



**NATIONAL
CONSERVATION
LANDS**

Idaho

Craters of the Moon

National Monument

Annual Manager's Report—Fiscal Year 2014

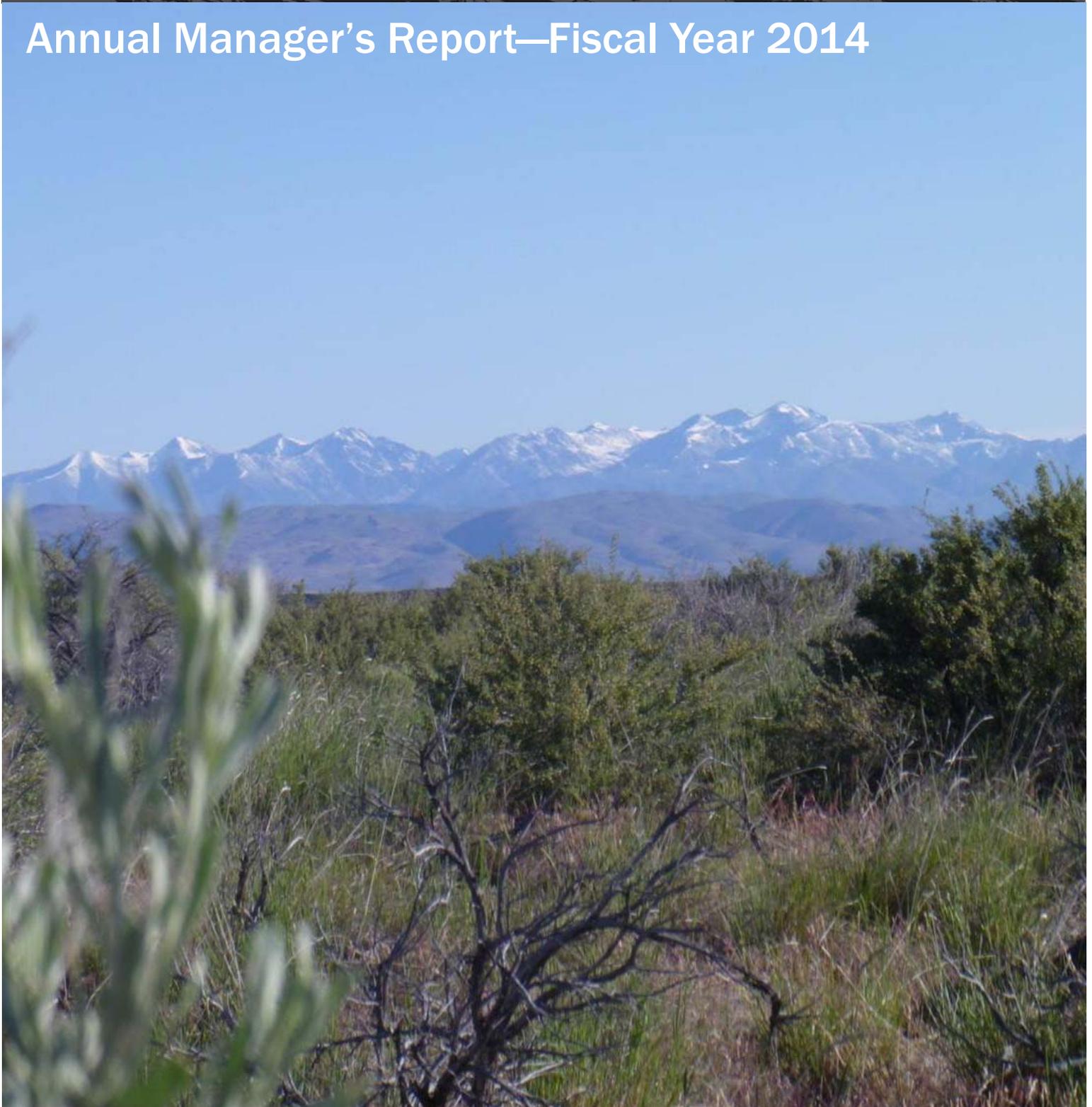


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1 Craters of the Moon Profile

Designating Authority

Designating Authority: Presidential Proclamation 7373

Date of Designation: November 15, 2000

Other designating authorities:

Presidential Proclamation 1694 (1924) - established the
Craters of the Moon National Monument
Presidential Proclamation 1843 (1928) - expansion
Presidential Proclamation 1916 (1930) - boundary adjustment
Presidential Proclamation 2499 (1941) - boundary adjustment
Presidential Proclamation 3506 (1962) - boundary adjustment
Public Law 104-333, 110 Stat. 4093, 4106 (1996) —boundary
adjustment
Public Law 107-213, 116 Stat. 1052 (2000) - Preserve
designation

Acreage

Total Acres in Unit	753,243
BLM Acres	275,076
Other Federal Acres	463,344
State and Private Acres*	14,824

*State and Private acres are not part of the total of the unit acres

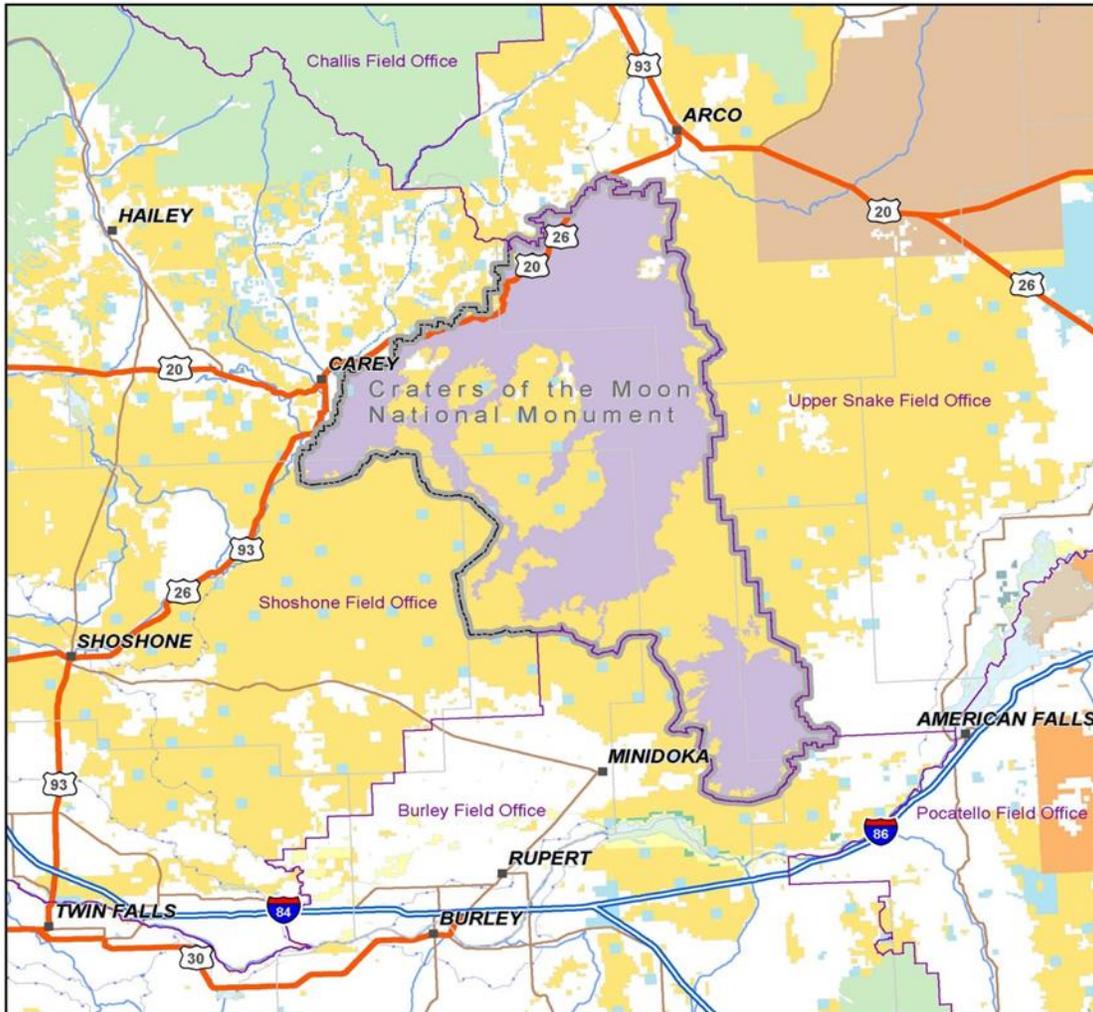
Contact Information

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Budget

Total Fiscal Year 2014 Budget	\$1,135,632
Subactivity 1711	\$950,359
Other Subactivities' Contributions	\$185,273
Other Funding	\$0

Map of Craters of the Moon National Monument



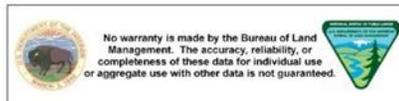
US Depart. of the Interior
Bureau of Land Management
Twin Falls District, Idaho

Legend

- BLM Offices
- National Monument
- County Boundary
- Bureau of Land Management
- Bureau of Reclamation
- Department of Energy
- Forest Service
- Fish and Wildlife Service
- National Park Service
- Native American Reservation
- Private; other
- State
- State Fish and Game



0 5 10 15 20 Miles



Managing Partners

The original Craters of the Moon National Monument and Craters of the Moon National Preserve are units of the National Park System. The BLM portion of Craters of the Moon National Monument is a part of a larger system within the Bureau of Land Management — the National Landscape Conservation System (NLCS). The fundamental purposes of these two national systems have been brought together at Craters of the Moon National Monument and Preserve to enhance protection of nationally significant natural and cultural resources while retaining many of the traditional uses of the land.

Staffing

The staff made available for the Craters of the Moon National Monument management are from the Shoshone Field Office, and the amount of time annually dedicated to monument work are:

Monument Manager/Shoshone FO Assistant FM 60%
Shoshone FO Wildlife Biologist 100%
Shoshone FO Wildlife Biologist 60%
Shoshone FO Outdoor Recreation Planner 60%
Shoshone FO Park Ranger 75%
Shoshone FO Botanist 100%
Shoshone FO Rangeland Management Specialist 100%
Shoshone FO Range Technician 30%
Shoshone FO Archeologist 60%
Twin Falls District Weed Specialist 10%
Twin Falls District LEO 100%

2 Planning and NEPA

Status of the Resource Management Plan

The Craters of the Moon National Monument and Preserve Management Plan Record of Decision was signed by the NPS and the BLM in 2006. An implementation strategy was completed in December 2007. In 2008, Western Watersheds Project filed a complaint against the BLM charging that a number of land use plans signed after 2004 had violated FLPMA and NEPA by failing to analyze adequate alternatives for grazing and protections for greater sage-grouse, including the Craters of the Moon Management Plan. In 2012, the U.S. District Court for the District of Idaho ordered the BLM to complete a land use plan amendment for the Craters of the Moon National Monument and Preserve Management Plan to address these issues. Currently, the court mandated timeline specifies November 2014 for public release of the Draft Plan Amendment/EIS for this effort. Public Scoping was completed in 2013. A Draft Craters of the Moon National Monument and Preserve Management Plan Amendment/EIS and the associated Notice of Availability is under review in the Washington Office.

Status of Activity Plans

Completed plans include the Craters of the Moon National Monument Comprehensive Travel Management Plan (2009) and Long Range Interpretive Plan (2007 NPS led). Ongoing efforts include development of a BLM Sign Plan.

Status of the RMP Implementation Strategy

The implementation strategy for the Craters of the Moon National Monument and Preserve Management Plan was completed with the NPS in 2007. Key points include completing the Comprehensive Travel Management Plan; numerous key resource inventories, maps, and management plans; conduct vegetation treatments; and, develop or improve partnerships to further outreach and education goals. In 2014, the BLM continued with fire rehabilitation treatment monitoring, weed treatments, riparian inventories, sage-grouse surveys/telemetry studies, and youth outreach.

Key National Environmental Policy Act Actions and/or Project Authorizations

In 2014, the following actions/authorizations related to the Craters of the Moon National Monument and Preserve Management Plan amendment/EIS occurred:

- Completed Lands with Wilderness Characteristics inventory for the Plan Amendment
- Mapped occupied seasonal habitats for sage-grouse across the entire Monument
- Contracted the Great Basin Institute to remotely inventory playa resources across

the Monument.

Other NEPA actions/authorizations include:

- Collected and contracted for grow and increase *Erigeron pumilus* (shaggy fleabane).
- Contributed to Goodale's Cutoff (Oregon National Historic Trail) study under consideration
- Placed cinders around the restored trappers cabin as a fuel break
- Placed interpretive sign at trappers cabin
- Completed Use Pattern Mapping in Laidlaw Park
- Aerial inventory (150,000 acres) and treatment (100 acres) of leafy spurge and dyers woad
- Photo-point monitoring of riparian areas to detect long-term trends in condition
- Continued Sage-grouse lek surveys
- Continued Sage-grouse telemetry study
- Non-project related inventory and monitoring for cultural resources

3 Year's Projects and Accomplishments

General Accomplishments

In 2014, the Shoshone Field Office continued to make progress on development of the litigation driven Craters of the Moon National Monument and Preserve Management Plan Amendment/EIS. The majority of staff's time was focused on that effort. However, a number of things occurred in addition. Craters of the Moon National Monument celebrated the 40th anniversary of the Wilderness Act through dedication of exhibits of the first NPS Wilderness – Craters of the Moon Wilderness. The Pioneers Alliance continued its work with the NPS and BLM to highlight the unique resources at the Craters of the Moon National Monument. In 2014, the NPS and Pioneers Alliance coordinated the 3rd annual mountain bike ride along the Goodale's Cutoff. The GeoCorps intern for BLM completed the first phase of development of a self-guided tour of significant and interesting geological features in the expanded Monument. Visitation remains steady at just over 210,000 annually to the NPS Visitor Center. BLM estimates there are approximately 4,000 visitors to the expanded Monument annually.

Current Areas of Focus

One of the major issues in 2014 remained lack of consistent funding for ongoing weed treatments and resource studies/inventories. In the past, the NPS has been able to fund treatment when BLM has not had enough or any funding to continue work that has been ongoing for 30+ years. This work occurs using a helicopter and weed crews to inventory and treat remote locations of known leafy spurge and dyers woad infestations within and around the lava flows.

In addition, there has been insufficient funding to hire a seasonal employee to work as the BLM representative at the NPS Visitor Center. BLM does not have a Visitor Center and has for the years 2001-2012 maintained a consistent presence during the peak visitation period (summer) at the NPS Visitor Center. Budget issues have resulted in a reduction in the number of days a BLM employee was present (2014) or a lack all together (2013). This is a critical position for outreach and maintaining BLM's connection to the public with regard to this Monument.

Better coordination with Twin Falls District leadership and budget have helped highlight the issues with funding these workloads, however, a lack of funding for Field Office projects in general results in a lack of funding for Monument projects.

There were no wildfires in the Monument in 2014.

Education, Outreach, and Interpretation

Typically work in Education, Outreach, and Interpretation includes a seasonal that represents the BLM at the NPS visitor center throughout the summer. Due to funding shortfalls in 2014, we hired one half-time seasonal park ranger that represented the BLM at the NPS Visitor Center. Craters has been fortunate over the last 8 years or more to have funding to bring a Geological Society of America intern on board for 3 months during the summer to complete cave and geological work in the Field Office and the Monument. The 2014 Geocorps intern collected data for development of a driving tour app that will allow visitors to experience unique geological features in the expanded Monument. We continue to present programs to school groups, lead local cave tours, and provide outreach at environmental education camps, 4-H camps and NRCS camps that include a great deal of information about the Craters of the Moon.

Partnerships

In 2014, two informal partnerships stood out; the Pioneers Alliance and the Craters of the Moon Natural History Association (NHA). Shoshone Field Office staff attended several meetings of the Pioneers Alliance to discuss various issues related to conservation efforts in the Pioneers/Craters area. The BLM continues to work informally with the NHA on public outreach and assistance with school presentations and other needs. Focus in the future will be on developing an agreement with the NHA to solidify the partnership. Other partners include the Idaho Department of Fish and Game, Gem State Grotto, Idaho Bird Observatory, Geological Society of America, Utah State University, Great Basin Initiative, and the NPS.

The BLM Monument currently does not have any formal partnerships or agreements.

Volunteers

There were a total of 231 volunteers in fiscal year 2014.

Land (or Interests in Land) Acquisitions

There were no land acquisitions or interests in lands activities for Craters of the Moon National Monument completed in fiscal year 2014.

4 Science

Science

- University of Idaho Forage Kochia Green Strip Monitoring, Reconnaissance/field monitoring treatments sites to evaluate phenological development of plants, success of treatment, movement of plants, PI Dustin Smith, final year of project (2010),
- Idaho Fish and Game greater sage-grouse telemetry study (Big Desert), monitoring nesting locations and success, migration, and mortality, PI Jeremy Bisson, contributed funds, final year of project (2013)
- NASA conducted UAS testing, rover testing, and mapping studies in preparation for Mars research at several locations on the NPS Monument and Preserve.

There are a number of research/data collection studies beginning and/or continuing in 2015; rare plant study, stable isotope analysis of animal bones collected in the Monument, and the space exploration equipment testing, to name a few.

The Craters of the Moon National Monument Science Plan has been initiated but not completed due to higher priority litigation-driven workloads and funding.

5 Resources, Objects, Values, and Stressors

Sagebrush Steppe

Sagebrush steppe is found on approximately 60 percent of the Monument and covers the more developed soils of the rangelands, kipukas, cinder cones, older lava flows, and the foothills of the Pioneer Mountains. This once was the most common vegetation throughout the Snake River Plain, as well as in the Intermountain West and Upper Columbia River Basin. However, fire, agriculture, and livestock grazing have modified composition and reduced the extent of this vegetation type throughout these regions.

Lava flows in the Monument throughout history have isolated stands of sagebrush that are essential habitat for sensitive greater sage-grouse populations.

Sagebrush steppe, which is the dominant vegetation in the



Monument, appears to be a monotonous landscape; however, there is a range of plant and community types occurring over an elevation gradient. Many factors influence the diversity, density, cover, distribution, and health of this high desert sagebrush steppe, including differences in soil depth and development; the precipitation gradient ranging from 8 to 16 inches; the elevation gradient ranging from 4,000 to 7,500 feet between the southern and northern ends of the Monument; historical and current land management; invasive species; and fire frequency. In turn, vegetation structure and composition influence the ability of the community to resist invasive species infestation; its susceptibility to, as well as recovery from, fire; and land management goals, decisions, and practices imposed upon the landscape.

Sagebrush Steppe Status and Trend Table

Status of Resource, Object, or Value	Trend
Good	Stable to downward

Sagebrush Steppe Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY14
753,200	753,200	753,200	753,200

Stressors Affecting Sagebrush Steppe

Greater sage-grouse within the Monument area are a part of the Snake-Salmon Beaverhead population, which extends from central Idaho to southwestern Montana (Garton et al. 2011). Sub-populations include Upper Snake, Lemhi-Birch, Little Lost, Big Lost, and North Side Snake. The Snake-Salmon Beaverhead population is considered to be at low risk, meaning that sage-grouse are common or uncommon, but not rare, and are usually widespread throughout the area (USDI USFWS 2012, 2013). The population has fluctuated around 5,000 males since 1992 and was considered stable to increasing from 2007 to 2010; however, the population has markedly declined from historical levels (Garton et al. 2011). Population abundance, as indicated by the average number of males per lek, declined by over half from 1965 to 2007 (Garton et al. 2011). Observations made by IDFG in the Monument also indicate a significant decline in sage-grouse lek activity over the past half century. There are 121 known historic and current leks on BLM lands in the Monument, and 24 surveyed leks were documented as occupied in 2014.

Loss and fragmentation of sagebrush habitats has been cited as a primary cause of the decline of greater sage-grouse populations (Connelly et al. 2004, Schroeder et al. 2004, Leu and Hanser 2011). Potential and current threats to sage-grouse in the Monument include wildfire and the change in wildfire frequency, incursion of invasive plants, drought, improperly managed livestock grazing, and disease (USDI USFWS 2010, 2013). Regional threats also include urban and rural development, large-scale infrastructure, agricultural practices such as sagebrush control and insecticides, predation, human disturbance, sport hunting, seeded perennial grasslands, and conifer encroachment.

The Great Rift

Proclamation 7373 enlarged the boundary of the Craters of the Moon National Monument to include protection of the entire Great Rift volcanic zone and associated lava features, all objects of scientific interest. The Craters of the Moon, Open Crack, Kings Bowl, and Wapi crack sets and the associated Craters of the Moon, Kings Bowl, and Wapi lava fields constitute this volcanic rift zone system. Craters of the Moon is the largest basaltic volcanic field of dominantly Holocene age (less than 10,000 years old) in the conterminous United

States. Each of the past eruptive episodes lasted up to several hundred years in duration and was separated from other eruptive episodes by quiet periods of several hundred years to about 3,000 years. The first eruptive episode began about 15,000 years ago and the latest ended about 2,100 years ago.

Craters of the Moon holds the most diverse and youngest part of the lava terrain that covers the southern Snake River Plain of Idaho, a broad plain made up of innumerable basalt lava flows during the past 5 million years. The most recent eruptions at the Craters of the Moon took place about 2,100 years ago and were likely witnessed by the Shoshone people, whose legend speaks of a serpent on a mountain who, angered by lightning, coiled around and squeezed the mountain until the rocks crumbled and melted, fire shot from cracks, and liquid rock flowed from the fissures as the mountain exploded. The volcanic field now lies dormant, in the latest of a series of quiet periods that separate the eight eruptive episodes.

The Great Rift Status and Trend Table

Status of Resource, Object, or Value	Trend
Good	Stable

The Great Rift Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY14
51 miles	51 miles	51 miles	51 miles



King Bowl and the Great Rift

Stressors Affecting The Great Rift

The Great Rift and other geological features in the Monument are undergoing natural geological processes. Climate change would tend to slow or accelerate the growth of vegetation in and around the lava features and subsequent geological breakdown. Additionally, some ice features associated with the Great Rift have changed considerably in the past 10 years, primarily several feet of ice shelf have melted in the Crystal Ice Caves/Kings Bowl area. Threats include vandalism, fire, and erosion.

Kipukas



Big Juniper Kipuka

Kipukas provide a window on vegetative communities of the past that have been erased from most of the Snake River Plain. In many instances, the expanse of rugged lava pristine and undisturbed vegetation in the Snake River Plain, including 700-year-old juniper trees and relict stands of sagebrush that are essential habitat for sensitive sage grouse populations.

These tracts of relict vegetation are remarkable benchmarks that aid in the scientific study of changes

to vegetative communities from recent human activity as well as the role of natural fire in the sagebrush steppe ecosystem.

The majority of the kipukas in the Monument are managed by the NPS. Laidlaw Park, perhaps one of the largest kipukas in the world, is managed by the BLM. Other kipukas, large enough to be called parks managed by the BLM include Paddelford Flat, Larkspur Park, Park Field, and Little Park.

Kipukas Status and Trend Table

Status of Resource, Object, or Value	Trend
Fair	Stable to downward

Kipukas Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY14
753,200	753,200	753,200	753,200

Stressors Affecting Kipukas

Fire, livestock grazing, recreation, or cheatgrass invasion has altered some of the kipukas; however, other kipukas in the Monument have been protected from access and buffered by rough lavas. There is road access to and within these parks, and livestock grazing is a current and historical use. The abundance of native species and the quality of these sagebrush steppe communities depends mainly on management practices and cumulative effects of environmental responses to wildfire and climate change.



Hiking across the Wapi Lava Flow to Big Juniper Kipuka.

6 Summary of Performance Measure

Fire, livestock grazing, recreation, or cheatgrass invasion has altered some of the kipukas; however, other kipukas in the Monument have been protected from access and buffered by rough lavas. There is road access to and within these parks, and livestock grazing is a current and historical use. The abundance of native species and the quality of these sagebrush steppe communities depends mainly on management practices and cumulative effects of environmental responses to wildfire and climate change.

Resources, Objects, and Values Status Summary Table		
Resource, Object, or Value	Status	Trend
Sagebrush Steppe	Sagebrush Steppe	Sagebrush Steppe
Good	Good	Good
Stable to declining	Stable to declining	Stable to declining

7 Manager's Letter

In 2014, the year was marked primarily with progress on the Draft Craters of the Moon National Monument and Preserve Plan Amendment/EIS. The Shoshone Field Office has not received any funding of note to support this effort and so staffs continue to work on this project while Shoshone Field Office work remains incomplete outside of the Monument. In addition, several key members of the current planning team have taken other positions and so we will be re-forming the team in 2015.

If the Draft Craters of the Moon National Monument and Preserve Management Plan Amendment/EIS is released in FY 2015, the Shoshone Field Office will schedule a number of public meetings to discuss the Draft in order to solicit public comment by helping the affected publics understand the impacts of the various alternatives as well as the rationale for the preferred alternative.



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National Monument

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Shoshone, ID 83352
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February 12, 2015

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