NEW MEXICO

FOREST SERVICE RESEARCH AND DEVELOPMENT

STATE FUNDING HISTORY	Enacted FY 2003 ($)	Enacted FY 2004 ($)	Pres. Budg. FY 2005 ($)
ALBUQUERQUE			
RMRS-4351 Sustainability SW Grassland Watersheds	734,000	752,000	752,000
RMRS-4652 Rio Grande Basin Ecosystem Research	413,000	407,000	507,000
RMRS-4853 Cultural Heritage Research	451,000	474,000	455,000
NEW MEXICO TOTAL	1,598,000	1,633,000	1,714,000

RESEARCH & DEVELOPMENT, a division of the USDA Forest Service (FS R&D), strives to be the "go to" organization for information and solutions to sustain forests and rangelands and the values they provide people. FS R&D has the flexibility to address today's issues effectively and to respond to tomorrow's needs. Among the world's leaders in forest conservation research, scientists contribute to the stewardship of land, real property and society by providing research results that help create jobs and affordable homes, and improve the health of trees, forests and forest ecosystems. Innovative research products permit the Forest Service and other public and private land managers to monitor and manage forest responses to environmental change, contributing significantly to the sustainability of the nation's forests and rangelands and improving human health.

FS R&D operates six research stations, the Forest Products Laboratory, and the International Institute of Tropical Forestry located in Puerto Rico. It employs over 500 scientists and hundreds of technical and support personnel at 67 field sites throughout the nation. The FY 2005 President's Budget includes $280,654,000 for Forest and Rangeland Research.

The Rocky Mountain Research Station (RMRS), headquartered in Fort Collins, Colorado, maintains forest and rangeland research and development programs and facilities in 10 states of the Interior West (AZ, CO, ID, MT, NE, NV, NM, SD, UT, and WY) and covers ND and KS. The FY 2005 President's Budget includes $43,082,000 for the Rocky Mountain Research Station.

The Station currently maintains three research work units in Albuquerque that employ 9 scientists and 10 other professionals and support personnel.

ALBUQUERQUE

RMRS-4351, Ecology, Recovery and Sustainability of Southwestern Grassland and Associated Riparian Ecosystems and Wildlife. The unit mission is to develop, synthesize and apply new methods and knowledge of processes, interactions and human uses of grassland and riparian ecosystems to restore damaged lands, recover sensitive species, and sustain intact, productive, and diverse plant and wildlife communities and associated abiotic systems in the Southwest.

RMRS-4652, Ecology, Diversity, and Sustainability of Soil, Plant, Animal, and Human Resources of the Rio Grande Basin. The unit mission is to provide new information on the Rio Grande Basin ecosystem, with primary focus on the central basin in New Mexico. Studies focus on the influence of watersheds and management activities on riparian systems, biological diversity of riparian areas, and socioeconomic and historic responses to changes in land use. New focus is on the role of the invasive tree Tamarisk (salt cedar) in the Rio Grande River corridor.

RM-4853, Cultural Heritage Research. The unit mission is to support efficient and effective land management by improving understanding of sustainable relationships between communities and their environments, diversity in communities of land users, and human communities modifying landscapes through time.

FIRE RESEARCH IN NEW MEXICO SUPPORTS THE NATIONAL FIRE PLAN.

National Fire Plan funding continues the long tradition of Forest Service Research and Development building and leading federal, state, and local partnerships (the guiding principle of the 10-year Comprehensive Strategy) to develop and deliver the scientific foundation of modern management practices.

National Fire Plan funding for research in New Mexico has already produced the following results:

- High quality, high-resolution computer-generated riparian landscape models help land managers visualize desired future conditions in the context of past environmental considerations.
- Historic and contemporary information on public knowledge, beliefs, attitudes, and practices related to fire use and fuels management helps ease controversy over the use of fire as a vegetation management tool.
- Large-scale multi-agency experiments have been initiated to examine the feasibility and effectiveness of using fire to reduce invasive plants (e.g. yellow star thistle) and facilitate the reintroduction of black-tailed prairie dogs. Results from this star thistle research are assisting local landowners.
- Scientists are evaluating effects of wildifre in riparian areas and evaluating methods for reducing exotic woody fuels and minimizing negative consequences of fire and fuel treatment to threatened, endangered, and sensitive fish and wildlife.

FY 2005 PROGRAM CHANGES:

- The President's budget maintains the Station ongoing program of research focused on sustaining healthy forests and rangelands in the Interior West. In response to the President's Healthy Forest Initiative, an additional $1,725,000 is focused on improving watershed conditions to provide clean and abundant water from western forests and rangelands and funding is provided for addressing the threat invasive species pose to our native ecosystems.
- RMRS-4652 is increased by $100,000 to expand its watershed/riparian area research on the invasive tree Tamarisk (salt cedar).
- Forest Service Research and Development will lead an Agency-wide effort to optimize the delivery and practical use of research findings. This is essential to successful implementation of Forest Service priorities, including the President's Healthy Forest Initiative. Opportunities have been identified that leverage current science and technology applications efforts in healthy forests applied science, watershed management, invasive species, hazardous fuels utilization and management, and community preparedness. New funds in FY 2005 will be targeted to leading-edge technical assistance on a competitive basis.

SIGNIFICANT RESEARCH PRODUCTS:

- Ongoing research is making contributions toward developing better understanding of culturally diverse public land users by examining the role of cultural identify and long-standing economic practices in land and resource use, management, and conflict.
- Scientists are providing an understanding of the role of large herbivores and interactions with restoration strategies to provide a basis for sustainable livestock management.
- Continuing research addresses the historical ecology, extended landscape history, and human-environmental interactions. This is important for identifying patterns of human-caused environmental changes and watershed restoration and for understanding the dynamics on ongoing human fire use and landscape-scale fire history.
- A nine-year project concluded with publication of *"Supply-side Sustainability",* a Columbia Press book combining social and ecological science into a new approach to sustainability. It will help land managers address the problem of sustaining species, vegetation communities, landscapes, ecosystems, management efforts, and human institutions and societies.
- Studies show that pinyon-juniper woodlands support diverse and abundant bat communities and provide valuable summer roost habitat. They also support a greater number of bat species and a greater proportion of reproductive females than ponderosa pine forests. Results help provide guidelines on the types, species, and characteristics of trees to conserve and allow managers better ways to predict and mitigate potentially negative effects of land management activities.

SOME CLIENTS/COLLABORATORS:

City of Albuquerque
Los Alamos National Laboratory
Middle Rio Grande Conservancy District
Native American Tribe
National Forests and Grasslands
New Mexico Foundation for Communities and Cultural Landscapes
New Mexico State University
NM and AZ Game & Fish Deptartment
NM Highway Dept., State Parks, and Forestry
Pacific Southwest Research Station Riverside Forest Fire Laboratory
Quivira Research
Region 3, Forest Service, New Mexico and Arizona National Forests and Grasslands
Rio Grande Bosque Consortium
Sandia and Los Alamos National Laboratories
Sevilleta Long Term Ecological Reserve
University of New Mexico
USDI, Bureau of Land Management
Valles Caldera National Trust