT) 250-383-5449
Gordon River - Loup Falls bypass channel maintenance	1-559	Works completed in 1996 to facilitate summer Steelhead passage at Loup Falls on the Gordon River have deteriorated and now present a significant barrier to migration and a threat to biodiversity. This project aims to repair the channel to ensure a suitable migration route is provided at low to moderate flows. The quantity of habitat located upstream of Loup Falls represents over 80% of the total main stem length accessible to summer steelhead.	\$27,083	Kevin Pellett BCCF (Lantzville) 250-716-8776
Vancouver Island Small Lakes Fertilization Pilots	1-572	Two small lakes on Vancouver Island will continue to be enriched and monitored in 2014/15 using liquid nutrients to increase primary productivity (to	\$21,463	Jeremy Damborg BCCF (Lantzville) 250-390-2525

		promote fish growth). Background data collection for other lakes on Vancouver Island will also continue to be completed during the program to determine their suitability for future enrichment in year 3 and beyond. Lakes will be stocked with an appropriate number of fish to produce "trophy" fisheries where none currently exist.		
Cowichan Lake Shoreline Stewardship - Fish & Wildlife Habitat Restoration Demonstration Projects	1-583	At several private and/or public lake shore properties, innovative bioengineering and habitat improvement techniques will be used to restore aquatic and riparian ecological productivity. Projects will engage resource professionals, volunteers, students, lake shore owners and the media in successful demonstrations of the value of naturalized shorelines, partnerships and enhanced stewardship practices.	\$25,000	Craig Wightman BCCF (Lantzville) 250-390-2525
Elk Lake, Saanich Enhancement Seed Application	1-584	This seed project will develop a full enhancement proposal for improving fisheries habitat primarily through a water quality improvement program.	\$5,000	Mick Collins Victoria Golden Rods and Reels Society 250-598-3294
Estimating Cougar Populations on Northern Vancouver Island using DNA mark-recapture techniques	1-589	This project utilizes DNA-based mark-recapture inventory techniques and closed spatial mark-recapture modelling to create science-based cougar population estimates for Northern Vancouver Island. Once completed, representative study areas for central and southern portions will be identified.	\$45,604	Jerry MacDermott MFLNRO Reg 1 250-751-3229
Headquarters Creek Habitat Project	1-597	Large Woody Debris (LWD) structures will be built at four specific sites in Headquarters Creek mainstem. In order to increase spawning habitat for trout and salmon, two riffles with spawning platforms are proposed for construction. During floods, the riffle structures will widen the cross section locally and backwater the spawning gravels which will decrease the tractive force and increase the likelihood that the gravels will not be scoured downstream. In addition, pools will be excavated during riffle construction on the downstream side of the riffle and LWD will be added to provide cover for rearing salmonids.	\$35,088	Jack Minard Tsolum River Restoration Society 250 897-4670
Cowichan River - Broadway Run Slope Stability Remediation	1-603	Following engineering designs and environmental management protocols, and in accordance with regulatory permit conditions, a phased Broadway Run slope stability project will be initiated in 2014 with the objective of significantly reducing the risk of major slope failures into the upper Cowichan River, above Skutz Falls.	\$15,000	Craig Wightman BCCF (Lantzville) 250-390-2525
Stoltz Bluff Remediation Works Maintenance (2014)	1-604	Completion of maintenance of Cowichan River Stoltz Bluff containment berms, access road and drainage paths.	\$7,500	Craig Wightman BCCF (Lantzville) 250-390-2525

## **Lower Mainland Projects**

Project Name	Project #	Project Description	Approved Funding	Project Leader
Coastal Mainland Roosevelt Elk Recovery and Management Project (CMRERMP)	2-127	With the assistance of a variety of partners, this project will continue efforts to translocate Roosevelt Elk in order to facilitate the recovery of this blue-listed species on the coastal mainland. Additionally, we will continue to provide increased recreational opportunities, while furthering the understanding of Roosevelt elk population dynamics.	\$65,000	Darryl Reynolds MFLNRO Reg 2 604-885-7419
City of Surrey - Salmon Habitat Restoration Program (SHaRP)	2-337	SHaRP promotes watershed stewardship and performs habitat enhancement within Surrey through outreach programs and restoration work to improve fish habitat. SHaRP also provides youth with career-orientated experience in stewardship practices and community involvement.	\$25,000	Liana Ayach The City of Surrey 604-591-4383
Provision of Waterfowl and Raptor Habitat within Managed Grasslands on Lower Fraser River Farmland	2-349	Over 1,150 ha of grassland habitat (Winter Cover Crops & Grassland Set-asides) will be established on farmland in Delta, BC through DF&WT's stewardship programs. The grasslands will provide feeding and roosting habitat for internationally important waterfowl and raptors.	\$20,000	Christine Terpsma Delta Farmland and Wildlife Trust 604-940-3392
Lower Fraser River White Sturgeon Monitoring and Assessment Program	2-375	This project continues the successful, stewardship-led white sturgeon population monitoring and assessment activities established in 2000. This priority recovery project delivers annual estimates of the population, and growth rates, by size group, of lower Fraser River white sturgeon. The products of this project will be used by provincial authorities to conserve and manage the resource.	\$69,665	Troy Nelson Fraser River Sturgeon Conservation Society 778-322-7345
Learn to Fish Program	2-390	Learn to Fish (L2F) is designed to break down barriers to recreational fishing and to introduce new anglers, particularly youth, to the sport. HCTF funds will be used to deliver L2F programs across the province. FFSBC with funding from HCTF and other partners aims to put 25,000 participants through L2F in 2014/15.	\$80,000	Mike Gass FFSBC 250-414-4200
Lower and Middle Fraser White Sturgeon Recovery Working Group Support	2-455	This project provides supporting resources for the organization, operation and management of the Lower and Middle Fraser River Sturgeon Technical and Community Recovery Working Groups. The project will provide coordinating administrative support, meeting and travel support for recovery working group members.	\$8,647	Erin Stoddard MFLNRO Reg 2 604-582-5374
Grizzly Bear Space-Use and Movements Relative to Habitat & Human Influence in the Sea to Sky Planning Area	2-464	This project will build databases of grizzly bear space-use and movements to subsequently develop multi-scale models of spatio-temporal response to factors of habitat and human influence. Integrate and support outputs for	\$40,000	Clayton Apps Aspen Wildlife Research Inc. 403-270-8663



		application within population- and landscape-unit resource planning and environmental assessment.		
Stock Reduction Analysis for Lower Fraser White Sturgeon	2-501	This project will complete the development of a multi-year mark-recapture model to provide more precise and reliable estimates of recent population size for Lower Fraser White Sturgeon using all the available PIT tag data.	\$49,006	Karl English LGL Environmental Research Associates 250-656-0127
Using Remote Cameras to Detect the Relative Abundance of Wolverine	2-519	This project will be using remote cameras and hair snaggers to detect the presence and relative abundance of wolverine ( <i>Gulo gulo</i> ) and other carnivore species in the South Coast.	\$21,006	Cliff Nietvelt MFLNRO Reg 2 604-824-2310
Updating the Fraser River Sturgeon Questionnaire to Better Inform Management	2-532	We will review the content of the White Sturgeon Angling Questionnaire to reduce biases and improve information gained. We will restructure the questionnaire to provide data that will best support the pit tag program and will better inform management decisions.	\$22,340	Brett Van Poorten MOE 604-222-6761
East Harrison Mountain Goat Census	2-543	We will conduct a census of mountain goats ( <i>Oreamnos americanus</i> ) in MUs 2-10, 2-17, and 2-18. This project will generate a population estimate for these MU's that will be used to inform First Nations, stakeholders and management decisions.	\$26,470	Darryl Reynolds MFLNRO Reg 2 604-885-7419
Coastal Lake Assessment	2-544	This project will assess the current population status of wild coastal cutthroat and Dolly Varden char in 24 small lake habitats located on the Sunshine Coast. The project will provide information necessary to help conserve these important natural stocks while providing for sustainable recreational fisheries. The information gathered will also help inform treaty related discussions with area First Nations.	\$10,000	Duane Jesson MFLNRO Reg 2 604-586-3728
Improving Upon and Updating Steelhead Stock Assessment Data on Priority Lower Mainland Rivers	2-553	This project will assess and update historic population trend data on five recreationally and economically important wild and hatchery steelhead rivers in region 2 annually over a five year period. Data collected during the project will help guide provincial steelhead management decisions to maximize recreational steelhead angling opportunities available in region 2.	\$5,000	Kenji Miyazaki MFLNRO Reg 2 604-586-5652
Analysis of the recapture database to evaluate of white sturgeon movements in the lower Fraser River	2-554	This project will analyze the extensive recapture database for lower Fraser River white sturgeon to identify fish movement patterns in the data. As compared to prior studies the present project will undertake evaluation of spatial patterns at finer scales including spatially (e.g. locations vs. areas), temporally (e.g. seasons vs. years) and the level of aggregation (e.g. individuals vs. groups).	\$19,020	Steven McAdam MOE 604-222-6760

## Thompson/ Nicola Projects

Project Name	Project #	Project Description	Approved Funding	Project Leader
Interior Fraser Wild Steelhead Conservation	3-251	This project will continue long term monitoring of abundance, productivity and conservation status for four populations of wild steelhead from the Thompson and Chilcotin watersheds. The project will provide science based knowledge to enhance provincial and federal fisheries management planning, processes and decisions for conservation and responsible use. The project will provide data and knowledge to encourage better fishing practices and coordination of management between provincial and federal fisheries agencies and First Nations.	\$76,000	Robert G. Bison MFLNRO Reg 3 250-371-6244
Wetlands Institute of BC	3-272	The 2014 Wetlands Education Program will: (1) enhance the capacity of individuals and groups to steward wetlands in BC through delivery of targeted workshops; (2) engage families and youth in interactive outreach events; and (3) coordinate the Wetlands Stewardship Partnership of BC to harmonize efforts among key provincial agencies working on wetland conservation initiatives.	\$30,480	Neil Fletcher BCWF 1-888-881-2293
Quality Waters - Thompson River Guardian Program	3-273	River guardians will patrol and survey during times of fishery closure and will patrol and survey the steelhead sport fishery in the event of an opening to assist with fishery management and compliance.	\$24,860	Robert G. Bison MFLNRO Reg 3 250-371-6244
Population trend, vital rates, and habitat condition of the endangered Stein/Nahatlatch grizzly bear population	3-283	Determine survival rates, reproduction, population trend, inter-population movements, habitat selection, and changes in the abundance of major food items for the endangered Stein/Nahatlatch and portions of the Threatened South Chilcotin grizzly bear populations to identify major limiting factors to prescribe appropriate recovery actions.	\$31,750	Bruce McLellan MFLNRO Reg 3 604-452-3233
Thompson, Shuswap and North Okanagan Conservation Instream Flows	3-297	This project will continue to document in-stream flow needs for fish in southern interior priority streams and document water balance (natural in-stream flow vs. downstream of withdrawal flow). The project will engage local expertise, local government and water licensees and update stream information with concise recommendations for water use decisions.	\$26,894	Christian StPierre MFLNRO Reg 3 250-371-6236
Community-based amphibian monitoring program in south-central B.C.	3-313	This project is a collaborative monitoring program among volunteer community members, landowners, and scientists to identify and monitor important wetland habitats for amphibians and mitigate threats. Volunteers are trained in monitoring methods, and stewardship activities are initiated to promote practices that facilitate conservation of amphibians in multi-use landscapes.	\$12,630	Kristiina Ovaska Biolinx Environmental Research Ltd. 250-727-9708

Thompson Sub-Region Water Conservation Structural Enhancement	3-339	Following up on the information gained during the HCTF funded Water Use Strategy project for Region #3, this project is designed to build, rebuild or improve existing weirs, diversions and ditches which will allow the province to license Conservation storage or significantly improve water delivery systems. These works will result in improving the quality of habitat and increasing the carrying capacity for trout rearing in a number of high use/high priority small lakes within the Southern portions of the Thompson sub-region.	\$83,950	Stephen Maricle MFLNRO Reg 3 250-371-6253
Moose Habitat Selection and Mortality Risk In Relation to Salvage Logging on the Bonaparte Plateau	3-342	This collaborative project will assess female moose habitat selection of landscapes heavily altered by timber salvage operations and how that relates to their mortality risk. The outcome of this research will greatly enhance the Province's understanding of factors affecting sustainable moose populations in the face of a rapidly changing forest landscape, as well as directly support the goals of HCTF.	\$53,873	Dennis Jelinski UVic 250-721-7968
Meadow Creek Golf Course Wetlands Restoration	3-344	Building on the restoration of Wetland 2 and 3, this project will sequentially improve the quality of water flowing into Logan Lake. Improving the lake's water quality and ecosystem, the rehabilitation of Wetland 4 will also restore and preserve the existing damaged wetland to a more functional habitat for wildlife, and provide research and educational opportunities.	\$39,185	Jeff Carter District of Logan Lake 250-523-6225
Fisher Artificial Den Box Study	3-345	This project will determine if artificial den boxes will be used by reproductive fishers (or other wildlife), the extent to which these devices will mitigate losses of natural denning habitat, and address the need for a science-based mitigation technique to deal with the loss of fisher denning habitat	\$47,631	Larry R. Davis Davis Environmental Consulting 250-398-7353

## Kootenay Projects

Project Name	Project #	Project Description	Approved Funding	Project Leader
Gerrard Rainbow Trout Critical Monitoring	4-248	This project monitors the conservation status of Gerrard rainbow trout by enumerating and protecting spawners, estimating harvests of these fish in the Kootenay Lake sport fishery, and monitoring critical spawning habitat parameters.	\$34,000	Matt Neufeld MFLNRO Reg 4 250-354 6353
East Kootenay Grassland Ecosystem Restoration	4-299	Conduct Ecological Restoration planning, on the ground treatments, and pre and post treatment monitoring activities for priority fire maintained ecosystems to restore and conserve habitats and the wildlife dependant on these areas.	\$189,000	Allana Oestreich MOE (4C) 250-489-8540
South Rockies Grizzly Bear Inventory	4-410	Monitoring grizzly bear populations in the South Rockies and Flathead grizzly bear population units. High human-caused mortality of grizzly bears paired with substantial resource extraction in this area necessitates accurate population monitoring. Analysis will focus on identifying factors that are limiting grizzly bear populations and landscape features that directly influence bear density.	\$40,000	Garth Mowat MOE (4N) 250-356-6341
Kootenay Lake Exploitation Study	4-413	This is a six year study to estimate the proportion of large rainbow trout and bull trout in Kootenay Lake that are caught by anglers versus die of natural causes. The project, which has implications for the management of large lake fisheries in BC, is also providing valuable information on fish life history and habitat use in Kootenay Lake.	\$23,600	Joseph Thorley Poisson Consulting Ltd. 250-352-6369
Boundary Ecosystem Restoration	4-461	This project will improve habitat quality, resiliency and forage availability for ungulates and other native species by restoring degraded habitats in low elevation ecosystems of the Boundary. This project also aims to build community stewardship and technical capacity through the use of partnerships.	\$120,815	Lisa Tedesco MFLNRO Reg 4 250-354-6352
Kootenay Lake Bull Trout Productivity and Capacity	4-465	This project will provide data on stock dynamics to assist with managing the bull trout fishery on Kootenay Lake. Defining the productivity, capacity and compensatory ability of this stock will assist in better understanding the rearing environment and the impact of the recreational fishing on this important blue listed species.	\$48,900	Greg Andrusak Redfish Consulting Ltd. 250-825-2729
Determination of Gerrard Rainbow Trout Parr Productivity and Capacity	4-478	This project will provide data on stock dynamics to assist with managing the "trophy" Gerrard rainbow trout fishery on Kootenay Lake. Defining the reproductive performance and capacity of this stock will assist in better understanding the rearing environment and the impact of the recreational fishery on this unique ecotype.	\$46,580	Greg Andrusak Redfish Consulting Ltd. 250-825-2729
Assessing predation risk from wolves and cougars for caribou in the Purcell Mountains.	4-485	As part of the Mountain Caribou Recovery Implementation Program, the Purcells-South herd, which is facing probable extirpation, was augmented in March 2012 by the translocation of 19 northern	\$23,448	Dennis Jelinski UVic 250-721-7968

		caribou. We are providing critical information on risk of predation by wolves and cougars to gauge success of this translocation, as well as inform future herd augmentations. Most significantly, in year one we have established that the northern caribou move (travel) much more than resident caribou, and hence are at greater predation risk, especially to cougars.		
Habitat assessment for grizzlies in threatened Selkirk and Purcell GPBUs	4-495	This project will assess habitat quality and security for grizzly bears and their effects on reproductive success in 2 threatened grizzly bear populations units. Our results will provide insight into the potential role of access management on recovery of threatened grizzly bear populations in BC.	\$33,000	Michael Proctor Birchdale Ecological Ltd. 250-353-7339
Enhancing Marten and Weasel Habitat on Clearcuts	4-496	Investigate the use of windrows of post-harvest woody debris as habitat for marten and weasels on new clearcuts. In particular, the connectivity across clearcut openings, from adjacent forest to adjacent forest, will be assessed for prey species and use by these mustelids.	\$15,000	Thomas P. Sullivan Applied Mammal Research Institute 250-494-7160
Confirming Location of Ungulate Mineral Licks in the East Kootenay	4-506	An ungulate mineral lick database was established by Fish and Wildlife Compensation Program in 2000 and updated in 2006 by Ministry of Environment. We would like to update this database by contacting knowledgeable people for new locations of primarily bighorn sheep and mountain goat licks. We would prioritize the importance of these licks and field-verify their locations.	\$8,600	Peter Holmes MFLNRO Reg 4 250-342-4269
Feasibility of large lake/reservoir nutrient addition to restore and enhance recreational fishery on Whatshan Reservoir	4-516	This project is designed to provide background information on the current state of the recreational fishery on Whatshan Reservoir	\$36,894	Greg Andrusak Redfish Consulting Ltd. 250-825-2729
East Kootenay Mountain Goat Population Assessment	4-517	Most mountain goat populations have not been inventoried in the East Kootenay for at least 8 years (15 years in some areas). Surveys in 2013 suggest populations have declined substantially. Without additional inventories, FLNRO will likely need to reduce goat population estimates across the region by 25%, which will negatively affect all LEH permits and guide quotas. Up-to-date inventory data would ensure that hunting opportunities are not reduced unnecessarily.	\$91,000	Irene E. Teske MOE (4C) 250-489-8551
Predicting grizzly bear food – Huckleberries, and trend monitoring	4-523	This project will spatially predict the most important food source for grizzly bears in the West Kootenays - huckleberries - and radio collar females for trend monitoring 2 threatened populations. Our results will inform future food resource supply management and conservation decisions about recovery towards huntable status.	\$33,875	Michael Proctor Birchdale Ecological Ltd. 250-353-7339
Linking diet and long-term stress to aid conservation planning	4-524	Our calibration of the stress-diet relationship at individual and population levels across years will provide a powerful cost-effective tool that managers can use to evaluate whether a management treatment	\$10,842	Jerrold Belant Mississippi State University 662-325-2996

		to enhance grizzly bear habitat (e.g., increase the quality or quantity of food resources such as huckleberry and buffalo berry) generates any measurable improvement to the health of local bears.		
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## **Cariboo Projects**

<b>Project Name</b>	<b>Project #</b>	<b>Project Description</b>	<b>Approved Funding</b>	<b>Project Leader</b>
Mid-Fraser River White Sturgeon Radio Telemetry Program	5-196	Identify important habitats (e.g., spawning, overwintering, etc.) and areas to be protected from future development. Outline important habitat features. Identify key migration routes and timing.	\$28,050	Lee Williston MFLNRO Reg 5 250-398-4696
Habitat use and population monitoring of the Itcha-Ilgachuz caribou herd	5-230	This project will assess whether the Itcha-Ilgachuz caribou population has declined or changed habitat use and distribution in response to Mountain Pine Beetle epidemic. 12 GPS collars will be monitored over 3 years for habitat use/distribution and 32 VHF collars provided marked sample for June 2012 population and March 2013 recruitment surveys.	\$15,000	Chris Nowotny MOE (5) 250-398-4540
Quality Waters Strategy: Dean River Guardian Program	5-239	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.	\$71,920	Lee Williston MFLNRO Reg 5 250-398-4696
Finalization of a Bear Viewing Strategy for the Central Coast of British Columbia	5-243	A sub-regional bear-viewing strategy is needed to ensure the sustainability of bear viewing for the Central Coast region. Sub-regional strategies have been completed for 2 adjacent areas; a final strategy is needed to complete this process. This plan will facilitate opportunities for the public to participate in responsible and sustainable wildlife viewing.	\$9,400	Helen Davis Artemis Wildlife Consultants 250-546-0531
Quesnel Lake Angler Exploitation Study	5-271	This is year two of a five year study to estimate the proportion of large rainbow trout, bull trout and lake trout caught in Quesnel Lake. Project results will provide management with science based data for revising regulations and harvest quotas for each species which may result in increased angler use on Quesnel Lake.	\$88,613	Lee Williston MFLNRO Reg 5 250-398-4696
Measuring Angler Effort on Wild Stock Lakes in the Western Chilcotin	5-275	Aerial surveys will document fishing effort as an initial step towards increasing angler participation and satisfaction in the many wild-stock lakes spread across the western Chilcotin Plateau. This information will be used to prioritize lakes for fisheries enhancement and assessment in future years.	\$20,000	Russell Bobrowski MFLNRO Reg 5 250-398-4258

## Skeena Projects

Project Name	Project #	Project Description	Approved Funding	Project Leader
Skeena Weirs & Steelhead Stock Assessment	6-97	Operate a fish enumeration weir on the upper Sustut River for the 21st consecutive year to determine the escapement of wild summer steelhead to this system; the Sustut weir serves as an index stream for upper Skeena steelhead stocks.	\$68,000	Mark Beere MFLNRO Reg 6 250-847-7297
Skeena River Guardian Project	6-213	The Skeena River Guardian Project will monitor recent angling regulation changes on Classified Waters including the Bulkley, Kispiox and Zymoetz (first priority) and Babine, Morice, Skeena IV, Kitsumkalum and Lakelse (secondary priority).	\$128,119	Paddy Hirshfield MFLNRO Reg 6 250-387-3978
Terrestrial Habitat Requirements of Coastal Tailed Frogs in Northwest BC	6-224	This project uses radio-telemetry (in conjunction with more traditional survey methods) to describe the seasonal terrestrial habitat requirements and movement patterns of post-metamorphic tailed frogs at multiple spatial scales. Results will improve headwater, riparian management for forestry, urban, and run-of-river hydro developments.	\$43,548	Melissa Todd MFLNRO Reg 1 250-751-3132
Restoring Whitebark Pine Ecosystems to Enhance Subalpine Grizzly Bear Habitat	6-227	Restoration of endangered whitebark pine ecosystems important to grizzly and black bears. We collected seeds from disease-free whitebark pine trees and are growing nursery seedlings. We will plant seeds and seedlings in burned and mountain pine beetle habitats that will otherwise regenerate to trees species of lower value to bears.	\$5,000	Sybill Haeussler Bulkley Valley Centre for Natural Resources Research & Management 250-847-2728
Kitimat River Cutthroat Trout Behavioral Assessments	6-231	Using radio telemetry and genetic analyses techniques the project team will: (1) identify areas of Kitimat cutthroat reproduction for stock assessment, habitat protection and restoration; (2) delineate overwintering areas and behaviours; (3) evaluate migration behaviours and fishery exposure; (4) determine species identification and estimate population structure; (5) rationalize angling regulations.	\$29,425	Jeff Lough MFLNRO Reg 6 250-847-7337
Juvenile Sooty Grouse Dispersal and Winter Survival on Haida Gwaii	6-235	On Haida Gwaii, the number of Sooty Grouse appears to have declined dramatically over the past 100 years. This project assesses juvenile recruitment and nest success. The effects of forest conversion, fragmentation or hunter harvest on juvenile recruitment and nest success are examined.	\$47,399	Frank Doyle Wildlife Dynamics Consulting 250-847-3252
Impacts of Recreation and Wolves on Telkwa Caribou Recovery	6-236	The Telkwa caribou herd is declining to extirpation. We will examine causes of the decline including displacement by winter recreation and predation by wolves. An adaptive management framework will allow quantification of impacts. GPS and web-based technologies will increase awareness and reduce recreational impacts to caribou.	\$60,000	Conrad Thiessen MFLNRO Reg 6 250-847-7299
Population structure and migration of lake char in Yukon River	6-242	A sonic receiver grid will be installed in Atlin Lake and 30 lake char will receive acoustic tags as a component of a much larger sonic tagging and	\$25,000	Joe De Gisi MFLNRO Reg 6 250-847-7288

headwater lakes and rivers		genetic stock ID project directed by Environment Yukon on Atlin, Tagish, Bennett and Marsh lakes,. This will clarify lake char migrations between these waters so that harvest estimates can be accurately assigned to design regulations for sustainable fisheries.		
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## **Peace/ Omineca Projects**

<b>Project Name</b>	<b>Project #</b>	<b>Project Description</b>	<b>Approved Funding</b>	<b>Project Leader</b>
Peace-Liard Burns	7-12	A prescribed burning program to maintain and enhance early seral habitats to support winter range for a multitude of ungulate species in the northeast British Columbia.	\$100,000	Alicia Goddard MFLNRO Reg 7 250-787-3369
Nechako River Bull Trout Distribution Evaluations	7-386	Application of radio tags on bull trout at priority Upper Fraser spawning tributaries to determine the proportional contribution and source of bull trout overwintering in the Nechako River to evaluate the risk and opportunities and management scenarios for a bull trout fishery in the Nechako River.	\$89,237	Ray Pillipow MFLNRO Reg 7 250-565-6135
Herd Boundary Refinement for the Chase, Spatsizi, and Frog Caribou Herds	7-394	We will refine current caribou herd boundaries to include an area in north-central BC where the current provincial inventory is recorded as “trace occurrence” yet our research indicates numbers of caribou that exceed many of the identified herds in BC.	\$23,987	Scott McNay Resources North Association 250-997-5700
Efficacy of UWR's and survey optimization for bighorn sheep in MU 7-19	7-400	Seasonal range delineation and modification of current UWR's to provide secure winter habitat for the most northerly herd of bighorn sheep in North America. Will include a joint BC/AB population monitoring and calculation of sightability correction factor that can be applied to other northern bighorn sheep populations.	\$25,500	Daniel Lirette MFLNRO Reg 7 250-398-4258
Marten Population Responses to Accelerated Salvage Logging in MPB Stands	7-412	We will investigate the response of American marten ( <i>Martes americana</i> ) populations to habitat changes associated with accelerated logging operations. We will employ a multi-scale approach using marked individuals to measure spatial dynamics and habitat use of marten at a finer scale and occupancy modeling using non-invasive techniques to measure changes at a broader scale.	\$32,750	Shannon Crowley John Prince Research Forest 778-978-0117
Omineca Ecosystem Restoration Strategic Planning and Implementation	7-414	This is the second year of the five year plan focused on restoring the structure and function of vulnerable and degraded ecosystems in the Omineca Region (approximately 17% of the provincial landbase or 15.8 million hectares). The first year focused on strategic development while continuing to conduct activities and gain experience in ecosystems of concern. This year will continue its focus on developing prescriptions, community and stakeholder outreach, treatment implementation, documentation and monitoring success.	\$76,900	John DeGagne Society for Ecosystem Restoration in North Central BC 250-567-6316
5-Year Peace Region Mountain Goat Population Assessment	7-415	Goat harvest is being managed conservatively in the Peace Region due to a lack of baseline population data, resulting in minimal harvest opportunities. This	\$65,000	Alicia Goddard MFLNRO Reg 7 250-787-3369



		5-year assessment will determine population estimates and define Population Management Units (PMUs) for mountain goats, so that a sustainable harvest rate can be applied for each PMU, resulting in increased hunting opportunities in the Peace Region.		
Enhanced Monitoring of the Moberly Lake Trout Rehabilitation	7-416	FLNRO is proposing the continuation of the 5 year Enhanced Monitoring Program on Moberly Lake to rigorously evaluate the effectiveness of the lake trout recovery efforts and the response of the larger fish community. A mark-recapture netting program will be used to monitor the abundance of remnant lake trout. The survival and condition of stocked cohorts will be evaluated using a standardized index-netting program. Shifts in the abundance and/or demographics of the lake whitefish population will be tracked using a hydroacoustic and netting program.	\$25,660	Lynn Avis MFLNRO Reg 7 250-261-2096
Prescribed burns to enhance ungulate habitat in the Williston of north-central BC	7-417	Year 2 of a 5-year prescribed burning program used to enhance ungulate habitat in selected Resource Management Zones within the Williston regional area of north-central BC.	\$120,986	Jordy McAuley Finlay River Outfitters Ltd. 250-483-3857
Defining Nutritional Value of Summer Habitats for Caribou	7-424	This is a 3-year project to define nutritional value of caribou food supplies in summer and fall. We will use tame caribou as an innovative and quantitative tool to assess habitat value for northern mountain and boreal caribou.	\$50,862	Katherine L. Parker University of Northern British Columbia 250-960-5812
Cottonwood Island Park Side Channel Restoration and Enhancement	7-426	This project consists of instream and riparian habitat restoration and enhancement through a phased, multi-year community project which will result in improved function of habitat for fish and waterfowl.	\$5,000	Jason Yarmish EDI Environmental Dynamics Inc. 250-562-5412
Maxhamish Lake Walleye Assessment Program	7-429	Maxhamish Lake is the only large lake walleye fishery in BC and supports a high quality trophy fishery. Currently site access limits exploitation rates, however significant industrial expansion in the area is predicted in the future. A Fall Walleye Index Netting survey will be performed on Maxhamish Lake to obtain standardized abundance and population estimates. This information is expected to represent a benchmark against which to monitor for future shifts in the fishery.	\$16,290	Lynn Avis MFLNRO Reg 7 250-261-2096
Investigation of the depensation mechanisms in a collapsed lake trout population.	7-432	Lake trout in Moberly Lake are in a state of recruitment collapse likely due to depensatory interactions with other fish species. We will investigate the mechanism(s) of recruitment failure in Moberly lake trout to speed recovery, support existing rehabilitative efforts and guide management in other systems.	\$23,255	Brendan Anderson MFLNRO Reg 1 250-751-3152

## Okanagan Projects

Project Name	Project #	Project Description	Approved Funding	Project Leader
Promoting Voluntary Habitat Stewardship in the Okanagan Basin	8-90	This project builds on the success of the past twenty years of the South Okanagan-Similkameen (SOS) Stewardship Program with an expansion of land stewardship activities to the Central and North Okanagan. The focus of this project is to empower land stewards and community stewardship groups in conservation of wildlife habitat throughout the Okanagan.	\$55,000	Alyson Skinner Okanagan Similkameen Stewardship Alliance 250-492-0173
Mission Creek Restoration Initiative	8-320	To facilitate a multi-year, multi-stakeholder undertaking (MCRI) intended to conserve fish and wildlife habitat, expand biodiversity and protect species at risk, improve flood protection, inspire and support community stewardship, nurture partnerships and secure funding to restore Mission Creek.	\$50,907	Tara White MFLNRO Reg 8 250-490-2287
Angling quality on the Kettle and Granby rivers; through regulation change.	8-324	With the proposed regulation changes (catch and release) to the Kettle and Granby rivers, continuation of the long-term enumeration at key index sites is crucial in assessing/monitoring regulations and population status on these systems. To date, catch and release have been beneficial in providing continued quality angling opportunities on these systems.	\$15,150	Greg Andrusak Redfish Consulting Ltd. 250-825-2729
SOSCP Habitat Conservation Delivery	8-349	Establishing fish and wildlife habitat conservation and protection measures through a collaborative conservation model. Focus is on implementing the Biodiversity Conservation Strategy, local and regional government environmental planning initiatives and coordinating partners/leveraging of resources within the South Okanagan Similkameen area.	\$30,000	Sandy Croteau Regional District of Okanagan Similkameen (on behalf of SOSCP) 250-492-0237
Middle Vernon Creek Action Plan	8-366	Ensure sustainability of Canada's top kokanee fishery, Wood Lake, by securing a consistent water supply for the primary spawning tributary, Middle Vernon Creek.	\$65,875	Paul Askey MFLNRO Reg 8 250-490-8267
Penticton Creek Restoration Initiative	8-379	This project is focused on improving kokanee and rainbow trout habitat in Penticton Creek, by increasing fish production contributions to Okanagan Lake, and the associated recreational fishery, as well as enhancing economic and natural values for the local community.	\$85,000	Anthony Haddad City of Penticton 250-490-2400
Okanagan Small Lakes Management	8-391	To address issues identified in the Region 8 Small Lakes Management Plan, including a significant decline in angling effort & quality on a number of our wilderness and wild stock classified lakes. Access changes are suspected to be a key contributor to the decline. This project will verify the reason for the decline and provide management recommendations to improve angling quality/experience.	\$29,665	Tara White MFLNRO Reg 8 250-490-2287