



WCS Climate Adaptation Fund

Supporting on-the-ground projects promoting wildlife adaptation to climate change
2012 Grants List

National Wildlife Federation - WCS Grant: \$250,000; Project Budget: \$840,205

Climate Smart Coastal Impoundments



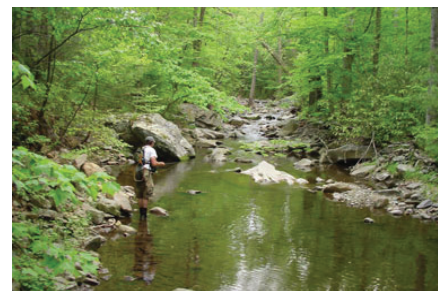
Creating coastal impoundment habitat along the Delaware coast will ensure the long-term survival of species dependent on these rich tidal systems.

The Mid-Atlantic region is facing sea-level rise at three to four times the rate of the global average. Coastal impoundments, which provide fresh and brackish water habitat for multiple species, are at significant risk of being destroyed, threatening species that depend on this habitat. In response, this project will create coastal impoundment habitat inland and upland of an existing threatened impoundment, sharing the lessons learned about the habitat values of their conservation actions across the East coast.

Trout Unlimited - WCS Grant: \$209,800; Project Budget: \$1,193,314

Securing and Expanding Coldwater Refugia

Warming temperatures threaten a wide range of coldwater-dependent species. Freshwater habitats in five Virginia and West Virginia watersheds were prioritized for restoration based on their projected resilience to climate change, as well as their recognition as ecological hot spots for aquatic and terrestrial biodiversity. This project will restore impaired pool and cover habitat in coldwater streams by accelerating natural wood recruitment and improving stream flow through the obliteration of 15 miles of obsolete road. The project will also improve streams through installation of habitat improvement structures, installation of livestock fencing, and removal of barriers to fish movement.



Removing 15 miles of road and restoring 120 acres of riparian habitat to create needed refuge for fish and wildlife.

The Nature Conservancy Minnesota - WCS Grant: \$236,500; Project Budget: \$687,280

Adaptation Forestry in Minnesota's Northwoods



Restoring harvested forestland using native species likely to withstand a changing climate.

Forests of the upper Midwest are expected to experience warmer and drier conditions in the future, threatening the survival of existing native tree species. This project will restore 2,000 acres of recently harvested forestland using a combination of native tree species that are likely to persist under future climatic conditions. Pioneering in taking a first step in helping northern forests transition to an uncertain future, this effort aims to ultimately influence the adaptive capacity of millions of acres in the Great Lakes region.

The Nature Conservancy, Central Appalachians – WCS Grant: \$249,800; Project Budget: \$2,213,990
Enhancing Adaptation and Resiliency in Red Spruce Ecosystems

The red spruce-northern hardwood ecosystem of West Virginia is valuable habitat for numerous species and is also at risk due to predicted climatic changes. To ensure the ability of this habitat to thrive in the future, this project will increase the size, functionality and connectivity of red spruce forest stands through fee and easement land acquisition, silvicultural manipulation to accelerate red spruce dominance into the overstory, tree planting, and understory spruce release with timber stand management. Through these efforts, 1,050 acres will be placed in permanent protection and an additional 840 acres of red spruce forest will be restored.



Ensuring species thrive through protection and restoration of 1,050 acres of northern hardwood forest.

National Wildlife Refuge Association – WCS Grant: \$172,000; Project Budget: \$486,000
Habitat Connectivity and Resilience in Florida's Northern Everglades



Preserving 50,000 acres of the Florida Everglades to provide wildlife habitat and clean water for 8.3 million people.

The Florida Everglades has been named a globally significant biodiversity hotspot and provides water to 8.3 million people, making conservation and restoration of this area essential. This project will apply climate adaptation models to more than 50,000 acres of new conservation lands, negotiating easements and acquisitions, using climate science to define future habitat management and restoration actions. Building these activities with landowners and public agencies, this work aims to support the implementation of a broader vision for the new 800,000-acre Everglades Headwaters National Wildlife Refuge and Conservation Area, an important landscape for climate adaptation.

The Conservation Fund – WCS Grant: \$162,050; Project Budget: \$369,100
Blackwater National Wildlife Refuge Climate Adaptation Project

Blackwater National Wildlife Refuge is one of the largest protected marsh complexes in the Northeastern U.S. With 30,000 acres of tidal marsh, it is a vital part of the Chesapeake Bay's wildlife network. Sea level rise and marsh erosion brought about through climate change are drowning these marshes, threatening this vast, critical habitat. By planting 50 acres of switchgrass to stabilize the soil and eliminating trees just upland of the current transition zone, this project will facilitate agricultural fields and forests to become vital tidal wetlands.



Improving tidal marshes so these habitats withstand sea level rise and erosion due to a changing climate.

The Nature Conservancy Oregon – WCS Grant: \$210,241; Project Budget: \$446,684
Incorporating Climate Change into Tidal Wetland Restoration



Using current climate data to guide restoration of the Kilchis and Miami Rivers of Oregon.

Oregon estuaries contain highly productive wildlife habitats that have undergone dramatic and detrimental conversion to farmland, ports and coastal towns. Using downscaled climate change data, this project will undertake restoration activities on the Kilchis River Preserve and the recently restored tidal marsh on the Miami River, applying new restoration designs to address the effects of climate change, including breaching levees to provide access to tidal and flood waters, re-establishing historic tidal channels and sloughs, and installing large wood and other habitat-forming features to promote soil accretion.

Conserve Wildlife Foundation of New Jersey – WCS Grant: \$51,000; Project Budget: \$107,500
Constructing Upland Vernal-pool Habitat to Manage for Sea Level Rise

Vernal pools are isolated, ephemeral wetlands that provide critical habitat for a wide range of species. Climate change induced sea-level rise is projected to inundate significant portions of these ecosystems. To mitigate these risks, this project will create a complex of vernal pools on the Cape May Peninsula to increase connectivity of these habitats, while fostering migration of species toward upland areas.



New vernal pool habitat for a wide range of species will help populations survive changing conditions.

Greater Yellowstone Coalition – WCS Grant: \$51,700; Project Budget: \$106,750
Linking Aquatic and Terrestrial Climate Change Adaptation

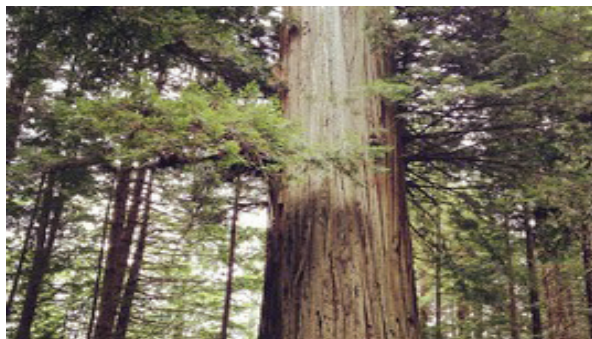


Restoring streams and riparian vegetation will provide needed refuge for species in Southwest Montana.

Regional climate modeling suggests the Madison River watershed in Southwest Montana is likely to experience a significant temperature increase, impacting both aquatic and terrestrial species. To prepare for these changes, this project will restore the headwater reaches of tributaries identified as future coldwater refuges. These same tributaries are cited to become critical connectivity corridors for terrestrial species. Riparian vegetation and cover will be enhanced to facilitate successful movement of species between fragmented patches of wildlife habitat.

The Pacific Forest Trust – WCS Grant: \$200,750; Project Budget: \$609,500

Creating a Connected Conservation Network for Climate Adaptation



Securing protected areas on over 25,000 acres of private commercial forestlands and implementing climate adaptation enhancement test plots on 500 acres to improve the future functionality of this ecosystem.

The Klamath-Cascade Region of California provides an array of habitats for diverse ecological communities with forest diversity alone providing 30 conifer species, a global maximum. In addition, the watersheds in this region are the source of drinking water for 25 million Californians. Using conservation easements to create new, strategically located protected areas on private commercial forestlands, this project will improve ecosystem functionality and adaptive capacity of these forests as climate changes.

The Trust for Public Land – WCS Grant: \$250,000; Project Budget: \$569,500

Protecting and Strengthening Resiliency in the White Mountains

The White Mountain to Moosehead Lake region of New England is the pivotal east-west connector between 12 million acres in the Adirondacks and Vermont and 14 million acres in Maine. Widely recognized as an enduring landscape providing critical refugia for multiple species, this project will use the latest climate science data to inform conservation easement terms and ecological reserve design on more than 18,000 new acres of protected land.



Establishing 18,000 acres of new protected areas using current climate science data.

The Sky Island Alliance - WCS Grant: \$92,038; Project Budget: \$303,827

Enhancing Adaptive Capacity of Wildlife in the Sky Island Region



Improving springs in arid southwest Arizona will increase this habitat's ability to endure changing conditions.

Natural springs in arid ecosystems occupy a small fraction of the landscape and yet support high levels of productive biodiversity, providing much needed refugia for migratory birds, reptiles and amphibians. This project will restore ecological function to nine high-priority springs through removal or rebuilding of spring box structures, rehabilitation of native vegetation by hand-planting of riparian trees, sedges, and wetland grasses, installation of erosion control structures, and protective structures to prevent livestock or human trampling.