

Forest Service Research and Development

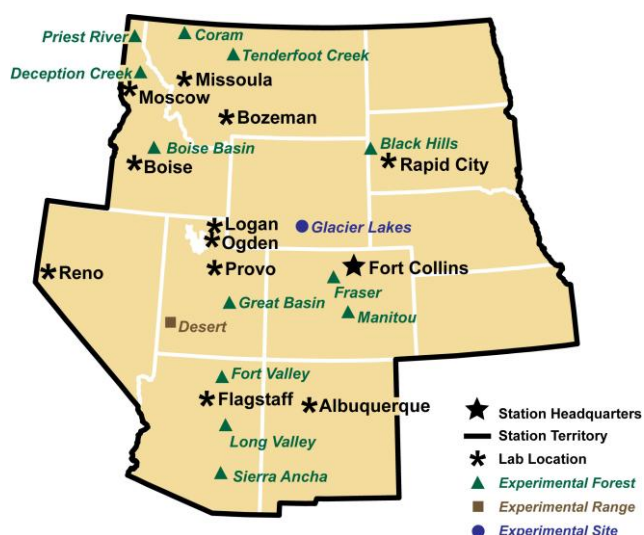


<http://www.fs.fed.us/>

Nevada

Forest Service Research and Development (FS R&D) funds research in Reno, Nevada through its [Rocky Mountain Research Station](#) (RMRS), headquartered in Fort Collins, Colorado.

Nevada Funding History	FY 2011 Enacted (\$)	FY 2012 Enacted (\$)	FY 2013 Budget (\$)
Reno Forestry Sciences Laboratory	\$406,200	\$382,200	\$379,100
NEVADA TOTAL	\$406,200	\$382,200	\$379,100



Rocky Mountain Research Station

The RMRS mission is to develop and deliver scientific knowledge and technology that help people sustain the health and productivity of forests, rangelands, and grasslands throughout the Rocky Mountain West. RMRS researchers provide the scientific foundation for understanding and adapting to changing conditions associated with human use of land and resources, wildland fire and fuel management, climate effects on ecosystem health and sustainability, watershed productivity and health, and native and non-native insects and diseases impacts. RMRS is organized into seven science programs with research laboratories in nine of the twelve Interior West states we directly serve. The RMRS conducts research and delivers science products in collaboration with a large number and variety of partners to maximize the relevance and reach of RMRS science.

The FY 2013 President's Budget for the Station is \$40,679,000, of which \$13,775,000 is for annualized Forest Inventory and Analysis (FIA). The President's

Budget provides a decrease of \$179,000 below the FY 2012 Enacted Budget. In addition, \$6,802,000 is allocated in FY 2013 for National Fire Plan research at the RMRS, and the Station will also receive a competitive share of the national amount of \$7,226,000 for the Joint Fire Science Program.

FY 2013 Program Changes

To accommodate the reduction proposed in the President's Budget, the RMRS will reduce research investment in landscape simulation modeling, the Competitive Research Initiative, erosion and sediment modeling, atmospheric and water deposition.

FY 2011 Key Accomplishments in Nevada

- Developed a soil erosion model to guide land management decisions to maintain water clarity and quality in Lake Tahoe.
- Examined air pollutants emitted by wildfires, their impact on air quality, regional haze, and greenhouse gases.
- Projected a 50 percent habitat decline for trout in the Interior West over the next 70 years due to climate change; including a 58 percent decline in Cutthroat trout.
- Examined the impacts of forest and rangeland condition and management on groundwater resources in the western U.S. to support groundwater management plans.
- Discovered genes that provide resistance to white pine blister rust and archived seed and pollen from threatened populations of high elevation pines.

Priority Research

EXHIBIT C-1 – LANDS
Document consists of 2 pages.
Entire Exhibit provided.
Meeting Date: 06-19-12

Forest Service R&D priority research areas build on existing local and regional research to solve issues important to the American people. Priority research areas for RMRS include:

Bioenergy/Biomass Management: America's forest resources contribute to energy security, economic opportunity, and environmental quality. RMRS scientists are looking at forest fuel treatment options that could support bioenergy use and are investigating solutions to use beetle-killed trees to create biochar, a bioproduct of utilization that can sequester carbon and fertilize soil. The RMRS has

Localized Needs Research in Nevada

evaluated how increased biomass utilization will impact forest sustainability and soil quality as the bioeconomy develops.

Forest Disturbance: The term Forest Disturbance reflects a more accurate description of the focus of our climate change research. As climate changes so will our forests and grasslands. RMRS is providing information to adapt to expected ecosystem changes and to mitigate anticipated consequences. RMRS research is exploring the interactions between disturbance and species viability, restoration, water supply, insect and disease infestation potential, carbon sequestration potential and wildfire risk. RMRS researchers, in collaboration with NASA, developed the Forest Carbon Management Framework, a national decision support system that provides a better understanding of carbon storage as it relates to patterns of timber harvest and disturbance.

Watershed Management and Restoration: With a growing population competing for a finite supply of freshwater, sustaining healthy watersheds to protect the nation's water supply is critical to the social and economic well-being of the United States. RMRS scientists continue to investigate the economic value of water supplied from our public lands for human uses, and the impacts of increased demand and changing climate on water quality and availability.

The Fraser Experimental Forest, near Winter Park, provides a unique landscape to measure the impacts of bark beetles and disturbance on water quality, water availability, and water chemistry.

Forest Inventory: Forest inventory allows America to see how our forests change over time. In FY 2012, the RMRS is scheduled to complete an annual update of the conditions and trends of Nevada's forest resources, with 80 percent of the forest inventory completed. At that time, the first report based on these data will be initiated, and the compiled data will become available on the FIA public website.

Focusing on critical regional and local research issues, RMRS provides research results, tools and technologies to help address the following issues:

Invasive Plants: The RMRS has provided the seed industry and land managers with technology for increasing native seed supplies and re-establishing native plants on disturbed sites, helping to prevent invasion from unwanted species, particularly in the Great Basin. RMRS scientists are also developing and testing tools and biological control solutions for several invasives, including leafy spurge and cheatgrass.

Fire: RMRS provided air quality managers with a new tool that forecasts wildfire smoke plume transport and helps evaluate potential smoke impacts on air quality and human health. RMRS also developed a new computer-based risk analysis tool to aid managers in monitoring trends in wildfire risk over time and to prioritize mitigation work.

Great Basin Ecology: Restoring the Great Basin is a shared goal for land managers, researchers and communities in Nevada. RMRS has been instrumental in the establishment of the Great Basin Resource and Management Partnership, a unique organization focused on increasing science and management communication and collaboration around key natural resource issues in the Basin.

FOREST SERVICE RESEARCH & DEVELOPMENT (FS R&D) is a world leader in innovative science for sustaining global forest resources for future generations. Research findings and products benefit forest and rangeland managers, and everyone who uses goods or services from forests. FS R&D operates five research stations that encompass all 50 states, the Forest Products Laboratory located in Madison WI, and the International Institute of Tropical Forestry located in Puerto Rico. Researchers and support personnel are located at 67 field sites throughout the United States. FS R&D maintains 81 experimental forests and ranges across the nation, which support most of the agency's long-term research.

The FS R&D program has two components: Priority Research Areas and Strategic Program Areas. The **Priority Research Areas** address urgent needs in seven areas: Forest Disturbance, Forest Inventory and Analysis, Watershed Management and Restoration, Bioenergy and Biobased Products, Urban Natural Resources Stewardship, Nanotechnology, and Localized Needs Research (region-specific needs). The **Strategic Program Areas** (SPAs) are the long-term programs from which Priority Research Areas are funded; the seven SPAs are: Wildland Fire and Fuels; Invasive Species; Recreation; Resource Management and Use; Water, Air, and Soil; Wildlife and Fish; and Inventory and Monitoring.

The FY 2013 President's Budget includes \$292,796,000 for Forest and Rangeland Research, \$20,634,000 for the FS R&D National Fire Plan, and \$7,226,000 for the Joint Fire Science Program.