

# Southern Rockies Landscape Conservation Cooperative

## 2011 Fish and Wildlife Service Funded Projects through a RFP

Project Title	Principle Investigator	Partners	Project Description	Funding Awarded
<p>Vulnerability and connectivity of natural landscapes and riparian habitat in the SRLCC</p>	<p>Colorado State University</p>	<p>Wildlife Conservation Society, Colorado Division of Wildlife, Forest Service, Utah Department of Natural Resources, Great Northern LCC, NASA, MT St Univ.</p>	<p>The project will conduct a vulnerability assessment of water-limited habitat, focusing on riparian and wetland systems. Two sources of change will be examined: climate and land use. Habitat connectivity will be modeled as a function of the degree of human modification (agricultural, urban, energy, transportation, and other related infrastructure). Specifically, we will: (a) identify current general patterns of landscape connectivity of the full Southern Rockies LCC region and trends as a function of both climate and land use scenarios for 2050; and (b) focus on riparian ecological systems and the change in connectivity among and access to riparian areas. The resulting maps and models of current and forecasted vulnerable systems and locations will provide key information to inform management and decision making about priority landscape resources to help coordinate conservation actions among LCC partners.</p>	<p>\$91,028 for 2 yrs</p>
<p>A Regional Model for Building Resilience to Climate Change: Development and Demonstration in Colorado's Gunnison Basin</p>	<p>The Nature Conservancy</p>	<p>Gunnison County, Forest Service, Fish and Wildlife Service, Bureau of Land Management, Natural Resources Conservation Service, Colorado Division of Wildlife, National Park Service</p>	<p>This proposed project would enable the Gunnison Climate Working Group, a chartered partnership of 14 public and private organizations in the Upper Gunnison Basin, CO, to: 1) complete a science-based vulnerability assessment of species and habitats in the Upper Gunnison Basin and identify data gaps; 2) develop a watershed-wide adaptation strategy for priority species and systems, based on the vulnerability assessment; 3) design and implement a local adaptation demonstration project for priority species and habitats; and 4) document tools, methods, and lessons learned to share with others across the SRLCC through a climate adaptation learning network. This work is critical to the development, application, testing and dissemination of concrete, hands-on methods that managers can use to sustain species and ecological systems in the face of climate change – methods that will be shared widely with natural resource managers and conservation practitioners throughout the Southern Rockies LCC and beyond.</p>	<p>\$50,000 for 1 yr</p>

<p>Collaborative multi-species monitoring in the Southern Rockies LCC: impacts of forest restoration treatments on ponderosa pine ecosystems in Colorado</p>	<p>USGS</p>	<p>Forest Service, Fish and Wildlife Service, Natural Resources Conservation Service, The Wilderness Society, Colorado Forest Restoration Institute, Colorado State University; Colorado State Forest Service</p>	<p>The project will expand the scope of forest restoration treatment monitoring for Collaborative Forest Landscape Restoration projects in 3 key ways: 1) augment wildlife monitoring efforts to include a more diverse range of species and/or guilds, including several species of conservation concern within the SRLCC; 2) expand the monitoring of understory plant response to provide a holistic evaluation of treatment impacts on understory plant communities; 3) add monitoring plots both on non-USFS lands managed by partner agencies, and on adjacent untreated lands to serve as a comparison and to allow for the evaluation of landscape-scale effects. Our results will provide important data on the effects of forest restoration treatments on key plant and animal species in Colorado's ponderosa pine ecosystems, and will facilitate adaptive management of these ecosystems at the landscape scale.</p>	<p>\$75,852 for 2 yrs</p>
<p>Assessment of connectivity and enhancement of adaptive management capacity on Navajo Nation lands</p>	<p>University California, Davis</p>	<p>Northern Arizona University; The H. John Heinz III Center for Science, Economics, and the Environment; Navajo Nation Department of Fish and Wildlife; University of Nevada, Reno</p>	<p>The project will enhance adaptive-management capacity and meet information needs of the Navajo Nation, address focal issues identified by the Western Governors' Association (WGA), and advance collaborative decision-support methods across the southern Rocky Mountains. The Navajo Nation has embarked on its first 10-year strategic planning process to guide management of its fishes, terrestrial animals, and plants of ecological and cultural significance. The project will provide estimates of habitat connectivity for focal species on the Navajo Nation and adjacent lands that the Nation wishes to incorporate into planning and implementation of adaptive management. Proposed work further will support assessment of objective, quantitative, and realistic scenarios of natural and anthropogenic environmental change against which the tribe can conserve wildlife while promoting development of natural resources. The project will support the WGA's Wildlife Corridors Initiative and complement rather than duplicate the Western Governors' Wildlife Council's pilot decision support system for wildlife resources in the southwest. We also will capitalize on existing 1 km climate projections for the Colorado Plateau.</p>	<p>\$43,120 for yr 1 w/ yr 2 funding dependent upon availability</p>

# Southern Rockies Landscape Conservation Cooperative

## 2011 Fish and Wildlife Service Funded Projects through a Grant or Cooperative Agreement

Project Title	Principle Investigator	Project Description	Funding Awarded
<p>Decision Support System (DSS) Development for Wildlife Resources in Arizona and Utah.</p> <p>Crucial Wildlife Habitats and Corridors Decision Support System for the Colorado-New Mexico Border Region.</p>	<p>Western Governors Association and DOE</p>	<p>These two projects will develop useful and consistent sources of mapped biological information across the respective states, followed by a display tool – a Decision Support System (DSS) - within each state. Developing the DSS involves: 1) Compiling types and layers of information valuable in identifying crucial habitat, including important wildlife corridors (aquatic and terrestrial); 2) Analysis of information (methodology, modeling, and prioritization) to rank areas as crucial habitat and wildlife corridors; and 3) Develop the tool to help deliver crucial habitat and corridor information to appropriate users (the actual DSS); a web-based, spatially-explicit decision support system presenting information at a scale supported by the available data, to be used to identify crucial wildlife habitats and important wildlife corridors and inform management decisions that have the potential to impact those habitats and species.</p>	<p>\$75,000 to each DSS Project</p>
<p>Bear River Watershed Beyond the Borders Project</p>	<p>National Wildlife Refuge Association</p>	<p>This project will support collaborative work to further the goals and accomplish objective of the Bear River Watershed Conservation Area (BRWCA). The BRWCA project works with private landowners to conserve natural resources and working landscape of the area. The project will provide GIS and conservation area planning support; develop public outreach strategies, outreach materials, and develop communications strategies; and advance the BRWCA as a national model of collaborative landscape conservation, in the tradition of the Crown of the Continent, in an effort to institutionalize the “Beyond the Boundaries” or collaborative conservation approach to implementing strategic habitat conservation.</p>	<p>\$50,000</p>

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# Southern Rockies Landscape Conservation Cooperative

2011 Bureau of Reclamation Funded Projects through a FOA

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Project Title	Principle Investigator	Project Description	Funding Amount
Modeling low stream flows and assessing the ecological impacts of potential stream drying under climate change in the Upper Colorado River Basin	Colorado State University	Colorado State University (CSU), in collaboration with The Nature Conservancy, will examine climate change impacts on stream low-flows and potential effects on riparian vegetation in the Upper Colorado River Basin (UCRB). In particular, the project will address how small stream low-flow hydrology will be impacted by predicted, drier summers in the UCRB under climate change and how the resulting impacts will affect riparian plant communities. The assessment will produce GIS data layers and maps for streams in the UCRB indicating how stream flows may change under future climate change scenarios and will be available on an interactive website. Additionally, the project will produce statistical models that relate flow parameters to riparian vegetations compositions. The project will be completed by September 2013.	\$105,755
Soil Vulnerability to Future Climate Change in the Southern Rockies LCC, with implications for vegetation change and water cycle	Conservation Biology Institute	The project will take existing soil map data and increase the resolution within the LCC, if data is missing use statistical methods to "fill in the blanks". This will give a LCC-wide soils dataset. This may be used to project future climatic changes and its potential effect on the vegetation found on a given soil type.	\$200,000