

Project Summary

Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Identifying Multi-jurisdictional Adaptation Strategies for Responding to Climate Change on Federal Lands in the Desert Southwest

Discipline: Social Science
Type of Project: Education
Funding Agency: National Park Service
Other Partners/Cooperators: Colorado State University
Effective Dates: 9/01/2008- 12/31/2010
Funding Amount: \$30,000

Investigators and Agency Representative:

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Project Abstract: Six hundred fifty million acres of the U.S. (nearly 30%) are federally owned and managed public lands. Many of these lands represent some of our nation's most unique and pristine natural and cultural treasures. As the threats from global climate change increase, federal lands managers face unprecedented challenges for protecting and preserving this heritage and communicating the impacts to the public. Many of these threats transcend jurisdictional boundaries (e.g., fragmentation /connectivity, invasive species, range shifts/migrations, altered hydrologic and disturbance regimes, etc.). To meet the challenge of climate change an organizational evolution is necessary that fosters landscape scale coordination among agencies and promotes conservation plans to facilitate biome shifts, species migration, and other transboundary issues

The work outlined in this Task Agreement will support federal land managers in developing the skills, tools and resources necessary to become more proactive, adaptive, and collaborative in finding solutions for coping with climate change issues. The proposed work is to plan, prepare and host a workshop for federal land managers in the Desert Southwest, which is one the most critical ecological systems that is, and will continue to be, affected by climate change.

The Workshop

The Desert Southwest workshop will be designed and implemented in coordination with the multi-agency CESU Network and will build on similar efforts currently underway in the northern and central Rocky Mountains. Desert systems are one of five "critical systems" (high latitudes, high altitudes, complex coastal, drylands, and prairie grasslands) that have been identified by the scientific community as requiring special focus for research and management related to climate change. Parks in the Desert Southwest are facing some of the most immediate and severe impacts from climate change of any parts of the country. Issues addressed in the workshop will focus mainly on those of the Sonoran and Mojave Deserts and the parks located in these systems.

The benefit to IMR parks, (e.g. Saguaro National Park, Organ Pipe Cactus National Monument, Joshua Tree National Park, and Death Valley National Park) will be to assist them in 1) outlining key issues, 2) identifying response options and current capacity to implement those options, and 3) evaluating which are the most pressing and appropriate actions that can be taken, and 4) connecting their efforts and concerns

with those of neighboring agencies and jurisdictions in the Sonoran and Mojave Deserts.

The project will include pre and post consultation designed around the multiple stakeholder workshop that will: 1) introduce some of the scientific findings related to climate changes impact on federal lands; 2) develop multi-jurisdictional climate change adaptation, planning, and communication strategies, including assessment and monitoring tools; 3) provide an opportunity for brainstorming, discussion, and follow up regarding implementation of such strategies; and 4) document the multi-stakeholder engagement process and outcomes for use in other regions.

The workshop will be three days in length and will be hosted at a government facility. Pre and post consultation activities may include site visits as well as remote interaction and follow up. Workshop activities will include a panel of interdisciplinary experts that will present material relevant to the natural and social dynamics of the resources issues at hand (e.g. fire management, habitat fragmentation and loss, species migration and range shifts, invasive species, altered hydrologic regimes, etc). Poster presentations will also be available to display success stories from local and regional mitigation and adaptation efforts (e.g. Climate Friendly Parks, scenario planning, etc.).

The workshop will incorporate communication capacity training to help the participants deal with organizational learning and change. Such topics could include: systems thinking training, learning to deal with complexity and uncertainty, decision-making tools, adaptive management principles, strategies for scenario planning, "safe-to-fail" strategies, tips for communicating with scientists, managers, and the public. The ultimate goal of the workshop is to empower managers to develop, implement, and sustain climate change adaptation strategies that incorporate transboundary issues and include multi-agency collaboration and planning. The approach will meet this goal by providing a multidisciplinary lens that links science and communication training, with follow up support, which is tailored to the specific management needs that are identified through the workshop process.

Outcomes with Completion Dates:

May 1, 2009	Initial meeting with NPS key official to develop detailed timeline for interim products
Dec 31, 2009	Final report

Keywords: Climate change, workshops, adaptation strategies, communication tools, NPS-Natural Resource Program Center, Colorado State University