It is hard to believe that 30 years have passed since the May 18, 1980 eruption. Anniversaries are a time to look back and mark the changes that have occurred over the span of time. The one thing we know here at the Monument is that nothing is certain but change. At Mount St. Helens, what changes we have witnessed! The landscape has shifted dramatically from a gray, still and nearly barren panorama to an environment that is green, active and life-filled. The volcano, not to be overshadowed, has added two lava domes and North America’s youngest glacier, while providing a window into some of the most spectacular geologic processes in the country. Throughout the thirty years, the U.S. Forest Service has worked hard to protect the unique features of the Monument and allow natural processes to continue substantially unimpeded. If Mount St. Helens has taught us one lesson it is never underestimate nature’s ability to change. We have been so fortunate to witness these changes and learn lessons in the process.
Thirty years is a time of reflection, a time to take stock of where we have been, how far we have come and to refine the vision of our future. This year finds the Forest Service hard at work developing new exhibits, repairing facilities and creating exciting new programming. Johnston Ridge Observatory offers new volcano monitoring exhibits that were financed by grants and donations raised by our not-for-profit partner, the Mount St. Helens Institute. Other projects have been completed throughout the Monument this year and many more are scheduled to be finished in the very near future. We are also excited about the volunteer opportunities that are available. We invite you to join us and volunteer for a day, a weekend or a summer to help care for visitors, trails and facilities around the volcano. With the help of our dedicated partners and volunteers, we will strive to make your visit worthy of our 30th anniversary.

Help Us Share the Wonder of Mount St. Helens

The Mount St. Helens Institute is a not-for-profit partner of the Mount St. Helens National Volcanic Monument. We help provide science education, conservation and recreation activities. Come explore the volcano with us! We offer field seminars, inspiring hikes, guided climbs, evening lectures and other events aimed at deepening your understanding of the Pacific Northwest’s natural processes and its cultural past. We also offer a variety of volunteer opportunities. Join us as a volunteer for a day, a weekend work party to improve trails or wildlife habitat or for an exciting summer-long volunteer experience.

Join us and become a Member today!

For further information please visit our website: www.mshinstitute.org or contact us:

Email: info@mshinstitute.org, Phone: (360) 449-7883

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. Fees from pass sales are used to provide the services and facilities that you enjoy during your visit. An Interagency Annual Pass is available for $80 and has two signature lines. At per person fee sites it admits the pass holder and up to three additional visitors. Interagency Annual, Senior, and Access passes are available at monument 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.

Purchase Your Interagency Annual Pass at Mount St. Helens and Help Support Your National Volcanic Monument

The eruption leveled 230-square miles of forest in less than 10-minutes. The Volcano Review is produced by DYNW in cooperation with The Volcano Review is produced by Discover Your Northwest in cooperation with the U.S. Forest Service – Published May 2010 DYNW is a non-profit organization that operates bookstores at parks and forests throughout the Pacific Northwest. Proceeds are used to fund interpretive programs, this newspaper and much, much more. To order books, videos, posters and other educational materials visit www.discovernw.org or contact:

Discover Your Northwest
10600 NE 51st Circle
Vancouver, WA 98682
Phone: (360) 891-5214
FAX (360) 891-5195

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 yellow shaded section of map on page 7). 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 Help is needed to Raise Funds to Support Scientific Research, and Maintain and Enhance Exhibits at the Mount St. Helens National Volcanic Monument

MSHI raises funds to support scientific research and to share information with the public. We assist with creation, maintenance and enhancement of new exhibits at Johnston Ridge and other monument sites. We need your financial help to do our work! To find out more about our work and to contribute on-line visit our website: www.mshinstitute.org

Online Information:

Mount St. Helens Visitor Information: www.fs.fed.us/gpnf/MSHV
Eruption Geology and Monitoring: http://vulcan.wr.usgs.gov/Volcanoes/MSH/
**The Disappearing Blown Down Forest:**
One of the most enduring memories of the May 18, 1980 eruption is the vast maze of trees strewn across the landscape by the powerful lateral blast. Today’s blown down forest is difficult to see for reasons beyond our imagination. The weight of the snow packs each year push the trunks into the ground and soaks the trees, while the summer sun bakes them. The intense wetting and drying has led to the rapid deterioration of the blown down trees.

Windblown seeds caught by the moist, nutrient-rich tree trunks nourished seedlings and created a veil of low-lying grasses and shrubs. The array of plants and animals that survived the eruption also made it easier for other life to colonize this decimated area. Today, the blown forest is hidden by an odd assortment of silver fir, huckleberry and other pre-eruption forest survivors, beside sun-loving weeds and shrubs.

**A Cascade of New Habitat:**
A common belief is that the May 18, 1980 eruption destroyed all habitats, but the landslide deposit offers living testimony to the creation of habitat. The distinctive irregular surface of the landslide entrapped runoff from rain and snowmelt, forming 148 new ponds and wetlands. The massive landslide also blocked two creeks, creating Coldwater and Castle Lakes. These new habitats powered the rapid resurgence of an array of aquatic epicenters have created a rare commodity at Mount St. Helens, shade. Today, the landslide hosts the most diverse and productive ecosystems in the National Volcanic Monument.

**Spirit Lake’s Tremendous Transformation:**
The eruption’s impact to Spirit Lake was so severe on May 18, 1980, that 30 years later many still believe that the lake was destroyed. In reality all life was destroyed, but Spirit Lake’s surface area doubled! The lake’s once cold, clear waters were transformed into primordial soup, a warm nutrient-rich broth of heavy metals and organic matter covered by a floating log mat. Bacteria populations exploded in these ideal conditions and began to cleanse the lake. Within five years Spirit Lake had gone through a remarkable metamorphosis, returning to near pre-eruption conditions. Eight years later, Rainbow Trout were discovered, although scientists suspect they were illegally introduced. Today, Spirit Lake is really two lakes in one. Much of the lake is deep, cold, and biologically unproductive like many high elevation lakes in the Cascades and, conversely, the shallow warmer waters in the southern and northwestern reaches host vibrant ecosystems.

### Mindful of Memories and Meanings

Throughout the centuries the Mount St. Helens area has held a special place in hearts and minds of those who called it ‘home’. The 30th anniversary of the May 18, 1980 eruption gives cause to remember and celebrate the Native American and Spirit Lake communities present prior to the eruption.

Cowlitz and Klickitat Indians lived around Mount St. Helens and neighboring mountains in the summer. Medicinal plants, roots, beargrass, berries, fish, and game were abundant in the mountains. Huckleberries grew in old burns and were heavily harvested. Many Indian children spent long hours chasing birds away from drying berries. Huckleberry season meant days of work followed by evenings of reminiscing with friends and relatives only seen at these special times of the year.

Euro-Americans initially came to try their hand at trapping, mining, and logging, but found the real wealth of Mount St. Helens was in the landscape itself. Like nourishment for the soul, days, weeks or entire summers on Spirit Lake’s shore refreshed youth and adults weary of war, the Great Depression or the fast pace of city life. Who remembers the first look at Mount St. Helens’ reflection as they cruised the lake or noted the passing of the Forest Service boat, the St. Helens? How many exulted in their ascent to the summit or rambled joyfully through the Mount Margaret backcountry? Which campers wrote a letter home to gain their way into Sunday dinner at the YMCA Camp, or enjoyed a home-baked pie at Harmony Lodge? This was life at Spirit Lake and Mount St. Helens.

Today as we mark the 30th anniversary of the May 18, 1980 eruption, we are mindful of who came before. We relate to our past through the experiences of those who knew this magical place before the eruption. To those whom Mount St. Helens and Spirit Lake held a special place in their hearts and minds, welcome home!

### We Invite You to Explore and Help Protect one of Nature’s Youngest and Most Dynamic Landscapes
The Mount St. Helens National Volcanic Monument was established by Congress in 1982 to protect natural features and processes and provide access for recreation, research and education. The monument has become an internationally renowned laboratory for the study of earth processes and ecosystem recovery following large-scale disturbance. The quality and duration of data collected here over the last 29 years is unparalleled and the volcano continues to attract scientists, teachers, and students from around the world.

As you explore, look for evidence of the 1980 eruption and observe plants and animals that are thriving in a forest shattered by volcanic eruption. As you enjoy the wonder of nature’s recovery please help us protect life’s fragile foothold. Stay on developed roads, viewpoints and trails and have a very safe and enjoyable visit.
Climbing Mount St. Helens

Climbing Permits are required for travel above 4800 feet (tree line) year round. Between April 1st and October 31st a fee of $22 is charged for each permit. Starting February 1st, permits are sold in advance online on a first-come-first-served basis. Climbers should be aware that in rare instances rock and ash from small explosive eruptions can reach the crater rim.

Visit the climbing website for detailed information about volcanic hazards, safety equipment, and how to purchase a climbing permit online: www.fs.fed.us/gpnf/recreation/mount-st-helens/.

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.

Mount Margaret Backcountry

Trails in the Mount Margaret Backcountry climb over 2,000 feet in elevation and may be snow-covered until mid-summer. Eight designated campsites are available at four lakes and four ridge top locations, some with crater views. Backcountry 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, Johnston Ridge Observatory and Cowlitz Valley Ranger Station. Additional details are online: www.fs.fed.us/gpnf/04mshnvm/backcountry/index.shtml or by calling (360) 449-7800.

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. http://www.fs.fed.us/gpnf/mshnvm/education/teachers-corner/

Help Protect Mount St. Helens

In 1982, Congress established the 110,300 acre Mount St. Helens National Volcanic Monument 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.

The U.S. Forest Service is an equal opportunity provider and employer.

Contact Information

Emergency (Police, Medical, and Fire) .................. Dial 911

Forest Service Offices
Mount St. Helens National Volcanic Monument Headquarters (Amboy) ......................... (360) 449-7800 www.fs.fed.us/gpnf/mshnvm
Johnston Ridge Observatory ..................................... (360) 274-2140
Cowlitz Valley Ranger Station (Randle) .................................. (360) 497-1100
Gifford Pinchot National Forest Headquarters (Vancouver) ..................... (360) 891-5000 www.fs.fed.us/gpnf
Mt. Adams Ranger Station (Trout Lake) ........................................ (509) 395-3400

Other Resources
Mount St. Helens Visitor Center at Seaquest State Park .................... (360) 274-0962 www.parks.wa.gov/mountsthelens.asp
Climber’s Register (at Lone Fir Resort, Cougar) .................... (360) 238-5210
National Recreation Reservations (Federal Campgrounds) .................. (877) 444-6777 www.recreation.gov
PacificCorp (campgrounds at reservoirs south of Mount St. Helens) ........ (503) 813-6666 (see Recreation, Washington) www.pacifcpower.net
Washington State Parks .... (360) 902-8844 www.parks.wa.gov/parks
Mount St. Helens Institute ............................................. (360) 449-7883 www.mshinstitute.org
Discover Your Northwest ................................................. (360) 891-5214 www.discovernw.org
Mount St. Helens Forest Learning Center .................................. (360) 414-3439 www.weyerhaeuser.com/sthelen
Washington State Tourism .............................................. (800) 544-1800 www.experiencewashington.com

The eruption began with a massive landslide (debris avalanche) that buried 14 miles of river valley to an average depth of 150 feet.
Visitors can crawl through the cast of an ancient tree at Trail of Two Forests.

<table>
<thead>
<tr>
<th>West side (State Route 504)</th>
<th>Round Trip</th>
<th>Elevation Change</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth of a Lake Trail #246 (E)</td>
<td>0.6 miles</td>
<td>2490 feet to 2475 feet</td>
<td>Paved trail explores 1980 landslide deposit and developing life in a lake that was dammed-up by the 1982 eruption.</td>
</tr>
<tr>
<td>Eruption Trail #201 (E)</td>
<td>1 mile</td>
<td>4300 feet to 3250 feet</td>
<td>Paved trail explores 1856 eruption impact on ridge. View shattered trees and amazing crater and valley scenery.</td>
</tr>
<tr>
<td>Hummocks Trail #229 (M)</td>
<td>2.4 mile loop</td>
<td>2520 feet to 2400 feet</td>
<td>View hill-sized chunks of shattered volcano, ponds and river-carved canyon on 1982 landslide deposit.</td>
</tr>
<tr>
<td>Lakes Trail #211 to Coldwater Lake #230 (MD)</td>
<td>9.0 miles</td>
<td>2700 feet to 5200 feet</td>
<td>Explore blowdown and developing forest. At 4 miles, end of lake makes a good turnaround point. Continue ½ mile to junction with Coldwater Trail 232.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>South side (Forest Road 83)</th>
<th>Round Trip</th>
<th>Elevation Change</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trail of Two Forests #233 (E)</td>
<td>0.6 mile</td>
<td>1860 feet to 1885 feet</td>
<td>Boardwalk guides you across 1980 year old lava flow and tree casts that record an ancient forest consumed by lava.</td>
</tr>
<tr>
<td>June Lake Trail #216B (M)</td>
<td>3.2 miles</td>
<td>2700 feet to 3400 feet</td>
<td>Trail climbs along rushing stream before reaching lake nestled between basalt cliff and 1980 year old lava flow. Lake offers ideal lunch stop before continuing ¼ mile to junction with Loowit Trail 216.</td>
</tr>
</tbody>
</table>

**KEY:**
- (E) = EASIEST
- (M) = MORE DIFFICULT
- (MD) = MOST DIFFICULT

- Users require limited skill and encounter few challenges.
- Users require a high degree of skill and experience.

**Campgrounds**

| Highway 503 & FR 90 | # sites | Fee | | | |
|---------------------|--------|-----|| | |
| Cresap Bay * | 73 | 20 | | | |
| Cougar | 60 | 5 | | | |
| 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 | 22 | yes | | | |
| State Route 504 | | | | | |
| Sequast State Park** | 90 | yes | many | | |

* Reservations are required: Call (503) 813-6666.  ** Reservations are accepted: Call (877) 444-6777.  *** Reservations are accepted: Call (888) 226-7688.

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.
EXPLORE THE THREE SIDES OF MOUNT ST. HELENS

**Westside: State Route 504**

**Mount St. Helens Visitor Center at Silver Lake**

Located 5 miles east of Interstate 5, the center offers exhibits on the 1980 eruption and area history, ranger talks, walk-through model volcano, movie, bookstore and wetland boardwalk trail. The center is operated year round by Washington State Parks and has a $3 per adult, and $1 per youth (7-17 years) admission fee. Open daily 9:00 a.m. to 5:00 p.m., from May 1st to September 30, 2010. Call ahead for winter hours (360) 274-0962.

**Johnston Ridge Observatory**

View the steaming lava dome from a visitor center overlooking the crater and learn how the landscape was reshaped by the 1980 eruption. The center offers: live seismographs, geologic exhibits, 16-minute eruption movie, ranger-talks, and bookstore. Open from 10:00 a.m. to 6:00 p.m., mid-May through October (closed in winter). Pets are not allowed at viewpoints or on trails. A Monument Pass (wrist band) is required and available here.

**Coldwater Ridge Visitor Center is Closed**

Limited resources are being focused on providing visitor services at the Johnston Ridge Observatory.

**Coldwater Lake Recreation Area**

Visit a 28-year-old lake that was formed when water backed up behind a natural dam created by a massive landslide during the 1980 eruption. Coldwater Lake offers restrooms, public telephone, picnic area, paved interpretive trail and boat launch (electric motors only). Fishing requires a WA state license. Access is via small boat, float tube, and at two designated water access points along the Lakes Trail. Monument Passes (wrist bands) are required here. Purchase passes at the Johnston Ridge Observatory.

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**Northeast Side: Forest Road 99**

**Blowdown Forest and Spirit Lake Viewpoints**

Experience the full impact of the 1980 lateral blast as you drive through miles of standing-dead and blown-down forests. View Spirit Lake and its immense floating log mat. Forest Road 99 is generally accessible after snow melts (late-June through October; Closed in winter). Opportunities include: scenic viewpoints, hiking trails, and gift shop with bookstore. A Northwest Forest Pass is required for each vehicle and is available at Cascade Peaks and self-service fee stations at Bear Meadows, Meta Lake, and Windy Ridge.

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**Southside: Forest Road 83**

**Ape Cave, Trail of Two Forests, and Lava Canyon**

Explore ancient lava flows and Ape Cave lava tube. Ape Cave has uneven terrain, 42 degree F temperature, and is open for self-guided exploration year-round. Warm clothes, sturdy shoes and at least two light sources per person are recommended. Pets are not allowed in the cave. Between late June and early September services offered include: lantern rentals, bookstore, and cave tours. A Northwest Forest Pass is required and available here.

Nearby Trail of Two Forests explores casts of old growth trees buried by lava flows. Lava Canyon Trail explores a mudflow-scoured canyon with waterfalls plunging over ancient lava flows. Trail starts as paved, barrier free trail and then changes to a more challenging hiking trail with steep drops. Watch for construction and closures beyond paved trail.

DANGER—Stay on the Trail. Lava Canyon has steep drops and waterfalls. People who entered the river were swept over the falls to their deaths.

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**Driving Times**

(Hours: Minutes)  | Ape Cave | Lava Canyon | windy Ridge | Randle | Mount St. Helens Visitor Center | Coldwater Lake Recreation Area | 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 Visitor Center  | 1:30 | 1:45 | 2:45 | 1:30 | — | 1:00 | 1:00
Coldwater Lake Recreation Area  | 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 | 2:15
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 National Park  | 2:45 | 2:45 | 2:15 | 1:00 | 2:30 | 3:30 | 3:45

Fiery avalanches of pumice and hot gasses called pyroclastic flows flowed into the valley north of the crater.
Cement-like slurries of glacial melt water and boulders called lahars scour 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.