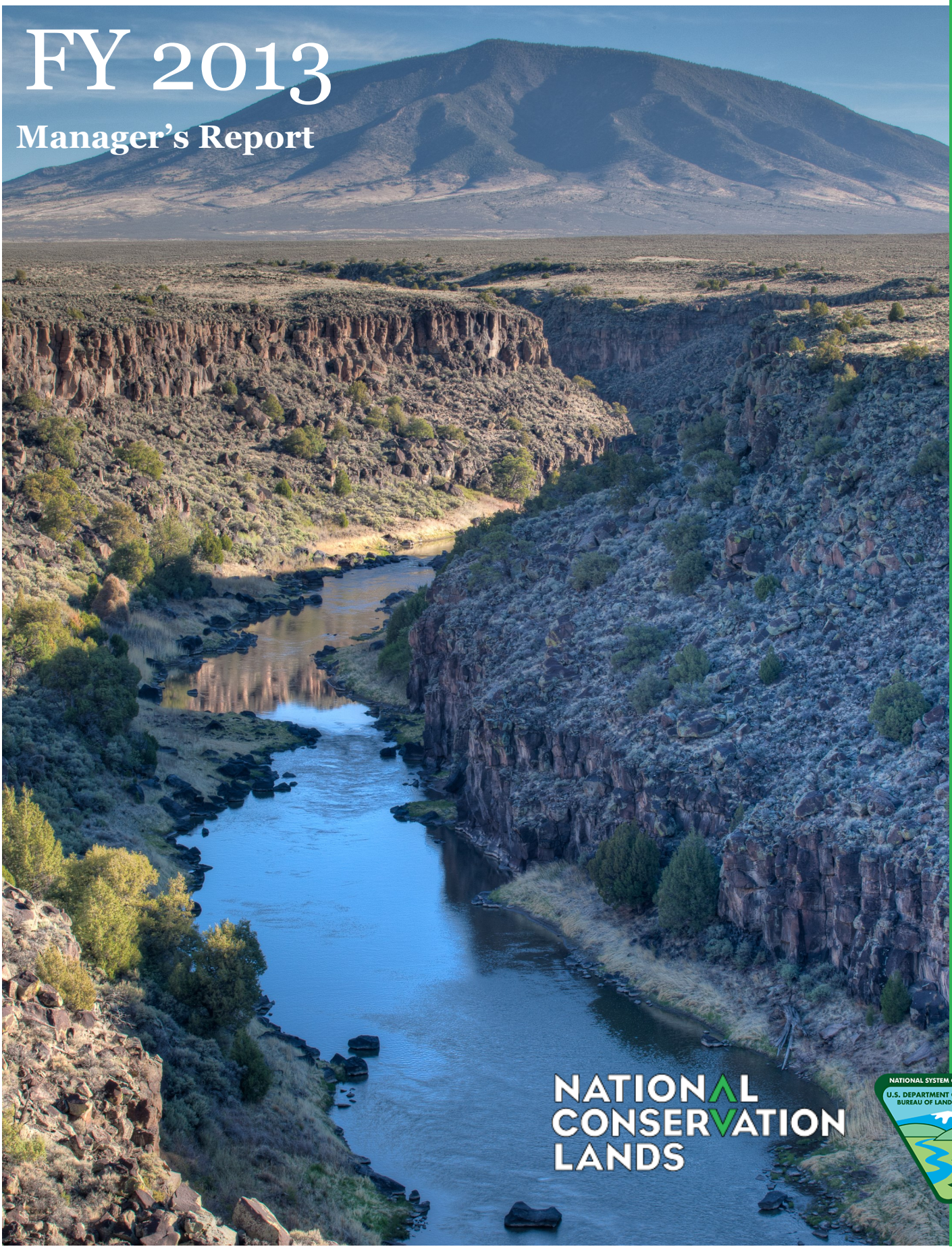
Río Grande del Norte

National Monument



BLM

New Mexico

Table of Contents

1 Río Grande del Norte National Monument Profile 1

2 Planning and NEPA 4

3 Year's Projects and Accomplishments 6

4 Science 9

5 Resources, Objects, Values, and Stressors 10

6 Summary of Performance Measures 15

7 Manager's Letter 16

1 Río Grande del Norte Profile

Designating Authority

Designating Authority: Section 2 of the Antiquities Act (34 Stat. 225, 16 U.S.C. 431)

Date of Designation: March 25, 2013

Other legislation affecting the management of the unit:

Designating Authority: Section 3 of the Wild and Scenic Rivers Act of 1968 (P.L. 90-542, as amended)

Dates of Designation: October 2, 1968 (48 miles Río Grande, four miles the Red River)

1994 (12 additional miles of the Río Grande, including 5 miles in the southern portion of the Monument)

Location and Acreage

Total acreage: 310,528 BLM acreage: 242,554 Non-BLM acreage: 67,975

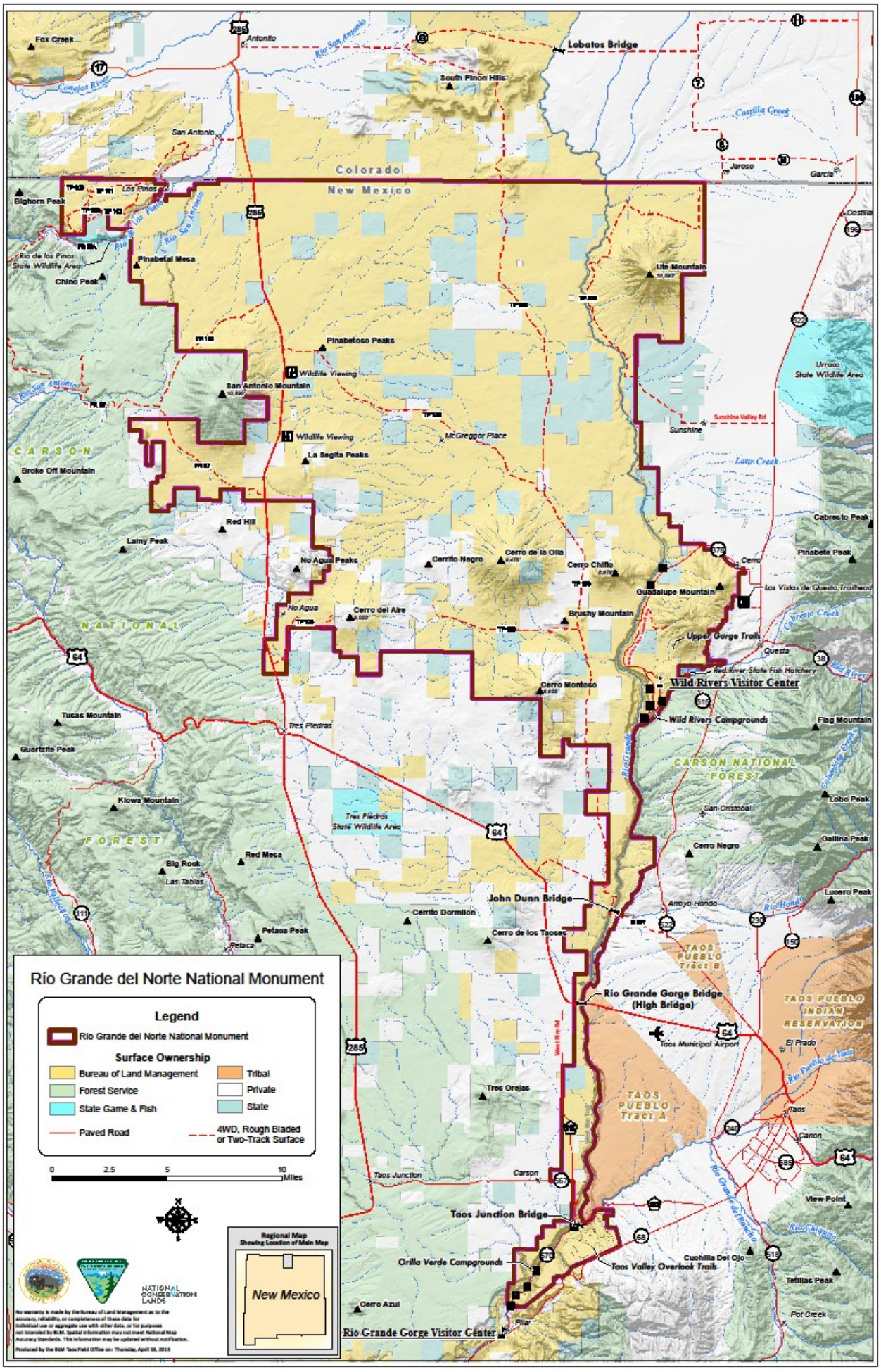
The Río Grande del Norte National Monument is located in north-central New Mexico and includes most of the Río Grande Gorge/Río Grande Wild and Scenic River and an extensive volcanic field to the west known as the Taos Plateau. Access is from US 64 and US 285, and State Routes 68 and 522. Most of the Monument is within Taos County; the western portion is in Rio Arriba County.

When first designated, the Monument was described as having 244,500 acres. Since then, we have upgraded our data sets, allowing for more precise measurement.

Contact Information

Unit Manager	Phone	E-mail	Mailing Address
John Bailey	575-751-4703	jbailey@blm.gov	226 Cruz Alta Road Taos, NM 87571

Field Office	District Office	State Office
Taos	Farmington	New Mexico


Río Grande del Norte National Monument
Legend
Río Grande del Norte National Monument
Surface Ownership
Bureau of Land Management
Forest Service
State Game & Fish
Tribal
Private
State
Paved Road
4WD, Rough Bladed or Two-Track Surface
0 2.5 5 10 Miles
Regional Map Showing Location of Main Map
New Mexico
Colorado
New Mexico
Wild Rivers Visitor Center
Rio Grande Gorge Bridge (High Bridge)
Taos Junction Bridge
Rio Grande Gorge Visitor Center
John Dunn Bridge
Taos Municipal Airport
Wild Rivers Campgrounds
Orilla Verde Campgrounds
Taos Valley Overlook Trails
Upper Gorge Trails
Los Vistas de Questa Trailhead
CARSON NATIONAL FOREST
TAOS PUEBLO Tract A
TAOS PUEBLO Tract B
TAOS PUEBLO INDIAN RESERVATION
Pinabetal Mesa
Pinabetoso Peaks
San Antonio Mountain
La Segita Peaks
Broke Off Mountain
Red Hill
Lamy Peak
No Agua Peaks
Cerro Negro
Cerro de la Olla
Cerro Chiflo
Guadalupe Mountain
Brushy Mountain
Cerro del Aire
Cerro Montoso
Tusas Mountain
Tres Piedras
Quartzite Peak
Kiowa Mountain
Tres Piedras State Wildlife Area
Red Mesa
Big Rock
Las Tablas
Petaca
Petaca Peak
Cerrito Dormilon
Cerro de los Taoses
Tres Orejas
Taos Junction
Carson
Cerro Azul
Pilar
Ute Mountain
Urraca State Wildlife Area
Sunshine
McGregor Place
Cabresto Peak
Pinabete Peak
Flag Mountain
Lobo Peak
San Cristobal
Gallina Peak
Lucero Peak
Arroyo Hondo
El Prado
Taos
Canon
View Point
Cuchilla Del Ojo
Tetillas Peak
Pot Creek
Rio de los Pinos State Wildlife Area
Chino Peak
Bighorn Peak
Fox Creek
Lobatos Bridge
South Pinon Hills
San Antonio
Los Pinos
Antonito
Jaroso
Garcia
Costilla
Questa
Red River State Fish Hatchery
Cerro
Wildlife Viewing
Sunshine Valley Rd
Latir Creek
Cabresto Creek
Columbine Creek
Rio Hondo
Rio Pueblo de Taos
Rio Chiquito
Pot Creek
Rio San Antonio
Rio de los Pinos
Rio Grande
Rio Grande del Norte
Conejos River
Costilla Creek
Wild Rivers Rd
NATIONAL CONSERVATION LANDS
Produced by the BLM Taos Field Office on: Thursday, April 18, 2013

Managing Partners

N/A

Staffing

Work is accomplished through a dedicated staff assigned to the Monument and the Resources Staff of the BLM Taos Field Office. The landscape which comprises the Río Grande del Norte National Monument has long been a major focus of the Taos Field Office staff, particularly for recreation, forestry, wildlife, and range management. Soon after designation, an Interim Manager was assigned. The dedicated staff includes a Monument Manager, and four Park Manager/Park Ranger positions. Resource specialists that have major duties within the Monument (primarily associated with managing the four objects of value—cultural, geological, wildlife, and ecological diversity) include equivalency of one full time position in cultural, wildlife, range, and two in facility maintenance. Taos Field Office staff who have partial duties within the Monument (generally 40% or less of their time) include six Park Ranger/River Ranger staff, a forester, fisheries biologist, wilderness specialist, and lands specialist. A staffing plan was prepared, identifying those on-board employees whose workload was predominantly in the Monument, as well as new needed positions to add, if funding becomes available. The staffing plan will be implemented in FY 2014.

2 Planning and NEPA

Status of RMP

Current management direction for the Monument is provided by the May 2012 Taos Resource Management Plan (RMP). Because of the important resource values located here, most of the land in what is now the Monument was previously designated as the Taos Plateau Area of Critical Environmental Concern.

While the current land use plan is complimentary of appropriate management of the new Monument, a plan amendment was initiated this year to update management decisions for the new designation. The formal scoping period began with the publication of the Notice of Intent on January 3, 2014, and ended on March 6, 2014. During this period, the BLM received approximately 1,200 submissions from the public. Of these, 126 were unique comment letters and 1,110 were form letters addressing a broad spectrum of planning issues. A detailed scoping report was completed and made available to the public on May 23, 2014, which captures the management opportunities, potential conflicts, and other planning issues to resolve.

The Taos Field Office is now working closely with its three cooperating agencies (the New Mexico Department of Game and Fish, the Taos Soil and Water Conservation District, and the New Mexico State Historic Preservation Officer) to develop a reasonable range of alternatives for the Monument plan. Once the alternatives are formulated and their potential impacts evaluated, a Draft Plan Amendment—the draft Monument Plan—and Environmental Assessment will be released for public review and comment, and is anticipated in the first quarter of 2015.

Status of Activity Plans

Since before the Monument was designated and since the current land use plan was approved in May 2012, no substantial implementation-level planning has been completed. Instead, activity planning for Special Recreation Management Areas, transportation and access, wildlife habitat, and other key components of the Monument landscape are being incorporated into the Monument planning process or have been deferred until a new Monument Plan is approved.

The current management guidance does include activity-level management for much of the substantial recreational opportunities within the Monument under the Río Grande Corridor Plan. Opportunities for livestock grazing, fuelwood gathering, and rangeland improvement treatments are also covered by existing activity plans in conformance with the current land use plan.

Important to note is that the Taos Field Office is making certain that any action it considers under these existing activity plans is consistent with the protection and care of the Monument's resources, objects, and values.

Status of RMP Implementation Strategy

Since management decisions pertaining to the Monument are currently undergoing the plan amendment process, a plan implementation strategy is premature. Instead, any implementation of the current land use plan must also assure compliance with the protection and care of the Monument's resources, objects, and values as described in the enabling Proclamation of March 25, 2013. A reasonable and necessary degree of on-going management actions are being implemented within the Monument to provide for resource conservation, protection, and enhancement as well as appropriate uses.

Key NEPA Actions and/or Authorizations

In FY 2013, four vegetation treatment projects were authorized within the Monument, providing for a total of roughly 52,000 acres of rangeland enhancement and, to some extent, carefully controlled fuelwood gathering opportunities. Though these projects were conceived prior the Monument's designation, their designs were later refined to ensure consistency with the Proclamation which established the Monument. The Taos Field Office also implemented a spot treatment of invasive species within the Monument, which was evaluated in compliance with the National Environmental Policy Act (NEPA).

The day after the Monument was designated, the BLM acquired approximately 170 acres contiguous to the Monument that provides for improved access for recreational opportunities. The development of a trailhead, parking, picnic tables, and looped interpretive trail connecting to an existing trail system has been approved.

In addition, the NEPA process to consider range and habitat improvement projects was initiated during this period for water catchments in support of livestock and wildlife. However, in consideration of potential conflicts with the BLM's protection and care of the Monument resources, objects, and values, not all range improvement projects were authorized.

Meeting in Taos to talk about issues and opportunities within the Monument.

3 Year's Projects and Accomplishments

General Accomplishments

Community Celebration

On March 30, five days after the Río Grande del Norte was designated, conservationists, sportsmen, and local elected officials who helped get the Monument designation hosted Taos' biggest party of the year on the grounds of the Taos Mesa Brewing Company to celebrate. Secretary of the Interior Ken Salazar was joined by BLM Director Neil Kornze, former Senator Jeff Bingaman, Senator Martin Heinrich, U.S. Representative Ben Ray Luján, Taos County Commissioners, and hundreds of Taos County residents and area supporters of the Monument to give thanks to the many years of effort to protect this landscape.

Signage Project

Several portal signs at key entry points into the Monument were installed using volcanic rocks typical of the Monument's landscape. The rocks were recycled from a previous project.

Artist-in-Residence

The Monument's first Artist-in-Residence, Anita McKeown, collaborated with local herbalists, schools, farmers, and foodies to stage the "Ice Cream Olympics," which proved our best-attended National Public Lands Day event. Partly an effort to connect locals, particularly youth, with the wide variety of local, native, edible plants, the Olympics also gave area students an opportunity to see how the information gained in a biology class has a connection with the culinary arts, and the sights seen on a guided hike at Wild Rivers.

One of the prize winners receiving accolades from the crowd.

Cerro Montoso Thinning Project

The Taos Field Office collaborated with the New Mexico Department of Game and Fish (NMDGF) to improve mule deer habitat and browse conditions on the Monument using NMDGF funding. The 200 acre thinning project on the north slopes of Cerro Montoso was developed to provide for isolated areas of cover and meadows. Additionally, decadent stands of mountain mahogany were pruned in order to promote new growth, which is an important browse for Mule deer. The project established a layer of scattered slash throughout the treatment area, which will preserve soil moisture important to restoration of native grasses in the treatment areas. Additionally, slash was piled along the boundary with private land for future prescribed burns. The increased canopy spacing achieved by the thinning will help to reduce wildland fire risk, and in subsequent years, prescribed fire will be used as a tool to remove the remaining slash. The BLM also sold fuelwood permits to collect wood within the blocks.

Cerro del Aire Inventory and Monitoring

In collaboration with the New Mexico Forest and Watershed Restoration Institute (NMFWRI) at Highlands University, a forest inventory and monitoring project on Cerro del Aire was completed. This collaboration was funded by BLM's Climate Change initiative. The project area consisted of 640 acres where BLM Forestry and NMFWRI staff delineated forested stands across an area where past hazardous fuels reduction treatment had occurred, an untreated area, and an area where aspen enclosures were being constructed. This inventory and monitoring effort will lead to a better understanding of baseline conditions and will aid in the evaluation of treatment effectiveness. Having forest baseline conditions will help the BLM to correctly measure the possible site-specific impacts of climate change in the future. The resulting data was entered into the BLM Forest Vegetation Information System.

Current Areas of Focus

Management Plan

In 2013, the BLM took steps to initiate a revision to the Taos RMP for the Monument. The scoping process was scheduled to start in early 2014. Interested state or local agencies and tribes will be invited to become cooperating agencies on the planning effort.

Assessment, Inventory, and Monitoring

Beginning in 2013, the BLM began the Assessment, Inventory, and Monitoring (AIM) program in the Monument in 2013. The AIM process will provide landscape condition data to managers and will identify areas where restoration may be necessary. The AIM data will also help inform the development of ecological site descriptions by the Natural Resources Conservation Service.

Education, Outreach, and Interpretation

The BLM provided over 70 guided hikes and lectures from May through September to help introduce the Monument to residents and visitors to the Taos area. Guided hikes were primarily offered on the developed trails in the Río Grande corridor. Others were hikes to the tops of several of the volcanoes, including Ute Mountain. All programs included information about the Monument's objects of value. In the future, we will be placing an emphasis on educating all visitors to outdoor ethics principals through the Leave No Trace Program.

The lands in the Monument attract a number of high school and college classes, primarily in the summer. The classes focus mainly on geology, watershed health and management, and cultural resources. The BLM is available to give an orientation to the public lands the classes will be visiting, and provide an explanation of the Monument designation.

A Río Grande Guide Seminar was held to educate river guides on the values of the Wild and Scenic River, history of the village of Pilar, reasons for the various rules established by the Río Grande Corridor Plan in 2000, and the resources, objects, and values of the Monument.

A public meeting on the Orilla Verde Riparian Restoration Project was held in April 2013 at the Río Grande Gorge Visitor Center. The BLM described the treatment effects of three plots and two control sites, and monitoring data on hydrology and the southwestern willow flycatcher.

Partnerships

A major contributing factor for this Monument's designation was the tireless work over a several-year period by a coalition of local conservationists, 'ecotourism' businesses, landowners, and elected officials, formally known as the Río Grande Coalition. The remaining coalition has been meeting monthly since the designation to develop a "Friends of the Río Grande del Norte" group, with help from the Conservation Lands Foundation.

A long-standing agreement with the Public Land Interpretive Association (PLIA) allows the BLM to provide books, maps, and other interpretive items for sale at our two visitor centers and the Taos Field Office. Sales in 2013 were about $60,000. PLIA, in turn, supports many environmental education efforts by providing funding to transport school children to the Monument for environmental education programs.

The BLM and New Mexico Department of Game and Fish work in partnership on numerous wildlife programs including monitoring and management of bighorn sheep, river otter, raptors, and Río Grande cutthroat trout.

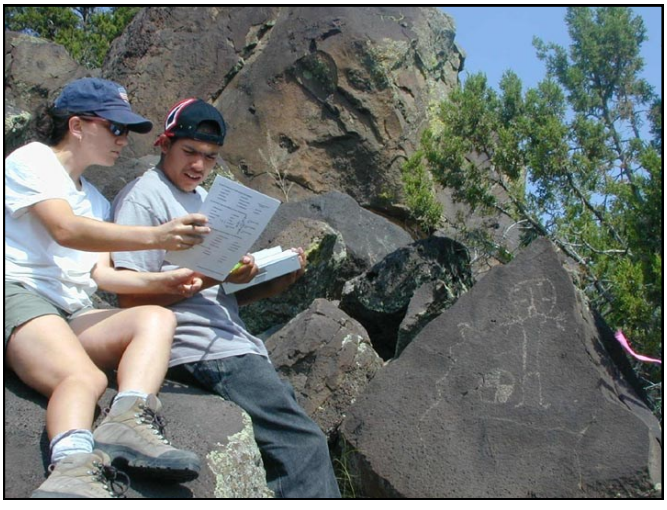
Volunteers

The Taos Field Office has an active volunteer program, with a major focus on visitor services, including campground hosting, daily maintenance, and visitor center staffing. The Taos Field Office also has an important Sitewatch Stewardship Program to monitor cultural resource sites in the Monument.

For visitor services, a total of 25 individuals volunteered to work as campground hosts, usually for at least 3 months, and/or to help staff the two visitor centers that serve the Monument. Most of them volunteer 5 days a week. One of the part-time recreation volunteers curated an art exhibit at the Río Grande Gorge Visitor Center in Pilar, showcasing the Monument's features and objects of value through the eyes of the Taos area's artist community.

About 25 amateur or retired archaeologists participated in our Taos Field Office Sitewatch Stewardship Program to monitor cultural resource sites with the Monument. Some of these volunteers also assist with documentation of new sites.

Three volunteers worked with our fisheries program to support fish population monitoring in the Río Grande and tributaries, and to survey macro-invertebrates in the playas on the Taos Plateau.



Budget

Funding for work in the Monument for FY 2013 came primarily from the recreation, wildlife, cultural resources, riparian, threatened and endangered species, and range management accounts. For FY 2013, the total cost for operating the Monument from all BLM funding sources was 1 million dollars.

Some projects were completed in partnership with other agencies or partners with funding from non-Federal sources, including habitat projects with New Mexico Department of Game & Fish, and recreation and rehabilitation projects with the Rocky Mountain Youth Corps.

Land or Easement Acquisitions

Although outside the boundary, an important 80-acre parcel was acquired on the day after the Monument proclamation was signed. This provides important non-motorized access to the southern portion of the Monument.

Several landowners with property within the Monument approached the BLM with an interest in selling all or a portion of their property. The New Mexico State Land Office also stated their intent to exchange their properties within the Monument for other available BLM parcels. The BLM has initiated the steps needed to work towards these acquisitions.

The Taos Field Office joined with BLM-Colorado San Luis Field Office to develop a collaborative landscape proposal for land acquisition in 2015. If this proposal is funded, we would acquire over 2,400 acres near Cerro Montoso, which is prime wildlife habitat. The Taos Field Office has also applied for Land & Water Conservation Funds for about 2,500 acres of private land north of Cerro de la Olla, for 2015.

Cerro de Olla

BLM Photo Courtesy of Steven W. Martin Photography

4 Science

A science plan has not yet been prepared for the Monument, but several projects have been underway, particularly for geologic and cultural resources. Scientific research that is ongoing in 2013 incudes:

Río Grande Gorge Cultural Resources Project

Principal Investigator: Dr. Severin Fowles, Department of Anthropology, Barnard College, Columbia University

This Project is an on-going investigation that began in 2007 and is permitted, but not directly funded, by the BLM. A generous National Science Foundation grant award funded the 2013 effort and will carry over into 2014. Field work is conducted annually by undergraduate and graduate students in areas that are now included within the Monument. The Project and is particularly focused on the identification, recording, evaluation, and analysis of archaeological remains located in the Río Grande Gorge environment. Moreover, the research is landscape-oriented regarding how the remains of different ethnic groups over time are manifested within the Gorge environment. A number of student research projects, professional papers, theses, and dissertations have been produced or are in progress as a component output of the Project. The BLM benefits directly from this work in receiving data, as well as interpretative information on the cultural resources located within the Monument.

Annual Rocky Mountain Bighorn Sheep Survey

Principal Investigator: New Mexico Department of Game and Fish.

The population of Rocky Mountain Bighorn Sheep continues to increase in size and is now estimated at approximately 175-200. The reintroduction of these species was started in 2006 in a partnership between the Taos Pueblo and New Mexico Department of Game and Fish.

Geologic Quadrangle Mapping of Southern Taos County

Principal Investigator: Dr. Paul Bauer, New Mexico Bureau of Geology and Mineral Resources (NMBGMR) at New Mexico Tech

This Project is an ongoing effort that began in 1997, and is funded by the NMBGMR and the U.S. Geological Survey under the STATEMAP Program. The first goal is to complete geologic maps of 7.5 minute quadrangles in the southern half of Taos County along the Río Grande corridor. Field work for the following quadrangles that contain Monument lands has been completed: Taos SW, Los Cordovas, Arroyo Hondo, Guadalupe Mountain, and Questa. The second goal is to develop a seamless, ArcGIS-based geologic map compilation of all of southern Taos County. This work will be ongoing for at least 2 more years, and will ultimately provide the BLM and others with a modern, detailed, digital geologic map of the southern half of the Monument.

Planning for 2014 NASA Astronaut Training

Principal Investigator: Dr. Paul Bauer, New Mexico Bureau of Geology and Mineral Resources (NMBGMR) at New Mexico Tech

This one-year project began in early 2013, and was completed in July 2014. It is a collaboration between NASA, the New Mexico Bureau of Geology & Mineral Resources, and several universities. Since the early 1970s, NASA has brought astronauts to Taos County for Earth science training. In early 2013, it was decided that the astronaut class of 2013 would train in geology and geophysics in the Wild Rivers Area of the Monument. In 2013, the Project included planning sessions and field visits to the Wild Rivers Area. The Taos Field Office is a major collaborator in this Project. Funding was provided by NASA and the Universities Space Research Association of Houston.

The Springs of the Río Grande Gorge

Principal Investigator: Dr. Paul Bauer, New Mexico Bureau of Geology and Mineral Resources (NMBGMR) at New Mexico Tech

This Project began in 2007, with funding from the New Mexico Interstate Stream Commission and the NMBGMR. The long-range goal is to complete an inventory and geologic/geochemical/hydrogeologic analysis of all of the springs in the Río Grande Gorge, from the Colorado border to the Embudo gage. Although most of the spring inventory was completed in 2010, and in 2013 the NMBGMR continued to add data to the spring inventory, and to analyze geologic and geochemical data collected in previous years. The Taos Field Office is a principal collaborator on this Project.

Geologic Investigations of the Southern San Luis Basin

Principal Investigator: Dr Ren A. Thompson, USGS, Denver, CO

This multi-year effort is part of a large interdisciplinary USGS project (Cenozoic Landscape Evolution of the Southern Rocky Mountains – R. Thompson & S. Minor, Project Chiefs) funded by the FEDMAP component of USGS National Cooperative Geologic Mapping Program. This research includes geologic mapping and regional geologic synthesis investigations of the Taos Plateau region of the southern San Luis Basin area. Geologic mapping includes 1:24,000-scale mapping of northern Taos County. Mapping of the Ute Mountain and Sunshine quadrangles was completed and preliminary mapping of the San Antonio Mountain, Los Pinos, Pinabetoso Peaks, La Segita Peaks NE, Cerro de la Olla, and La Segita Peaks quadrangles was conducted. Integration of USGS and NMBGMR geologic mapping will result in seamless 1:50,000 geologic map coverage of the Monument (coordinated with Paul Bauer, NMBGMR).

Geophysical Investigations of the San Luis Basin

Principal Investigator: Dr V.J.S. Grauch, USGS, Denver, CO

This multi-year effort is part of a large interdisciplinary USGS project (Cenozoic Landscape Evolution of the Southern Rocky Mountains - R. Thompson & S. Minor, Project Chiefs) funded by the FEDMAP component of the USGS National Cooperative Geologic Mapping Program. This research effort is focused on 1) development of a regional scale gravity model for the San Luis Basin and derivative basin depth and geometry determinations; and 2) aeromagnetic and ground magnetic modeling studies of the Taos Plateau region for identification of faults, stratigraphic correlations, and subsurface geologic characterizations. Ongoing acquisition of regional gravity data was conducted within the Monument and the group assessed a strategy for a detailed geophysical studies of the Wild Rivers Recreation Area (Guadalupe Mountain quadrangle).

San Luis Valley – Taos Plateau Level IV Ecoregion Landscape Assessment

Principal Investigator: Argonne National Laboratory

The Landscape Assessment will apply BLM Rapid Ecoregional Assessment protocol and use existing data on the ecological values, trends, and conditions in the geographic area covering Colorado's San Luis Valley and New Mexico's Taos Plateau (~6,115,000 acres). The Assessment is designed to increase knowledge of the potential impacts and cumulative effects of change (i.e. human development, climate change, and invasive species) on important ecological, cultural, and socioeconomic values. The Assessment was primarily initiated to help the BLM ensure environmentally responsible solar energy development on public lands through long-term planning, but also serves to provide important baseline information on which future Monument planning decisions can be made.

Taos Plateau

BLM Photo Courtesy of Steven W. Martin Photography

5 Resources, Objects, Values, and Stressors

Cultural Resources

The Monument contains the archaeological remains of over 12,500 years of land use by diverse and ethnically distinct groups of humans. These cultural groups range from late Pleistocene hunters and gatherers to the remnants of Homesteaders who in the 1920s and 1930s attempted to carve out a better life for themselves in this extraordinary but generally harsh and inhospitable landscape. Thousands of archaeological sites and millions of individual artifacts are testimony to the long human experiment with traversing through, and living upon, the Monument landscape. The most successful were small groups of nomadic hunters and gatherers whose way of living was particularly suited to the landscape. Other cultural groups, including Pueblo, Spanish, Mexican, and Anglo-Americans laid claim to this vast landscape, but their presence upon the landscape is less pronounced and their remains more tenuous or less enduring than those of the early nomadic peoples. Archaeological remains common to the area include artifact scatters, structural features, petroglyphs, trails, tipi rings and tipi village sites, small pueblo ruins, homesteader cabins and dugouts, sheep and cow herder camps, rockshelters and caves, shrines, and battlefields. Collectively, overlapping cultural landscapes showcase particular patterns of land use.

Cultural Resources - Status and Trend Table	
Status of Cultural Resources	Trend
On the scale of cultural landscapes, the unencumbered condition of the Monument renders status as good. This is true of the vast majority of the Monument acreage (80-90%). Specific site status is variable.	Generally stable throughout the Monument, but subject to decline over time without active management.

Cultural Resources - Inventory, Assessment, Monitoring Table			
Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored
242,554	24,000	242,554	1,000-2,000

Stressors Affecting Cultural Resources

1. Natural erosion is pervasive across the Monument, but is more severe in some environments than others. Erosion is effecting all cultural resources to some degree .
2. Wildfire in heavy fuels environments is a constant and periodically active threat. Wildfire in all environments is a threat to cultural resources with combustible remains.
3. Off-road vehicle travel is a direct physical threat to cultural resources. This illegal activity also accelerates erosion and disrupts the pristine condition and appearance of individual sites and cultural landscapes.
4. Unregulated visitor use in some environments is affecting resource conditions.

Geology

The Monument is dazzling, volcanic landscape, which is a result of the Río Grande Rift, a continental-scale geologic feature that runs from central Colorado to Mexico and forms a series of north-south elongate basins that are flanked by high mountains. The rift basin in northern New Mexico and southern Colorado, named the San Luis Basin, is 150 miles long, generally between 7000' and 8000' in elevation, and is considered to be the largest high-elevation valley on Earth. The San Luis Basin contains the Taos Plateau Volcanic Field, and the largest (580 square miles) and most diverse volcanic landscape in the Río Grande Rift. The Monument is located almost entirely within the Taos Plateau Volcanic Field.

At least 40 distinct volcanic vents have been identified on the plateau, and most of these are located within the Monument. The volcanoes of the Taos Plateau are notable due to the great variety of shapes and compositions. They range from the massive, steep-sided lava domes such as Ute Mountain, to the 50 cubic miles of Servilleta Basalt that erupted over millions of years to engulf the entire Plateau. An unusual rhyolite lava dome, Brushy Mountain, adds to the diversity of volcanic features of the Monument. The volcanic rocks in the Monument have been the focus of numerous scientific studies, including early pioneering work on Earth's paleomagnetic record from the exposures of stacked basalt flows in the Río Grande Gorge, studies of the origin of basalts, and developing techniques for precise age dating of volcanic rocks.

The Río Grande Gorge, looking south, showing the southern portion of the Monument.

Photo by Chris Dahl-Bredine

Perhaps the most readily identifiable geologic feature of the Monument landscape is the Río Grande Gorge, a spectacular canyon that was rapidly eroded by the Río Grande during Pleistocene time. The Río Grande, North America's fourth-longest river, flows nearly 2000 miles from headwaters in the San Juan Mountains of Colorado to the Gulf of Mexico. The 70 mile stretch of the river through the Monument is arguably the most beautiful scenery of the entire river. It's sublime geology provides the setting for recreational opportunities highly sought out by visitors.

Hundreds of springs nourish the Río Grande. Each spring occurrence is the direct result of the specific combination of the geology and the groundwater hydrology at that location. It is estimated that the springs provide about 126 cubic feet per second (55,000 gallons per minute) of continuous, fresh water to the river. During times of low river discharge, such as during times of drought, most of the flow of the Río Grande through the Monument is the result of these springs. The springs of the Río Grande Gorge display a wide variety of sources, ages, and characteristics. For example, spring waters range from cold (50°F) to hot (100°F), from old (19,000-year-old water) to young (<50-year-old water), and from small trickles to huge springs that emit thousands of gallons per minute. Perhaps the most notable spring in the Monument is Lava Tube Spring. It is subaqueous (it emerges from the river bed), and is so strongly artesian (it is has blasted out a 12-foot deep crater in the river). In 2009, it's discharge was measured at 13 cfs (6000 gpm), enough water to fill a large tanker truck in 90 seconds. These inflows are very important to the fishery, ecology, and recreation within the Monument.

[abridged from 'Río Grande del Norte National Monument - A Summary of Geologic and Hydrologic Highlights' by Dr. Paul Bauer, March 2014, by permission].

Geology - Status and Trend Table	
Status of Geologic Resources	Trend
Good	Stable. Water Resources—Concerns that water use on the flanks of the Monument could impact springs flowing into the Río Grande.

Geology - Inventory, Assessment, Monitoring Table			
Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored
242,554	242,554	242,554	242,554

Stressors Affecting Geological Resources

No threats have been identified for the Río Grande Rift, the volcanoes, and the Río Grande Gorge as they are of such a scale that, with the exception of surface disturbances that would impair their scenic values, their scientific values are not threatened by the acts of man. The springs and aquifers of the Monument are the only geologic feature that could potentially be impacted, for example, from well drilling and increase in water use upstream from the springs.

Wildlife

Within the Monument resides a wide variety of wildlife, from common animals to more rare and sensitive species. Full time residents and migratory species utilize the wide variety of habitats present in the Monument. These habitats vary from the fishery provided by the river, riparian habitats, cliff terrain of the Río Grande Gorge, vernal pools on the Plateau, shrublands and grasslands on the Plateau, woodlands of the volcanic cones, and forested slopes on the higher and northern aspects of the larger volcanoes.

The Monument resources, objects, and values include a diverse and viable population of native wildlife of conservation and scientific interest. Though too numerous to list in their entirety here, a description of notable species follows. Rocky Mountain Bighorn Sheep have been reintroduced to the Río Grande Gorge and are growing in population and distribution. River otters have also been reintroduced and a sustainable population is now established to this part of the Río Grande. Fish species including the Río Grande cutthroat trout occur in the moving water habitat of the Río Grande. Raptors, including golden eagles, peregrine falcon, red-tailed hawk, and prairie falcon utilize the outstanding cliff habitat of the Río Grande Gorge. Bats also utilize the Río Grande Gorge, finding roosting habitat within the cracks and caves of the rocky cliffs. Migratory birds are found throughout the river corridors and drainages where microclimate conditions allow for shelter, vegetation diversity and structure, and prey base to exist.

Antelope on the Taos Plateau

Annually, the endangered southwestern willow flycatcher migrates through the entire length of the Río Grande to nesting grounds north and south of the Monument. The rare Yuma Skipper Butterfly (subspecies Anasazi) utilize small, diverse, and critical areas provided by riparian habitat in the Monument. Sagebrush Sparrow and Brewer's Sparrow, and Sage Thrasher live only in sagebrush, which is abundant on the Taos Plateau.

These ecosystems provide important winter range for big game such as mule deer and Rocky Mountain elk[1]. These communities also provide for scaled quail and a host of migratory birds[2]. Gentle rolling hills of winterfat and grama grass on the Taos Plateau contain keystone species such as Gunnison's prairie dog, as well as mountain plover, white-tailed and black-tailed jackrabbit, western burrowing owl, pronghorn, swift fox, ferruginous hawk, badger, snakes, box turtles, tarantula, and a plethora of migratory birds. The area also provides foraging habitat for cliff-nesting raptors along the adjacent Río Grande Gorge. The plains leopard frog is found in playa lakes and grassland marshes, and the northern leopard frog is found in streams, rivers, and marshes. Resident herds of Rocky Mountain elk and mule deer are found along with black bears and mountain lions, turkey, bobcat, and fox in the woodland and forested habitats. Migratory birds include special status species Piñon Jay and Juniper Titmouse also utilize these woodland habitats.

1. Dealy, J.E., D.A. Leckenby, and D.M. Concannon. 1981. Wildlife habitats in managed rangelands – the Great Basin of southeastern Oregon: plant communities and their importance to wildlife. USDA Forest Service General Technical Report PNW-120.

Peterson, J.G. 1995. Sagebrush: ecological implications of sagebrush manipulation. MT Dept. of Fish, Wildlife and Parks, Helena, MT.

2. Paige, C., and S.A. Ritter. 1999. Birds of a sagebrush sea: managing sagebrush habitats for bird communities. PIF WWG, Boise, ID.

Wildlife Status and Trend Table	
Status of Wildlife Resources	Trend
Good	Stable

Wildlife Inventory, Assessment, Monitoring Table			
Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored
242,554	242,554	242,554	14,000

Stressors Affecting Wildlife

Development of private lands in and adjacent to the Monument brings light pollution, visual intrusion, domestic pets closer to wildlife populations, noise pollution from engines or human habitation, increased potential for wildfires, increased fire suppression and reduction of areas burned decreasing ability to return to natural fire regimes, introduction of invasive species, reduction of habitat and/or increased fragmentation, and decreased core habitat intactness for species with larger home ranges (e.g. Rocky Mountain elk, mule deer, pronghorn).

More developed recreational facilities and increasing recreational use has a cumulative impact on wildlife through direct disturbance due to human presence. This can cause a disturbance to vegetation and habitat and importation of invasive species. Hunting occurs throughout the Monument, and is a valued traditional use of the area. However, unauthorized hunting does occur and threatens viability of gene pools due to selective pressure on large bulls and bucks.

Drought and continued habitat fragmentation threaten the viability and resiliency of rangelands for all species. Climate change is expected to alter both rainfall timing and amount, as well as temperature. This threatens to decrease the amount of water flowing to New Mexico from Colorado along the Río Grande. This, in turn, would alter plant physiology, water use patterns, and community composition in the region, making the Monument an excellent place to study global climate change.

Ecological Diversity

The Monument includes highly diverse soils, geology, vegetative communities, and habitat that provides nesting, foraging, hiding, thermal, resting, and fawning cover for a variety of species at multiple trophic levels. Ecological diversity of the Monument is a based on resistance to degradation, resilience to change, and integrity the biotic and abiotic components of the ecosystem maintain. The diversity of both ecosystems and species in the Monument allows for, and has been the subject of, substantial scientific research.

One of several playas augmenting the Monument's ecological diversity.

Although there is no single definition for ecological diversity, the Monument proclamation describes ecological diversity in terms of biological diversity (or biodiversity) and ecosystem diversity.

Biodiversity refers to the number and variety of living organisms. This includes plant, animal, and fungi species including invertebrates and microorganisms. Biodiversity also includes genetic diversity, which is the heritable variation within and between populations of organisms. Ecosystem diversity refers to the number and variety of ecosystems. In addition to the biotic community (i.e. plants, animals, and fungi), an ecosystem includes the physical or abiotic environment that sustains the biotic community. The abiotic environment includes, but is not limited to, the soil or substrate, topographic relief and aspect, hydrology, weather and climate, atmospheric conditions, nutrient regime, and salinity regime.

Ecological diversity is directly affected by the resistance, resilience, and integrity of the ecosystems. Resistance refers to an ecosystem's ability to maintain its structural and functional attributes when faced with stress and disturbance. Resilience refers to an ecosystem's ability to regain structural and functional attributes that have been harmed by stress or disturbance. Ecosystem integrity involves the condition of an ecosystem that displays biodiversity of the system and is capable of sustaining normal ecosystem function. It is impossible to remove all forms of stress and disturbance from an environment, thus the resistance and resilience of the ecosystem play an important role in maintaining ecosystem integrity and health while protecting ecosystem diversity.

In addition to the fish and wildlife species described in the wildlife resources, objects, and values, the Monument Proclamation identifies several plant species and plant communities as important for contributing to the ecological diversity within the Monument. These include, but are not limited to, riparian species such as cottonwood and willows; canyon and woodland species such as piñon-juniper, spruce, aspen, and Douglas fir trees; and upland playa, sagebrush, and grassland communities.

Ecological Diversity - Status and Trend Table	
Status of Resource, Object, or Value	Trend
Good	Stable

Ecological Diversity - Inventory, Assessment, Monitoring Table			
Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored
242,554	242,554	242,554	0

Stressors Affecting Ecological Diversity

1. Incomplete inventory on which to establish baseline;
2. Climate change can impact ecological integrity, resistance, and resilience;
3. An increase in invasive species cover. Species of current concern are black henbane. Species for future encroachment are cheatgrass and non-native thistles;
4. Soil erosion and loss;
5. Unregulated visitor use and an increase in visitors overall, including off-road vehicle use; and
6. Loss of continuous herbaceous cover causing a lack of fuel to carry fire in piñon-juniper and sagebrush communities.

6 Summary of Performance Measures

A major emphasis will be to develop strategies to fill in the gaps on our knowledge of the Monument's objects of value, particularly related to cultural resource sites and the cultural landscape and habitat conditions, both past and present. Once a Science Plan is prepared for the Monument, some great opportunities will exist to work with colleges and universities to acquire some of the data we will need for proper management of these resources.

Summary Table*		
Resource, Object, or Value	Status	Trend
Cultural	Good	Stable, but potentially declining without more active management.
Geology	Good	Stable, with potential for affects on Río Grande springs from adjacent land uses
Wildlife	Good	Stable
Ecological Diversity	Good	Stable

*This table is simply an amalgam of the individual object/value status tables in the "Objects, Values, and Stressors" section.

7

Manager's Letter

Dear Friends of the Río Grande del Norte National Monument,

What a privilege it is to be involved in the management of one of our country's newest National Monuments! A group of individuals often referred to as the Río Grande Coalition started working on a special designation for what is now the Río Grande del Norte National Monument by first getting to know the people who might be affected by such a designation. They started by listening. The result? When Secretary Salazar met in Taos just a few months before the Proclamation was signed, he met with over 200 members of the community, including ranchers, sportsmen, conservationists, and elected officials who all spoke in favor of additional protection. At the end of the meeting, he asked if their was anyone in the room opposed to a protective designation, and not one hand was raised. And that is why we have a Monument.

Most of the BLM Taos staff spent the first several days after the designation pouring over the Proclamation, memorizing the objects of value, as well as the traditional uses that were highlighted. We are well aware of the challenge of properly managing the objects of value for their long-term protection. However, we are eager to share best management practices and leave no trace behaviors so that the traditional and recreational pursuits so enjoyed by area residents and visitors can continue. Finding that balance between protection and use will carry through the planning process, which was officially started in early 2014.

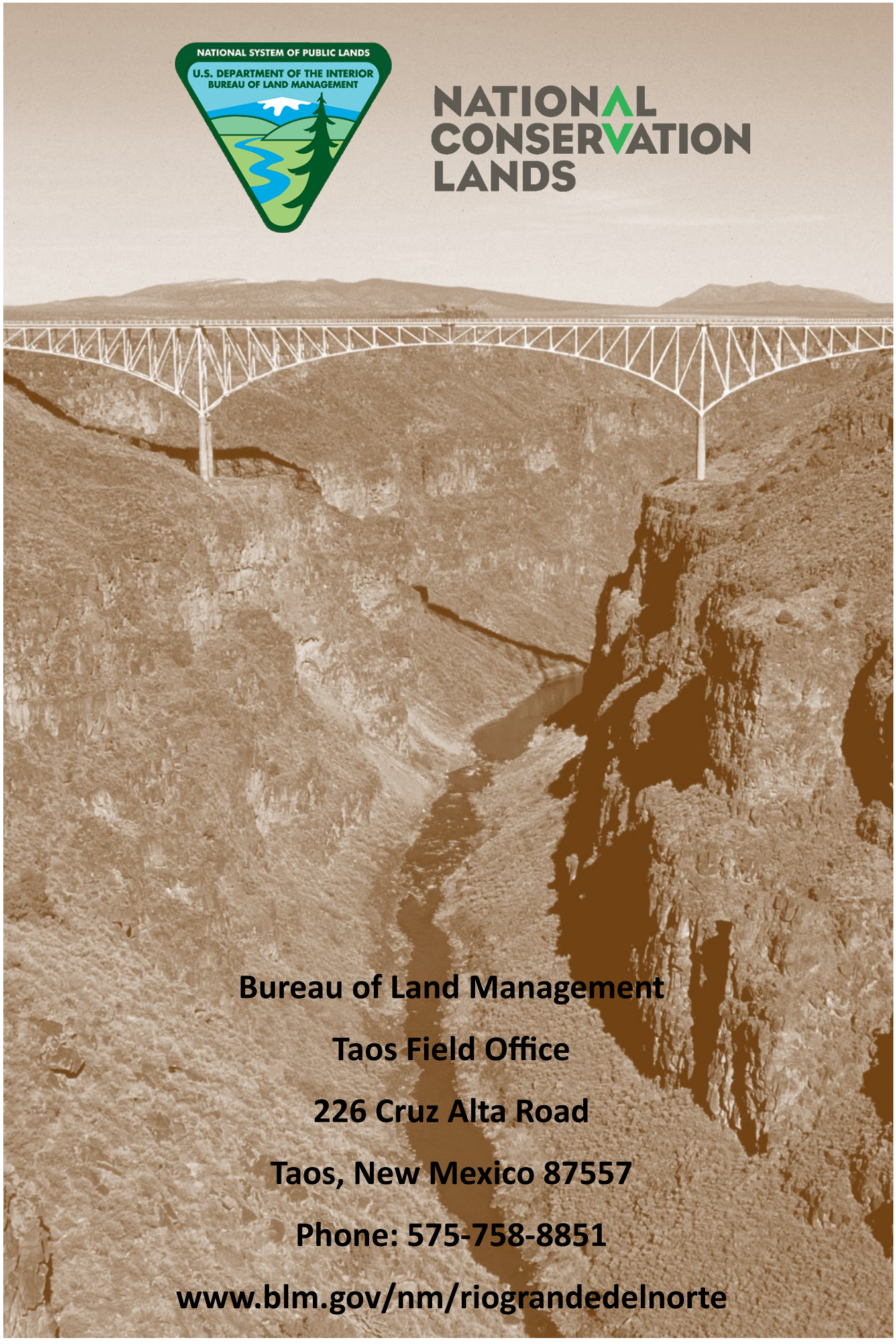
For some areas of the Monument, knowledge of cultural resources is insufficient to meet management goals. More inventory is needed to evaluate conditions, trends, and affects. Monitoring is almost completely nonexistent, but needs to be implemented across the entire Monument (particularly in those areas where past actions are potentially having an adverse effect). The same could be said for some of our other objects of value, such as wildlife and ecological diversity.

We are very aware that this is not just the BLM's Monument, but the community's. I am hoping we can build more partnerships, create business opportunities for adjacent landowners, and be innovative in ways to share information. This is a landscape that matters, and keeping it intact will be our priority, while also keeping it open to traditional uses that help our communities.

Sincerely,

John Bailey

Manager, Río Grande del Norte National Monument



Bureau of Land Management

Taos Field Office

226 Cruz Alta Road

Taos, New Mexico 87557

Phone: 575-758-8851

www.blm.gov/nm/riograndedelnorte