

# GNLCC FY14 Funding Allocation

## Category 1: Tribal Grants

PI	Title	Summary	Recommended
Brushwood	Exploration of Issues, Potential Partnerships, and Resources for Landscape Level Assessments	Colville Tribes Fish and Wildlife scientists will participate in GNLCC meetings in FY2014, so that we can explore our mutual interests, learn about available resources for landscape level assessments, and discover opportunities to expand research and mitigation efforts in our area of the Pacific Northwest. In order to fulfill our mission of environmental stewardship, it is essential that we collaborate with groups such as the GNLCC to share collective knowledge, efficiently coordinate with neighboring habitat managers, and cooperate in regional landscape level conservation regimes. It appears there are many interests we have in common, as our objectives and our projects are consistent with all four goals outlined in the GNLCC Framework.	10,000
Caplins	Cross cultural capacity building: Landscape conservation and climate change adaptation with the Blackfeet Nation	The purpose of the proposed project is to increase the "cross cultural capacity" (Craig et al. 2012:241) of indigenous and non-indigenous groups to collaborate on climate adaptation in the Crown of the Continent (CoC) a sub-region of the GNLCC area. In order to achieve this purpose, the objectives of this project are to conduct a pilot study 1) to identify the necessary protocols for collaboration between the Blackfeet Nation and government and non-government agencies active, and 2) to identify the priorities of the Blackfeet Nation in climate change adaptation. The outcomes of this project will include both written and presented material on the priorities of, and protocols for working with the Blackfeet Nation, including a widely distributed public brochure, local community presentations, and national academic paper and presentations.	10,000
Durglo	Confederated Salish and Kootenai Tribes Climate change strategic planning	This proposal will build on next steps of the Climate Adaptation Strategy developed in FY12-13. Establish and maintain a Climate Change Oversight Committee (CCOC) which will identify "next steps" in implementation of The Plan, coordinate funding requests and collaboration with regional climate change centers, research centers, academic institutions, and other Tribes and agencies within the Crown of the Continent, Regionally and Nationally. The COCC will consist of CSKT staff, Salish Kootenai College (SKC) staff and a Wilderness Society staff member. The COCC will meet at least quarterly. The COCC will develop an Implementation Plan (IP) to measure and monitor progress in implementing the preparedness actions recommended within the planning sectors of The Plan, and identify whether these efforts are helping the Tribes meet their goals. The COCC will produce an annual report based on these findings. The first step in developing an IP is to conduct a "Needs Assessment". The COCC will assist each sector of The Plan to: 1) Assess existing organizational capacity. 2) Review existing research and literature. 3) Assess education and communication strategies and develop an education and outreach plan using multi media. 4) Determine sector workloads associated with incorporating climate information into policy and program planning. Each sector within The Plan will utilize the IP to review basic assumptions, including those related to assessing the vulnerabilities and risks that guided the planning committees in identifying priority planning areas, the Tribes overarching vision and goals, the preparedness goals that establish the priority planning areas, and the information collected measuring the results of the actions. This section ties into section B of this application however will be more comprehensive in the COCC will assist each sector to complete this process.	10,000
Tatsey	Connecting Tribal and First Nation Adaptive Management and Climate Related Activities in the Crown of the Continent	PI Lea Whitford will establish contact with relevant parties in each tribe or first nation within the Crown of the Continent. She will collect information on all activities and research regarding climate and adaptive management within each tribal nation. She will coordinate a meeting of all interested tribal contacts and coordinate tribal activities with other efforts in the Crown including the Crown Managers' Partnership, the GNLCC, the Crown of the Continent Conservation Initiative, and the Crown Roundtable Adaptive Management Initiative.	10,000
Schumacher	Collaborative efforts to inform the science, management and policies of First Foods of the Cayuse, Walla Walla and Umatilla	The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) has been working collaboratively with the Bureau of Land Management and US Forest Service (USFS) to inventory and map current and potential distributions of plant communities which support species of cultural concern on federal lands. This proposal seeks funding to continue this collaborative effort to develop plant community information and GIS datasets about three culturally important plant species located throughout the Columbia basin which are impacted by climate change, land use, invasive species, and increased incidence and severity of fire. This proposal will help determine historical, current and likely future distribution and productivity in the face of climate change and to evaluate the ability of management practices, including accelerated restoration activities being proposed in the Eastside Restoration effort of the USFS Pacific Northwest Region in eastern Oregon and Washington, to ensure the continued persistence of these resources for tribal use. Products from this proposal will be used to identify impacts of climate change with a model being developed by the USFS.	25,000

Category 2 and 3: Partner Forum Sponsored (shaded gray) and Strategic Science Projects

PI	Title	Summary	Recommended
Schuetz-Hames	Informing Implementation of Connectivity Conservation Decisions for Greater Sage-Grouse & Focal Species in Sage-steppe Ecotypes	We are requesting funding to complete a habitat model for Greater Sage-Grouse in the Columbia Plateau Ecoregion, test connectivity model predictions for Greater Sage-Grouse and focal species tied to sage-steppe ecotypes (black- and white-tailed jackrabbits), integrate model testing results in an adaptive management framework to inform conservation action within the area of the Great Northern Landscape Conservation Cooperative (GNLCC), and communicate to share connectivity information.	47,000
Al-Chochachy	Helping managers develop and implement a consistent method to prioritize conservation and identify climate adaptation strategies	Through funding awarded through the GNLCC in 2013 we and our state and federal partners and collaborators from Idaho, Wyoming, Utah, Nevada, and Montana have developed criteria and a framework for prioritizing populations of Yellowstone cutthroat trout; this spatially-explicit conservation priority framework was adapted from a financial portfolio concept aimed at maximizing species persistence in the face of adversity (Schindler et al., 2010; Haak & Williams, 2012). Through suggestions from the Multi-State Interagency Yellowstone Cutthroat Trout Conservation Work Group, we propose to continue this project and apply this framework with population-specific ranking of risks and to identify and prioritize areas for reintroduction of Yellowstone cutthroat trout (i.e., reintroductions) into streams historically occupied, that are likely more resilient to regional changes in climate.	35,000
Stevens	Informing Connectivity Conservation Decisions in the Transboundary Okanagan-Kettle Subregion	We request funding to complete operational scale connectivity analyses within identified priority linkage areas in the British Columbia–Washington transboundary subregion (from the Cascades crest eastward through the Kettle River Range within the Columbia Mountains). Our efforts will build upon previous investments by the Great Northern Landscape Conservation Cooperative and independent analyses that identified the major fracture zones within this landscape and the most important linkage areas to maintain or restore through those fracture zones including those expected to be resilient to climate change. We propose to broaden our partnerships while narrowing our focus for conservation planning to individual linkage areas, selected based on a combination of ecological and social criteria to ensure the science is applied.	53,000
Watkins	Strategic conservation planning for management applications in Cascadia	The Cascadia Partner Forum requests funding to complete conservation design for four Great Northern Landscape Conservation Cooperative conservation targets with significance to the transboundary Cascadia landscape to inform sound, data-driven management planning and action. This project aims to complete conservation design at the	45,500
Muhlfeld	Assessing Climate Change Effects on Aquatic Ecosystems in the Crown of the Continent: Implications for Adaptive Management	Climate change is impacting freshwater ecosystems worldwide, yet the potential and realized effects on aquatic ecosystems and resources in the Crown of the Continent Ecosystem (CCE) are poorly understood. The continued research described herein builds on an existing climate change and transboundary research program evaluating physical (thermal, hydrologic, geomorphic) and biotic (invasive species) effects on foodwebs (rare macroinvertebrates), native salmonids (threatened bull trout and westslope cutthroat trout), and habitats in the Transboundary Flathead River system and CCE. The project will integrate downscaled and regionalized climate models with riverscape data, fine-scale aquatic species vulnerability assessments, population genetic data, and remotely sensed riparian and aquatic habitat and connectivity analyses. Results will identify populations and habitats most susceptible to climate change, prioritize conservation options in response to or in anticipation of climate change and other cumulative stressors (e.g., habitat loss and invasive species), and develop an Aquatics Adaptation Plan for the Transboundary Flathead and CCE.	75,000;
Wilkerson	Integrating Landscape Conservation Design into Partner Actions in the Columbia Plateau Ecoregion	We propose to integrate the shared priorities developed by the Arid Lands Initiative (ALI) in the Columbia Plateau ecoregion into implementation mechanisms of existing and new ALI partners. We will finalize the ALI's comprehensive strategy by assessing and agreeing on which partners are best positioned to implement which priority actions in which priority areas, integrate these priorities into existing partner work, identify gaps that new partners need to be engaged to address, design 1-2 ALI projects for collaborative implementation, and track and adapt the overall implementation efforts. This project will not only allow the ALI to successfully transition from planning to coordinated action, but will also provide a case study to help the Sage Steppe and Columbia Basin Partner Forums' efforts to establish priorities and support landscape-scale conservation action.	75,000
Sexton	Linking Strategic Science to Collaborative Management Outcomes for Three Priority Indicators Across the Crown of the Continent	The Crown Managers Partnership (CMP) is developing collaborative management out-comes for three targeted indicators as part of our overall implementation of the Managing for Ecological Integrity Project . We are strategically focusing on Aquatic Invasive Species Landscape-scale Change, and Climate Change Adaptation, working effectively across jurisdictions; sharing data and utilizing a common science template. Our overall goal is to achieve amplified management out-comes that address these shared conservation threats. Specifically, in the coming year we will advance our management strategies with respect to each of the stressors by; (i) Assimilating on-going work at multiple scales and implement strategic pilot projects to address Aquatic Invasive Species (AIS), and develop a cohesive Transboundary Management Plan across the the Crown of the Continent Ecosystem (CCE), (ii) Develop a Human Modification Index for the CCE providing a quantifiable methodology for measuring landscape-scale integrity at the scale of the CCE, (iii) Complete a multi-species functional connectivity analysis for a suite of focal species and link with on-going Trend Analysis for the CCE, and (iv) Prioritize and implement shared climate adaptation strategies in a coordinated effort with non-government organizations and community stakeholders. These strategies collectively advance the CMP's priorities for managing to a desired condition across the CCE, while providing for significant strategic alignment with the Great Northern LCC's conservation priorities and needs for a transboundary focal region within the Rocky Mountain Ecotypic Area.	60,000
Clevenger	Identifying conservation	The Canadian portion of the Crown of the Continent (CCoC) ecosystem has been identified as crucial for wolverines north of the US border to 'rescue' or supply individuals and genes through dispersal to the highly fragmented population in the northern US Rocky Mountains. Highway 3,	60,000

	corridors and transboundary linkages for wolverines in the Canadian Crown of the Continent ecosystem	motorized recreation, and a growing resource extraction industry, however, increasingly fragment this critical landscape. This project will capitalize on multi-year wolverine occupancy and genetic data collected noninvasively in a >40,000 km <sup>2</sup> area encompassing the core protected areas of the central Canadian Rocky Mountains to the north; and Glacier-Waterton Lakes National Park complex in the south. Our goal is to obtain spatially-explicit information on the wolverine population, connectivity, and habitat relationships in the largely unstudied and vitally important international transboundary linkage region.	
Miewald	Landscape Conservation Design in the Columbia Plateau Ecoregion: Prioritizing, Classifying, and Assessing Resiliency of Riverine	This project will focus on integrating existing riverine/riparian landscape analyses to support decision making by the Arid Lands Initiative and associated partners in the Columbia Basin Partner Forum. This synthesis will produce a map of priority areas for the riparian and riverine landscape, and will include a stressors and threats analysis, with an assessment of resiliency to climate change. We will also complete the first phase of a multi-year project to develop an ecological systems classification for riverine systems in the Columbia Basin.	50,000
Rocky Mountain Partner Forum and Cross	Facilitating climate change adaptation planning and implementation through the GNLCC Rocky Mountain Partner Forum	We propose to work with the Rocky Mountain Partnership Forum to expand upon the successful approach applied in the first two years of this project to help managers incorporate climate change science into their natural resource management decisions for a new resource of interest that will be chosen by the Rocky Mountain Partner Forum members. This project will be implemented through the Rocky Mountain Partner Forum to share information with and among partners about emerging climate science and strategies for integrating climate change into natural resource management decisions in the region. We will also support the Rocky Mountain Partner Forum Leadership Team as it seeks to formalize the Forum and set directions for future collaborative work.	30,000
Waste	Facilitation Needs for GLNCC Columbia Basin Partner Forum	The Great Northern Landscape Conservation Cooperative (GLNCC) has convened the Columbia Basin Partner Forum (CBPF) to help facilitate collaboration among conservation practitioners and partnerships that share landscape conservation challenges in an eco-geographic context. Through a loosely structured process, field-level managers, scientists, and conservation constituents will identify priority conservation information, scientific needs, and implementation opportunities within the scope of the Great Northern LCC Strategic Conservation Framework. The CBPF will also provide a means to engage the partnership network (a more diverse and directly knowledgeable constituency) on specific conservation needs that will inform and support an adaptive management approach to the “on the ground” application of landscape conservation.	9,500
Servheen	Core Habitat Identification and Fine Scale Habitat Use of Grizzly Bears in the US Northern	This project will focus on analysis of 10 years of GPS telemetry data for 60 grizzly bears across the threatened and fragmented trans-border grizzly bear subpopulations in the Cabinet, Yaak, Purcell, and Selkirk Mountain (Proctor et al. 2012) with a goal to identify areas of high quality core habitat and understand the ecological characteristics that underpin habitat use. We will use Resource Selection Function habitat-use models for partitioned by sex and in each of 3 seasons to capture the variation of bear habitat use. We will also work to integrate our results to inform wildlife and land managers on where to concentrate their management efforts by season to promote population health and resilience in both the US and Canada. We will also extend the ongoing trend monitoring effort through radio collaring females into the Canadian Yahk and Selkirks to monitor the effectiveness of the cumulative conservation efforts in these ecosystems.	35,000