

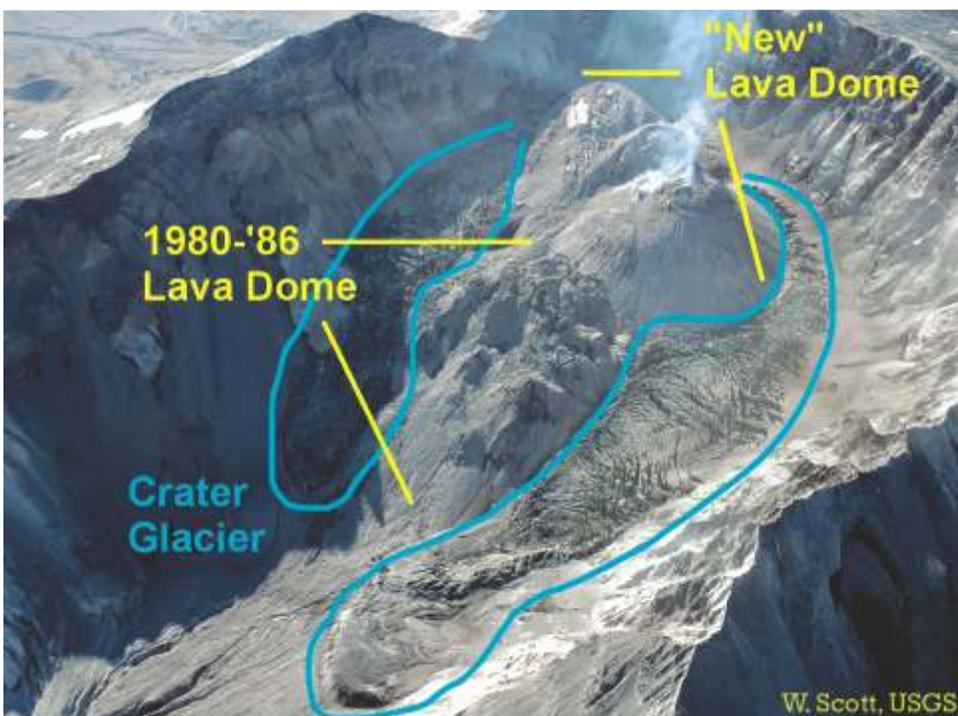
VOLCANO REVIEW

FREE

A VISITOR'S GUIDE TO MOUNT ST. HELENS NATIONAL VOLCANIC MONUMENT



Photo by Joel Voelker



Witness a Volcanic Eruption

Earthquakes, Steam, and Small Ash Plumes from Lava Dome Rock Fall Continue

The ongoing eruption of Mount St. Helens has amazed volcano watchers both in terms of its longevity (2 ½ years) and the largely non-explosive extrusion of seven massive “new” lava spines into the crater. As rising lava pushes up through the crater floor, the growing lava dome shoves glacial ice east and west against the crater walls, effectively splitting the glacier in two. The east and west arms of the Crater Glacier flow north and surround the “old” lava dome that formed between 1980 and 1986 (see photo at left).

As you visit the monument, listen for the sound of a helicopter transporting USGS scientists or one of the remote “spider” instrument packages in or out of the crater. The “spiders” are part of a network of instruments that continuously monitor earthquakes and ground motion at the volcano. Real-time data are combined with field observations to assess potential hazards and forecast future activity. As we watch the ongoing eruption, scientists and volcano enthusiasts eagerly await the next dramatic chapter in Mount St. Helens’ dynamic history.

Current Eruption Facts

October, 2004 – Mount St. Helens erupts after 18 years of quiet. Lava extrudes from the crater floor at a rate of 1 dump truck load per second and builds a new lava dome.

March, 2005 – Dome growth continues (½ dump truck load per second), small steam and ash eruptions lightly dust nearby areas.

October, 2006 – Seven massive lava spines have been extruded (114 million cubic yards); enough to fill Portland’s Rose Garden Arena 150 times. At 1300 feet, the top of the “new” lava dome is taller than the Empire State Building.

May, 2007 - Lava extrusion decreases (a small pickup truck load every 2 seconds). No explosive eruptions in a year. Dome rock falls produce some small ash plumes.

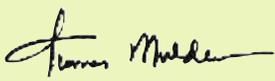
Welcome to Mount St. Helens

Howdy and a Big Volcano Welcome!

Join us for another exciting year at Mount St Helens. We invite you to explore our erupting volcano, engage with our friendly volunteers and staff, and leave with an enhanced appreciation of this special place.

With the help of our partners, the Mount St. Helens Institute and the Northwest Interpretive Association, we will strive to make your visit memorable and enjoyable.

By staying on paved walkways and developed hiking trails, you will help us protect fragile features and the result of 27 years of nature's handiwork.



Monument Manager



Deputy Monument Manager



**MOUNT ST. HELENS
INSTITUTE**

Become a Volcano Volunteer Make New Friends, Learn, and Get Involved

Join the friendly staff and volunteers of the **Mount St. Helens Institute** and help out for a weekend project or for an exciting summer-long experience. For details and instructions on how to apply for short-term projects, summer-long volunteer positions, and student internships please visit our website at:

www.fs.fed.us/gpnf/volunteering/BecomeaVolcanoVolunteer.shtml.

Email: info@mshinstitute.org; **Voice:** (360) 449-7887; **FAX:** (360) 449-7801



Photo by Jessica Kimmick, MSHI

Help Support Education and Resource Stewardship Programs

We invite you to join the **Mount St. Helens Institute** in helping to care for and share the wonder of Mount St. Helens. Become a member or join us for one of our many volunteer events or programs. We are a not-for-profit partner of the Mount St. Helens National Volcanic Monument. Our mission is to awaken in people of all ages an appreciation of the natural processes and cultural heritage of the Pacific Northwest's volcanic landscapes. For more information, contact us or visit our website: www.mshinstitute.org/ E-mail: info@mshinstitute.org



Photo by Jessica Kimmick, MSHI



The Volcano Review is produced by the Northwest Interpretive Association in cooperation with the USDA Forest Service. — *Published April 2007.*

Take Care of Your Pet and Help Protect the Monument

To protect plant and animal life and provide for visitor safety, pets are prohibited at all recreation sites and trails within the monument's restricted area (see shaded section of map on page 4). **Pets are permitted only in designated pet areas and must be on a leash.** Lack of shade and summer heat can endanger pets left in cars. For the safety and comfort of your pet, please arrange to leave your pet at home.

Contact any Forest Service office for information on where it is safe and legal to bring your pet.



Your Fees Help Support the Monument

Interpretive services and facilities on the west side of Mount St. Helens are supported by your purchase of a Monument Pass. Passes are \$8 per adult (youth 15 years old and younger are free). Passes are required at monument visitor centers, adjacent trails, and at the Coldwater Lake Recreation Area. Monument Passes can be purchased at the Coldwater Ridge Visitor Center and the Johnston Ridge Observatory.

On the northeast and south sides of the monument a National Forest Recreation Pass is required. The cost is \$5 per vehicle per day. Annual passes are \$30. Passes are sold at Forest Service offices and at self-service pay stations around the monument. Details at: www.fs.fed.us/r6/passespermits/nfdp.shtml.

Purchase Your Annual Pass at Mount St. Helens

Fees from pass sales stay right here to support the services and facilities that you enjoy during your visit.

An Interagency Annual Pass is available for \$80. It has two signature lines and can be used by two pass holders. At per person fee sites it admits the pass holder and up to three persons. Interagency Annual, Senior, and Access passes are available at monument visitor centers and Forest Service offices. The passes are honored nationwide at Forest Service, National Park Service, BLM, Bureau of Reclamation, and US Fish & Wildlife Service sites charging entrance or standard amenity fees. Information about the interagency annual pass program is available at: www.fs.fed.us/passespermits/rec-fee.shtml.

Golden Eagle Passports that were sold in 2006 will be honored until they expire. Golden Age and Golden Access Passports will continue to be honored for the lifetime of the pass holder.

Explore a Landscape Reshaped by Volcanic Eruption



Windy Ridge Viewpoint offers an amazing view of Spirit Lake and the landslide-filled valley north of the volcano (NE side, Forest Road 99).

Photo by Todd Cullings, USFS

As you explore the west, east, and south sides of Mount St. Helens, we invite you to experience an amazing array of landforms and ecosystems shaped by volcanic disturbance. Learn how the 1980 eruption transformed the land and how it is gradually being reshaped by the forces of gravity, water, and wind. Take a moment to tune your senses to the sights and sounds of one of nature's youngest and most dynamic natural landscapes.

On the west side (SR 504), you can peer into the crater and observe the growing lava dome, view trees shredded by the 1980 lateral blast, and stroll among hill-sized chunks of shattered volcano. The east side (Forest Road 99) offers incredible views of Spirit Lake and a chance to observe plant and animal life thriving in the 1980 blast zone. On the South side (Forest Road 83), you can explore majestic evergreen forests, ancient lava flows, and climb to the rim of an erupting volcano. The monument and surrounding Gifford Pinchot National Forest also offer sparkling lakes, waterfalls, and more than 200 miles of hiking trails.

Standing dead and blown-down trees mark the outer boundary of the 1980 lateral blast at Blast Edge Viewpoint (NE side, Forest Road 99).



Report Vandalism and Resource Damage

CALL 911 to Report Emergencies or Crimes in Progress

(Sheriff's Office, Emergency Medical and Fire)

Vandalism & Resource Damage Hotline:

Call 360-449-STOP/(360) 449-7867

Report Online: www.fs.fed.us/gpnf/mshnvm/hotline

Please leave a message; speak slowly and clearly:

- Describe what you observed, where, and when.
- If you observed a vehicle please include its license number number, state, color, make and model.
- Please describe any person(s) involved (male/female, hair color, and approximate age, height, and weight).
- Please leave your name and a phone number so we can contact you for more information.

May 18, 1980 Eruption Facts

- In less than 10-minutes, the eruption leveled 230-square miles of forest.
- The mountain lost 1300 feet of height and 0.67 cubic miles of total volume.
- The eruption began with a massive landslide (**debris avalanche**) that buried 14 miles of river valley to an average depth of 150 feet.
- The landslide released trapped magma and gas, producing a sideways explosion (**lateral blast**) of hot rock and ash killing trees up to 17 miles north of the volcano.
- Cement-like slurries of glacial melt water and boulders called **lahars** scoured and buried streams draining the volcano.
- A vertical **ash eruption** rose to a height of 15-miles above the crater and continued for 9-hours. Ash drifted to the northeast.
- Fiery avalanches of pumice and hot gasses (**pyroclastic flows**) flowed into the valley north of the crater.



Valleys scoured by lahars are carpeted with wildflowers (Lahar Viewpoint, South side, Forest Road 83).

Photo by Charlie Crisafulli



A small steam and ash eruption as seen from the south (March 8, 2005).

Photo by Barbara Fox ©

Be Prepared for Volcanic Ashfall

Volcanic ash is rock dust blown into the air by a steam or gas eruption, rock fall, or high-winds.

If you encounter volcanic ashfall:

- Remain calm. Ash is not toxic.
- Seek shelter inside a building or vehicle.
- Cover your nose and mouth with a moist cloth or towel and wait until ash settles.
- Drive slowly, ash reduces visibility and traction.

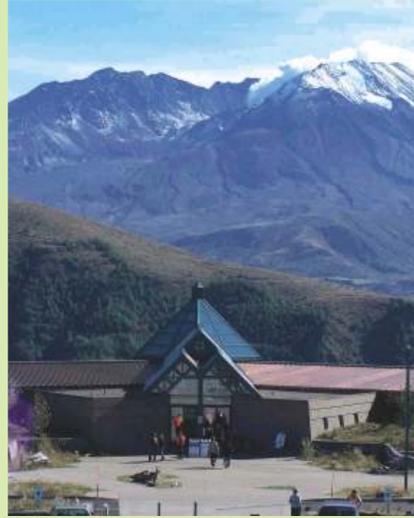
**West side: State Route 504
Mount St. Helens Visitor Center at Seaquest State Park**



Photo by Tina Linch

Learn about the cultural history of the Mount St. Helens area before, during, and after the 1980 eruption. The center, located 5 miles east of Interstate 5 (Exit 49), offers interpretive exhibits, ranger programs, a walk through model volcano, two movies, bookstore and a one-mile boardwalk trail. The center is operated by Washington State Parks and has a \$3 per person admission fee. The center is open daily 9 a.m. to 6 p.m., from May 1st to September 30, 2007. Off-season hours are 9 a.m. to 4 p.m. (360) 274-0962.

**West side: State Route 504
Coldwater Ridge Visitor Center**



Discover the plants and animals that thrive at the volcano and uncover the secrets of their survival. The center offers: interactive touch-screen exhibits, ranger talks, bookstore, gift shop, and restaurant. Open daily from 10 a.m. to 6 p.m. through September. Hours and days of operation will change during the fall/winter, please call ahead or visit our website for the latest schedule. Pets are not allowed at viewpoints or on trails. A Monument Pass is required and is available here. (360) 274-2114

West side: State Route 504 - Johnston Ridge Observatory



View the erupting volcano from a visitor center directly across from the crater and learn how the landscape north of the volcano was reshaped by the 1980 eruption. Observe the steaming lava dome, view live seismographs, and learn how scientists monitor Mount St. Helens. The center offers: geologic exhibits, 16-minute movie, ranger-led programs, and bookstore. A limited food service is available at the east end of the parking lot. Open from 10 a.m. to 6 p.m. May 17 through October 28, 2007 (closed in winter). Pets are not allowed at viewpoints or on trails. A Monument Pass is required and available. (360) 274-2140.

Roads Closed Due to Flood Damage (Repair is expected in 2007 and 2008)

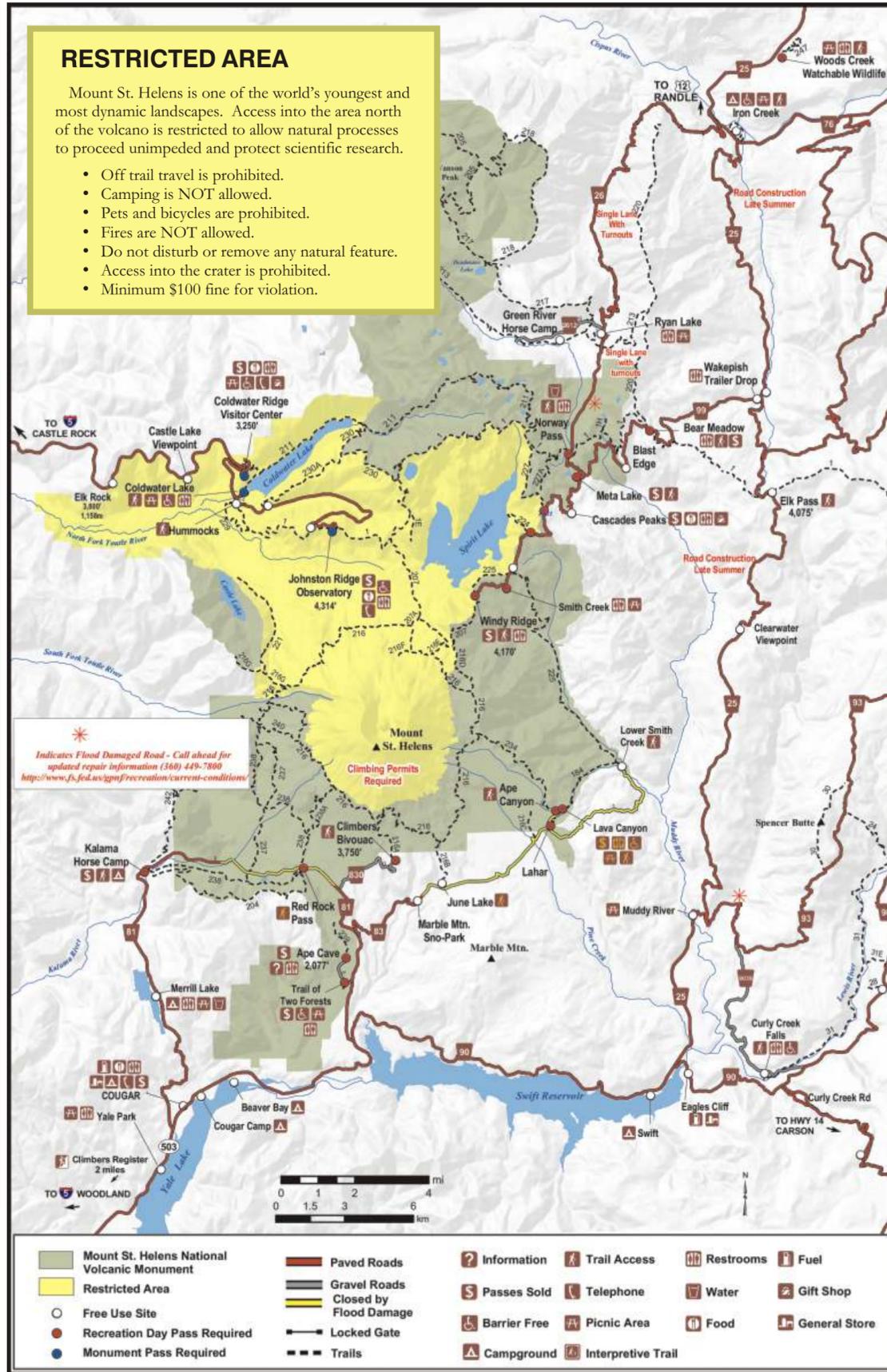
- Forest Road 83 is closed between Marble Mountain Snowpark and Lava Canyon. Lava Canyon and other recreation sites will remain closed until the road is repaired.
- Forest Road 81 is closed between the 81-830 Road on the east and 2 miles east of Kalama Horse Camp on the west. Forest Road 8123 is buried and will not be repaired.
- Construction is scheduled for the Fall of 2007 on Forest Road 25 between Clearwater Viewpoint and Elk Pass and between Iron Creek Campground and Randle. Extended closures (2-weeks or more) are planned after September 3, 2007 (Labor Day).

For updated information on roads, trails, and the status of planned repairs, visit: www.fs.fed.us/gpnf/recreation/current-conditions/ or call (360) 449-7800.

RESTRICTED AREA

Mount St. Helens is one of the world's youngest and most dynamic landscapes. Access into the area north of the volcano is restricted to allow natural processes to proceed unimpeded and protect scientific research.

- Off trail travel is prohibited.
- Camping is NOT allowed.
- Pets and bicycles are prohibited.
- Fires are NOT allowed.
- Do not disturb or remove any natural feature.
- Access into the crater is prohibited.
- Minimum \$100 fine for violation.



Visitors may encounter storm damage on roads and trails. Please plan ahead and use extra caution.



Help Protect Mount St. Helens

In 1982, the Mount St. Helens National Volcanic Monument was established to provide for scientific research, education, and recreation.

- Stay on paved areas and designated hiking trails.
- Do not disturb or remove any natural feature.
- Do not feed the animals.
- Keep pets on the leash and in designated pet areas.

**Northeast side: Forest Road 99
Explore the Blowdown Forest and Spirit Lake Viewpoints**

Experience the full impact of the 1980 lateral blast as you leave lush-green forest and drive through standing-dead and blown-down forests. View Spirit Lake and its immense floating log mat. Forest Road 99 is closed in winter and is generally accessible mid-June through October. Opportunities include: scenic viewpoints, hiking trails, and a gift shop and restaurant. A Northwest Forest Pass is required for each vehicle and is available at Bear Meadows, Meta Lake, Cascade Peaks and Windy Ridge.



Photo by Todd Cullings, USFS

South side: Forest Road 83 - Ape Cave & Trail of Two Forests

Explore inside an ancient lava flow in the Ape Cave lava tube. Expect uneven terrain and a temperature of 42 degrees F (6 degrees C). Warm clothes, sturdy shoes and at least two light sources per person are recommended. Allow one hour to hike the lower cave and 2½ hours for the more difficult, upper section. Ape Cave is open for self-guided exploration year-round. Between late June and September 3, 2007 services include: lantern rentals, a small bookstore, and guided cave tours. Pets are not allowed in the cave. A Northwest Forest Pass is required and available here. Trail of Two Forests is a nearby interpretive trail that explores tree casts and amazing lava flow surface features.



Photo by Pat Leeson

Lower section of Ape Cave lava tube (South side, Forest Road 83).

Driving Times (Hours: Minutes)	Ape Cave	Lava Canyon	Windy Ridge	Randle	Mount St. Helens Visitor Center	Coldwater Ridge Visitor Center	Johnston Ridge Observatory
Ape Cave	—	0:15	1:45	1:45	1:30	2:30	2:45
Lava Canyon	0:15	—	2:00	2:00	1:45	2:45	3:00
Windy Ridge	1:45	2:00	—	1:15	2:45	3:45	4:00
Randle	1:45	2:00	1:15	—	1:30	2:30	2:45
Mount St. Helens VC	1:30	1:45	2:45	1:30	—	1:00	1:00
Coldwater Ridge Visitor Center	2:30	2:45	3:45	2:30	1:00	—	0:15
Johnston Ridge Observatory	2:45	3:00	4:00	2:45	1:15	1:15	—
Portland/Vancouver	1:30	1:45	3:00	2:30	1:15	2:15	2:30
Seattle	3:30	3:45	3:45	2:30	2:00	3:00	3:15
Carson	1:30	1:45	2:15	2:15	2:45	3:45	4:00
Woodland	1:00	1:15	2:30	2:30	0:45	1:45	2:00
Mt. Rainier NP	2:45	2:45	2:15	1:00	2:30	3:30	3:45

Hiking and Camping Near Mount St. Helens



Photo by Scott Hinderman

Crater and valley north of the volcano as seen from the Boundary Trail east of the Johnston Ridge Observatory (West side, State Route 504).

West side (State Route 504)	Round Trip	Elevation Change	Description
Birth of a Lake Trail #246 (E) SR504, Trailhead is located at Coldwater Lake Picnic Area	0.6 miles	2490 feet to 2475 feet	Paved trail explores 1980 landslide deposit and developing life in a lake that was dammed-up by the 1980 eruption.
Eruption Trail #201 (E) Trailhead is located at Johnston Ridge Observatory viewing plaza.	1 mile	4200 feet to 4300 feet	Paved trail explores 1980 eruption impact on ridge. View shattered trees and amazing crater and valley views.
Hummocks Trail #229 (M) SR504, Trailhead is 2¼ miles south of Coldwater Visitor Center	2.4 mile loop	2520 feet to 2400 feet	View hill-sized chunks of shattered volcano, ponds and river carved canyon on 1980 landslide deposit.
Lakes Trail #211 to Coldwater Trail #230 (MD) SR504, Trailhead is located at Coldwater Lake Boat Launch	9.0 miles	2700 feet to 5200 feet	Explore blowdown and developing forest. At 4 miles, end of lake makes a good turn around point. Continue ½ mile to junction with Coldwater Trail 230

East side (Forest Road 99)	Round Trip	Elevation Change	Description
Meta Lake Trail #210 (E) Forest Road 99, 0.1 miles west of junction of Road 99 with Road 26.	0.6 mile	3620 feet to 3640 feet	Paved trail explores blowdown forest and sparkling lake. View forest that survived eruption under thick snowpack.
Independence Pass Trail #227 (M) Forest Road 99, 1½ miles south of Cascades Peaks Restaurant.	0.5 mile	4040 feet to 4680 feet	Trail climbs (¼ mile) to ridge top view of Mount St. Helens, Spirit Lake, and the blown down forest.
Windy Ridge Sand Ladder (M) North end of the Windy Ridge Viewpoint Parking Lot	0.5 mile	4070 feet to 4270 feet	Climb 368 steps to hilltop view of Spirit Lake and crater. Use caution as loose pumice can make for unstable footing.
Harmony Trail #224 (MD) Forest Road 99, 2½ miles north of Windy Ridge Viewpoint. Off-trail travel, pets and bikes are prohibited.	2 miles	4100 feet to 3400 feet	Trail descends steeply to Spirit Lake (this is only trail to shoreline). View the effects of lateral blast and "tidal" wave formed as landslide slammed into lake.
Truman Trail #207 and Willow Springs Trail #207A (MD) Forest Road 99, trailhead at south end of Windy Ridge parking lot. Off-trail travel, pets and bicycles prohibited	11 miles	4200 feet to 3600 feet	Trail follows old road into Spirit Lake basin. Wooden posts mark path across boulder-filled floodplain. Willow Springs Trail (0.8 mile) connects with Loowit Trail 216 and other loop opportunities.



Photo by Gregg Pohll, USFS

Sand ladder stairway at Windy Ridge Viewpoint (Northeast side, Forest Road 99)



Visitors can crawl through the cast of an ancient tree at Trail of Two Forests (South side, Forest Road 83).

South side (Forest Road 83)	Round Trip	Elevation Change	Description
Trail of Two Forests #233 (E) Forest Road 8303, ½ mile E of Ape Cave.	0.6 mile	1860 feet to 1885 feet	Boardwalk guides you across 1900 year old lava flow and tree casts that record an ancient forest consumed by lava.
June Lake Trail #216B (M) Forest Road 83 temporarily closed due to flood damage. Park at Marble Mtn Snowpark and follow temporary trail signs to June Lake trail.	3.2 miles	2700 feet to 3400 feet	Trail climbs along rushing stream before reaching lake nestled between basalt cliff and 1,900 year old lava flow. Lake offers ideal lunch stop before continuing ¼ mile to junction with Loowit Trail 216.

KEY:

E = EASIEST—Users require limited skill and encounter few challenges

M = MORE DIFFICULT—Users require some skill and experience more challenging terrain.

MD = MOST DIFFICULT—Users require a high degree of skill and experience challenging travel.

Campgrounds	# sites	\$ Fee	🏠	♿	🚰	🐟	🏕️	🚚	🗑️
Highway 503 & FR 90									
Cresap Bay *	73	yes for all sites	20	●	●	●	●	●	●
Cougar	60		●	●	●	●	●	●	
Beaver Bay *	78		5	●	●	●	●	●	●
Swift	93		6	●	●	●	●	●	●
Lower Falls	42		4	●	●	●	●	●	●
Lewis River Horse Camp	8		●	●	●	●	●	●	●
Forest Road 81									
Kalama Horse Camp	28	yes	2	●	●	●	●	●	●
Merrill Lake	8	yes	6	●	●	●	●	●	●
Forest Road 25									
Iron Creek **	98	yes	12	●	●	●	●	●	●
Forest Road 23									
Tower Rock **	22	yes							●
State Route 504									
Sequest State Park	90	yes	many	●	●	●	●	●	●

* Reservations are required: Call (503) 813-6666 ** Reservations are accepted. Call (877) 444-6777





Photo by Jon Major, USGS

Climbers on the south crater rim with Mt. Adams in the distance (South side, Forest Road 83).

Climbing Mount St. Helens

Permits are required for travel above 4800 feet (tree line) on the volcano year round. Between April 1st and October 31st a fee of \$22 is charged for each climbing permit. Starting February 1st, permits are sold in advance, online on a first-come-first-served basis. The eruption and growth of a new lava dome in the crater continues with occasional small steam and ash emissions. Because the eruption is largely gas-free, geologists believe that any associated hazards are likely to be confined to the crater. For information about hazards on the volcano, recommended equipment, and how to purchase a climbing permit online visit the monument climbing website at: www.fs.fed.us/gpnf/recreation/mount-st-helens/

Mount Margaret Backcountry

Explore the pinnacle studded ridges, turquoise lakes, and flowered slopes of the Mount Margaret Backcountry. Trails there have narrow, steep tread and can climb over 2,000 feet in elevation. Some trails may be partially snow-covered until mid-summer. Eight designated campsites are available at four lakes and four ridge top locations, some with crater views. Backcountry camping permits are required and camping is limited to designated campsites only (maximum of four people per campsite). Pets, pack stock, and fires are prohibited.

Permits are available at Monument Headquarters in Amboy, Coldwater Ridge Visitor Center and the Cowlitz Valley Ranger Station. For additional information visit our website at:

www.fs.fed.us/gpnf/04mshnvm/backcountry/index.shtml or call (360) 449-7800.

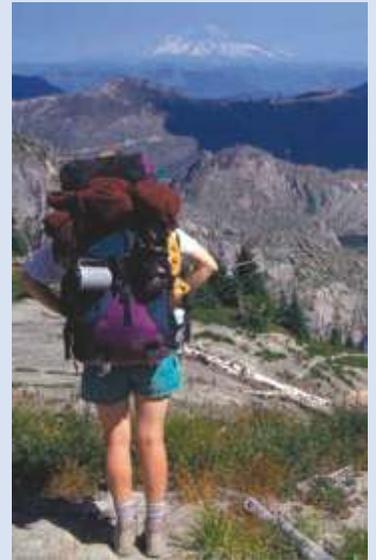


Photo by Todd Cullings, USFS

A backpacker looks north into the Mount Margaret Backcountry.



Northwest Interpretive Association (NWIA)

is a non-profit organization that operates bookstores at parks and forests throughout the Pacific Northwest. Proceeds from book sales are used to fund monument interpretive programs, this newspaper and much, much more. To order books, videos, posters and other educational materials from NWIA pick up catalogue and order form at a Visitor Center or contact:

Northwest Interpretive Association
3029 Spirit Lake Highway
Castle Rock, WA 98611
www.nwpubliclands.org
Phone: (360) 274-2127, FAX (360) 274-7124

Contact Information

Emergency **911**

Forest Service Offices

Mount St. Helens National Volcanic Monument HQ (360) 449-7800
 Coldwater Ridge Visitor Center (360) 274-2114
 Johnston Ridge Observatory (360) 274-2140
 Cowlitz Valley Ranger Station (360) 497-1100
 Gifford Pinchot National Forest Headquarters (360) 891-5000
 Mt. Adams Ranger Station (509) 395-3400

Other

Climbers Register (Jack's Restaurant and Store) (360) 231-4276
 Mount St. Helens Visitor Center at Sequest State Park (360) 274-0962
 Mount St. Helens Concessions (360) 274-2984
 National Recreation Reservations (Camping) (877) 444-6777
 PacifiCorp (campgrounds at reservoirs south of the volcano) (503) 813-6666
 Mount St. Helens Forest Learning Center (360) 414-3439
 Washington State Parks Information (800) 233-0321

Web Sites

Mount St. Helens Nat'l Volcanic Monument www.fs.fed.us/gpnf/mshnvm/
 Mount St. Helens Institute www.mshinstitute.org
 Cascades Volcano Observatory (USGS) www.vulcan.wr.usgs.gov/
 PNW Seismograph Network (earthquakes) www.pnsn.org/HELENS/welcome.html
 Gifford Pinchot National Forest www.fs.fed.us/gpnf/
 Northwest Interpretive Association www.nwpubliclands.org
 Mount St. Helens Forest Learning Center www.weyerhaeuser.com/sthelens
 Washington State Tourism www.experiencewashington.com/
 Washington State Parks www.parks.wa.gov

School Groups

Teachers, registration for field trips is online, easy, and is required! Our website will help prepare you and your students for your visit to Mount St. Helens. You will find online registration forms, suggested itineraries, downloadable lesson plans and descriptions of ranger-led programs. Also included are



descriptions of our sites, driving times, maps and directions. www.fs.fed.us/gpnf/mshnvm/education/teachers_corner.

USDA Civil Rights Policy

Persons of any race, color, national origin, sex, age, religion, or with any disability are welcome to use and enjoy all facilities, programs, and services of the USDA. Discrimination in any form is strictly against agency policy, and should be reported to the USDA, Office of Civil Rights, Washington, DC 20250.

Life Thrives in the Shadow of Mount St. Helens

Explore One of Nature's Most Exciting Natural Landscapes



A visit to Mount St. Helens offers an opportunity to witness the earth's tremendous power and amazing resiliency of life. As you explore the west, east, and south sides of the monument you will observe a landscape shaped by volcanic eruption that is teeming with plant and animal life. Take a moment to tune your senses to the sights and sounds of life in the shadow of an active volcano. Listen for the sounds of elk bugling, birds singing, frogs croaking, and the hum of countless bees.

The May 18, 1980 eruption leveled more than 200 square miles of forest in a 180 degree arc north of the volcano. Nearby streams were scoured and buried by a massive landslide/debris avalanche and lahars generated by melting glaciers. Trees up to 17 miles north of the volcano were blown down or scorched by hot, stone-filled blast winds. These events, although sudden and catastrophic, created an impressive array of new habitats. The eruption created ponds, wetlands and countless standing dead and down trees that serve as the foundation for the development of new and diverse plant and animal communities at the volcano.

Each year countless seeds take root, transforming the area around Mount St. Helens from gray to green. As the forest returns and food and hiding cover is more available, animals are moving into the blast zone in increasing numbers.

As you explore monument roads and trails, watch for evidence of the 1980 eruption and observe plants and animals that are thriving in a forest shattered by volcanic eruption. Enjoy the results of 27 years of nature's handiwork and help protect life's fragile foothold by staying on developed roads, viewpoints, and trails. Have a very safe and enjoyable visit!

For more information on ecosystem development at Mount St. Helens visit our web sites:

www.fs.fed.us/gpnf/mshnvm/research/faq.html

www.fs.fed.us/gpnf/mshnvm/digitalgallery/25YearsofRecoveryandPostEruptionPlantRecovery.htm

www.fs.fed.us/pnw/mtsthelens/

Biologists estimate that 2,000 elk spend the summer feeding on developing vegetation near the volcano. (West side, SR504).

Photo by Hans Castren, USFS

A forest of red alder and fir is establishing on the 1980 landslide deposit (West side, SR504).

Photo by Peter Frenzen, USFS

Black-tailed deer thrive on shrubs and other developing vegetation north of the volcano.

Photo by Greg Pohll, USFS

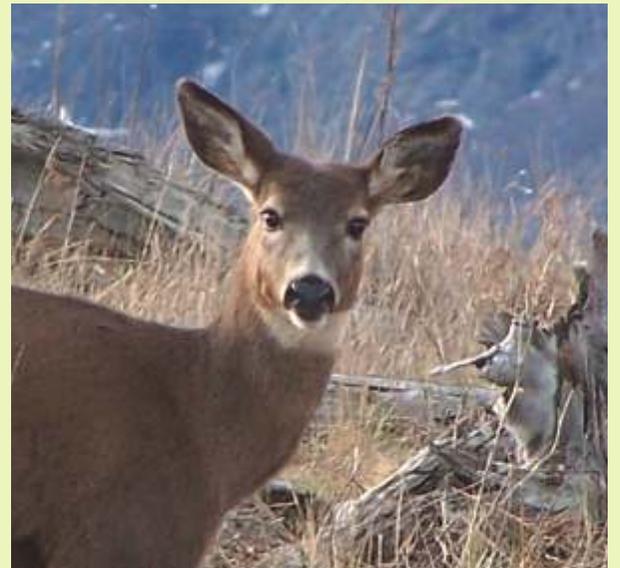


Photo by Jim Hughes, USFS

Blown-down forest and Spirit Lake viewed from the Boundary Trail near Norway Pass (NE side, Forest Road 99).

Fireweed and other colonizing plants flourish in the 1980 blast zone. (NE side, Forest Road 99).

Photo by Peter Frenzen, USFS

