WCS CLIMATE ADAPTATION FUND 2013 GRANTS LIST

American Rivers

WCS Grant: $240,580; Project Budget: $481,160
Headwater Meadow Restoration in the West

The majority of California and western Nevada's fresh water comes from the Sierra Nevada, falling in winter as snow that slowly melts in spring, delivering enormous amounts of clean water to both people and wildlife. Temperature increases due to climate change, however, are reducing the depth of this snowpack and accelerating snowmelt. In response, American Rivers will restore headwater meadows using the latest climate science to identify the best locations to employ their efforts. Hydrology data will be collected throughout their project to inform design parameters that address a range of climate uncertainty, ensuring the long-term sustainability of the restored systems.

Trout Unlimited

WCS Grant: $249,110; Project Budget: $949,987
Southern Appalachian Coldwater Reconnection Project

Trout Unlimited's Southern Appalachian coldwater reconnection project will complete aquatic organism passage restoration projects on strategic coldwater streams for the long-term viability of Southern Appalachian brook trout and associated aquatic species. The project will be guided by new catchment-level climate sensitivity data coupled with population patch and genetics data to focus reconnection projects in the areas most resilient to climate change impacts and most beneficial to increased aquatic organism passage.

The Nature Conservancy, South Carolina

WCS Grant: $97,625; Project Budget: $196,071
Establishing Living Shorelines in South Carolina

A "Living Shoreline" uses a variety of structural and organic materials to provide shoreline protection and it provides better protection to vulnerable habitats and human communities in the face of climate change. This project will test a variety of methodologies and materials to further the understanding and use of living shorelines as an alternative to hardened shorelines as a climate adaptation strategy in the South Atlantic coastal region.

San Diego Zoo, Institute for Conservation Research

WCS Grant: $198,400; Project Budget: $405,498
Coastal sage scrub ecosystem adaptation

Historically, land use change was the primary threat to coastal sage scrub habitat, reducing available habitat for wildlife, introducing invasive plant species and altering the fire regime. Climate change is predicted to intensify all of these problems with increased fire frequency favoring exotic, invasive plants species over natives. This may lead to coastal sage scrub being replaced by an exotic grassland with more frequent fires. This project will promote ecosystem resilience to climatic perturbations and to predicted increases in fire frequency by reducing invasive cover and by planting coastal sage species.

L-A-D Foundation

WCS Grant: $97,135; Project Budget: $328,481
Enhancing the Adaptive Capacity of Ozark Woodland

The L-A-D Foundation will implement prescribed fire treatments for shortleaf pine woodlands on 300 acres to adaptively restore and maintain a community type that is projected to do well under predicted future climate conditions. Through initiation of prescribed fire treatments on a 1,600-acre expanse of igneous and dolomite glades and woodlands with high natural integrity, this project will reduce woody species encroachment and enhance the capacity of glade endemic species to adapt to changing conditions.

The Nature Conservancy, New York

WCS Grant: $225,778; Project Budget: $684,663
Building Climate Resilience in the Lake Champlain Basin

Climate change is expected to impact aquatic ecosystem health due to extreme high flows and resulting scour in the Ausable River Watershed, making the incorporation of climate scenarios into streamflow projections and culvert design improvements imperative. This project will replace and redesign 8 culverts, opening at least 40 miles of currently disconnected habitat on Ausable River tributaries. The results of this work will serve as a model for future climate change improvements to culverts throughout the Northeast.

SUPPORTING ON-THE-GROUND PROJECTS PROMOTING WILDLIFE ADAPTATION TO CLIMATE CHANGE

California Invasive Plant Council

WCS Grant: $159,578; Project Budget: $319,318
Strengthening resiliency in Sierra Nevada meadows

Using climate modeling integrated into CalWeedMapper, an online decision-support tool designed to guide landscape-level prioritization, the California Invasive Plant Council will target early invasions of exotic plant species with the highest potential for future spread and impact. Through extensive partnerships with the Forest Service, county Weed Management Areas, and local watershed groups in the region, top-priority exotic plant populations will be eradicated before they invade and weaken the system. This project will inform future adaptation work grappling with the challenges of invasive plant species.

Grand Canyon Trust

WCS Grant: $54,000; Project Budget: $133,121
Water as a foundation for climate resilience

Spring ecosystems are some of the most biodiverse in the American Southwest and provide the key water sources necessary for wildlife to move between and among habitats in this semi-arid region of the country. Unfortunately, many spring ecosystems have become degraded due to their incorporation into livestock operations. In response, The Grand Canyon Trust will pilot three new approaches for restoring spring composition and function on an 850,000-acre expanse of land owned by Grand Canyon Trust and public grazing leases administered by the United States Forest Service and Bureau of Land Management.

The Nature Conservancy, California

WCS Grant: $97,900; Project Budget: $265,388
Restoring the Upper Pajaro Corridor

Using innovative designs that benefit wide-ranging wildlife and prepare the Upper Pajaro River's floodplain for the consequences of a rapidly changing climate, The Nature Conservancy of California will re-establish native riparian woodland and wetlands, restoring a critical corridor. This project will further catalyze climate change awareness through the engagement of local communities in project implementation and partnering in an environmental education program, engaging students in this this work, with area schools.

The Nature Conservancy, Indiana

WCS Grant: $84,425; Project Budget: $181,825
Increasing resilience in southern Indiana forests

Prolonged late summer drought-stress, when precipitation is expected to be at a minimum and temperatures at their highest, will likely have the greatest effect on mesic tree species, which are dominating dry forests in Indiana. Fire suppression has further increased the vulnerability of these forests to future climate regimes. This project aims to reduce the dominance of mesic trees within the forest understory in favor of trees more resilient to prolonged droughts. The results of this work will be used to advance discussions on the creation of climate resilient forests with private and public land stewards.