

**Table 13**  
**Roads and Trails within Craters of the Moon National Monument and Preserve**

ROADS WITHIN THE MONUMENT	MILES	MAINTENANCE
<b>Class A</b>	30	Idaho Transportation Department maintains 21 miles; NPS maintains 9 miles.
<b>Class B</b>	70	BLM maintains 37 miles; remaining 30 miles maintained by Blaine (28) and Butte (2) counties.
<b>Class C</b>	355	BLM maintains 353 miles, NPS maintains 1 mile, Blaine County maintains 1 mile.
<b>Class D</b>	174	Not maintained.
<b>Arco-Minidoka Road</b>	69	BLM maintains 15 Class B miles and 25 Class C miles; remaining 29 miles maintained by Butte (24) and Blaine (5) counties.
<b>Carey-Kimama Road</b>	40	BLM maintains 15 miles (all Class B); remaining 25 miles maintained by Blaine (12) and Lincoln (13) counties.

Table 13 summarizes the current status of roads and their designated classes in the Monument.

Costs vary tremendously for road maintenance, whether performed by BLM or by the counties. The counties and local highway districts receive funding from the Federal Highway Administration (FHWA) at a fixed dollar per mile cost for the number of miles of road they maintain. For example, costs associated with annual maintenance of a Class C road can be relatively low, between \$200 and \$400 per mile. This would involve smoothing the road surface with a road grader. One-time deferred maintenance (every 10 to 15 years) such as reshaping the road, cleaning ditches, and adding aggregate material on a Class B standard road can cost \$10,000 per mile. To completely rebuild a road, or to bring a road from a Class D standard to a Class B standard, can cost as much as \$50,000 per mile. These maintenance costs apply to roads leading to the Monument as well as roads within the Monument.

BLM policy requires land use plans to make OHV (also referred to as “off-road vehicle”) designations in the land use planning process (Land Use Planning Handbook H1601-1). The three OHV designations are “open”, “limited”, and “closed”. Open means an area where all types of vehicle use is permitted at all times, and closed means an area where off-road vehicle use is prohibited (43 CFR 8340-0-5(f)(g)(h)). The limited designation means that the travel plan completed following the final management plan will identify seasonal limitations, vehicle type and size restrictions, road construction, and maintenance standards for all roads and trails.

Federal regulations applying to areas under the jurisdiction of the NPS stipulate that motor vehicles may be operated only on park roads, in parking areas, and on routes designated for off-road motor vehicle use. Routes designated for off-road motor vehicle use may be designated in National Preserves by way of special regulations (36 CFR 4.10(a)(b)). The Idaho Transportation Department (ITD), counties, and local highway districts manage roads leading to and passing through the Monument under the terms of right-of-way grants.

**Off-Road Access**

Proclamation 7373 prohibits “*all motorized and mechanized vehicle use off road*” except for emergency or authorized administrative purposes. In this plan, “off-road” is synonymous with cross-country travel, so this type of travel is not confused with the use of OHVs. In other words, OHVs may be used on roads and Class II trails, but may not be driven cross country.

Administrative purposes include the authorized activities of the agencies, permit holders (e.g., livestock permittees), and other agencies. In all cases, off-road travel must be specifically authorized by the agencies. The agencies coordinate with livestock permittees, USDA WS, IDFG, and others who may require authorizations for off-road vehicle use.

Existing BLM land use plans address off-road (cross-country) travel on public lands outside of the Monument. Generally, the public lands outside the Monument are designated “open” to OHV use.





Livestock use at the Monument

### LIVESTOCK GRAZING

The Proclamation expanding the Monument states: “Laws, regulations, and policies followed by the Bureau of Land Management in issuing and administering grazing permits or leases on all lands under its jurisdiction shall continue to apply with regard to the lands in the Monument administered by the Bureau of Land Management.” The Monument encompasses a total of 754,862 acres, which are cooperatively managed by NPS and BLM. NPS administers 469,804 acres, or 62 percent, of the Monument, and that area is closed to livestock use. These areas consist primarily of exposed lava flows, which are mostly devoid of available forage and/or inaccessible to livestock; therefore, prohibiting grazing in these areas has little to no impact on the livestock industry.

Three BLM USRD field offices (Idaho Falls, Burley, and Shoshone) administer livestock use on the 289,111 BLM acres in the Monument. Sheep and/or cattle graze these lands, which are divided into management units known as allotments. There are

an additional 4,971 acres of BLM-administered land adjacent to privately owned agriculture fields and NPS-administered lava, which are not within a grazing allotment. Figure 14 is a map showing all grazing allotments in the Monument.

Grazing permits are awarded to permittees by allotment. These permits, or leases, convey no right, title, or interest in the land or resources. Although the Proclamation specifically mentions livestock grazing, it does not establish the practice as a “right” or convey to it any new status.

Table 14 shows the breakdown of allotment acres, animal unit months (AUMs), and permittees by field office. Table 15 shows the individual allotment information within the Monument, including AUM figures, which are estimates based on the percentages of each allotment that lies within the Monument.

Grazing systems, or acceptable grazing practices, for allotments are detailed in Allotment Management

**Table 14**  
**Livestock Use per BLM Field Office**

INFORMATION	SHOSHONE	IDAHO FALLS	BURLEY	TOTALS
Number of Allotments	10	9	4	23
Total Acres	153,610	77,730	52,800	284,140
Number of AUMs	19,047	9,143	8,503	36,693
Number of Permittees	30	35	14	79



**FIGURE 14**  
**Allotments in the Monument**  
 Craters of the Moon National Monument & Preserve  
 U.S. Department of the Interior / National Park Service  
 DSC • Feb 04 • 131 • 20,051

No warranty is made by the Bureau of Land Management or National Park Service for use of the data for purposes not intended by these agencies. Frontcountry and Passage Zone polygons have been oversized for graphic presentation and are not to scale.



Table 15  
Craters of the Moon Allotment Animal Unit Months

FIELD OFFICE	ALLOTMENTS		ALLOTMENT			ESTIMATED AUMS WITHIN THE MONUMENT					
	Total Acres	Acres in Monument	% of acres in Monument	Active Cattle AUMs	Suspended Cattle AUMs	Active Sheep AUMs	Suspended Sheep AUMs	Exchange of Use	Total AUMs per Allotment		
Idaho Falls	Blizzard Mountain	3,700	160	4	26	-	-	-	26		
	Huddles Hole	2,300	2,300	100	24	20	-	-	44		
	Sunset	12,700	1,600	13	197	9	-	-	206		
	Quaking Aspen	81,400	2,880	4	241	18	-	-	259		
	Smith	19,800	2,790	14	352	-	-	-	352		
	Coxes Well	21,500	6,650	31	659	-	-	-	659		
	Big Desert	235,900	53,950	23	-	-	6,710	-	6,710		
	Rudeen	15,400	6,600	43	378	421	-	-	799		
	Craters	2,300	800	35	-	-	88	-	88		
	<b>TOTAL</b>	<b>395,000</b>	<b>77,730</b>	<b>20</b>	<b>1,877</b>	<b>468</b>	<b>6,798</b>	<b>-</b>	<b>9,143</b>		
Burley	East Minidoka	21,100	4,920	23	1,025	-	-	-	1,025		
	Minidoka	99,000	42,720	43	-	-	5,750	1,095	6,845		
	Sand	8,700	1,670	19	86	-	-	-	86		
	Schodde	20,900	3,490	17	547	-	-	-	547		
	<b>TOTAL</b>	<b>149,700</b>	<b>52,800</b>	<b>35</b>	<b>1,658</b>	<b>-</b>	<b>5,750</b>	<b>1,095</b>	<b>8,503</b>		
Shoshone	Bowl Crater	2,800	2,800	100	133	-	-	-	133		
	Cottonwood	6,300	670	11	-	-	20	-	20		
	Crater	2,500	1,620	65	-	-	85	-	85		
	Kimama	33,000	800	2	-	-	115	2	117		
	Laidlaw Park	94,300	94,300	100	8,507	-	2,924	-	11,431		
	Lava Lake	15,100	1,850	12	88	-	-	-	88		
	Pagari	26,700	1,850	7	159	21	-	-	180		
	Poison Lake	18,700	18,700	100	2,856	-	406	-	3,262		
	Timber Butte	8,000	520	7	38	25	-	-	63		
	Wildhorse	240,800	30,500	13	51	-	3,617	-	3,668		
<b>TOTAL</b>	<b>448,200</b>	<b>153,610</b>	<b>34</b>	<b>11,832</b>	<b>46</b>	<b>7,167</b>	<b>-</b>	<b>19,047</b>			
<b>GRAND TOTAL</b>	<b>992,900</b>	<b>284,140</b>	<b>29</b>	<b>15,367</b>	<b>606</b>	<b>19,715</b>	<b>1,095</b>	<b>2</b>	<b>36,693</b>		

**Table 16**  
**The Monument Expansion Facts – Upper Snake River District**

ALLOTMENT	% OF ALLOTMENT AFFECTED	AUMS IN PROPOSAL	NUMBER OF PERMITTEES	YEAR STANDARDS & GUIDELINES COMPLETE	PERMIT EXPIRATION DATE	STANDARDS MET
<b>IDAHO FALLS</b>						
Blizzard Mountain	4	26	1	1999	2009	Yes
Craters	35	88	1	1999	2009	Yes
Huddles Hole	100	44	1	1999	2009	Yes
Sunset	13	206	1	1999	2009	Yes
Quaking Aspen	4	259	11	1999	2009	Yes
Smith	14	352	1	2008	2008	
Coxes Well	31	659	1	2005	2005	
Big Desert	23	6,710	18	1999	2009	Yes
Rudeen	43	799	1	2005	2005	
<b>BURLEY</b>						
East Minidoka	23	1,025	1	1999	2005	Yes
Minidoka	43	6,845	9	2002	2/05, 4/07, 1/08, 2/09	
Sand	19	86	1	2006	2007	
Schodde	17	547	3	2000	1/06, 2/09	Yes
<b>SHOSONE</b>						
Bowl Crater	100	133	1	2004	2/28/02	
Cottonwood	11	20	1	1999	2/28/02	No
Crater	65	85	1	1999	2/28/02	No
Kimama	2	117	6	1999	Varies	No
Laidlaw Park	100	11,431	14	2003	Varies	No
Lava Lake	12	88	1	2004	2/28/02	
Pagari	7	180	3	2004	Varies	
Poison Lake	100	3,262	1	2005	2/28/02	
Timber Butte	7	63	1	2006	2/28/02	
Wildhorse	13	3,668	22	1999	Varies	No

Plans (AMPs). Grazing systems result from certain decisions and agreements and are subject to standards and guidelines, as are adjustments made to stocking rates.

Standards and guidelines have been applied to 14 out of 23 allotments, as is shown in Table 16. This analysis begins with consultation between an authorized officer, interested publics, and resource users. Field assessments and evaluations are then conducted to determine the achievement or non-achievement for each standard. A plan to reach uniform achievement, when needed, is typically developed through an environmental assessment (EA). EAs identify changes necessary for allotments to meet, or

to make significant progress toward meeting, all standards. EAs also require follow-up monitoring and the reporting of results. Appendix F contains the handbook, “Standards for Rangeland Health and Guidelines for Livestock Grazing Management”.

Grazing preference is not expected to decrease as a result of standards and guidelines analysis because most allotments are attaining, or are making significant progress toward attaining, uniform achievement.

Rangeland developments are used in the Monument to improve livestock distribution, provide livestock forage, restore degraded areas, protect sensitive sites, improve wildlife habitat, and facilitate intensive management of livestock through the



implementation of grazing systems. Many of these are also closely associated with the road system in the Monument. The photo below depicts a traditional sheep camp that is used in today's sheep herding operations.

Proclamation 7373 recognized existing roads and two-tracks across narrow strips of exposed lava that are used to trail livestock from one grazing area to another. Trailing of livestock between allotments is another common practice in the livestock industry, and historic trail routes are still used today in many areas of the Monument. The majority of this trailing occurs along existing roads. In the map accompanying the Proclamation, these corridors were designated for primary management by the BLM to allow for continued livestock trailing and other authorized uses in these corridors. However, there are two known areas in the Monument where historic livestock trails do not follow designated roads and cross lava flows that are now administered by the NPS. These two much less obvious trails historically used for trailing livestock were not identified on the Proclamation map. While not in use at the time of Proclamation 7373, the question of their future use has been raised during the preparation of this plan. Both were once used for trailing sheep. One leads between US 93 and Paddelford Flat and the other across Brigham Point in the southern portion of the Craters of the Moon Lava Flow.

The Paddelford Flat Trail, in the northern part of the Monument (T.1S, R.23E, Sec. 5,8), allows the passage of livestock from the north end of Paddelford Flat to US 20/26/93, about 1 mile west of Lava Lake. Without this trail, it would take about 13 miles to trail out around the lava and along the highway back to Lava Lake. This trail, which is approximately



Traditional sheep camp

1.5 to 2 miles long, is passable by foot traffic only because it is narrow and goes through rugged lava.

The Brigham Point Trail, in the southern part of the Monument (T.5S, R.25E, Sec.15), is at the north end of the Brigham Point Lava Flow. This trail, which is less than 0.25-mile long, has similar characteristics to the Paddelford Flat Trail, and therefore it is passable only by foot traffic. This trail allows passage between the east and west sides of Brigham Point without having to go around the entire flow, which would be approximately 9 miles.

## **OTHER LAND USES**

### **Administrative and Visitor Facilities**

Existing administrative and visitor facilities in the Monument are concentrated in an area of approximately 90 acres adjacent to US 20/26/93 in the north area of the Monument. These are the visitor center/administrative building, maintenance shop, five residential buildings, the entrance station, paved parking areas and roads, a 51-unit campground, a campsite, and related sites. The Visitor Center (which also serves as the NPS administrative headquarters), the maintenance building, and five residential buildings were built in the late 1950s as part of the NPS Mission 66 Program.

The Visitor Center building contains a lobby with book displays, sales, and an information desk; a small exhibit room; and public restrooms. The administrative office area of the building consists of six rooms serving as offices and shared work areas. A construction proposal to renovate the building and add 1,800 square feet for staff work area and 450 square feet for a multipurpose audiovisual room was dropped from the administration's 2003 fiscal year budget before passage of the 2003 appropriations. The Department of the Interior Fiscal Year 2004 budget has not yet been passed into law, so no funding to proceed with the project has yet been approved.

The six-bay maintenance building provides limited area for its intended purposes, since parts of the building have been converted to offices for maintenance staff, administrative staff, and storage of park supplies. One of the residential buildings has been converted to staff offices and museum collections storage. Sewage is handled by separate septic tanks and leaching wells for the Visitor Center/maintenance building and for the residential area. Each of the campground restrooms is served a separate system.

The 51-unit campground contains a 130-seat amphitheater and two restrooms. An entrance station where visitors are contacted before entering the paved loop drive is located adjacent to the campground. North of the highway is a public group campsite. In this vicinity is also a modest research camp, the park's potable water wells and delivery systems, and underground water storage reservoirs.

A 7-mile paved loop drive with short spur roads, pullouts, and parking areas gives visitors access to scenic vistas, hiking trailheads, and other attractions. Vault toilets are available at three of the parking areas.

Kings Bowl was once a developed site. From the mid-1960s to late-1980s, private operators under permits from the BLM operated a concession at the site with a developed trail/tunnel system into Crystal Ice Cave, a parking and picnicking area, a trailer pad, a generator building, and a small concession stand. All of the aboveground facilities have been removed because of safety concerns. A small parking area and remnants of footpaths and vehicle trails remain. NPS and BLM are in the process of installing a series of waysides and signs in the area to convey important safety and resources protection messages to people who might visit this site.

### Lands and Realty

The planning area encompasses approximately 755,000 acres. Figure 15 shows land status, and land ownership is detailed in Table 17.

Private and state land within the Monument boundary is not part of the Monument and is not subject to the direction in this plan. Most of the private land holdings in the planning area were obtained through agricultural entries such as the Desert Land Act, the Carey Act, the Reclamation Homestead Act, and the Stock Raising Homestead Act. There were no pending agricultural entries in the Monument on the date of Proclamation 7373. The private and state land inholdings are used for grazing and contain related developments such as fences, wells, corrals, camp trailers, and seedings. There are no houses, cabins, or other permanent human dwellings on the private or state land.

The agencies will consider acquiring private and state land in the Monument through exchange, purchase, or donation. Acquisitions of private land must be initiated by the private landowner as a willing seller. The Idaho Department of Lands (IDL) has initiated a proposal to exchange state land in the Monument for BLM land outside of the Monument (see letter from IDL in Appendix J). Private or state land acquired by the agencies would automatically become part of the Monument and subject to the direction in this plan.

Proclamation 7373 transferred 412,391 acres in the Monument from BLM to NPS administration. In 2002, Congress changed the designation of this land from National Monument to the Craters of the Moon National Preserve.

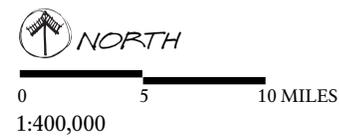
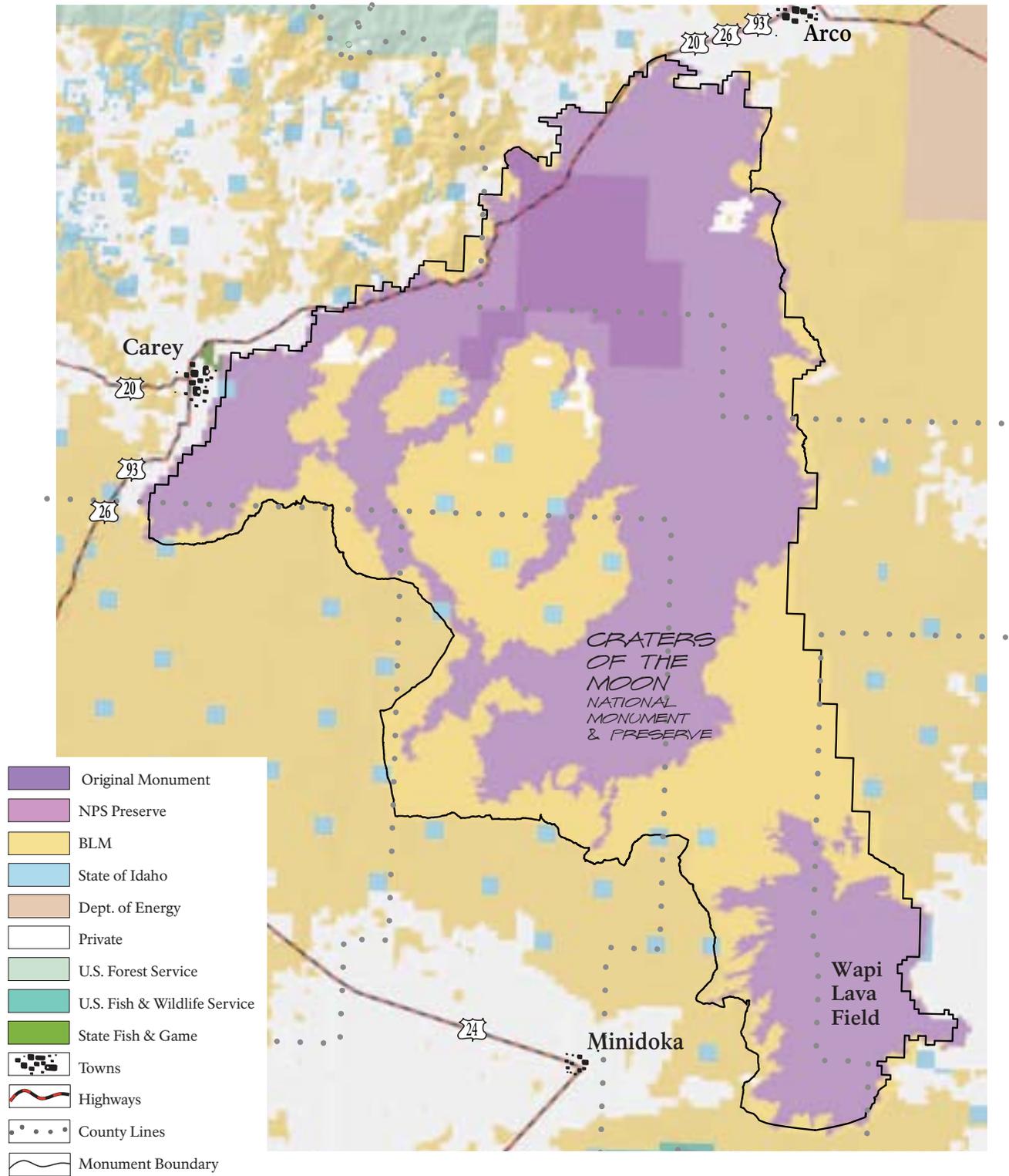
Proclamation 7373 withdrew all federal land within the Monument and Preserve from all forms of entry, location, selection, sale, and other forms of disposition. Therefore, the agencies cannot exchange, sell, or dispose of any federal land in the Monument except for extremely rare situations that would further the protective purposes of the Monument. This withdrawal includes the disposal of land to local governments for public purposes and community expansion.

The Monument contains multiple land use authorizations for a wide variety of purposes. Lands and realty

**Table 17  
Landownership**

LAND STATUS	ACRES	% OF MONUMENT
<b>NPS Lands</b>		
Federal	465,835	62
Original Monument	53,440	7
National Preserve	412,395	55
State	1,822	0.2
Private	2,147	0.3
<b>NPS Area Total</b>	<b>469,804</b>	<b>62</b>
<b>BLM Lands</b>		
Federal	273,847	36
State	6,499	0.9
Private	4,713	0.6
<b>BLM Area Total</b>	<b>285,058</b>	<b>38</b>
<b>Combined Total</b>		
Federal Total	739,682	98
State Total	8,321	1
Private Total	6,860	1
<b>Grand Total</b>	<b>754,862</b>	<b>100</b>





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## FIGURE 15 Land Status

Craters of the Moon National Monument & Preserve  
U.S. Department of the Interior / National Park Service  
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**Table 18**  
**Valid Existing Rights**

LOCATION ON FIGURE 16	CASE TYPE	CUSTOMER NAME	CASE FILE NUMBER	SIZE IN ACRES	EXPIRATION DATE
1	Federal Aid Highway 93	ITD	IDI-001314	94	Perpetuity
2	ROW Powerline	Lost River Electric Cooperative	IDI-002855	19	12/16/2019
3	ROW Observation Well	USGS	IDI-012671	10	12/02/2009
4	ROW Telephone Line	ATC Communications	IDI-020118	6	08/08/2012
5	ROW Seismic Station	DOE	IDI-028657	<1	04/16/2012
6	ROW Snow Fence	ITD	IDI-032380	14	09/09/2017
7	ROW Mineral Material Site	ITD	IDI-006614	109	Perpetuity
8	ROW Observation Wells	BOR	IDI-0008954	4	Perpetuity
9	Emergency Airstrip Lease	Idaho Division of Aeronautics	IDI-0010307	43	03/05/2013
10	Emergency Airstrip Lease	Idaho Division of Aeronautics	IDI-0010310	40	09/19/2013
11	Federal Aid Highway 93	ITD	IDBL-0047476	87	Perpetuity
12	ROW Mineral Material Sites	ITD	IDBL-0047852	156	Perpetuity
13	Federal Aid Highway 93	ITD	IDBL-0049776	373	Perpetuity
14	ROW Mineral Material Site	ITD	IDBL-0052624	40	Perpetuity
15	Federal Aid Highway 93	ITD	IDBL-0052700	141	Perpetuity
16	Federal Aid Highway 93	ITD	IDBL-0053778	28	Perpetuity

authorizations fall into two broad categories, valid existing rights and other valid but lesser interests. Proclamation 7373 states that: “The establishment of this monument is subject to valid existing rights.” Land use authorizations that give “rights” to the holder under various laws, leases, and filings under federal law, such as some rights-of-way (ROWs), are listed in Table 18 and shown on Figure 16.

Other existing authorizations in the Monument are three Free Use Permits for mineral materials (see the “Minerals” section, below) and 14 easements held by BLM across state and private land. Only one pending authorization/application for a land use authorization within the Monument existed on November 9, 2000. This is a proposed cooperative agreement for a groundwater recharge area along the Little Wood River, approximately 5 miles south of Carey. At the time of Proclamation 7373, there were no other pending lands and realty cases or applications such as ROWs, Land Use Permits, exchange or sale proposals, or trespass cases.

A potential powerline corridor was identified in 1984, running southwest to northeast between the Craters of the Moon and Wapi lava fields in the

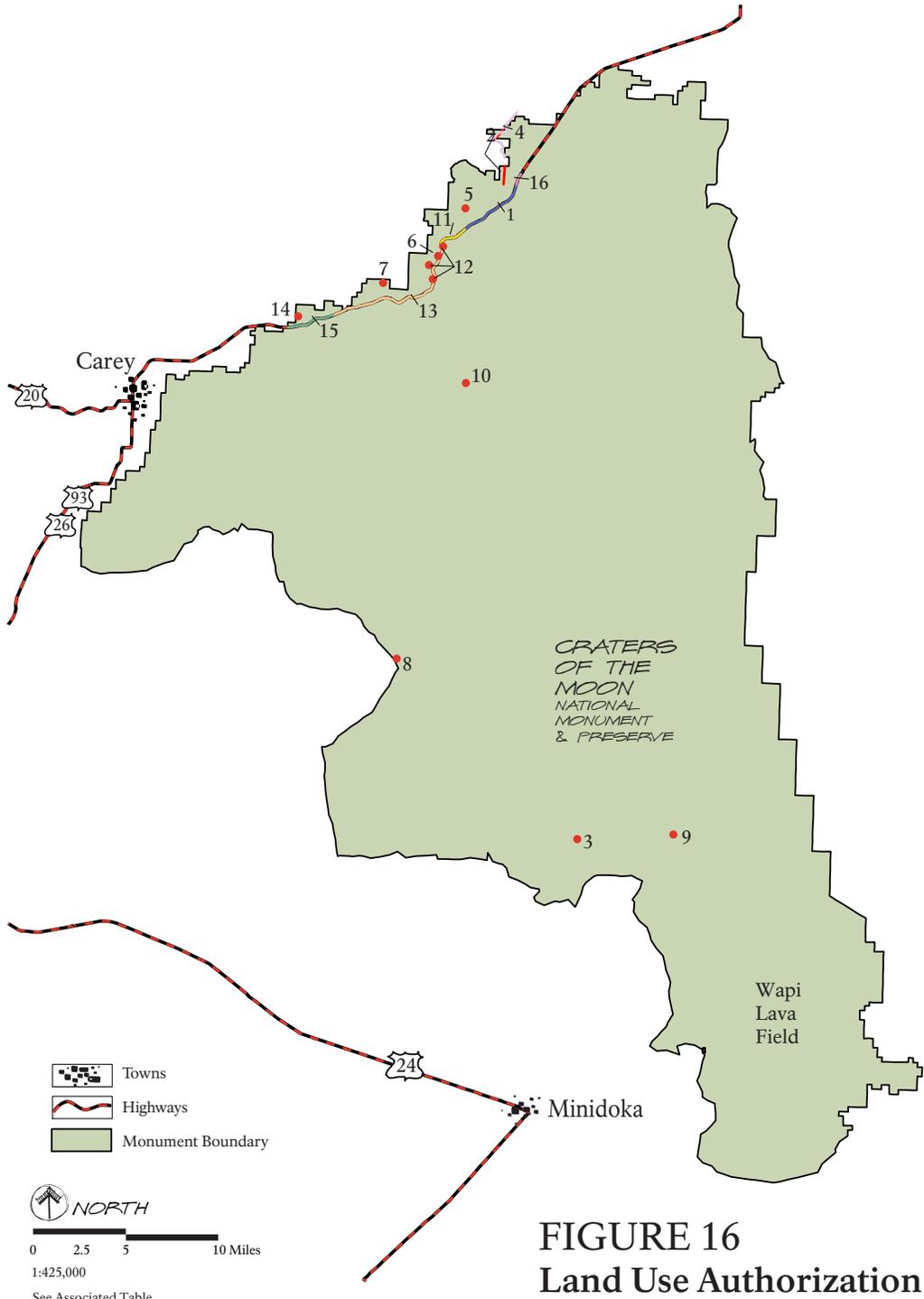
Monument (Montgomery 1984). However, because of conflicts with the Great Rift WSA, this corridor has not been carried forward in other regional powerline and utility corridor studies (Western Regional Corridor Study 1992). A utility corridor, an existing 500-kilovolt transmission line, and a railroad ROW border the Monument on its southern extremity near the Wapi Lava Field.

### Minerals

The Proclamation expanding the Monument withdrew all federal lands and interests in lands within the Monument from entry, location, selection, sale, leasing, or other dispositions (except for exchanges that would further the protective purposes of the Monument) under the public land laws, including the mineral leasing and mining laws. Thus, new federal mineral leases or prospecting permits may not be issued, nor may new mining claims be located within the Monument. No mining claims existed in the Monument on the date of Proclamation 7373.

There are no known natural gas, oil, or mineral deposits within the Monument boundaries. The general area has moderate potential for developable





**FIGURE 16**  
**Land Use Authorization**  
**for Valid Existing Rights**

Craters of the Moon National Monument & Preserve  
 U.S. Department of the Interior / National Park Service  
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geothermal resources (Kuntz et al. 1979, Ridenour 1979). Active mining claims for locatable minerals, primarily gold, exist just to north of the Monument in the Pioneer Mountain foothills. NPS has rehabilitated two old abandoned gold mine adits in the northern portion of the original Monument. BLM processed several applications for geothermal leases in the 1970s and issued one lease, which was relinquished in 1982.

The Monument contains three Free Use Permits for pumice/cinders, Butte County and Blaine County use these sites as a material source for gravel road maintenance. Free Use Permits authorize use only by state or local governments. These material sites are not available to the general public or commercial parties.

The amount of suitable road surface material available within the Monument is essentially unlimited. However, Proclamation 7373 and agency policy restricts extraction of mineral materials to valid existing rights and administrative uses only. Cinders are generally considered to be an undesirable material for road maintenance because they are not very durable compared to gravel. Cinders are very light, which reduces transportation costs. High quality crushed gravel is available outside of the Monument, but at a substantially higher cost than the readily available cinders.

ITD also holds three ROW grants for five pumice/cinder material sites in the Monument. These ROWs are valid existing rights unaffected by Proclamation 7373. The former General Land Office granted these ROWs in the 1930s during the construction of US 20/26/93. ITD has used only two of these material sites during the last 10 years.

The Monument contains no known industrial minerals, gems, semiprecious stones, or petrified wood. The collection of any lava rock features in the Monument is authorized only under a scientific collecting permit issued to institutions. Public collecting is illegal. Many public and commercial sources exist throughout southern Idaho for lava-based materials used in landscaping, barbecue grills, and saunas.

## **SPECIAL DESIGNATION AREAS**

### **Wilderness**

Congressional designation of the 43,243-acre Craters of the Moon National Wilderness Area was enacted on October 23, 1970, making the Monument and Petrified Forest National Park the first units within the National Park System with designated wilderness areas (PL 91-504).

The Craters of the Moon Wilderness is south of US 93 entirely within the original Monument (Figure 17). All but the north end of the wilderness boundary is adjacent to lands inventoried by BLM as the Great Rift WSA in 1980 (USDI 1980). When designated, the wilderness boundary was offset one-eighth of a mile (660 feet) inside the Monument boundary. Thus, a narrow non-wilderness strip of the Monument separates the Great Rift WSA and the designated wilderness. This “buffer” area was intended to permit administrative vehicle access for firefighting and other management needs (U.S. House of Representatives 1970). Since the narrow buffer area does not contain roads and consists largely of impassable lava flows, it never has been used for such purposes.

Much of the scenic 7-mile Loop Drive developed by NPS in the 1930s and 1950s lies close to the northern edge of the wilderness area. At two points, the wilderness boundary lies within 2,000 feet of US 20/26/93. The openness of the terrain results in the sights and sounds of traffic on the highway and the 7-mile Loop Drive being perceivable from some of the northernmost areas of the wilderness.

Human-made facilities in the wilderness area are limited to the Wilderness and Tree Molds trails, a small concrete watering trough that predates the Monument, and numerous rock cairns and rock rings of historic or prehistoric origin. Initially developed as a primitive wagon trail to serve pre-1924 livestock use on Little Prairie, the 5.1-mile Wilderness Trail later served as a primitive vehicle route until 1970. At some point, perhaps as early as the 1950s, the route was closed to the public, and only administrative use was permitted. The extent of construction or maintenance on the route up until 1970 is poorly documented, but no evidence of grading exists. There has been no documented maintenance of the route since 1970. The trail to Echo Crater remains distinct, but south of Echo Crater, the trail has faded in some areas.

Before the wilderness was designated, the 1.5-mile Tree Molds Trail was developed to gain access to numerous tree mold features. The Tree Molds Trail is the only maintained trail listed in the 1996 NPS Wilderness Management Plan (USDI 1996). A spur trail leading from the Tree Molds Trail to Great Owl Cavern was closed following wilderness designation, and a large metal stairway leading into the cavern was removed.



NPS management activities have been limited to monitoring air quality, vegetation, wildlife, and recreational impacts and fire suppression. In 2000, a fire management plan was completed that provided for managing natural fires for resource benefits under certain conditions (USDI 2000).

### Wilderness Study Areas

WSAs are lands identified through the BLM wilderness inventory process as possessing wilderness characteristics (defined by the Wilderness Act of September 3, 1964, 16 USC 1131). WSA lands are designated in BLM land use plans and managed

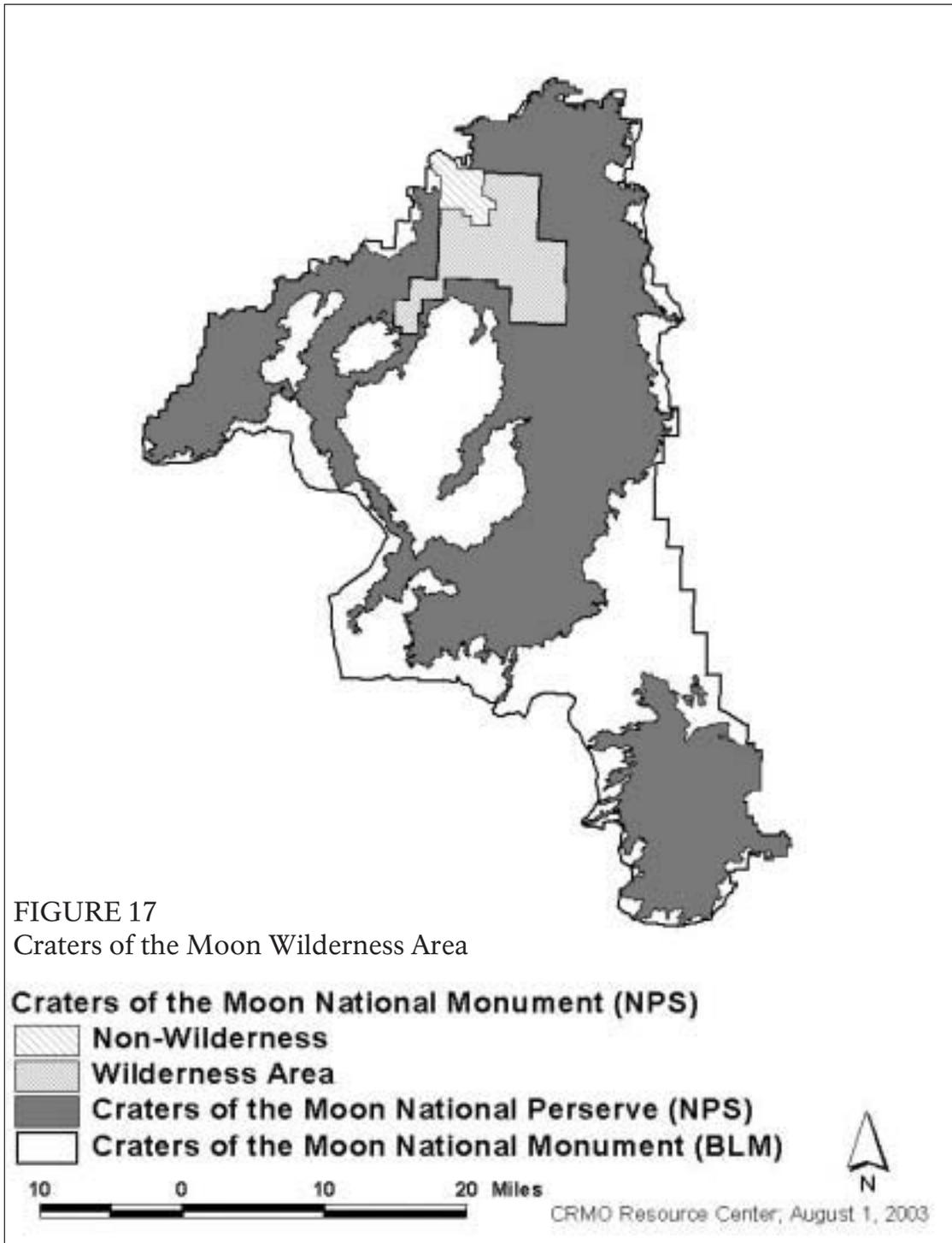


FIGURE 17  
Craters of the Moon Wilderness Area

under the BLM Interim Management Policy (IMP) for Lands Under Wilderness Review, Handbook H8550-1, so as not to impair their suitability for wilderness designation (USDI BLM 1995).

Four WSAs have been designated within the boundaries of the Monument (Table 19, Figure 18). Eighty-five percent of the WSAs lie within the National Preserve, the rest is managed by BLM. The 380,200-acre Great Rift WSA was designated in 1980 (BLM 1980). The Great Rift WSA encompasses most of the Craters of the Moon and Wapi lava fields, along with parts of the surrounding sagebrush grasslands. The Raven's Eye WSA covers 67,110 acres of the western part of the Craters of the Moon Lava Field, with 68 percent of the area within the Monument. The Little Deer WSA takes in 33,531 acres of a narrow extension of the Craters of the Moon Lava Field and adjacent sagebrush grasslands. The 9,700-acre Bear's Den Butte WSA is centered on a narrow finger of the Craters of the Moon Lava Field, which extends into Laidlaw Park. The Raven's Eye, Little Deer, and Bear's Den Butte WSAs were designated in 1986 (BLM 1987).

BLM land use plans indicated that parts of the WSA were suitable for preservation as wilderness. Designation of the WSA as wilderness requires a recommendation by the President and an Act of Congress. The lands remain in WSA status until Congress acts either to designate the land as wilderness or to release it for other uses. In 1985, President Reagan recommended that Congress designate 322,450 acres of the Great Rift WSA as wilderness.

Presidential Proclamation 7373 transferred portions of the four WSA to NPS in 2000. The proclamation directed the following:

Wilderness Study Areas included in the Monument will continue to be managed under Section 603(c) of the Federal Land Policy and Management Act of 1976 (43 USC 17011782).

Section 603(c) requires that WSAs be managed to maintain their suitability for wilderness designation and prevent unnecessary or undue degradation. The BLM and NPS will follow the BLM WSA IMP in guiding management decisions within the WSA until completion of this Plan/EIS (BLM/NPS 2001) and completion of a Wilderness Management Plan for the Monument.

There are no roads within the WSA boundaries. BLM wilderness inventory procedures (BLM 2001) define roads as routes improved and maintained by mechanical means to ensure relatively regular and continuous use. A route maintained solely by the passage of vehicles is defined as a vehicle way. Numerous vehicle ways exist within the WSA. The BLM IMP for WSAs permit continued motorized travel on those ways recorded during the wilderness inventory. Additional vehicle routes created since the inventory were not authorized, and motorized vehicle use of such routes is prohibited.

Wilderness inventories recorded 20 miles of vehicle ways in the Raven's Eye WSA, 5.1 miles in the Little Deer WSA, and 2 miles in the Bear Den Butte WSA (BLM 1987). Inventories of the Great Rift WSA indicate that it contains approximately 25.7 miles of vehicle ways. Unauthorized vehicle ways may have been created since the inventories were completed, but the numbers are unknown. New vehicle ways may have also been created during authorized fire suppression and restoration activities.

Other human-made facilities in the WSAs include wildlife guzzlers, sheep bed grounds, fences, and watering structures associated with livestock use. The sights and sounds of roads adjacent to the WSAs are visible and audible from within limited portions of the WSAs. Communication towers near Arco and Lava Lake are visible from portions of the Great Rift WSA.

**Table 19  
Summary of Wilderness Study Areas**

<b>WILDERNESS STUDY AREA</b>	<b>AREA WITHIN MONUMENT (ACRES)</b>	<b>NPS AREA (ACRES)</b>	<b>BLM AREA (ACRES)</b>	<b>TOTAL WSA AREA (ACRES)</b>	<b>AREA WITHIN MONUMENT RECOMMENDED SUITABLE BY BLM (ACRES)</b>
Great Rift	380,200	335,123	45,077	380,200	341,000
Raven's Eye	45,578	37,211	8,367	67,110	67,110
Little Deer	33,531	20,073	13,458	33,531	0
Bear Den Butte	9,700	4,289	5,411	9,700	0



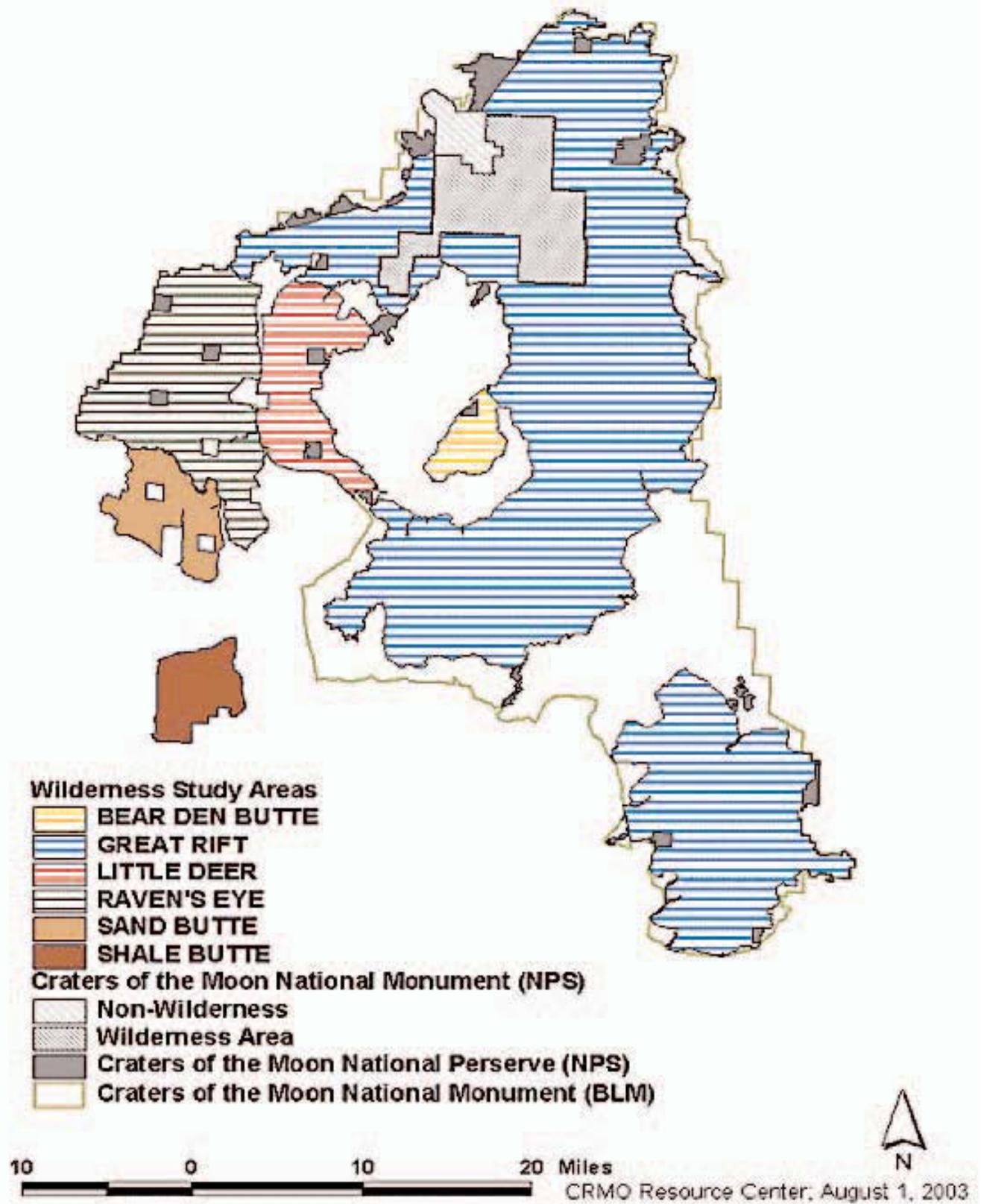


FIGURE 18  
Location of Wilderness Study Areas

## Research Natural Areas, National Natural Landmark, Areas of Critical Environmental Concern

### – Research Natural Areas

NPS policies define RNAs as areas with prime examples of natural ecosystems or significant genetic resources with value for long-term research. Activities within RNAs are restricted to non-manipulative research, education, and other activities that will not detract from the area's research value.

Four RNAs have been designated within the Monument: Carey Kipuka RNA, Big Juniper Kipuka RNA, Brass Cap RNA, and Sand Kipuka RNA. Three of the four were nominated and designated by BLM before 1991 (Hilty 1991). The fourth, Carey Kipuka, was nominated and designated by NPS in 1993. All four RNAs feature kipukas, an area of older vegetated landscape surrounded by recent lava flows. Isolation, difficulty of access, and a lack of surface water made these areas unsuitable for livestock, and little or no grazing has been recorded. Isolation has also limited recreational access to the kipukas. (See Figure 18).

Carey Kipuka RNA is a 170.3-acre kipuka in the Craters of the Moon Lava Field, 14 miles east of Carey, Idaho. The kipuka and surrounding area was added to the Monument in 1961 and became designated wilderness in 1970. The area has also been nominated as a National Natural Landmark (NNL).

The entire kipuka is dominated by sagebrush vegetation represented by three distinct vegetative communities. The area is a particularly good representative of the Low Sagebrush Theme, Low Sagebrush/Idaho Fescue Subtheme. Cheatgrass (*Bromus tectorum*), an aggressive invader of areas disturbed by fire, is widespread throughout much of the kipuka. No other invasive exotic plants or noxious weeds have been recorded. Scientific investigation of the area dates to 1956, and its value for basic and applied study of sagebrush-grassland ecosystems has long been recognized (Tisdale 1965). Long-term monitoring of vegetation and breeding birds in the area continues to be conducted by NPS.

Big Juniper Kipuka RNA is a 320-acre area within the Wapi Lava Field, 14 miles northeast of

Minidoka, Idaho. This RNA contains undisturbed examples of several habitat types that occur on the ESRP, including Wyoming big sagebrush/bluebunch wheatgrass, Wyoming big sagebrush/Thurber's needlegrass, and threetip sagebrush/bluebunch wheatgrass. Surrounding lavas contain a sparse cover of Utah juniper woodland with a mixed shrub layer (Caicco 1983b).

Brass Cap Kipuka RNA is an 854-acre area surrounding the Brass Cap Kipuka on the Craters of the Moon Lava Field, 11 miles east of Carey, Idaho. This area is an undisturbed example of a major habitat type. Alkali sagebrush and Idaho fescue are the dominant species, covering nearly 100 acres of the kipuka (Caicco 1983a).

Sand Kipuka RNA is a 320-acre area surrounding Sand Kipuka, 12 miles east of Minidoka within the Wapi Lava Field. The kipuka is dominated by Wyoming big sagebrush or basin big sagebrush and needle-and-thread grass. Utah juniper woodlands are well developed on the lava surfaces surrounding the kipuka (Wellner 1983).

### – National Natural Landmarks

NNLs are areas of national significant designated by the Secretary of the Interior as being outstanding representatives of a region's biotic or geologic features (U.S. Government Printing Office 2001). The Monument contains portions of the Great Rift NNL, which was designated by the Secretary of the Interior in 1968 for its geological significance and enlarged in 1980 in recognition of its biological significance.

The low sagebrush/Idaho fescue habitat of the north unit and the early low sagebrush/Idaho fescue habitat in Carey Kipuka have been evaluated and found to meet the criteria for NNL status. They are outstanding representatives of the Low Sagebrush/Idaho Fescue Subtheme in the Low Sagebrush Theme within the Columbia Plateau Natural Region (Rust 2002). Part of the north unit of the proposed NNL extends outside of the Monument onto BLM lands.

### – Areas of Critical Environmental Concern

ACECs are certain areas designated by BLM because of their unique or significant environmental qualities or features. The three RNAs (Old Juniper Kipuka, Sand Kipuka, and Brass Cap Kipuka) in the National Preserve were



BLM ACECs before the Monument was expanded. The Laidlaw Park area would be considered for ACEC designation under Alternative C (see Appendix G, Proposed Laidlaw Park ACEC evaluation).

## **VISITOR EXPERIENCE INTERPRETATION/VISITOR UNDERSTANDING**

Through interpretive and educational programs, NPS and BLM strive to instill in visitors an understanding, appreciation, and enjoyment of the significance of the Monument. Interpretive and educational programs encourage the development of a personal stewardship ethic and broaden public support for preserving our nation's natural and cultural resources.

The interpretive program at the Monument focuses on providing an educational experience to the widest possible variety of visitors. Major target audiences are summer visitors, school students, visitors from local communities, and winter visitors. Other groups are backcountry travelers, hunters, and people planning visits to the Monument. Programs to best meet the needs of these groups are regularly scheduled walks and talks during summer; school group orientations and teacher workshops in spring and fall; special topic weekend programs; and winter ecology workshops.

Informational kiosks, press releases, and the development of Web sites have been implemented recently to address the needs of more users. Visitors unable to attend or take advantage of these activities have an excellent opportunity to learn about the Monument through a broad range of educational opportunities, including a museum, wayside exhibits, self-guided trails, and publications.

Interpretive themes are important ideas, stories, and concepts that are presented to visitors in exhibits, publications, and programs. With the development of a Comprehensive Interpretative Plan for the Monument, the following themes will be addressed:

- An extraordinary example of the creation of a volcanic landscape.
- A place with a diverse population of plants and animals associated with a wide variety of volcanic habitats.
- A resource associated with thousands of years of human history, giving insight into a variety of people, cultures, and times.

- A laboratory that supports a diverse natural and cultural history, which provides important opportunities for research and education.
- A landscape of lava and sagebrush — one of the few remaining examples of what is “natural.”

The primary theme of the interpretive program at the Monument is the significance of the awesome effects of volcanism on this landscape. Other themes stress the incredible diversity of plants and animals that have adapted to this harsh environment and the unique cultural history that reflects the interactions between people and the rugged volcanic terrain. An ongoing effort to make visitors aware of their relationship to this environment and their role in preserving and protecting this area is also an integral component of all interpretive activities. Visitor safety, orientation, and trip-planning information are available through a variety of media. See the “Social and Economic Conditions” section for more information about public health and safety, including visitor health and safety.

Making visitors aware of the need to avoid certain behaviors that may have a detrimental impact on Monument resources is the first step in the protection of fragile natural and cultural features. The need for visitors to stay on trails, avoid walking in sensitive areas, and leaving the rocks in place is stressed. This approach is believed to have a positive effect in protecting such features as spatter cones, cinder cones, and ropy lava flows. The need to protect plants, animals, and archaeological and historic sites is also a part of a diverse interpretive program.

A visitor survey done at the Monument in 1989 indicates that interpretive programs were considered important by at least 74 percent of Monument visitors (Machlis et al. 1989). More specifically, the percentage of those visitors using non-personal services such as NPS folder and map (91 percent), wayside exhibits (58 percent), self-guided trails (75 percent), and Visitor Center exhibits (77 percent) indicates wide use among visitors (Machlis et al. 1989). The



Visitor Center

percentage of all visitors using personal services such as evening programs (10 percent) and guided walks (17 percent) indicates that a much smaller number of visitors attend these types of programs. Such visitor statistical information is not available on the expanded part of the Monument.

Nearly all interpretive efforts take place in the developed section of the Monument adjacent to US 20/26/93. Along what is known as the 7-mile Loop Drive, visitors have access to a visitor center with accompanying exhibits and audiovisual programs, a series of self-guided trails, and a system of wayside exhibits at roadside pullouts and along several trails. Interpretive walks and activities, available primarily during the peak season, are also conducted from this site. Although not all interpretive activities or sites are considered accessible to all visitors, a few recently developed sites offer a higher level of access.

The Monument's interpretive facilities are in good to excellent condition. Visitor Center exhibits done in the 1950s have been completely redone in recent years. A few wayside exhibits are dated, but most have been installed within the past 15 years.

The interpretive program also has several other components, including publications, educational programs, winter ecology walks, a Junior Ranger Program, and off-site programs that offer interpretive opportunities to a much larger, diverse audience. Both the NPS and BLM Web sites contain information about the Monument.

Interpretation in the recently expanded Monument is limited, consisting primarily of informational signs at key attractions like Crystal Ice Cave, Kings Bowl, Baker Caves, and Bear Trap Cave. A detailed map of the area published several years ago offers orientation and interpretation. A series of signs is being developed for use in the Kings Bowl/Crystal Ice Cave area to convey critical safety messages and site information. This project, which predates the Monument expansion, is being carried out in connection with the rehabilitation of a defunct commercial operation site that left behind numerous deteriorating structures and unsafe conditions.

Kiosks containing orientation, safety, and user information have been installed at key access points. An extensive self-guiding trail system has been developed at Hell's Half Acre on I-15 which, although not in the Monument, interprets many related subjects.

## RECREATION AND PUBLIC SAFETY

### General Visitation

Visitation to the original Monument averages 200,000 people per year, with peak visitation on summer weekends. Many visitors are on vacations that include Yellowstone and Grand Teton National Parks to the east and Sun Valley and the Sawtooth National Recreation Area to the west (NPS 1990). Table 20 presents visitation statistics for the original Monument for 1990 through 2001, and Appendix H presents various recreational statistics for 1999 to 2002.

Commonly, visitors spend less than 3 hours at the Monument; 5 percent remain overnight. The typical

**Table 20**  
**Visitation at the NPS Craters of the Moon National Monument 1990-2001**

YEAR	TOTAL VISITS *	PERCENT CHANGE
2001	186,993	-14.31%
2000	213,758	0.86%
1999	211,929	7.83%
1998	195,328	-10.66%
1997	216,145	-0.44%
1996	217,087	-9.09%
1995	236,827	2.28%
1994	231,427	-1.99%
1993	236,027	-2.17%
1992	241,160	9.60%
1991	218,000	5.50%
1990	206,000	-

Total visits are the total of recreation and non-visits. To view a detailed breakdown, visit the Public Use Statistics Office Web site.



Cross-country skiing in the Monument



visitor will stop and tour the Visitor Center, then sight-see along the 7-mile paved loop drive, taking advantage of photographic opportunities and often having a picnic before leaving.

Within the original Monument, nearly 80 percent of visitors are in family groups, with the most common visitors in age groups over 62 and under 11. For nearly 80 percent of visitors, this is their first visit to Craters of the Moon, and 19 percent of all visitors in the 1988 survey were from foreign countries. Most U.S. visitors originated from the states around the Monument – Idaho, Wyoming, California, Colorado, Oregon, and Washington (Machlis 1989).

School groups represent an important visitor group. More than 100 school groups comprising more than 3,000 students visit the Monument each year. Teachers who have attended one of the Monument-provided teacher orientation workshops lead many of these groups.

Commercial tours also come to the Monument through the primary visitation season. Commercial tour numbers vary from year to year, but the average is between 30 and 40 tour buses each year.

Winter visitation is low, but winter attracts local and regional visitors familiar with the quality cross-country skiing and snowshoeing opportunities. The Loop Drive is closed to vehicle traffic and groomed for skiing in winter. The NPS has also offered winter ecology programs for the past few years; these are always well attended.

Visitation to the expanded parts of the Monument over the last 10 years averages approximately 20,000 visits per year, according to BLM's Recreation Management Information System (RMIS). Some popular sites are Pillar Butte, Wood Road Kipuka, Bear Park, Snowdrift Crater, Kings Bowl, and Bear Trap Cave. No visitor facilities are available at any of the sites, but all receive day use and occasional overnight camping. Recreational activities in the expanded part of the Monument, in order of popularity, are hunting; driving for pleasure; geologic exploration including caving, lava hiking, and sight-seeing; hiking; primitive camping; photography; horseback riding; and mountain biking.

### **Hunting**

The Idaho Fish and Game Commission sets hunting seasons and other regulations for hunting in Idaho. Most of the Monument and Preserve is within Idaho Fish and Game Hunting Unit 52A. The southern part of the area, including all of the Wapi Lava

Field, is included in Unit 68. A very small portion of the northern edge of the Monument and Preserve fall within Units 49 and 50. The length of season and number of available controlled-hunt tags vary annually on the basis of wildlife population levels and other factors.

RMIS and IDFG estimates indicate that sage grouse hunting and open mule deer hunting attract the highest number of hunters in the Monument. The open seasons for archery (antelope, elk, and deer), other small game (rabbits, upland birds), predators and unprotected species, along with the controlled seasons (draw tags) for antelope, elk, and deer, account for a much smaller portion of hunting use.

Almost all hunting has historically been in the BLM portions of the Monument. A very small amount of hunting occurs in what is now the NPS Preserve. The exposed lava flows in the NPS Preserve can be used for a quality hunt for a few hunters who seek the challenge. Hunting has never been authorized in the original NPS Monument.

The very small amount of hunting by members of the Shoshone-Bannock Tribes that takes place in the Monument is considered a treaty right and is not considered a recreational hunting experience.

### **Motorized and Mechanized Recreation**

OHV use in the Monument includes off-highway motorcycles, all-terrain vehicles (ATVs), and snowmobiles. Most OHV use in the Monument takes place during hunting seasons or in association with other land uses like livestock operations. The amount of OHV-specific recreation activity in the Monument is quite small (RMIS estimates less than 5,000 visits per year). Most OHV activity takes place on the existing road network, since no trails have been designated for motorized use.

A small amount of mountain biking takes place in the expanded part of the Monument. This small but growing recreational use is confined primarily to the existing road network, because no designated trails for mountain biking exist. In the area of the original Monument, mountain bike permits are available for riding along portions of Goodale, Cutoff and along the 7-mile Loop Drive and other areas. No OHV use is permitted within the original Monument.

### **Hiking and Horseback Riding**

Most hikers hike on designated trails in the original Monument. Hiking trails to features of interest in the original Monument are the North Crater Flow,

Devils Orchard, Inferno Cone, the Big Craters/Spatter Cones area, Tree Molds, and the Cave Area. Hikers in the non-Wilderness part of the original Monument regularly see other visitors, because the area is highly used. Opportunities for solitude are limited; however, the Craters of the Moon Wilderness offers outstanding opportunities for self-directed hiking, with an excellent chance to experience solitude.

Wilderness use is extremely light, with an average of 130 overnight backpackers per year (based on backcountry permits issued 1990 through 2002). Backpacking parties usually consist of fewer than four persons, and they seldom stay out more than two nights (NPS 1990). All water must be packed into the backcountry. Exact numbers of day users are unavailable.

Hiking in the expanded part of the Monument offers outstanding opportunities to experience a high degree of solitude. Since no designated hiking trails exist within the expanded portion of the Monument, most hiking experiences are cross-country and self-directed. Some constructed hiking trails exist at the Crystal Ice Caves/ Kings Bowl area (RMIS estimates 1,000 visits).

Horseback riding and the use of pack stock in the original Monument usually is limited to one or two groups a year and is concentrated primarily along the Craters of the Moon Wilderness Trail. In the expanded part of the Monument, most stock animals and horseback riders work in association with livestock operations and in other non-recreation activities, but there is a small amount of recreational horseback riding and pack-stock use in this area. Hunters also regularly use horses. The few recreational users enjoy outstanding opportunities for solitude and a self-directed experience. Riders and pack-stock users travel cross-country or along the existing road network. No designated trails currently exist for horseback riding.

### Camping

In the original Monument, 51 developed campsites with water, restrooms, charcoal



Hiking in Craters of the Moon National Monument

grills, and picnic tables are available on a first-come-first-serve basis. Most campers stay only one night and are usually gone by 10 a.m. The campground is rarely full, with the exception of several weekends during the summer season, generally around holidays.

Recreational overnight use of the Wilderness area is light. The NPS issues fewer than 100 overnight camping permits per year in the Wilderness. The entire area is snow-covered and accessible by snowshoe and ski for at least one-third of the year. Most overnight Wilderness users hike the Wilderness Trail and camp in or near Echo Crater. Stock use is restricted to day use by groups of 12 or less on the Wilderness Trail. No overnight camping with stock is permitted (USDI NPS 2002).



Recreational camping in Cinder Butte



The expanded part of the Monument does not contain any developed campgrounds. Currently, dispersed camping is available throughout the entire expanded portion. Many use-established primitive campsites near crossroads, access points, and major features of interest are available throughout the Monument.

### **Caving**

Caving does not draw large numbers of visitors; however, caving is an important and unique recreation opportunity at Craters of the Moon National Monument. Opportunities exist for recreational cave experiences ranging from hiking a paved trail to an easily accessible lava tube such as Indian Tunnel, to visiting a remote wild cave somewhere in the expanded portion of the Monument, to the potential to actually discover a previously unknown cave.

Monument caves differ from limestone caves in that they are lava tubes once formed by flowing lava. Although they exhibit flowstones and other speleothems and erosion features, those features are primarily associated with volcanism and lava transport.

Many easily accessible caves in the area have been known locally for a long and are frequently visited. Over time, some caves show signs of irresponsible use such as graffiti and vandalism, which can detract from the caving experience.

Cave exploration, discovery, survey, and mapping are important activities for local caving organizations. The local and regional chapters (Grottos) of the National Speleological Society play an important role in conserving the cave recreation resource. The groups engage in cleanup projects and other cave conservation activities, in addition to mapping, surveying, exploring, and educating users about caves and cave conservation.

Most caves do not appear on maps but can be explored upon discovery. Other caves require a permit for access. Some cave locations that appear on maps are the 15-mile-long Bear Trap Lava Tube along the Arco-Minidoka Road and the Lariat Cave near Kings Bowl.

The best-known cave in the region is Crystal Ice Cave, which is a fissure cave rather than a lava tube cave. In 1964 a concessioner, under permit from the Idaho Falls BLM District Office, developed the cave. When the cave was open, annual visitation was 5,000 to 10,000 people. Improvements at the cave included buildings, restrooms, and trails. Generators provided electricity to light the cave and run a refrigeration

unit used to maintain the ice formations. Prompted by safety concerns and vandalism, BLM removed most outside facilities and signs, sealed the tunnel doors, and installed signs to inform the public about the site closure in 1988. At present, Crystal Ice Cave offers an outstanding opportunity for technically experienced and adventurous cavers.

### **Health and Safety**

Several factors are involved in health and safety concerns for Monument visitors and surrounding communities. These are discussed below.

#### **-Access in and Near the Monument**

The Monument contains several hundred miles of roads of various qualities and levels of maintenance. Most of these roads and ways are not maintained at all. In addition to different types of roads, road conditions vary seasonally from impassable snow in winter to deep-rutted mud in spring and late autumn to dry and very dusty in summer. Nearly all the roads in the interior of the Monument require a high-clearance four-wheel drive vehicle equipped with good tires. At any time of year, rain can render the roads impassable to any vehicle.

Due to the size of the Monument and the complexity of the road system, navigation can be confusing. The BLM maintains a system of directional signs on the Monument; however, many roads and ways have appeared throughout the years, making map-based navigation difficult. It is recommended that travelers in unfamiliar parts of the Monument use a good map and use automobile odometers to count mileage from landmark to landmark. The iron-rich nature of the lava and rocks underlying the sagebrush steppe of the Monument can cause compasses to give incorrect readings by as much as 40 degrees.

In many remote areas of the Monument, emergency services can be anywhere from hours to days away. It is advisable to carry a reliable form of emergency communication in these areas at all times.

Two main roads bisect the Monument, and a U.S. Highway runs along its northern border. The Arco-Minidoka Road starts near the town of Arco, on the north side of the Monument, and runs to Minidoka on the south side. Farther to the west, the Carey-Kimama Desert Road

connects the town of Carey, along US 93 to SH 24 on the south end of the Monument near the town of Kimama. US 20/26/93 runs along the northern edge of the Monument.

#### –Weather

South Central Idaho and the Monument experience various degrees and extremes of weather for all four seasons. Winter can bring high winds, subzero temperatures, and deep snow. Generally, the undeveloped portions of the Monument are inaccessible during winter to all but snowmobile and ski/snowshoe travel, and cross-country travel over lava fields in winter is discouraged for safety reasons. It is inadvisable to drive a wheeled vehicle in the Monument in winter because deep snow and fast-changing weather conditions can leave travelers stranded.

In spring, high winds, cold temperatures, rain, and thunderstorms can present safety hazards to Monument visitors. A sudden rain at any time of year can render the roads impassable to vehicles outside the Frontcountry Zone. In contrast, summer months can be very hot and dry. The average annual rainfall in south-central Idaho is below 14 inches, and it is not uncommon for areas of the Monument area to receive no rainfall at all in summer. The temperatures are typically dangerously hot, often exceeding 100 degrees Fahrenheit for days or weeks on end.

Visitors to areas outside the Frontcountry Zone are advised to come prepared for extreme hot weather and carry the necessary general and emergency supplies, including plenty of water, extra vehicle fuel, a first aid kit, food, navigation equipment such as maps, compasses, and Global Positioning System (GPS) units, and a reliable form of communication. Because there are few, if any, sources of potable water in the Monument, all water must be carried in. Livestock well water is usually not safe to drink. Dehydration from exposure to extreme desert conditions is a serious hazard in the Monument.

#### – Caves, Fissures, and Lava

Both the open lava areas and the sagebrush steppe of the Monument area contain lava tube-type caves. These caves range in size and complexity from small rock shelters to several-

miles-long convoluted tube systems with ice formations and steep vertical drops. People who want to enter and explore caves should be experienced and familiar with all the provisions and contingencies of safe caving, and they should follow the Monument's cave plan.

Along the Great Rift are many open cracks and fissures, which can expose vertical drops varying from a few feet to an unknown depth. The basalt rock, of which these features are composed, is notoriously friable and can collapse without warning, leading to a serious or deadly fall.

Exposed lava features in the Monument are very rough and difficult to traverse, and in summer the surface temperatures of the lavas can reach 140 degrees Fahrenheit. Hiking over lava surfaces, particularly A?a flows, can be arduous and can present tripping, falling, and joint-twisting hazards. Long hikes over the lava can result in fatigue, dehydration, and disorientation. People hiking on the lava are advised to wear sturdy boots, protective gloves, and carry plenty of water and a reliable emergency form of communication.

#### – Wildfire

During the annual wildfire season, approximately late-June through September, the Monument area receives little or no rainfall. Very dry vegetation and high wind contribute to hot, fast-moving wildfires that can present serious safety hazards to visitors and surrounding communities. Wildfires are primarily confined to the sagebrush steppe of the Monument. However, at times wildfire can "creep" through colonizing vegetation on the exposed lava flows. Visitors should familiarize themselves with the fire danger level and any warnings or restrictions currently in place.

It is also very easy to start a wildfire on the Monument through the careless use of fire, smoking materials, and many other means. Fires are often started by the catalytic converter on vehicles coming into contact with dry vegetation.

#### – Livestock

Many areas of the sagebrush steppe in the Monument are in cattle and sheep livestock use allotments. While generally not aggressive, cattle and sheep can be unpredictable and present



a safety hazard to visitors. Shepherders often keep large sheep-guarding dogs with their bands of sheep. These animals are not human-friendly and may have little or no experience with humans or being treated as pets. Often, these dogs are left alone to tend a sheep band, and their only duty is to chase off or kill anything they deem to be a threat to the sheep. Visitors are advised to avoid these dogs and to prevent their pets from venturing near sheep-guarding dogs or the sheep.

#### – Snakes

Rattlesnakes inhabit the Monument area and are usually active between mid-spring and late-fall. They are most commonly found on the sagebrush steppe, but they can also be found on the open lava. They often hide near cave entrances where there is shade and cool temperatures, which attract prey species. They represent a serious safety issue in that any rattlesnake bite should be treated as an emergency.

## VISUAL RESOURCES

### Viewscape

*Perpetuating scenic vistas and open western landscapes for future generations* is one of the purposes identified for the Monument. The visual resources of the Monument represent a remnant of the undeveloped American West and one of the few remaining great expanses of sagebrush steppe. The contrasting lava flows were described in the 1924 Presidential Proclamation originally establishing the Monument as a “weird lunar landscape ... peculiar to itself.” This creates a viewscape unique in North America.

The gray-green sagebrush steppe and black lava fields ride up against the high Pioneer Mountains to the north. Across the Monument, 3,500 feet of vertical relief present visitors with enormous panoramic views to the south. On a clear day, the Grand Tetons, 140 miles to the east, can be seen from the Monument. One of the nation's clearest airsheds enhances these long, uninterrupted vistas.

The Monument contains numerous striking volcanic features such as pahoehoe and A'a lava flows, cinder cones, spatter ramparts, and enormous lava fields. Low shield volcanoes and cinder cones (known locally as “buttes”) rise up throughout the entire monument landscape. The exposed lava varies in color, while shapes and textures of the flows add scenic variety on a smaller scale. Nearly barren of

vegetation, the most recent lavas at times flowed around kipukas, which offer some visual relief from the continuous lava. Expansive sagebrush steppe and grasslands, as well as the different ages and types of lava surfaces, support a remarkable variety of plant and animal communities that add to the visual diversity of the Monument.

### Visual Resource Management

Visual Resource Management (VRM) is a standard tool used by the BLM to identify and protect visual values on public lands (8400-Visual Resource Handbook and Manual Series). A VRM inventory of the Monument area was completed in 1989, including an evaluation of scenic quality, identification of viewsheds, and key observation points for visitors. This inventory data was analyzed and presented as visual resource classes. This Plan/EIS places all public land into one of four VRM management classes. VRM classes provide standards for planning, designing, and evaluating future management projects.

The four VRM management class designations are as follows:

- **Class I** – The objective of this class is to preserve the existing character of the landscape. Any contrast created within the characteristic landscape must not attract attention. This classification is applied to Visual ACECs, wilderness and WSAs, Wild and Scenic Rivers, and other similar situations.
- **Class II** – The objective of this class is to retain the existing character of the landscape. Changes in any of the basic visual elements caused by management activity should not be evident in the landscape. A contrast may be seen but should not attract attention.
- **Class III** – The objective of this class is to partially retain the existing character of the landscape. Contrasts to the basic elements caused by a management activity may be evident and begin to attract attention in the landscape. The changes, however, should remain subordinate in the existing landscape.
- **Class IV** – The objective of this class is to provide for management activities that require major modification of the existing character of

the landscape. Contrasts may attract attention and be a dominant feature in the landscape in terms of scale. However, the change should repeat the basic element of the landscape.

### Night Sky

Night sky is considered an important resource within the Monument. The night sky at the Monument is generally free of artificial light sources and related light pollution. As with daytime viewing of expansive vistas, one of the nation's clearest airsheds creates conditions favorable for stargazing. Astronomy groups have been coming to the Monument for many years to take advantage of dark night skies.

## SOUNDSCAPE

### Natural Quiet

The Monument is a quiet place. "Natural quiet" refers to the state of having only natural sources of sound; for example, wind, rustling leaves, water, and animal calls. Most of the Monument is not subject to many modern sources of unnatural sound intrusion, or noise. The only major noise producers are highway traffic from outside the Monument, the railroad near the southern edge of the Monument, and aircraft overflights.

The area around the Visitor Center and the campground is adjacent to US 93 and subject to highway noise. Occasional noise from OHVs, ATVs, snowmobiles, and other vehicles occurs in the road portions of the expanded Monument. These noise intrusions are most prevalent during high-use periods, such as hunting season, and least prevalent during low-use periods, such as during winter.

Aircraft overflights create a small amount of unnatural sound intrusion year-round. The Federal Aviation Administration (FAA) has established an advisory ceiling of 2,000 feet above ground level over the Craters of the Moon Wilderness Area. Nonetheless, many overflights occur above 2,000 feet, including commercial aircraft from the airports in Idaho Falls and Hailey, Idaho. There are also small airports in Arco, Picabo, and Burley that support smaller private aircraft that may operate over the Monument. Perhaps the noisiest aircraft overflights are associated with the two military flight-training corridors that cross the Monument.

Helicopter use associated with public land management activities such as wildlife population invento-

ries, livestock monitoring, and firefighting also contribute a small amount of noise. The two emergency airstrips in the monument receive no regular use.

## SOCIAL AND ECONOMIC CONDITIONS

This section contains a baseline description of social and economic conditions in and around the Monument. For the purposes of this Plan/EIS, the local and regional social and economic conditions that will be discussed are population, income, employment, and housing and related activities, including public health and safety.

### OVERVIEW

Between 1990 and 1999, the populations of Idaho and the Mountain West grew at more than twice the United States average. According to the U.S. Census Bureau, the fastest growing populations in the nation are intermountain western states: Nevada (1), Arizona (2), Idaho (3), Utah (4), and Colorado (5). Nevada and Idaho are predicted to be the two fastest growing states in the nation until at least 2005. Since 1990, Idaho's statewide population has increased by more than 27,000 people per year. Two-thirds of these additional people have moved to the cities and towns of Idaho (Cooke 2000).

In the more than 200 cities and towns in Idaho, more than one-half of the towns have increased slightly in population size. Roughly 24 cities and towns have lost population since 1990. At the other extreme, approximately 24 cities have increased by more than 100 persons per year.

The Monument is in five Idaho counties: Blaine, Butte, Lincoln, Minidoka, and Power Counties. In 2000, approximately 53,700 people lived in this five-county region. Minidoka County was the largest with just over 20,000 people, followed closely by Blaine County with approximately 19,000 people.

Of the five largely rural counties around or within the study area, Blaine County is the fastest growing (U.S. Census Bureau). It includes relatively small populations with substantially high housing values (almost three times the state average). It also includes the growing communities of Sun Valley (1,427), Ketchum (3,003), and Hailey (6,200), all of which are neighboring towns and share high growth and unusually higher income rates compared to the other counties and many areas in the state as a whole.

Much of the affluence and growth in the Sun Valley area can be attributed to important recreation



and tourism attractions. Readers of *Ski Magazine*, *Conde Nast Traveler*, and *Gourmet* magazines have all recently voted Sun Valley as the #1 ski resort in the country (Idaho Department of Commerce). The economy of the valley is strongly represented by the recreation and tourism industry. In winter, visitors come to enjoy snow skiing at Sun Valley, as well as snowmobiling, cross-country skiing, and ice-skating. Summer tourists enjoy golf, tennis, fishing, river rafting, and summer music and arts festivals. The Sawtooth National Recreation Area, the largest National Recreation Area in the National Forest System, which is near these communities, averages more than one million visitor days per year. The BLM Shoshone Field Office records an average of 900,000 visitors per year. Blaine County Recreation accounts for more than \$60 million in annual total taxable sales.

By contrast, the area of Blaine County closest to the Monument contains cities of individually small populations and relies on agriculture and recreation as major economic bases, as do the other four counties. For example, Shoshone, the county seat of Lincoln County, is a rural farming area of slightly more than 3,000 people (Association of Idaho Cities 2003). Like the other small towns in this study area, such as Carey, Arco, and Minidoka, Shoshone is a rural community where agriculture is the main economical base. It serves as a gateway to many important natural wonders of the region, and many state parks, museums, ski resorts, lakes, rivers, and dams. The population of Shoshone is of 1,446. Six privately owned lodging rooms are available, as are tourist-related services. Shoshone residents are culturally and ethnically diverse, with representatives of the Basque, Portuguese, Hispanic, and Oriental cultures, along with people of European and Scandinavian backgrounds.

Arco, northeast of the Monument, is located near the Lost Big River and at the base of the Lost River Mountains. Arco (population 1,026), the county seat of Butte County, was the first city in the world to be lit with electricity generated by nuclear power. In the early days of World War II, a Navy gunnery range was established in the desert east of Arco. After its closing in 1947, the Atomic Energy Commission established the National Reactor Testing Station in 1949. Now called the Idaho National Engineering and Environmental Laboratory (INEEL), the 890-square mile installation is the site of the greatest collection of nuclear reactors and test facilities in the world. INEEL is one of the state's largest employers,

with approximately 4,000 workers at the laboratory and 2,700 more employees in Idaho Falls (INEEL Impacts 2001).

Other major employers in Butte County are the Arco School District, Bechtel Bettis, Argonne National Laboratory, Lost River Hospital, and Bechtel BWXT Idaho. INEEL, agriculture, and tourism are the major elements of Arco's economy. Arco residents are employed in health care and social assistance (16%), education (11%), public administration (11%), construction (11%), professional, scientific, and technical services (10%), and accommodation and food services (10%) (U.S. Census Bureau).

Currently, privately owned lodging totals 79 rooms, and there are a few restaurants and tourist-related services. Arco is also home to the Arco/Butte Business Incubation Center, which offers services and meeting rooms to small businesses. Most homes in Arco were built before (54%); 13 percent were built in the 1960s, 23 percent in the 1970s, and 11 percent since 1980. In comparison, more than 62% of the residences in Idaho were built since 1970 (U.S. Census Bureau). There has been virtually no population change in Arco between 1990 and 2000, with a population of 1,026 and 1,016, respectively, and the population of Butte County dropped slightly between 1990 and 2000.

Carey, 25 miles east of Craters of the Moon National Monument and Preserve, has a population of 525, with the largest employer being Carey Public Schools. Carey's population grew 23 percent between 1990 and 2000. As in Arco, 54% of the residential homes in Carey were built before 1960.

In Minidoka County is the small community of Minidoka, located on Route 24 south of the Monument. Minidoka, the county's first settlement, was originally a railroad siding. Its population is approximately 67 residents, which is double the 1990 population (U.S. Census Bureau). Growth in northern Power and Minidoka Counties has been relatively low (8.6 and 11%, respectively).

A major federal government employer is the BLM, which maintains a central field office and fire control office in Shoshone. BLM and NPS cooperatively manage Craters of the Moon National Monument and Preserve.

Three airports are the travel facilities nearest the Monument – in Hailey, Idaho Falls, and Twin Falls (60, 84 and 90 miles from Park Headquarters, respectively). From the nearest towns by vehicle, travel to

the Monument is 18 miles west of Arco via U.S. Highway 20/26/93; 24 miles east of Carey via US 20/26/93; 84 miles from Idaho Falls; and 90 miles from Twin Falls.

## REGIONAL ECONOMIC CONDITIONS

Table 21 contains selected income and poverty information for the five counties and for the state of Idaho for comparison. For Blaine County, both countywide and U.S. Census Bureau tract data is presented. Census Tract #9601 consists of the southernmost portion of Blaine County and best represents the community closest to the Monument and Preserve. Blaine County, which contains the resort community of Sun Valley, is not the largest in population, but is by far the most prosperous county, with a per capita income approximately double the levels of the other counties and the state of Idaho. (See Appendix I). The per capita income in Blaine County grew 274% between 1980 and 1999, higher than the statewide average (244%), and considerably higher than the 95% rate in southern Blaine County (census tract 9601) over the same time period. Butte, Lincoln, Minidoka, and Power Counties grew by 147, 141, 137, and 85 percent, respectively, between 1980 and 1999 (U.S. Census Bureau).

The five counties surrounding the Monument are highly dependent on the service industry. Agriculture is also very important in Butte, Lincoln, and Minidoka counties; employment in those counties is nearly three times the state average.

The Monument is part of the local economic environment. Monument NPS staff consists of 15 part- or full-time workers and approximately 10 to 20 seasonal employees. It is estimated that the Monument contributes between \$7 million and \$11 million to the local economy per year. Also, NPS uses concession contracts and commercial use licenses (formerly incidental business permits) to manage commercial activities within units of the National Park System.

Currently, the only concession contract is issued to the Craters of the Moon Natural History Association, a nonprofit organization. This contract allows the association to offer convenience items such as sunscreen, camera film, and soft drinks, as well as books and educational materials for purchase by visitors in the NPS Visitor Center. There are no current commercial use licenses or incidental business permits issued for activities on NPS lands in the Monument. IDFG offers commercial use licenses on BLM-administered lands.

Under the National Parks Air Tour Management Act of 2000 and implementing FAA regulations, NPS, as a cooperating agency, will assist FAA in developing an air tour management plan for parks with existing or proposed air tours. No air tours currently take place over NPS-administered lands in the Monument on any regular or frequent basis.

Table 22 contains information on the levels of employment for the major economic sectors in the five counties, southern Blaine County Census Tract 9601, and the state of Idaho.

Farmland comprises a large portion of land use in Minidoka and Power counties. The value of farmland per acre in Minidoka County is more than 80 percent above the state average and substantially higher than the other four counties.

The importance of farming to the surrounding counties was reflected in comments received during public scoping. Table 23 contains several measures of the quantity of rural farmland across the five counties and in the state of Idaho, along with estimated market values of land and buildings.

The median housing value is substantially higher in Blaine County and almost three times the state average. The number of seasonal or recreational houses is very high in Blaine County, as would be expected in the Sun Valley Resort area. Table 24 contains housing information for the five counties, southern Blaine County Census Tract 9601, and for the state of Idaho.

As Figure 19 illustrates, the Monument receives about 200,000 visitors per year, with peak visitation occurring from mid-May through September. The principal visitor activities are touring the visitor center/museum, viewing an orientation field, taking the self-guided driving tour, and hiking the many trails off the loop road. Visitation to the Monument has been relatively stable over the past 35 years, with fluctuations in the 1970s and 1980s, possibly due to increases in gasoline prices and weakness in the national and regional economy.

## REGIONAL SOCIAL CONDITIONS

Idaho experienced a nearly 82 percent population growth between 1970 and 2000, including a 29 percent growth rate between 1990 and 2000. Blaine County has experienced increasing residential and business development, with population growth of approximately 230 percent between 1970 and 2000, including 40 percent growth from 1990 to 2000. Power, Lincoln, and Minidoka Counties experienced



**Table 21**  
**Income**

DATA	BLAINE COUNTY	BLAINE COUNTY TRACT 9601	BUTTE COUNTY	LINCOLN COUNTY	MINIDOKA COUNTY	POWER COUNTY	STATE OF IDAHO
Personal Income (per capita) (1999) <sup>b</sup>	\$41,259	\$22,832	\$19,376	\$19,877	\$16,955	\$18,027	\$22,871
Government transfer payments per capita (1999) <sup>b</sup>	\$1,746	Not available	\$3,640	\$3,135	\$2,941	\$2,682	\$2,837
% persons below poverty level (1999) <sup>a</sup>	7.8%	5.6%	18.2%	13.1%	14.8%	16.1%	11.8%
Federal payments in lieu of taxes (2000) <sup>c</sup>	\$507,692	Not available	\$154,669	\$199,607	\$137,775	\$228,262	\$8,825,194

a. Source: U.S. Bureau of the Census, Census 2000

b. Source: County Profiles of Idaho (<http://www.idoc.state.id.us/idcomm/profiles/index.html>)

c. Source: BLM Facts ([http://www.id.blm.gov/blmfacts/data/pilt\\_2000.htm](http://www.id.blm.gov/blmfacts/data/pilt_2000.htm))

**Table 22**  
**Employment by Major Industry**

MAJOR INDUSTRY	BLAINE COUNTY	BLAINE COUNTY TRACT 9601	BUTTE COUNTY	LINCOLN COUNTY	MINIDOKA COUNTY	POWER COUNTY	STATE OF IDAHO
Agriculture, forestry, fishing/hunting, & mining	4%	13%	18%	19%	17%	18%	6%
Construction	14%	16%	8%	13%	6%	5%	8%
Manufacturing	4%	4%	4%	9%	16%	19%	13%
Transportation and warehousing, and utilities	3%	4%	9%	5%	7%	6%	5%
Wholesale and retail trade	14%	13%	11%	13%	16%	11%	16%
Services <sup>a</sup>	60%	50%	50%	41%	38%	41%	52%
Total Employed	10,846	2,322	1,226	1,799	8,788	3,325	599,453

<sup>a</sup> Includes information, media, finance, insurance, real estate, rental and leasing, public administration, and other services.  
Source: U.S. Bureau of the Census, Census 2000

**Table 23**  
**Land Area and Values in Farming (1997)**

ALL FARMS	BLAINE COUNTY	BUTTE COUNTY	LINCOLN COUNTY	MINIDOKA COUNTY	POWER COUNTY	STATE OF IDAHO
Land in farms (acres) <sup>a</sup>	214,985	129,639	131,473	206,882	424,085	11,830,167
Percent of land area in farms <sup>a</sup>	12.7%	9.1%	17.0%	42.6%	47.1%	22.3%
Average size of farm (acres) <sup>a</sup>	1,102	626	468	307	1,313	530
Estimated market value of land and buildings (average/acre) <sup>a</sup>	\$1,361	\$775	\$1,030	\$1,856	\$916	\$1,017
Average value per farm of products sold <sup>a</sup>	\$120,943	\$103,932	\$156,215	\$225,836	\$374,535	\$149,945
Grazing fee receipts distributed to Idaho counties (2001) <sup>*b</sup>	\$5,740.04	\$7,128.76	\$9,566.65	\$1,768.95	\$2,569.83	\$194,794.89

Note:

\* Grazing Fee Receipts Distributed to counties are determined by the Taylor Grazing Act of June 28, 1934 as amended 48 Stat. 1269; 43 USC 315i to be 12.5% of the gross receipts of the grazing fees collected.

a. Source: County Profiles of Idaho (<http://www.idoc.state.id.us/idcomm/profiles/index.html>)

b. Source: BLM Facts ([http://www.id.blm.gov/blmfacts/data/grazing\\_receipts.htm](http://www.id.blm.gov/blmfacts/data/grazing_receipts.htm))

population growth rates of 55, 32, and 28 percent, respectively, between 1970 and 2000. During the same period, Butte County lost about 1 percent of its population (U.S. Census Bureau).

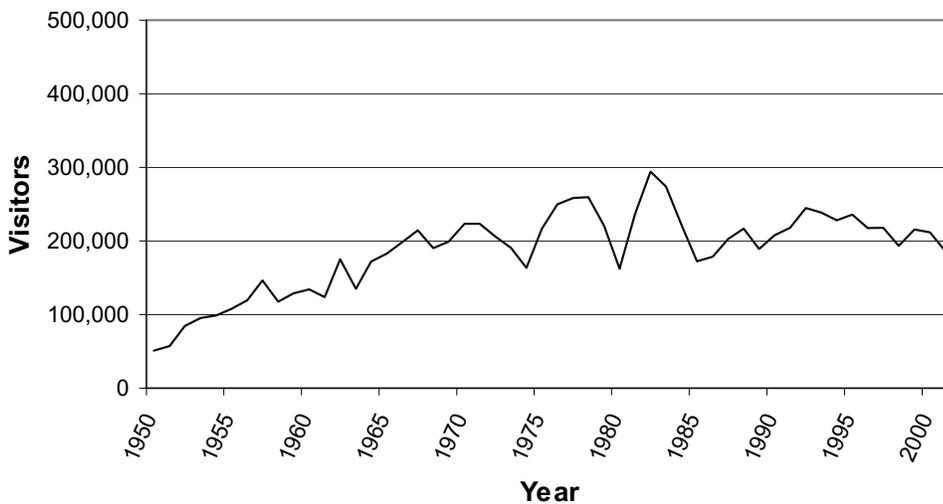
Residents of Butte, Lincoln, Minidoka, and Power Counties have moved less frequently than residents of Blaine County since 1985, and less than the state average. The region surrounding the Monument is sparsely populated; however, the population density of Minidoka County is substantially higher than that of the other counties. None of the counties are heavily populated, with Minidoka County being the most

populous. The unemployment rates for the five counties are within 2 percentage points of the state unemployment rate (Table 25).

Residents of Butte, Lincoln, Minidoka, and Power Counties have attained less education than the state average; only Blaine County residents have higher education levels than the state average (Table 26). Similarly, residents of Butte, Lincoln, Minidoka, and Power Counties have fewer physicians than the state average, with Blaine County significantly above the state average (Table 27). Crime rates in Lincoln and Butte Counties are dramatically lower than the state

average, whereas crime rates in Blaine, Minidoka, and Power Counties are much higher and closer to the state average (Table 28).

**Figure 19  
Park Visitation Statistics (1950-2001)**



**Table 24  
Housing**

HOUSING	BLAINE COUNTY	BLAINE COUNTY TRACT 9601	BUTTE COUNTY	LINCOLN COUNTY	MINIDOKA COUNTY	POWER COUNTY	STATE OF IDAHO
Number of Units	12,186	1,968	1,290	1,651	7,498	2,844	527,824
Total Vacant Units	4,406	434	201	204	525	284	58,179
For Seasonal, Recreational, or Occasional use	3,723	354	38	36	31	29	27,478
Percent of Owner occupied units	68.90%	71.3%	77.00%	74.80%	76.90%	74.60%	72.40%
Percent of Tenant occupied units	31.10%	28.7%	23.00%	25.20%	23.10%	25.40%	27.60%
Household size	2.42	2.68	2.64	2.77	2.87	2.92	2.69
Median housing value	\$288,800	\$194,300	\$68,700	\$75,700	\$74,600	\$89,000	\$106,300
Median rent	\$740	\$695	\$335	\$464	\$394	\$388	\$515

Source: U.S. Bureau of the Census, Census 2000



**Table 25  
Population**

DEMOGRAPHICS	BLAINE COUNTY	BUTTE COUNTY	LINCOLN COUNTY	MINIDOKA COUNTY	POWER COUNTY	STATE OF IDAHO
Population in 2000 <sup>a</sup>	18,991	2,899	4,044	20,174	7,538	1,293,953
Population Density (per square mile) <sup>b</sup>	7.2	1.3	3.4	26.6	5.4	15.6
Labor Force (2000) <sup>b</sup>	11,316	1,302	1,872	9,402	3,488	641,088
Unemployment Rate <sup>a</sup>	4.2%	5.8%	3.9%	6.5%	4.7%	5.8%
Population Change 1970-1980 <sup>b</sup>	71.2%	14.3%	12.4%	25.3%	40.7%	32.4%
Population Change 1980-1990 <sup>b</sup>	37.7%	-12.7%	-3.7%	-1.8%	3.5%	6.6%
Population Change 1990-2000 <sup>b</sup>	40.1%	-0.7%	22.2%	4.2%	6.4%	28.5%
Median Age <sup>a</sup>	37.4	38.8	34.3	33.5	31.6	33.2
Under 20 Years <sup>a</sup>	26.1%	31.7%	33.7%	34.9%	36.6%	32.0%
20 to 64 Years <sup>a</sup>	66.2%	53.3%	53.3%	51.8%	53.0%	56.8%
65 Years and over <sup>a</sup>	7.8%	15.0%	13.0%	13.3%	10.4%	11.3%
Geographic Mobility						
Persons 5 years and older living in a different state in 1985 <sup>b</sup>	24.8%	10.6%	8.7%	7.4%	7.5%	14.8%
Persons 5 years and older living in a different county in 1985 <sup>b</sup>	11.1%	11.6%	14.0%	11.7%	13.3%	---
Marriage Rate Per 1,000 <sup>b</sup>	13.7	5.0	6.3	7.7	6.1	12.4
Divorce Rate Per 1,000 <sup>b</sup>	5.2	2.3	4.7	2.7	3.3	5.5
Suicide Rate Per 100,000 <sup>b</sup>	23.1	0.0	52.1	9.9	11.9	14.4

a. Source: U.S. Bureau of the Census, Census 2000

b. Source: County Profiles of Idaho (<http://www.idoc.state.id.us/idcomm/profiles/index.html>)

c. Source: Projections of the Total Population of States: 1995-2005 (<http://www.census.gov/population/projections/state/stpjpop.txt>)

**Table 26  
Education**

EDUCATION LEVEL	BLAINE COUNTY	BUTTE COUNTY	LINCOLN COUNTY	MINIDOKA COUNTY	POWER COUNTY	STATE OF IDAHO
Population 3 years and over enrolled in school	4,341	758	1,127	5,884	2,319	368,579
Nursery School, Pre-School, Elementary School (grades K-8)	2,696	468	696	3,554	1,415	205,611
High School (grades 9-12)	997	216	311	1,660	629	85,576
College or graduate school	648	74	120	670	275	77,392
Educational Attainment of Population over 25	13,021	1,873	2,458	11,940	4,344	787,505
Percent high school graduate or higher	90.2%	82.6%	77.4%	73.7%	74.7%	84.7%
Percent bachelor's degree or higher	43.1%	13.0%	13.0%	10.1%	14.3%	21.7%

Source: U.S. Bureau of the Census, Census 2000

**Table 27  
Health Care**

<b>HEALTH CARE</b>	<b>BLAINE COUNTY</b>	<b>BUTTE COUNTY</b>	<b>LINCOLN COUNTY</b>	<b>MINIDOKA COUNTY</b>	<b>POWER COUNTY</b>	<b>STATE OF IDAHO</b>
Physicians per 100,000	421	133	52	64	36	182
Number of Hospitals	1	1	0	1	1	49
Total Hospital Beds	39	14	0	25	10	3105

Source: County Profiles of Idaho (<http://www.idoc.state.id.us/idcomm/profiles/index.html>)

**Table 28  
Crime Rates**

<b>CRIME</b>	<b>BLAINE COUNTY</b>	<b>BUTTE COUNTY</b>	<b>LINCOLN COUNTY</b>	<b>MINIDOKA COUNTY</b>	<b>POWER COUNTY</b>	<b>STATE OF IDAHO</b>
Murder	0	0	0	0	0	26
Rape	5	0	0	3	4	425
Robbery	0	0	0	2	1	234
Aggravated Assault	28	0	3	41	17	2,420
Burglary	76	8	1	124	40	7,356
Larceny	351	12	10	279	171	27,258
Motor Vehicle theft	26	12	2	31	9	1,929
Arson	3	0	0	3	1	274
Crime Rate per 100,000	2,791	1,036	414	2,346	2,871	3,189

Source: County Profiles of Idaho (<http://www.idoc.state.id.us/idcomm/profiles/index.html>)

