

Prehistoric Trackways

National Monument

FY 2013

Manager's Report

BLM

New Mexico

NATIONAL
CONSERVATION
LANDS



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Prehistoric Trackways Profile

Designating Authority

Designating Authority: Omnibus Public Lands Management Act of 2009

Date of Designation: March 30, 2009

Location and Acreage

Total Acreage is 5,280 BLM acreage: 5,280 Non-BLM acreage: 0

The Prehistoric Trackways National Monument is located in central Dona Ana County, New Mexico, approximately 10 miles northwest of Las Cruces NM

Contact Information

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Field Office	District Office	State Office
N/A	Las Cruces	New Mexico

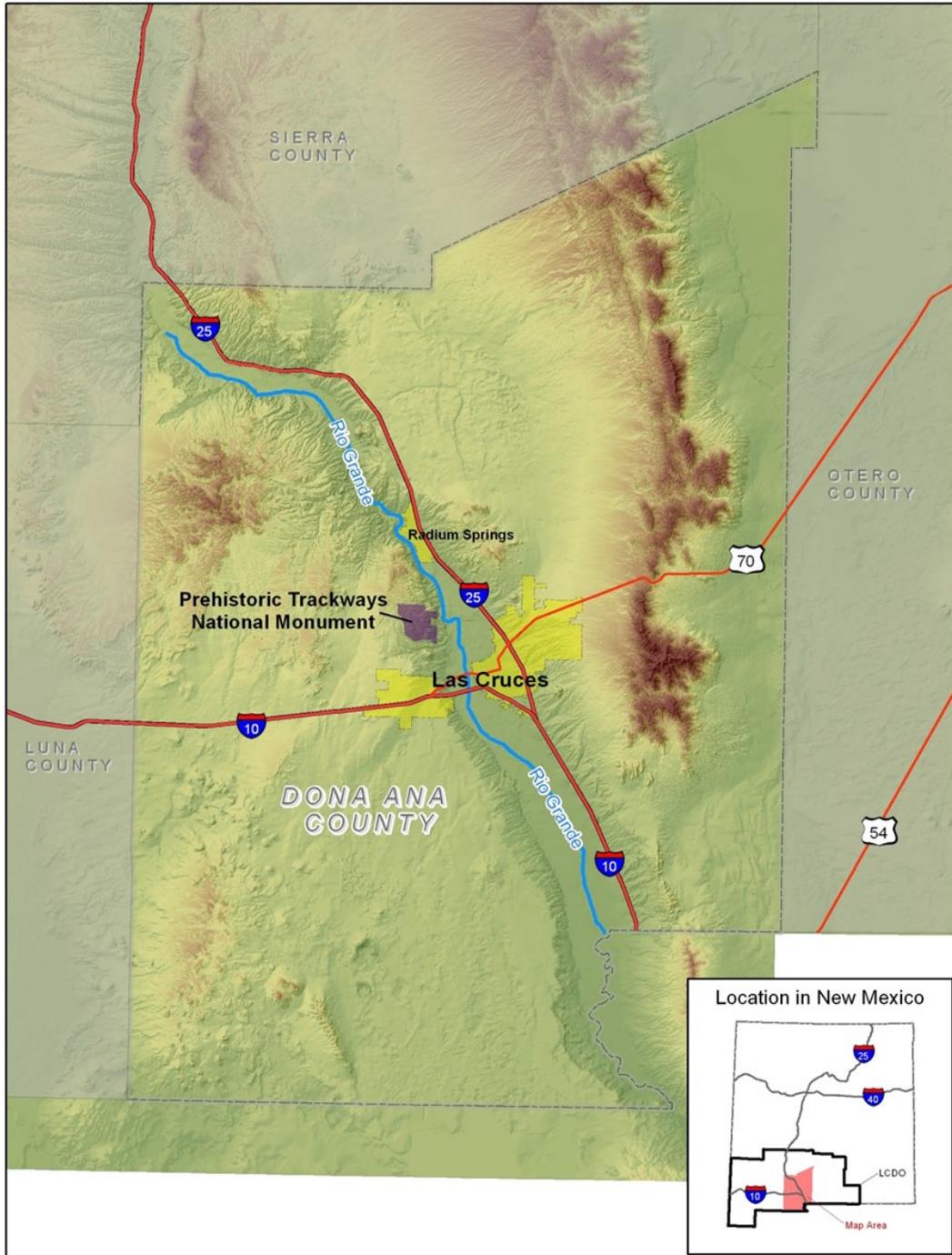
Managing Partners

N/A

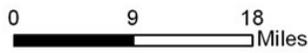
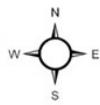
Staffing

In FY 2013, there was one full time permanent Park Ranger dedicated solely to the Monument. In addition, Las Cruces District staff who work part time within the Monument include: District Manager (who performs the Monument Manager functions), Supervisory Recreation/Cultural Resources Specialist, Wildlife Biologist, Rangeland Management Specialist, and 2 Law Enforcement Rangers. Up until early FY 2013, the Monument Planner lead the Resource Management Plan development full time, however, after the position was vacated it was not filled.

Map 1-1 - Regional Map

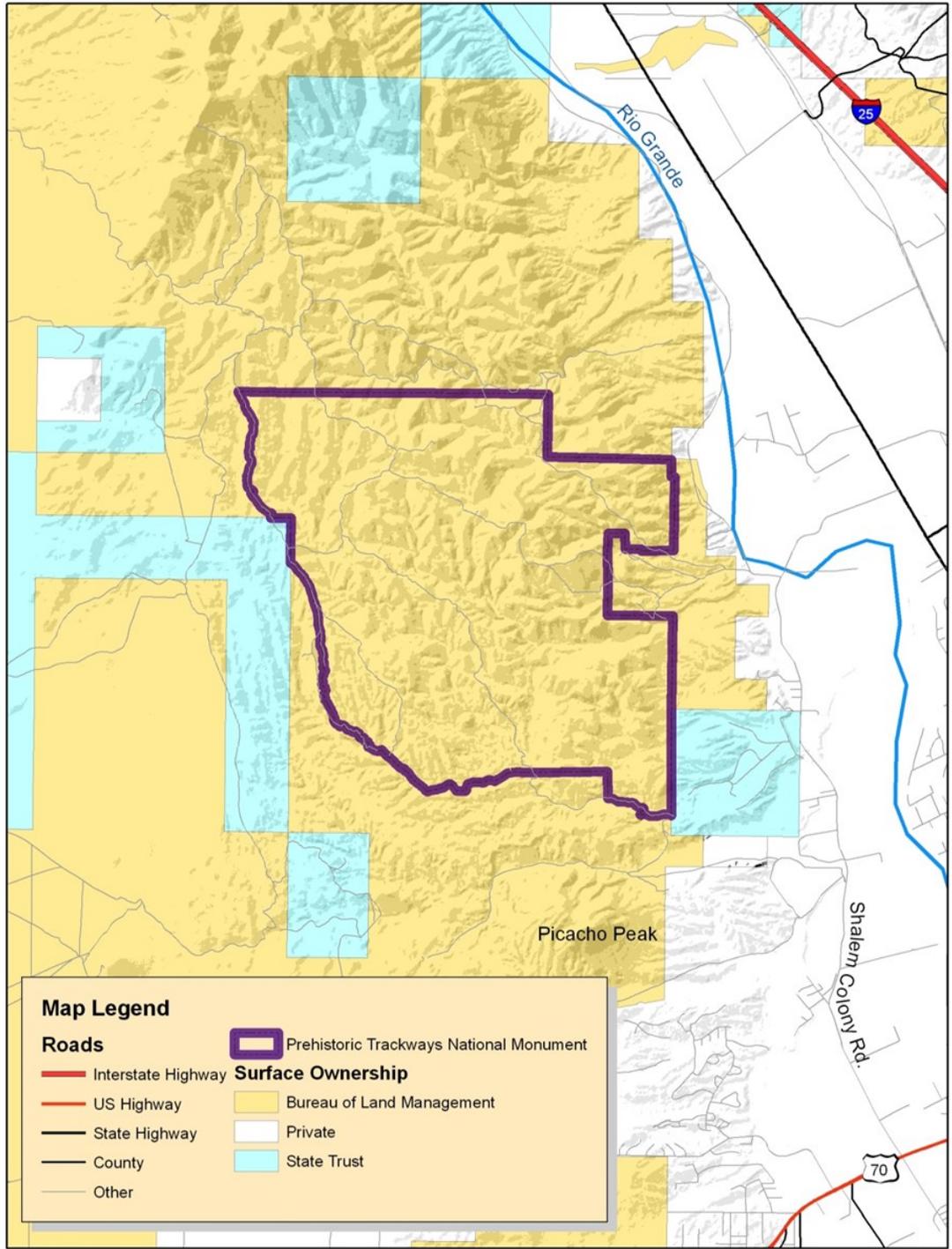


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Projection: UTM, Zone 13
Datum: NAD 1983

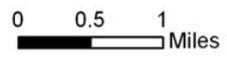
Map 1-2 - Prehistoric Trackways National Monument



Map Legend

Roads	Prehistoric Trackways National Monument
Interstate Highway	Surface Ownership
US Highway	Bureau of Land Management
State Highway	Private
County	State Trust
Other	

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Projection: UTM Zone 13
Datum: NAD 1983

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Planning and NEPA

Status of RMP

In July 2012, the Draft Resource Management Plan/Environmental Impact Statement (RMP/EIS) was published. In October 2012, the 90-day public comment period ended. During the remainder of FY 2013, the Las Cruces District reviewed public comments received on the Draft RMP/EIS and developed responses as well as began development of the Proposed RMP/Final EIS. The final RMP is anticipated for completion in early FY15.

Status of Activity Plans

No activity plan level actions are being developed until completion of the RMP.

Status of RMP Implementation Strategy

An implementation strategy will be developed after completion of the RMP.

Key NEPA Actions and/or Authorizations

The only NEPA action that was authorized during FY 2013 was for a Special Recreation Permit for the annual Chile Challenge, a rock crawling event. The activity was approved, which authorized the Las Cruces Four Wheel Drive Club to manage jeep runs over existing off-highway vehicle routes within and nearby the Monument.

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Year's Projects and Accomplishments

General Accomplishments

Primary accomplishments were components in the development of the RMP.

The BLM held a public lands day event in October 2013 at the Monument to clean up the entryway and install an information kiosk.

Current Areas of Focus

A significant issue at the entry to the Monument is the conflict between target shooting and organized educational tours, guided hikes, and interpretation activities. The entryway to the Monument has been used for target shooting historically, and the same location is used for parking during organized group events sponsored by the BLM. The group events include environmental education programs presented to elementary school students. These include outdoor classroom stations for groups of students to learn about different Monument resources. The entryway is well-suited to accommodate numerous school busses, support vehicles, portable toilets, and provide access to the Monument.

During 2013, the BLM attempted to address the conflicts between target shooters and Monument visitors through signage and education. Many times, Park Rangers would talk to target shooters present during BLM's organized events. Some shooters were willing to postpone their activities while the group event was ongoing, but some have been unwilling to do so, which created uneasiness or fear with school leaders. At other times, BLM Law Enforcement Rangers have documented stray bullets in this area. A Law Enforcement Ranger was able to engage in direct discussion with the shooters involved.

In late 2013, the BLM initiated the process of instituting a temporary closure to target shooting while solutions to the conflicts and hazards can be considered long term. The closure is still not in effect, and so the BLM has ceased to schedule organized events. The loss of the organized events has been disappointing to the public and schools. This was one of the main activities offered at the Monument.

In addition to the conflict with group events, the BLM has received numerous contacts from the public requesting that target shooting cease in the area, stating they use the area less than they would like to because of concern for their safety. Monument visitors usually leave the area when target shooters are present. However, if they park while no shooting is taking place, they have been fearful they will have to pass into a shooting zone on their return if target shooters have arrived in their absence.

Education, Outreach, and Interpretation

Interpretation:

Park rangers led guided hikes for the public approximately twice a month on Saturdays (weather permitting), regularly gave programs for local community groups and partnering agencies, and hosted field trips. The Monument held 20 outreach events, reaching over 700 members of the public.

National Fossil Day:

To celebrate National Fossil Day, Monument staff, along with the National Park Service (NPS), U.S. Forest Service (USFS), Las Cruces Museum of Nature and Science, Asombro Institute for Science Education, and Mesilla Valley Bosque State Park hosted a hands-on, interactive program at Tombaugh Elementary School in which approximately 675 students ranging from Pre-K through fifth grade rotated through stations and learned about different fossils that record the natural history of southern New Mexico. Prehistoric Trackways was featured in the National Fossil Day's Paleozoic Partners Highlights. This can be viewed at http://nature.nps.gov/geology/nationalfossilday/paleozoic_ptnm.cfm

Education Initiatives:

Prehistoric Trackways is a Hands on the Land site. During the year, 32 different formal education events were conducted, reaching 3,436 students and teachers (pre-K thru college level). These events were comprised of outdoor classroom activities, public land service learning projects, professional development for educators (non-credit), after-school programs, field trips, and day camps. The participating schools for these included Desert Hills Elementary, Mesa Middle Schools, White Sands Elementary, Picacho Elementary, Los Montanos High School, Lynn Middle School, Hillrise Elementary, Fairacres Elementary, Hermosa Heights Elementary, Tombaugh Elementary, and Loma Heights Elementary. Partner organizations include Las Cruces Public School District, Gadsden School District, New Mexico State University (NMSU) STEM Program, Take It Outside New Mexico (USFS, NPS, Asombro, New Mexico State Parks, et al.), Paleozoic Trackways Foundation, Las Cruces Museum of Nature and Science, and New Mexico Museum of Natural History and Science.

The Monument staff also partnered in a Take it Outside New Mexico initiative with STEM NMSU to get 30 teachers out to different sites in Las Cruces and Otero Counties, to increase awareness amongst the education community of field trip opportunities in the area.

Teacher on the Public Land:

The Monument piloted BLM's first Teacher on the Public Land (TPL) in the summer. Her task was to design curricula for the trackways. This will lead to building a community of future stewards of the public lands.



Eileen Davis—Prehistoric Trackways National Monument 2013 Teacher on the Public Lands.

Partnerships

The BLM continues to work closely with the Las Cruces Museum of Nature and Science to display and interpret the fossil resources in the City of Las Cruces. In 2012, a keystone display was opened in the Museum, which showcases one of the significant trace fossils collected from the Monument. The Museum functions as a primary visitor stop for the Monument, and Museum staff further provides guidance to those wishing to visit the Monument. The BLM also continues to work with the Paleozoic Trackways Foundation on opportunities to highlight the objects/values of the Monument.



Volunteers

The BLM is beginning to develop a cadre of volunteer docents to assist with the increasing interest for guided interpretive hikes. This program is expected to be ready for operation in 2015, after management issues have been addressed.

Budget

The 1711 budget for the Monument was \$137,000, which included: \$17,000 earmarked for easement acquisition; \$87,000 for labor (12 Work Months); \$20,000 for vehicles, and \$13,000 in generic ops.

The 1610 budget for the Monument provided \$50,000 for RMP development.

In addition, approximately \$25,000 was provided from other BLM programs such as range, cultural, and paleontology programs to support project work related to those activities in the Monument.

Land or Easement Acquisitions

The Monument does not have legal public access; however, the primary access route that the public utilizes has not been restricted by the private landowner. The BLM will seek a public easement across the private land prior to installation of any infrastructure (for example, portal signs or trailhead facilities). During FY 2013, the BLM began negotiations with the landowner to acquire a ½ mile easement on the road leading into the Monument. The landowner is willing to donate the easement and the BLM has begun the steps necessary to process and secure the easement.

Science

Science

Science Plan:

The New Mexico Museum of Natural History and Science completed its recommendations for a scientific research and outreach plan for the Monument. The BLM staff will adapt this recommendation to fit in with the Monument Plan.

NMSU Cooperative Ecosystem Studies Unit Geological Studies:

Through a National Landscape Conservation System (NLCS) research grant, the BLM partnered with the NMSU's Geology Department to conduct three studies of geological attributes within the Monument. The scientific objectives are: (1) to study the Permian algal "reefs" with the strata of the Monument; (2) to conduct field and laboratory research on the basalt lava flows and vents within the Monument; and (3) to analyze the uplift history of the Robledo Mountains using apatite fission-track dating of rhyolite sills. The studies will result in greater scientific understanding of the geology of the Monument and will be used in interpreting the Monument on wayside exhibits and in a public guide.

Research Papers Published:

Coniferopsid Tree Trunks Preserved in Sabkha Facies in the Permian (Sakmarian) Community Pit Formation in South-Central New Mexico, U.S.A.: Systematics and Palaeoecology by Howard J. Falcon-Lang, Francine Kurzawe, Spencer G. Lucas : *Review of Palaeobotany and Palynology* 200: 138–160.

The paper came out as a result of an NLCS grant received in 2011. It highlights specimens of two, very unusual plants at a location known as Site Flood (the oldest known voltzian conifer). This has provided important insight into conifer evolution and the calipterid *Lodevia oxydata*.

The Smithsonian Institute, UC-Berkeley, New Mexico Museum of Natural History and Science, University of Illinois, and scientists from Austria and Germany all are interested in excavating and studying Site Flood to further their understanding of these specimens.



Petrified trees of ancient extinct conifers from the Monument (picture by Jerry MacDonald).

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Resources, Objects, Values, and Stressors

Resource, Object, or Value

Paleontological Resources

The fossil resources in the Monument are predominantly Permian Age fossil material, but may be expanded to encompass subsequent discoveries.

The inventory is ongoing through work done by the New Mexico Museum of Nature and Science. The Monument is 5,280 acres and about half (2640 acres) has been inventoried/possessed/monitored.

Stressors Affecting this Resource, Object, or Value

The primary stressors to paleontological resources are environmental (runoff in arroyos from rainstorm events can erode otherwise stable sites), and human disturbances (inadvertent impacts from vehicles unknowingly damaging exposed sites), and intentional theft (BLM presence has greatly reduced this occurrence, however it is possible that occasional specimens are removed from sites).

Cultural Resources - Status and Trend Table	
Status of Resource, Object, or Value	Trend
Status is good	Static

Cultural Resources - Inventory, Assessment, Monitoring Table			
Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored
5,280	2,640	2,640	2,640

Resources, Objects, Values, and Stressors

Resource, Object, or Value

Scientific: Science-based research conducted on paleontological and geologic resources, especially Permian Age fossils and their geologic context.

Inventory is not a valid measure for this resource. The entire 5,280 acres in the unit can be utilized by a variety of scientific endeavors, however, much of the current interest is associated with the paleontological and geologic resources.

Stressors Affecting this Resource, Object, or Value

Primary stressor to the scientific resource is associated with lack of regular monitoring/patrol of sites that are of particular interest to scientists.

Status of Resource, Object, or Value	Trend
Status is good	Improving trend with additional research occurring.

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored
5,280	N/A	5,280	N/A

Resources, Objects, Values, and Stressors

Resource, Object, or Value

Educational: Educational and interpretive opportunities on the Permian fossils.

Inventory is not a valid measure for this resource. The entire 5,280 acres in the unit can be utilized for variety of educational or interpretive outcomes, however, much of the current interest is associated with the paleontological and geologic resources.

Stressors Affecting this Resource, Object, or Value

The primary stressor to the educational resource is associated with lack of control for where public recreational target shooting occurs. This has created a requirement by the BLM to cease further public educational hikes until a decision can be implemented that effectively provides for public safety.

Status of Resource, Object, or Value	Trend
Poor	Trend is declining because of safety issues.

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored
5,280	N/A	5,280	N/A

Resources, Objects, Values, and Stressors

Resource, Object, or Value

Recreation: Recreational uses related to the enjoyment, appreciation, and protection of the fossil resources and their geologic context.

Inventory of the entire unit was undertaken during the RMP process. The entire unit contains one or more recreational values including off-highway vehicle (OHV) use, hiking, mountain biking, and dispersed backcountry exploration. Monitoring of OHV use is ongoing through traffic counters along some routes in to the unit and along some challenging OHV routes. Currently, other use monitoring is not taking place.

Stressors Affecting this Resource, Object, or Value

The primary stressor associated with the dispersed recreation use by hikers is the uncontrolled public recreational target shooting. This has created uncertainty and trepidation by local hikers/users of the unit.

Status of Resource, Object, or Value		Trend	
Good		Stable based on continuing use and access of PTNM that allows for visitors to access the monument for viewing of geologic/Paleo resources	
Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored
5,280	5,280	5,280	5,280

Resources, Objects, Values, and Stressors

Resource, Object, or Value

Scenic: The distinct geologic exposures of the Robledo Mountains in the context of the Permian fossils.

In 2009, the entire 5,280 acre unit has been inventoried for visual resources. The entire unit was identified as Visual Resource Inventory Class II. Current Visual Resource Management Classes for the unit encompass VRM Class I, II, III, and IV. The result of the RMP will determine the eventual makeup of the VRM Classes that will be managed in the Monument.

Stressors Affecting this Resource, Object, or Value

Currently, no stressor to scenic values exists. Any future surface disturbing activities will be evaluated against the VRM class management prescriptions and appropriate mitigation will be applied when necessary to maintain the scenic values.

Status of Resource, Object, or Value	Trend
Good	Stable—no activities are authorized that would affect or impact the scenic values.

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored
5,280	5,280	5,280	5,280



Sunrise in Prehistoric Trackways National Monument

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Summary of Performance Measures

Summary Table

Resource, Object, or Value	Status	Trend
A. Paleontological Resources	Good	static
E. Scientific	Good	improving
C. Educational	Poor	declining
D. Recreation	Good	stable
F. Scenic	Good	stable



Rockcrawling in the Monument

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Manager's Letter

The BLM will continue to pursue completion of the RMP so that we can move into implementation of on-site amenities, interpretive displays, trail development, and educational materials.



NATIONAL CONSERVATION LANDS

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