

Steve Terrill

Location

Newberry National Volcanic Monument (NNVM), located just south of Bend, Oregon, includes 50,000+ acres of lakes, lava flows and spectacular geologic features in central Oregon. The Monument's summit is 7,985 ft. Paulina Peak, showcasing views of the Oregon Cascades and across the High Desert. Newberry caldera, the crater of a 500 sq. mile volcano, holds two sparkling alpine lakes full of trout and salmon.

History

Newberry Monument was created when a group of central Oregon citizens recognized the unique scenic, recreational, and scientific values of this area, and banded together to ensure its protection for future generations. Skiers, snowmobilers, fishermen, hikers, geothermal companies and community leaders all contributed to a consensus plan that created the monument, to be managed by the Deschutes National Forest. President George Bush signed the bill establishing Newberry National Volcanic Monument in November, 1990.

Legislation

Public Law 101-522 states the purpose of the Monument:

“To preserve and protect for future generations Newberry’s remarkable geologic landforms, and to provide for the conservation, protection, interpretation, and enhancement of its ecological, botanical, scientific, scenic, recreational, cultural, and fish and wildlife resources.”

Citizens of central Oregon who helped pass the law to protect one of Oregon’s scenic jewels continue to play an active role by assisting the Forest Service with managing the Monument.

Newberry Crater

The Monument’s most prominent feature is 500 square-mile **Newberry Volcano**, which dominates the landscape of the area. Named for Dr. John S. Newberry, a scientist and early explorer with the Pacific Railroad Survey, the center of the volcano (geologically a caldera) holds two lakes, **Paulina Lake and East Lake**. **Paulina Peak**, the highest point on the crater rim, is four miles by trail or road from the entrance station. The caldera also includes the Big Obsidian Flow, deposited by an eruption 1300 years ago. Huge chunks of black obsidian glass give mute testimony to the volcano’s force and power. Indians used this area extensively to make tools from the obsidian. A one-mile interpretive trail explores the heart of the Big Obsidian Flow.



Michael Clapp

Lakes

Paulina Lake, named for the Paiute Indian Chief Paulina, covers 1,531 acres and is 250 feet deep. It holds rainbow trout, brown trout, and kokanee salmon. This lake periodically “turns over,” churning up waters from the depths to the surface. East Lake is 180 feet deep and covers 1,044 acres; and remains iced over until late in the spring. Hot springs feed the lake from its depths, and a hot springs resort flourished here in the 1920’s. Fishing opportunities are similar to Paulina Lake, with the addition of Atlantic salmon, recently planted by the Oregon Department of Fish and Wildlife. The lakes are located about one hour south of Bend, off Highway 97 on Road 21. They are usually open from late spring through autumn. A dramatic waterfall, **Paulina Falls**, is located just below Paulina Lake.

Geology

Newberry Crater is a landscape of fantastic and intriguing geologic features. Over 95% of the world’s volcanic features are clearly visible here. There are ash flows, cinder cones, pumice rings, rhyolitic domes, and below your feet, the rumblings of geothermal activity with temperatures measured at up to 500 degrees Fahrenheit. Big Obsidian Flow is one of the finest examples in North America, and easily accessible by car and trail. Scientists believe Newberry erupted thousands of times over the past half-million years, leaving valuable clues to the geologic history of the Cascades and central Oregon.

Archaeology

Newberry Crater is generally considered by archaeologists to be one of the richest sites in the Pacific Northwest. Native Americans have used the area continuously for close to 10,000 years, and adapted their culture to living in the shadow of an



active volcano. They used the sharp obsidian glass from volcanic eruptions to fashion spearpoints and arrowheads for hunting game. They also traded the valuable obsidian to tribes as far away as Canada and California. New discoveries are always being made in the crater area, and arrowheads and flakes are abundant. If you find an artifact, feel free to pick it up and hold a living piece of our human heritage, but please put it back in its place, so that others may also enjoy it.

Trails

Over 150 miles of hiking trails explore the monument. There is a trail around Paulina Lake (7 miles); one that takes visitors around the entire crater rim (21 miles); and numerous shorter trails to points of interest, such as Paulina Falls, just below the entrance station. The **Peter Skene Ogden Trail** (8.6 miles) parallels Paulina Creek as it descends from Paulina Lake down to Ogden Group Camp. Many of these trails are used by snowmobilers and cross-country skiers during the popular winter recreation season.



Campgrounds

Campground facilities are located at both lakes, and all developed sites include drinking water, a picnic table, fireplace, toilets, and access to boat ramps. **Paulina Lake Campground** (69 spaces) and **Little Crater** (50) are located at Paulina Lake. **East Lake Campground** (29 spaces) and **Cinder Hill** (110) overlook East Lake. **Hot Springs Campground** is adjacent to East Lake, but back away from the water. **Newberry Group Camp** and **Chief Paulina Horse Camp** offer special accommodations for larger groups or those with horses. **Paulina Lake Lodge** and **East Lake Resort** supplement the accommodations available in the crater. Both full-service resorts have showers, cabins, supplies, and fishing expertise available.

Lava Lands Visitor Center

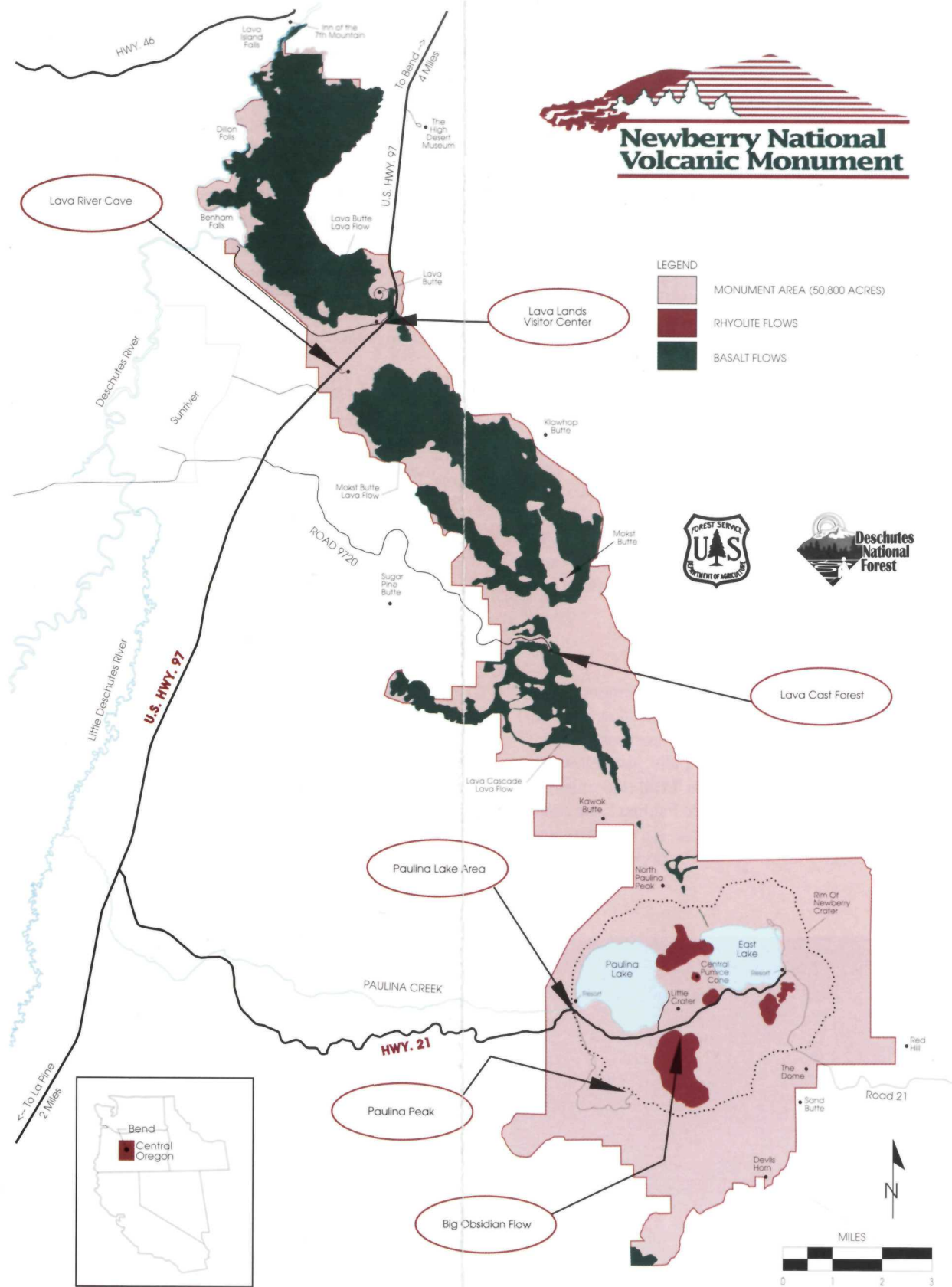
The visitor center is located 11 miles south of Bend on Highway 97, and features interpretive trails, historical information, and displays on geology and archaeology. **Lava Butte** rises 500 feet above the visitor center, and offers a spectacular view of the Cascades. In the summer, a fire lookout is stationed at the top of the butte, which is easily accessible by shuttle bus. The visitor center also has educational and interpretive materials available.

Interpretive Services

During the summer months, campfire programs are offered at the amphitheater near the Big Obsidian Flow in the crater. Topics include Native American use of the Monument, wildlife of the Newberry area, astronomy, and tales of volcanoes here and around the world. There are also roving interpreters available to answer visitors’ questions and provide information.



Northwest Interpretive Association



R.A. Jensen

Lava River Cave

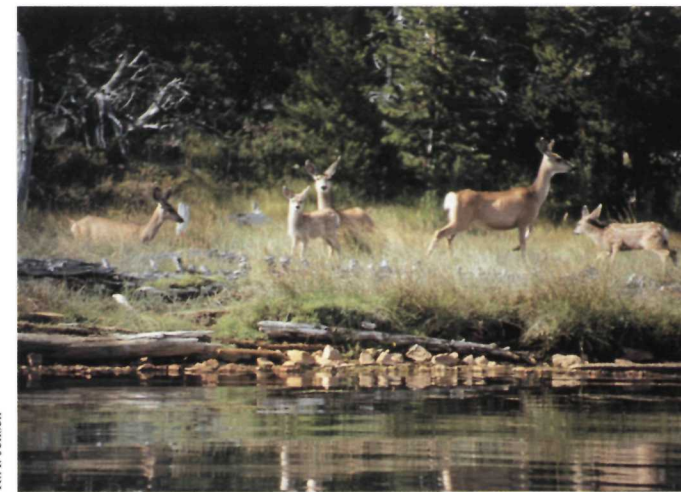
This lava cave, or "lava tube," is one of many in central Oregon, and the longest in Oregon. **Lava River Cave** was formed by volcanic action in the Newberry region many thousands of years ago. The cave is located one mile south of Lava Lands Visitor Center just off Highway 97. There is a nominal entrance fee, and lanterns can be rented to view this cavern that twists and turns underground for more than a mile. Be careful of ice and always carry two light sources if you descend into the cave.

Lava Cast Forest

Hot molten lava erupted from the northwest flank of Newberry Volcano and engulfed a forest here 6,000 years ago. The landscape now includes the "casts" or molds, of these ancient trees. Colonizing plants, such as delicate penstemon flowers and Indian paintbrush, have taken root in the ash soil. Ponderosa pine trees have re-established themselves and flourished as well, so that the landscape now includes a blend of the past and the present. A one-mile paved interpretive trail loops through the area.

Deschutes River

The **Deschutes River** flows through the generally arid landscape of central Oregon, and it forms the northwestern boundary of the Monument. The Deschutes provides water for wildlife, relief from drought, and recreation for paddlers and fishermen. Parts of the river are protected by the National Wild and Scenic Rivers System. Benham Falls, Dillon Falls, and Lava Island Falls can all be easily viewed from trails along the river. Above and below these turbulent chutes, kayakers and canoeists find plenty of opportunities for river-running. The river corridor itself is home to osprey, eagle, otter, beaver, and dozens of species of birds.



R.A. Jensen

Wildlife

The Monument contains a rich variety of wildlife. A pair of **bald eagles** nest near East Lake and can be observed year-round. The high lakes are also home to fish-eating **osprey**, and **migrating ducks, geese, and tundra swans**. Dozens of other birds live in the Monument, including black-capped chickadees, woodpeckers, and warblers. Mammals include the shy and reclusive pine marten, badgers, deer, elk and bear. The entire crater area has been set aside as a wildlife refuge to protect these animals in their natural habitat. Outside the crater, hunting is allowed, and normal Oregon state fish and game regulations apply.

Vegetation

The Monument includes many species of trees and plants, which vary with the changes in elevation, soil type, and available moisture. In the low lands near the Deschutes River, water-loving plants flourish, and **ponderosa pine** and some fir are common. As you ascend into the crater, **lodgepole pine** begins to dominate the landscape, and near the high lakes you can find mountain hemlock and whitebark pine. The legislation establishing the Monument called for a plan to re-establish the climax ponderosa pine ecosystem once common throughout central and eastern Oregon. A few rare plants are found in the Monument, including the pumice grape-fern, found only in the Newberry area and perhaps a half-dozen other locations on earth.

Planning

Congress instructed the Deschutes National Forest to prepare a comprehensive management plan for this new national monument. The planning process is just beginning in the summer of 1992. The Forest Service is assembling an interdisciplinary

team to consider a variety of alternatives for management. Some of the key issues include: recreational facilities; fish & wildlife; fire; archaeology, and vegetation management. The public will play a major role in determining how the area is used and what it will look like in the future. Pending completion of the management plan, development will be limited, with programs and facilities remaining as they have been historically.

Recently completed projects

-Road 21 reconstruction — Last summer the main access road (21) leading from Highway 97 into the crater was resurfaced. Archaeological resources were saved and will be interpreted, and the new road features scenic viewpoints and natural landscaping.

-Big Obsidian Flow Trail — This one-mile loop trail takes visitors through one of America's most remarkable lava flows. The giant black glass boulders offer mute testimony of Newberry Volcano's awesome power. Interpretive signs will be posted this summer to enhance visitors' experience.

-Cultural Resources Survey — Forest Service archaeologists are now compiling an extensive record of historical use of Newberry Crater. The area has been used by native Americans for close to 10,000 years.

Geothermal development

Since 1974, the Newberry area has been considered a prime site for possible geothermal development. In 1991, the Bonneville Power Administration announced that an area outside the Monument boundaries was selected as a pilot project for the development of geothermal energy in the Pacific Northwest. Private companies that hold leases on national forest land may apply to drill exploratory holes, and some initial activity may take place in 1992. If the resource is indeed viable, the companies may tap the earth's heat by bringing hot water and steam to the surface to drive turbines and create electricity.

California Energy Co., Inc., in cooperation with the Eugene Water and Electric Board, was selected to develop the pilot project, with initial plans for a 30-megawatt generating plant. Vulcan Power Company of Bend has also expressed interest in developing the geothermal resource. Some estimates place Newberry's potential at 1,500 megawatts. A megawatt is enough power to supply the energy needs of 1,000 people.

More information is available from these offices:

Deschutes National Forest 1645 Highway 20 East Bend, OR 97701 (503) 388-2715	Fort Rock Ranger District 1230 N.E. 3d, Room A-262 Bend, OR 97701 (503) 388-5664	Lava Lands Visitor Center 58201 S. Highway 97 Bend, OR 97707 (503) 593-2421
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This brochure was made possible by the Northwest Interpretive Association in cooperation with the Deschutes National Forest, USDA Forest Service.