#### History

Prehistoric humans found shelter here, collected plants for food and fiber, hunted, and trapped animals. Occasional bits of pottery and spalls of stone testify to visits by Native Americans of the Jornada branch of the Mogollon Culture. The region subsequently was to become the domain of the Mescalero Apache, whose resistance to intrusions of immigrant settlers led to the establishment of nearby Fort Stanton in 1855.

#### Passes

The Senior Pass and Access Pass allow holders free entry for day use and half price on camping. The America the Beautiful pass allows holders free entry for day use only.

#### Reservations

Some campsites at Valley of Fires Recreation Area are now available for reservation. Reservations must be made at least 24-hours in advance on Recreation.gov.

The remaining campsites are first-come, first-served. Campsites and day use fees can be paid using the Recreation.gov scan and pay system via the Recreation. gov mobile app. Fees can also be paid by cash or check at the two fee stations located within the park. Please visit www.recreation.gov/camping/campgrounds/10060263 for more information.



## **Facilities**

The Bureau of Land Management maintains and manages Valley of Fires Recreation Area, located along U.S. Highway 380, four miles west of Carrizozo, NM. Valley of Fires offers both camping and day use. Campsites have both 30 and 50 amp electrical hookup, water, sun shelters, tables, trash cans, and barbecue grills. Two of the sites are accessible, as are the bathrooms. Showers are provided in the main bathroom. An RV dump station is also available. Two group shelters are wheelchair accessible and available for use by reservation. The ¾-mile Malpais Nature Trail provides a close-up look of the lava surface.



### **Camping and Day use Fees**

Day-use (one person in vehicle)	\$3	
Day-use (two or more in vehicle)	\$5	
Tour Bus (15 or more people)	\$15	
Camping with electric (Sites 2 through 13 & 15)	\$18	
Camping no electric (Sites 1, 14 & 16 through 19)	\$12	
Tent Camping (Sites 20-25)	\$7	
Dump Station	\$15	
Showers	\$6	
Group Shelters	\$25	

#### **Good Camping Manners**

- Check-in is 2 p.m. and check-out is 11 a.m.
- All pets are welcome.
- Keep a clean camp and leave a clean camp.
- Dispose of gray water at dump station.
- Camp in campsites only. Camping is not permitted in the parking area.
- Quiet hours are from 10 p.m-6 a.m.
- Never leave a burning campfire.



Pets must be kept on a leash.



# Valley of Fires Recreation Area



#### Welcome to the Malpais Nature Trail!

As you venture into the lava, please wear suitable footwear. The trail is an easy, self-guided, one-mile, paved loop. A hat and water are recommended for extended hikes. The lava is like walking on broken glass and is unforgiving to skin and clothing if you slip and fall. (See map below for numbered trail stations.)



The harsh and beautiful Carrizozo Lava Flow developed from extrusions in the Earth's relatively thin crust in the area. Lava vents extruded lava which flowed on the Earth's surface about 2,000 to 5,000 years ago, making it one of the youngest lava flows in the continental U.S. Although Mount St. Helens erupted in 1980 and is building a lava dome in its crater, it did not cause a flow of lava across the landscape.

2 Little Black Peak, to the north, can be seen through a sighting tube in front of you. The Peak is probably the last vent that opened in this area and is higher than the rest of the lava flow. The plants around you are typical of the Chihuahuan Desert. Characteristic plants are creosote, mesquite, sotol, banana yucca, bae grass, and a variety of the lily family. Also common in the area are prickly pear cactus, walking stick cholla, and hedgehog cactus.

3 The lava flow provides habitat for many animals and birds species. Watch for desert cottontail rabbits, darkskinned lizards, and other small, dark-skinned animals. These dark-skinned and dark-haired animals have adapted their coloration to the lava to survive, blend into the environment, and hide from predators. More often seen are a variety of birds including road-runners, quail, gnatcatchers, towhees, cactus wrens, and sparrows. There

are also great horned and burrowing owls, turkey vultures, ravens, harriers, red-tailed and Swainson's hawks, and golden eagles.

4 Notice the abrupt change in the variety of plants at the lava's edge and on the hardscrabbled lava. Large varieties of plants grow in the soil around the lava's edge but only the very rugged, hearty, drought-tolerant plants. Cacti grow on the lava surface.

5 You are on top of a pressure ridge, formed as the lava surface cooled and hardened, while molten lava underneath continued to move under the crust. The cooler lava surface pushed against the sandstone, bending upwards. As it solidified, it developed a large crack along the ridgeline. Look for other pressure ridges along the trail.

6 Many of the large holes you see along the trail are gas bubbles that collapsed as the surface cooled. On both sides of the trail is a seemingly disorganized jumble of pressure

ridges, collapsed bubbles, and lava tubes. Hawaiian words are used to describe the types of lava. The ropylooking lava is called pahoehoe, pronounced 'paw-hoeyhoey. Scattered throughout are a few small areas of a'a, pronounced ah-ah - a'a is blocky, jagged lava.

7 Do you see the plants growing in cracks, depressions, and other cavities in the lava surface? Time produces soil

from weathering lava particles, wind-blown dust, precipitation, and the chemical action of the plant root and decay. The plants growing in this environment are algerita (small holly-like leaves), gray-green fourwinged salt bush, apache plume, little-leaf sumac, and one-seed juniper. Also growing in the lava are sotol (the vucca with the tall

flower stem), along with walking stick cholla (the jointed cactus), and prickly pear cactus (with the large pads).

**8** Annual and perennial flowers grow in great variety on the lava flow in the spring. Most common are scarlet gilia, fleabane (a small white daisy), purple verbena, blue penstemon, salmon pink globe mallow, purple and yellow feather dalea, and white peppergrass (which resembles cultivated alyssum).

9 Prior to the arrival of European settlers, several indigenous groups made this their home. Food, water, and shelter would have been sought on a daily basis. The lava flow offered a great variety of useful plants for food and fiber, as well as sturdy grinding stones. Seed pods of the banana yucca and fruit of the prickly pear cactus, among other fruits and berries, were used by indigenous peoples for food and fabric dye.

10 This graceful juniper is estimated to be over 400 years old. Note the soil-filled cracks out of which it grows. Roots of plants cause the lava to break down into particles which become part of the soil-form process. The protective nature of small and large cracks allows water to collect, soil to accumulate, and offers habitat to plants and animals. In some locations, ferns and mosses can be seen growing in north-facing nooks and crannies.

11 This collapsed area contains jagged a'a and rippled pahoehoe lava surface as well as buckled pressure ridges. During the time the lava was flowing, an area such as this was like a thin roofed dome, resulting in this chaotic scene. A collapsed gas bubble is located on the right.

12 The dead juniper tree has a purpose in the lava landscape. It provides a perch for birds of prey, shelter for smaller birds and animals, and food for insects. As it breaks down, it falls into cracks and provides nutrients for new plants and nesting materials for small animals.

13 The collapsed feature along the trail at one time may have been a lava tube, formed as a result of molten lava flowing in a channel-like fashion underneath the cooled

This lava flow's name, "Malpais," is a Spanish word meaning "badlands," stemming from the harsh lava landscape.

size of your hand or smaller.

lava surface. Near Little Black Peak. at the north end of the flow, there are eight intact lava tubes which are considered a type of cave. These caves provide habitat for four species of bats: western big-eared, common cave myotis, smallfooted, and the big brown. All of these insect-eating mammals are about the

As you look west from the campground, the Malpais dominate the view of the Tularosa Basin. This may be the youngest lava flow in the continental United States. Scientific evidence tells us that the most recent flow occurred about 2,000 to 5,000 years ago. The lava spewed from volcanic vents at the northern end on at least two occasions and flowed south along the floor of the Tularosa Basin for 44 miles. As molten lava flowed southward, it covered the original valley floor of gypsum and stream gravel. The recreation area's campground is on one of the larger kipukas (higher ground, forming an "island"). Pahoehoe, covers over 125 square miles. The lava is more than 160 feet thick near the center. Little Black Peak marks the origin of a least one major flow and its cinder cone is the result of an explosive episode that interrupted the steady out-pouring of lava. The lava contains pressure ridges, collapsed lava bubbles, extensive fissures, pits, collapsed lava tubes, and rock shelters. Little Black Peak has some intact lava tubes radiating out from it.

14 Look at the lava along the edge of the flow. You can almost imagine super-heated molten lava being pushed along and rolling towards the Kipuka (a Hawaiian word meaning an area of higher ground) and cooling. If you look close, you can see the lava curling back like a wave as it meets a shore of cool dirt and sandstone rock.

Available for purchase in our bookstore and visitor center there are informative books, Valley of Fires souvenirs, and other items, including t-shirts and postcards. You can also stop in to talk to our friendly staff and volunteers.



One of many cinder cones found in the area

## Geology