

VOLCANO REVIEW

Welcome To Nature's Laboratory



Cover Photo by David Korzilius

Welcome!

It is my great pleasure to welcome you to Mount St. Helens; Nature's Laboratory. Some of you will be drawn to the dramatic views of the steaming lava dome, or to the miles of spectacular hiking trails. Others will explore ancient lava tubes or visit our state-of-the-art visitor centers. All of you can make your own discoveries and learn from discoveries of those that came before you.

In 1980, scientists swarmed to Mount St. Helens to study this erupting volcano in our midst, but that was only the beginning. Mount St. Helens has continued to be a natural laboratory for scientists, students and visitors. Over the past 22 years, hundreds of scientists have conducted research here. Thousands of students have visited the volcano and learned from their discoveries. Millions of visitors have had their experiences enriched by these lessons.

For this important work to continue I need your help and cooperation. Please help protect this volcanic landscape and these unique research opportunities by respecting all rules and regulations. This will allow future generations of scientists, students and visitors to benefit from the research that takes place here. With this in mind, I invite you to come explore, and make your own discoveries at Mount St. Helens!

Clifford D. Ligons
Monument Manager



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The Volcano Review is produced by
Northwest Interpretive Association in
cooperation with the US Forest Service.



Just The Facts-Contact Information

Frequently Requested Phone Numbers

Chamber of Commerce

Castle Rock.....(360) 274-6603
 Centralia/Chehalis.....(360) 748-8885
 Kelso.....(360) 577-8058
 Stevenson.....(509) 427-8911
 Woodland.....(360) 225-9552

Law Enforcement

Emergency.....911
 Washington State Patrol.....(360) 577-2050

Other

Columbia River Gorge National Scenic Area.....(541) 386-2333
 Hoffstadt Bluffs Visitor Center.....(360) 274-7750
 Jacks Restaurant (Climbers' Register).....(360) 231-4276
 Mount Rainier National Park.....(360) 569-2211
 Mount St. Helens Cinedome Theater.....(360) 274-8000
 Mount St. Helens Visitor Center.....(360) 274-2100
 (360) 274-0962
 National Recreation Reservation Services(877) 444-6777
 Washington State Parks.....(360) 902-8844
 Weyerhaeuser Forest Learning Center.....(360) 414-3439

Web Sites

Cascades Volcano Observatory USGS.....vulcan.wr.usgs.gov/
 Gifford Pinchot National Forest.....www.fs.fed.us/gpnf
 Mt. Rainier N.P.....www.nps.gov/mora/
 Mount St. Helens National
 Volcanic Monument.....www.fs.fed.us/gpnf/mshnvm
 Mount St. Helens WEB CAM....www.fs.fed.us/gpnf/mshnvm/volcanocam
 Mount St. Helens Institute.....www.mountsthelensinstitute.org
 Washington State Chamber
 of Commerce.....www.wcce.org/county.html
 Washington Department of Transportation.....www.wsdot.wa.gov
 Washington State Parks.....www.parks.wa.gov
 Weyerhaeuser Learning Center.....www.weyerhaeuser.com/sthelens

Thank you for your support!

At Mount St Helens National Volcanic Monument, More than 80% of the visitor services and facilities that you enjoy are provided and maintained by pass sales. When you buy your passes, you support your national forests and you help protect ecosystems.

Passes are required at most developed sites on the Gifford Pinchot National Forest.



The Monument Pass is a one day per person pass, and can be purchased and used at the following recreational sites along the 504 Highway Corridor:

Washington State Parks Commission

- Mount St. Helens Visitor Center - milepost 5

US Forest Service

- Coldwater Ridge Visitor Center - milepost 43
and Lake Complex - milepost 45
- Johnston Ridge Observatory - milepost 52

Monument Pass Pricing

<u>Single Site</u>	<u>All Sites</u>	<u>Age</u>
\$3 Adult Pass.	\$6 Adult Pass	16 Years and Older
\$1 Youth Pass.	\$2 Youth Pass	5-15 Years
Free.....	Free	4 Years and Under

Golden Eagle, Golden Age and Golden Access Passports are honored at Coldwater Ridge Visitor Center and Johnston Ridge Observatory, by admitting card holder, spouse, children and parents only.



Sites that display this symbol require the Northwest Forest Pass.

The Northwest Forest Pass is a vehicle pass required at all designated recreational sites in Washington and Oregon. The cost is \$5 per day. Annual passes are available for \$30. A discount of 50% is given to holders of a Golden Age or Golden Access Passport. As an added bonus a valid Northwest Forest Pass will allow the pass holder admission to the visitor centers on State Hwy 504.

Passes are available at Forest Service Offices in the Pacific Northwest, numerous retail outlets, at www.naturenw.org and by telephone at (800) 270-7504. To find out about the Northwest Forest Pass and all the places it can be used visit: www.fs.fed.us/r6/feedemo/.

Forest Service Offices	Phone #	24-Hr. Recording	*TTY#	Fax#	Address
Mount St. Helens National Volcanic Monument	(360) 247-3900	(360) 247-3903		(360) 247-3901	42218 NE Yale Bridge Road/Amboy, WA 98601
Mount St. Helens Climbing Information Line		(360) 247-3961			42218 NE Yale Bridge Road/Amboy, WA 98601
Mount St. Helens Visitor Center	(360) 274-2100			(360) 274-9285	3029 Spirit Lake Highway/Castle Rock, WA 98611
Coldwater Ridge Visitor Center	(360) 274-2114			(360) 274-2129	3029 Spirit Lake Highway/Castle Rock, WA 98611
Johnston Ridge Observatory	(360) 274-2140			(360) 274-2151	3029 Spirit Lake Highway/Castle Rock, WA 98611
Gifford Pinchot Forest Headquarters	(360) 891-5000	(360) 891-5009	(360) 891-5003	(360) 891-5045	10600 NE 51st Circle/Vancouver, WA 98682
Cowlitz Valley Ranger Station	(360) 497-1100		(360) 497-1101	(360) 497-1102	P.O. Box 670/Randle, WA 98377
Mt. Adams Ranger Station	(509) 395-3400		(509) 395-3422	(509) 395-3424	2455 Highway 141/Trout Lake, WA 98650
The USDA is an equal opportunity employer.					*TTY- Teletypewriter for the Hearing Impaired.

Cover Photo by David Korzilius

Plan Your Visit

Driving Times In Hours:	Ape Cave	Cougar	Lava Canyon	Pine Creek Info Station	Windy Ridge	Randle	Mount St. Helens VC	Coldwater Ridge VC	Johnston Ridge Obs.
Ape Cave	--	0:15	0:15	0:30	1:45	1:45	1:30	2:30	2:45
Cougar	0:15	--	0:30	0:30	1:45	1:45	1:15	2:15	2:30
Lava Canyon	0:15	0:30	--	0:45	2:00	2:15	1:45	2:45	3:00
Pine Creek	0:30	0:30	0:45	--	1:15	1:15	1:45	2:45	3:00
Climber's Bivouac	0:15	0:30	0:30	0:45	2:00	2:00	1:45	2:45	3:00
Windy Ridge	1:45	1:45	2:00	1:15	--	1:15	2:45	3:45	4:00
Randle	1:45	1:45	2:15	1:15	1:15	--	1:30	2:30	2:45
Mount St Helens VC	1:30	1:15	1:45	1:45	2:45	1:30	--	1:00	1:15
Coldwater Ridge VC	2:30	2:15	2:45	2:45	3:45	2:30	1:00	--	0:15
Johnston Ridge Observatory	2:45	2:30	3:00	3:00	4:00	2:45	1:15	0:15	--
Portland	1:30	1:15	1:45	1:45	3:00	2:30	1:15	2:15	2:30
Seattle	3:30	3:15	3:45	3:45	3:45	2:30	2:00	3:00	3:15
Carson	1:30	1:30	1:45	1:00	2:15	2:15	2:45	3:45	4:00
Woodland	1:00	0:45	1:15	1:15	2:30	2:30	0:45	1:45	2:00
Mt. Rainier N.P. (Paradise)	2:45	2:45	3:00	2:15	2:15	1:00	2:30	3:30	3:45

Teacher's Corner

Field trip planning resources

Mount St. Helens National Volcanic Monument welcomes all school groups to experience Nature's classroom. Discover how the May 18, 1980 eruption changed the landscape, creating an amazing living laboratory where scientists have shared their findings giving everyone a better understanding of volcanoes: how they work, what they are made of, and how we monitor them; and the cycles of recovery and renewal that are shaping the impacted landscape.

Let us help make your outing an enjoyable and dynamic learning experience, check out our website filled with helpful tips for planning your visit, descriptions of ranger-led programs and self-guided activities at www.fs.fed.us/gpnt/mshnvm.

One chaperone to five students is free, other adults pay. Chaperones are responsible for the supervision of their group of students. When students have adequate guidance and supervision they and other visitors are able to have a more positive experience.

Schedule and reserve your field trip date and programs by calling:

- (360) 274-2131 for Coldwater Ridge Visitor Center and/or Johnston Ridge Observatory
- (360) 274-2100 or (369) 274-0962 for Mount St. Helens Visitor Center at Silver Lake
- (360) 247-3900 for Ape Cave.

Fees can be waived for accredited school groups, K-12, that make reservations two to three weeks in advance. We can help make your visit educational and memorable. For additional curriculum materials contact NWIA. (see page 15)

Protect biological recovery at Mount St. Helens by staying on trails and paved areas and leaving rocks, wood, and plants where they are.

Discovering Nature's Laboratory:

Discover Hwy 504

Highlights –

Look directly into the crater of Mount St. Helens and view history's largest recorded landslide and the lakes it created.

The Essentials-

1 hour- Visit Mount St. Helens Visitor Center

Learn about the history of the Mount St. Helens area.

Half a day- Visit Johnston Ridge Observatory and look into the crater of Mount St. Helens.

Special Extras-

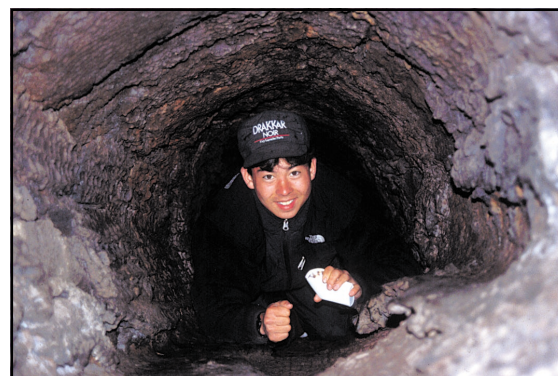
Explore the Coldwater Ridge Visitor Center and Lake, learn about the power of life in the blast zone. Hike the Hummocks Trail and walk on what was once inside Mount St.

Helens. Walk the boardwalk at the Mount St. Helens Visitor Center and discover the ecology of this ancient volcano formed lake.



Silver Lake Wetlands Trail

Explore Forest Roads 83 & 90



The Crawl at the Trail of Two Forests

Highlights –

Experience forests that survived the 1980 eruption of Mount St. Helens and see how nature has recovered from previous eruptions.

The Essentials –

Descend into the lower section of Ape Cave and explore a lava tube. Walk the Trail of Two Forests and see how ancient lava trapped a forest.

Special Extras –

Visit the Lahar Viewpoint and see how mudflows from the May 18, 1980 scoured away a forest. Hike Lava Canyon and enjoy beautiful waterfalls liberated by mudflows.

Rove Forest Road 99

Highlights-

Drive from dense live forest through the different parts of the blast zone and see the power of the May 18, 1980 eruption.

The Essentials-

Take a walk at the accessible Meta Lake Trail; discover how a lake and young forest survived and flourished after the eruption. Attend a ranger talk at Windy Ridge; learn about the eruption and recovery of Mount St. Helens, and be as close as you can drive to this volcano.

Special Extras-

Hike a portion of the Independence Pass Trail and peer down from above on Spirit Lake or hike to the shores of Spirit Lake on the Harmony Trail.



Trail at Windy Ridge

These are just some of the amazing places to discover and explore at Mount St. Helens National Volcanic Monument. If you have time there is much more to see and learn about here in one of nature laboratories. For suggestions or tips please talk with one of the rangers or stop at our headquarters, information stations, and visitor centers.

Landslides, Lakes and Lupine



Mount St. Helens Visitor Center

Operated by Washington State Parks and Recreation Commission, and located 5 miles east of Castle Rock on the shores of Silver Lake, the Center introduces visitors to Mount St. Helens' history and to the powerful events that took place on May 18, 1980. Take a walk on the 1 mile Silver Lake Wetlands Trail and discover how this lake was formed by a previous eruption and how the aquatic life continues to change Silver Lake today! Visitors can enjoy distant views of Mount St. Helens, and Silver Lake while identifying native plants, birds and other wildlife.

Services include a 16 minute theater presentation, interpretive exhibits, a staffed information desk and a Northwest Interpretive Association book sales area. You may continue your hiking adventure into Seaquest State Park, located directly across Highway 504 from the Visitor Center. Seaquest offers camping, hiking and picnicking.



Mount St. Helens Visitor Center



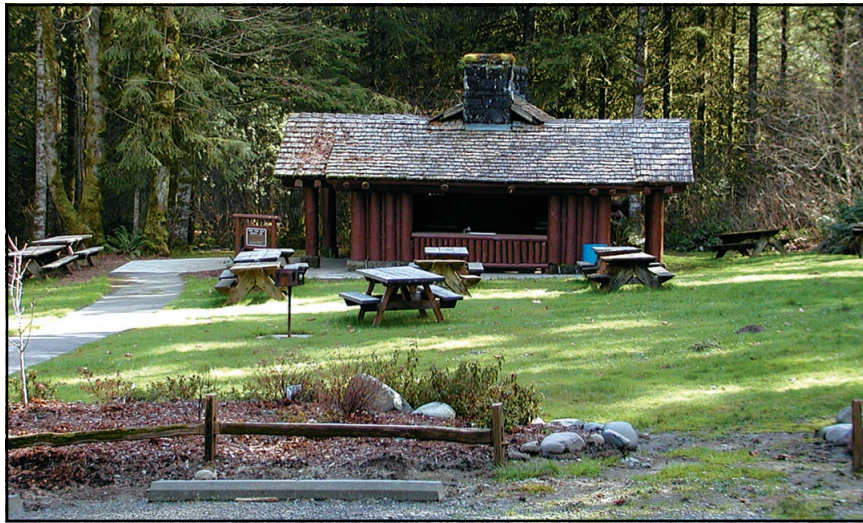
Seaquest State Park

Seaquest State Park is located across Highway 504 from the Mount St. Helens Visitor Center. The property that is now Seaquest State Park was donated to the state by the Seaquest family on the death of Alfred Seaquest in 1949. It was the family's wish that the land be used and enjoyed for public recreation. Although some of the property had been previously logged earlier last century, the park is currently home to stands of old growth Douglas-fir, white fir, western redcedar and western hemlock.

Seaquest is open year round and is the only public campground located on Highway 504. There are 34 utility hook-up sites, 58 standard non-utility sites and 4 primitive hiker-biker sites as well as a group camp facility with 3 Adirondack shelters and covered kitchen shelter. Campsites and group camp facilities may be reserved May 15 through September 15 by calling 1-888-CAMPOUT (226-7688). There is also a large day use and picnic area which includes a covered kitchen that may also be reserved at the above number from May 15 through Sept. 15.

There are approximately 5 miles of trails around and through the park including a pedestrian tunnel under Highway 504 connecting Seaquest to the Mount St. Helens Visitor Center grounds and boardwalk trail.

To get to Seaquest, simply take Exit 49 from I-5 and follow Highway 504 east for 6 miles.



CCC building at Lewis & Clark State Park



Lewis & Clark State Park

Lewis and Clark State Park, one of Washington's oldest state parks, is noted as being the "last major stand of old growth forest" in the Puget lowland of Western Washington. It is also noteworthy as being the site of the first interpretive center open to the public after the 1980 eruption. This first partnership between the Washington State Parks and the US Forest Service ultimately led to the opening of the Mount St. Helens Visitor Center by the USFS in 1987.

The park offers camping with 25 standard sites, 8 RV utility sites and 2 group camps. There is also an Environmental Learning Center head quartered in what once was a DNR camp. The Environmental Learning Center can be reserved by groups. The day use area has several historical Civilian Conservation Corps (CCC) buildings built in the 1930's. Today, they serve as kitchen shelters and restroom facilities. There is a small creek that runs through the day use area and a quiet pond that offers youth fishing during the month of June.

Directions to the park: take exit 68 off I-5, onto Hwy 12 heading east, 3 miles, turn south onto Jackson Hwy at Mary's Corner; the park entrance is on the right side of the road. Parts of the park run on a seasonal schedule. For more information call: (360) 864-2643.

The Science of Fire and Ice

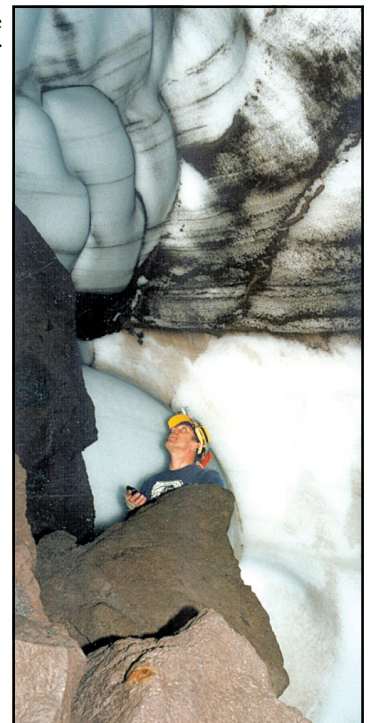
By Charlie Anderson - Director of the International Glaciological Survey

In the unique laboratory of Mount St. Helens, scientists that study glaciers and glacier caves are observing and documenting a newly formed glacier. Over the last 21 years, snow, ice and rock debris have accumulated behind the Lava Dome to an average depth of 100m (325 ft) thick. The snow stacking higher each year compressing the past years' snow into a dense crystalline ice body, as deep as 190m (600ft). Giant cracks in the ice, called crevasses, and other flow features, indicate that the ice body is transforming into a glacier. Scientists, known as Glaciologists, have been studying the movement and growth of the glacier as it creeps around both sides of the Lava Dome, flowing north.

Over the past 14 years, these scientists have also discovered and mapped 20 entrances to ice caves around the perimeter of the Lava Dome. Most caves occur in the presence of volcanic vents or fumaroles, on the dome. Heat, steam and volcanic gases from the crater vents have melted over 2,415 m (1.5 miles) of cave passage in the ice mass. Cave passages are enlarged by the circulation of wind and by steam released from geothermal sources beneath the ice. Some caves have spectacular large rooms, 12m x 24m x 6m (40' x 80' x 20') high, but most have small rooms and crawlways. Cave features include: scalloped ceilings and walls, stovepipe like holes in the ice called Moulin's, and skylights. In winter, short-lived ice stalactites and stalagmites form inside the caves from water dripping from protrusions on the cave ceiling.

The future of this glacier will be determined by fire and ice - heating from the volcano and the sun and the amount of snowfall. Increased heating could melt crater ice to produce landslides and mudflows that would change the amount of material carried down into the Toutle River altering the existing landscape in the National Volcanic Monument, as well as affecting the communities downstream. Continued study, mapping and investigations of the crater environment, along with monitoring of geothermal activities will help our understanding of the health of Mount St. Helens' new glacier. This glacier is part of the laboratory used to study the ever-changing balance between fire and ice.

Charlie Anderson in the Crater Glacier



Discover Highway 504



Coldwater Ridge Visitor Center

Discover Coldwater Lake

Coldwater Lake Recreation Area is located 45 miles east of Castle Rock. Visit this volcano-created lake and learn about how Mount St. Helens created a new landscape. Visitor facilities include: the accessible .25 mile Birth of a Lake Interpretive Trail, picnic tables, restrooms, a fish cleaning station, boat launch and hands-on discovery area.

Boating is allowed but only with hand- or electric-powered craft. For further boating and fishing regulations, please read the signs or check with a Ranger.

Coldwater Lake Recreation Complex is a day-use ONLY area, for information on local camping opportunities please see Seaquest State Park on page 4 or check with a Ranger.

Johnston Ridge Observatory

Fifty-two miles east of Castle Rock, Johnston Ridge Observatory's Ranger-led programs, interpretive displays and movie focus on: the sequence of geologic events, what has been learned from Mount St. Helens, and how this knowledge is transforming the science of monitoring an active volcano and forecasting future eruptions.

Opportunities include: great views of the lava dome, crater, pumice plain and the landslide deposits; walks and talks, that last 30 minutes and bring to life the fantastic geologic story of the mountain; and the Northwest Interpretive Association's book sales area where you can purchase items that will give you more insight on the eruption and recovery of Mount St. Helens.

During the summer season the center operates daily from 10:00 a.m. to 6:00 p.m.



WE NEED YOUR SUPPORT

A Monument Pass is required and available along State Highway 504 at The Mount St. Helens Visitor Center, Coldwater Ridge Visitor Center, and Johnston Ridge Observatory. A Monument pass is also required at Coldwater Lake Recreation Area please purchase your pass at Coldwater Ridge Visitor Center. Thank you for helping support your National Monument.

Coldwater Ridge Visitor Center

In Mount St. Helens National Volcanic Monument, forty-three miles east of Castle Rock, discover how life survived and is returning to the blast zone by visiting Coldwater Ridge Visitor Center. From the Center, visitors will appreciate the panoramic view of Mount St. Helens, Coldwater Lake and other newly formed lakes, and the Toutle River Valley.

Experience through: Ranger-led programs, a 16-screen movie, and interpretive exhibits, how the plants and animals facilitate the recovery of what appeared to be a barren landscape. Ranger programs, both walks and talks, usually last 30 minutes and bring to life the incredible changes this landscape has endured.

Other opportunities include: the accessible Winds of Change Interpretive Trail, a gift shop, a Northwest Interpretive Association book sales area, and a restaurant that serves a selection of sandwiches, soups and drinks.

During the summer season the center operates daily from 10:00 a.m. to 6:00 p.m.

Plaza at
Johnston
Ridge
Observatory



Don't do this to your dog!

Pets are prohibited at most Monument sites and trails along State Highway 504. These are sensitive landscapes, with full, direct sunlight, where leashed pets are only allowed in the small, designated pet areas at the Visitor Centers.

For information on areas where pets are allowed, contact Monument Headquarters at 360-247-3900.

West Side Trails

West Side	Trail #	Users	Difficulty	Length (miles)	Dogs	Trailhead Facilities	Elevation Change
*Birth of a Lake	246			.25	N		None
Boundary	1			19	N		Up to 3000 ft
Elk Bench	211D			.75	N		600 ft
*Eruption				0.5	N		100 ft
Hummocks	229			2.4	N		300 ft
Lakes	211			13.2	N		2700 ft
*Silver Lake Wetlands				1.0	N		None
South Coldwater	230A			3.4	N		1300 ft
*Winds of Change	232			.25	N		None

*Interpretive Trail

Trails that can be accessed from State Highway 504 allow hikers to explore the heart of 1980 blast and landslide. You can see how plants and animals return and thrive in this altered volcanic landscape.

Please stay on the trail.

See page 12 for symbol key.

Caves, Crawls and Conifers



Developed areas in this part of the Monument require the use of a Northwest Forest Pass. These passes can be purchased at Pine Creek Information Station, Monument Headquarters, Ape Cave, the climbing register in Jack's Restaurant, and many local businesses. Thank you for helping support your National Monument.

Apes' Headquarters

Open Daily June 29 to Sept. 8
10:00 am - 5:30 pm

Explore the furthest reaches of a lava tube formed from an eruption of Mount St. Helens 2,000 years ago. Lantern rentals, book sales and travel directions are available. Lanterns can be rented for \$3.50 until 4:00 p.m. and must be returned by 5:00 p.m. Apes' Headquarters is located at Ape Cave on Forest Road 8303, 3 miles north of the junction of Forest Roads 83/90. There is a self-service pay station available at this site.

★ Purchase your Northwest Forest Pass [here](#).



Visitor exploring Ape Cave

Ape Cave Lantern Walks

Daily June 29 to September 8
Program Times: 10:30, 11:30, 1:30, 2:30, 3:30 & 4:30

Join a Forest Interpreter who will shed some light on the life and features of the cool, dark world of this 2,000 year-old lava tube. Wear warm clothes and sturdy shoes. Lanterns are provided. Meet in front of Apes' Headquarters: allow 45 minutes for the program. The guided walk is limited to 50 visitors.

Volcanoes as Agents of Change

By Peter Frenzen, Monument Scientist

A visit to Mount St. Helens is like a journey through time. As you approach the volcano you travel along valleys that have been shaped by eruptions for 35,000 years. Layers of boulders, volcanic ash and pumice reveal the tumultuous, 2,500-year long sequence of eruptions that have built the mountain we see today. As magma pushed its way to the surface, trapped gasses escaped, producing towering ash clouds and fiery avalanches of pumice and rock. The eruptions melted glacial ice and snow producing cement-like slurries that filled nearby valleys.

Valley forests surrounding the volcano are rooted in the shattered remains of a restless neighbor. A centuries-long sequence of volcanic destruction and renewal is being repeated today as alder, cottonwood and willow struggle to establish along the banks of sediment-filled rivers. Lodgepole pine, hemlock and fir are gradually returning to slopes scoured by the 1980 eruption. In late spring mountain meadows once again glow with the purples of penstemon and lupine.

The 1980 eruptions offer us the opportunity to visit one of nature's youngest and most dynamic landscapes. By studying the 1980 eruption and carefully monitoring the smaller eruptions that followed, geologists have gained a better understanding of the signs of impending volcanic activity. These lessons are providing improved eruption forecasting around the world. Biologists are monitoring the step-by-step process that is gradually rebuilding forest ecosystems around the volcano. Mount St. Helens is teaching us that what remains behind after a large-scale disturbance is as important as what is taken away. Standing dead and downed trees provide important habitat for returning life and are key to the structure and health of the next forest.

As you explore the Monument watch for evidence of past eruptions and tune your senses to the sights and sounds of developing communities of life. A visit to Mount St. Helens allows us to reflect upon the cataclysmic forces that have shaped our dynamic planet and to witness nature's amazing process of recovery and renewal.

Pine Creek Information Station

Open Daily June 29 to September 8
9:00 am - 6:00 pm

If you are approaching Mount St. Helens from the south, be sure to stop at the Pine Creek Information Station located 18 miles east of Cougar on Forest Road 90. Staff will help you with travel directions, picnic spots, camping, trails and ideas on how to make the most of your visit. A short movie will get you ready for your adventure into the Monument. A short video will help you plan your visit. A Northwest Interpretive Association book sales area is also available.

★ Purchase your Northwest Forest Pass [here](#).

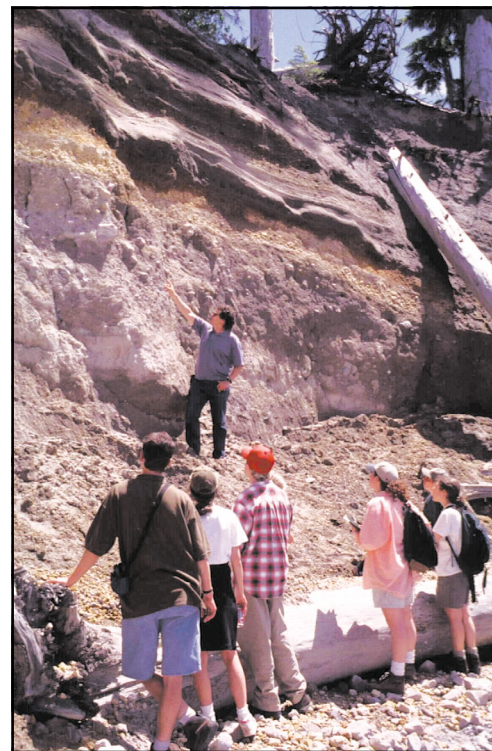
Trail of Two Forests

This .25 mile accessible boardwalk trail allows you to venture through a land of lava. Discover the molds and impressions of an ancient forest engulfed by a lava flow nearly 2,000 years ago, and an emerald forest that has risen from the black basaltic lava. If you bring a flashlight, there is an opportunity to crawl through the mold of a tree that stood at this site 2,000 years ago.

Mount St. Helens National Volcanic Monument Headquarters

Open Daily 8:00 am - 5:00 pm

Monument Headquarters is located 4 miles north of Amboy on State Hwy 503. Monument and Forest information is available. Special Forest Product Permits may be purchased here. Maps, books, and videos are available through the Northwest Interpretive Association. For more information call (360) 247-3900.



Layers of volcanic ash and pumice next to the Muddy River.

Explore Forest Roads 83 & 90



Plant life flourishes on the Lahar



Suspension Bridge on Lava Canyon Trail #184

Lahar Viewpoint

See how the south side of Mount St. Helens was affected by the May 18, 1980 eruption and witness the resiliency of life in this mudflow-scoured landscape, 10.5 miles east of the junction of Forest Roads 83/90.

Lava Canyon

































Discover more about Mount St. Helens eruptive past. Stroll along a 0.5 mile wheelchair accessible trail and explore a mudflow-scoured canyon with views of waterfalls plunging over an ancient lava flow. Opportunities exist for more challenging hiking experiences with rewarding views. Lava Canyon Recreation Area is 11 miles east of the junction of Forest Roads 83/90. ★Self-service pay station at this site.

South Side Camping

Location/ Campground	Camp Sites	User Fee	Reservations Accepted	Picnic Sites	Barrier Free	Boat Launch	Campfire Programs	Fishing	Restrooms	Showers	Swimming	Trailer Sites	Water	Agency/ Phone Number
Hwy 503&FR 90														
Cresap Bay	73	\$		20	✓	✓	✓		✓	✓	✓	✓	✓	PacifiCorp 503-813-6666 - Information
Cougar	60	\$			✓	✓			✓	✓	✓	✓	✓	
Beaver Bay	78	\$		5	✓	✓			✓	✓	✓	✓	✓	
Swift	93	\$		6	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Forest Road 81														
Kalama Horse Camp*	28	\$		2	✓				✓			✓	✓	USFS WA State DNR 360-577-2025
Merrill Lake	8	\$		6		✓		✓	✓		✓	✓	✓	
Forest Road 90														
Lower Falls	42	\$		4	✓			✓	✓			✓	✓	USFS
Lewis River Horse Camp*	8	\$			✓				✓			✓	✓	
Forest Road 42														
Sunset Falls	18	\$		6	✓				✓			✓	✓	USFS

* Horsecamps are for Horse Camping only April 1 - Sept. 30.

South Side Trails

South Side	Trail #	Users	Difficulty	Length (miles)	Dogs	Trailhead Facilities	Elevation Change	<div>South side trails offer outstanding opportunities to learn about ancient lava flows and recent mudflows that scoured the slopes of Mount St. Helens.</div> <div>• Discover the longest continuous lava tube in the continental US formed over 2,000 years ago.</div> <div>• There are no water pumps on this side of the Monument.</div> <div>• A Northwest Forest Pass is required at these sites.</div>
Ape Cave (Lower)	239A	 		.75	N	 	100 ft	
Ape Cave (Upper)	239B	 		1.5	N	 	400 ft	
Ape Canyon	234	 		4.6	Y		1400 ft	
June Lake	216B	 		1.6	Y		500 ft	
*Lava Canyon	184	 		1.7	Y	  	1350 ft	
Loowit	216			27	N		Varied	
*Trail of Two Forests	233	 		0.3	Y	  	None	
*Interpretive Trail								

See page 12 for symbol key.

Mount St. Helens National Volcanic Monument



Logging Equipment shows Fury of Blast

South Coldwater Trail #230A
Trail Difficulty: Moderate

When Mount St. Helens erupted in 1980 there were active logging operations on South Coldwater Ridge. Today you can visit the site of these operations. A log yarder, bulldozer, and log truck were left for the weekend when the volcano erupted. The twisted metal tower and upended log truck speak volumes of the incredible force of the blast. The remains of the pre-1980 forest, cut stumps, blasted logs, and trees tell of the progress of logging.

High on the trail are expansive views of Mount St. Helens above Johnston Ridge, Coldwater Peak, as well as views of landslide deposits in the bottom of the South Coldwater and the Toutle River valleys.

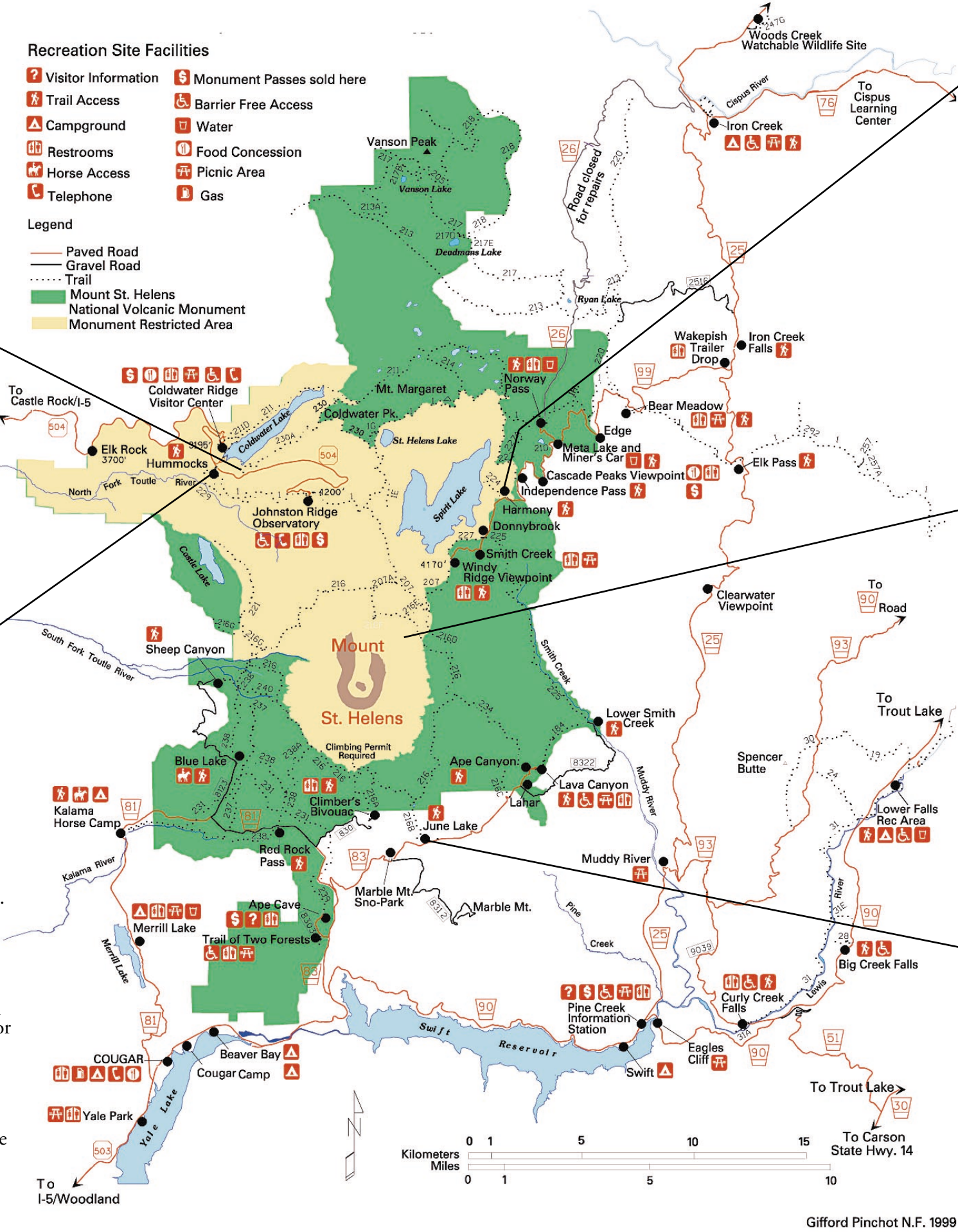
The 3.1 mile South Coldwater trail ends at its intersection with the Coldwater Trail #230. The Mount Margaret Backcountry can be reached using connections with trail #230. Wooden trail marking posts will help you to follow this trail as it gently and steadily ascends 1,300 feet of South Coldwater Ridge. The South Coldwater Trail is open to hikers for on trail, day use only.



Hummocks in bloom

History's Largest Landslide

Hummocks Trail #229
Trail Difficulty: Easy
Hummocks are the steep sided hills left when the north side of Mount St. Helens slid into the Toutle River valley in 1980. Discover how water has enhanced new habitats, allowing plants and animals to colonize the hummocks. As you walk this 2.3 mile loop among the Hummocks you will have a chance to look into pond water, which in season, teems with tadpoles and insect larvae. Water fowl may surprise you as they flush from thickets near ponds. Watch for tracks and scat of Roosevelt Elk. Notice how both large and small animals use this new habitat. The Hummocks Trail intersects the Boundary Trail #1. Using the Boundary Trail you may hike to the Johnston Ridge Observatory. The Hummocks trail is open to hikers only and restricted to on trail, day-use only.



Visit Spirit Lake

Harmony Trail #224
Trail Difficulty: Moderate

Spirit Lake was profoundly changed by the 1980 eruption of Mount St. Helens. A large portion of the north flank of the volcano collapsed into Spirit Lake and caused a “tidal” wave to wash 800 feet up the slopes north of the Lake. Hot, seething, pyroclastic flows traveled from the crater into the lake and heated the water to over 180 degrees. Thousands of trees were blasted into the lake and formed the log mat which still drifts with the wind across the surface of the lake.



The log mat on Spirit Lake

Today Spirit Lake is a crown jewel of the aquatic research at Mount St. Helens. Scientists have been surprised by the resiliency of life in Spirit Lake. The return of insects, aquatic plants, amphibians and fish has out paced the return of life to the surrounding land.

The Harmony Trail #224 is the only access to the shore of Spirit Lake. This 2 mile round trip drops 700 feet to the lake. Allow 2 hours on this hiker only trail. Off trail travel and camping are prohibited.

Help Protect Nature's Laboratory

To help protect scientific research opportunities and to allow natural processes to proceed unimpeded, special restrictions apply in the heart of the Mount St. Helens blast area. The restricted area includes the entire Spirit Lake Basin, the crater, the debris avalanche deposits and the areas around Coldwater, Johnston and Windy Ridges. The following regulations apply.

- Stay on the trails and paved areas; off trail travel is prohibited.
- No camping is allowed in the restricted area.
- Pets and bicycles are prohibited.
- Fires are NOT allowed in the restricted area.
- Disturbing or removing any natural feature is prohibited.
- Access into the crater is strictly prohibited.

Violation of ANY of these regulations can result in a minimum \$100 fine. The boundary of the Restricted Area is indicated here. For more detailed information contact one of the Visitor Centers or a Forest Service office.



Scientists track the recovery

Ancient Lava forms Crystal Lake

June Lake Trial #216B
Trail Difficulty: Moderate

Two thousand years ago molten lava poured from the summit of Mount St. Helens. The lava flowed rapidly down the steep upper slopes of the volcano. As the lava reached the lower flanks of the volcano it slowed, spread into thick lobes and cooled. One of these lava lobes blocked a tributary of Swift Creek and trapped the cold clear water that forms June Lake.

This 3-mile round trip hike is a good choice for families and beginning hikers. The path winds through a forest of young fir trees as it gently climbs from the trailhead to the lake. Look and listen for a beautiful surprise that awaits you at the inlet of June Lake.



June Lake

The June Lake trail is the best and shortest access to the Loowit Trail #216 that circles the volcano in 27 rugged miles. Please pack-out all litter and practice Leave No Trace principles.

Remnants and Recovery



Windy Ridge Viewpoint



Blast Edge Viewpoint

Windy Ridge Talks

Daily June 29 through September 8
Friday through Monday - 11:30 - 4:30 (hourly on the half hour)
Tuesday through Thursday - 12:30, 1:30 & 2:30

Learn about the eruption that challenged the imagination of volcano watchers. Join a Forest Interpreter at the Windy Ridge outdoor amphitheater and relive the incredible power unleashed on May 18, 1980. Forest Road 99; allow 25 minutes for the program.

Blast Edge Viewpoint

Stop and marvel at the standing dead trees that mark the edge of the blast zone, 6.5 miles west of 25/99 junction. • Look for a Forest Interpreter at this site at various times during the day. Program times are posted on the information board.

Meta Lake Walks

Daily June 29 through September 8

Stroll or roll to this emerald lake teeming with life and hear stories about plant and animal survivors and new arrivals. Meet at the Meta Lake Trailhead, junction of Forest Roads 26/99; allow 30 minutes. Drinking water is available here. Look for a Forest Interpreter at this site at various times during the day. Program times are posted on the information board.

Fire and Ice Fill the Crater at Mount St. Helens

By Ed Klimasauskus, US Geological Survey

If you had visited Mount St. Helens during the summer of 1980 you would have seen a much different sight than today. Following the cataclysmic eruption of May 18, 1980, the volcano erupted thick, stubby lava flows that piled one on top of the other to build a lava dome. Once the dome grew to about half its current size, dome growth occurred mainly from within. Magma, or molten rock, would squeeze up into the lava dome much like a person blowing up a balloon. The extra magma caused the dome to grow from the inside out. During some of these eruptions magma would reach the surface to form small, stubby lava flows much like those from earlier eruptions. Between 1980 and October 1986 seventeen different eruptions added lava to the dome you see today inside the crater. If Mount St. Helens had continued to erupt at the same rate as it had in the early 1980s it would have taken just over 200 years to rebuild the volcano! Since the last eruption was in 1986, scientists don't know when or even if Mount St. Helens will return to its former glory.

While eruptions were building the lava dome, loose debris from the steep crater walls had already begun to fill in parts of the crater floor. During the winter, heavy snowfall often avalanches down and piles up in the crater. When summer comes, the steep crater walls act like a sunshade, keeping the snow from melting. New rock debris from the crater walls covers the snow and helps insulate it further. Over the past twenty-two years a layer cake of snow, ice, and rock debris has built up behind the lava dome, in the coolest, shadiest part of the crater. If the mountain erupts again, scientists estimate that if all the snow and ice melted and mixed it up with all the rock debris in the crater you would have a mudflow equal to or larger than the one that went down the North Fork Toutle River on May 18, 1980. Only time will tell what will happen at Mount St. Helens. Whether the crater will slowly fill with rock fall, snow, and ice or the mountain will build by erupting again; Mount St. Helens will provide us with a wonderful laboratory to discover the future of this ever-changing volcano.

Cascade Peaks

Open Daily June thru Sept. 10 am - 6 pm
Food services, gifts, souvenirs are available at this location.



Lava dome and glacier that have formed since the May 18, 1980 eruption

Rove Forest Road 99



The day use areas and many of the trailheads in this area of the Monument require a Northwest Forest Pass. These passes may be purchased at Woods Creek Information Station, Randle Ranger District, Cascade Peaks Restaurant and Gift Shop, as well as at many local businesses in surrounding communities. There are also self-service pay stations located at Windy Ridge Viewpoint and Meta Lake Trail. Thank you for helping support your National Monument.

East Side Trails

East Side	Trail #	Users	Difficulty	Length (miles)	Dogs	Trailhead Facilities	Elevation Change
Boundary (Norway Pass Trailhead to Norway Pass)	1			2.5	N		840 ft
Harmony	224			1.0	N		572 ft
Independence Pass	227			3.4	Y		500 ft
Iron Creek CG	187			1.5	Y		None
Iron Creek Old-Growth	83			.25	Y		None
*Meta Lake	210			0.2	Y		None
Truman	207			6.2	N		1200 ft
*Woods Creek Watchable Wildlife	247			2.5	Y		None

East, beyond the reach of the volcano's power, old-growth forests and lush vegetation offer a sharp contrast to the gray of the blast area. Trails along Forest Road 99 lead hikers into the heart of the blast area and provide outstanding views of Spirit Lake. Water pumps are located at Norway Pass Trailhead on Forest Road 26 and the Meta Lake Trailhead on Forest Road 99.

*Interpretive Trail

See page 12 for symbol key.

Cowlitz Valley Ranger Station

Open Daily May 26 to September 3
8:00 am -4:30 pm

The Ranger Station is located 1 mile east of Randle on Highway 12. Stop here for information on trails and facilities in the Cowlitz Valley District and the Mount St. Helens National Volcanic Monument. Books and videos are available through the Northwest Interpretive Association. For more information call (360) 497-1100.

Woods Creek Information Station

Open June 22 to September 2
Thursday through Monday 9:00 am - 4:00 pm

Answers
Can You Track The Wildlife?
1-H, 2-D, 3-E, 4-A, 5-B, 6-C, 7-I, 8-G, 9-F

Woods Creek Information Station is located 6 miles south of Randle on Forest Road 25. The few minutes it takes to pull into this station will help you plan an event-filled visit to Mount St. Helens. Stay in your car for drive-through service about camping and hiking opportunities, or come inside to browse through the Northwest Interpretive Association sales outlet.

If you're looking for a place to picnic or stretch your legs, head across the road to the **Woods Creek Watchable Wildlife Site**. The day-use site also serves as a trailhead for the 2.5 mile Woods Creek Watchable Wildlife Trail. If you're interested in learning about the various habitats you're hiking through, Environmental Education Lab Packs can be checked out and used along the trail. Ranger led activities available on a limited basis. For more information, contact the Cowlitz Valley Ranger Station (360) 497-1100.

East Side Camping

Location/ Campground	Camp Sites	User Fee	Reservations Accepted	Picnic Sites	Barrier Free	Boat Launch	Campfire Programs	Fishing	Restrooms	Showers	Swimming	Trailer Sites	Water	Agency/ Phone Number
Forest Road 25 Iron Creek	98	\$	✓	12	✓		✓	✓	✓			✓	✓	USFS 877-444-6777 - Reservations
Forest Road 90 Lower Falls Lewis River Horse Camp *	42 8	\$ \$		4	✓ ✓			✓	✓ ✓			✓ ✓	✓	USFS
Forest Road 23 Tower Rock	22	\$	✓						✓				✓	USFS 877-444-6777- Reservations

* Horsecamps are for Horse Camping only April 1 - Sept. 30.

Discover the Wild Side-Climbing



Climbers on the Crater Rim

Climbing the Volcano

Climbing Mount St. Helens is popular with experienced and beginning mountaineers. People climb the volcano year-round, but late spring through early fall is the most popular time. The climb is not a trail hike; it is a rugged, off trail scramble. It is suitable for people in good physical condition who are comfortable on steep irregular terrain. Prior to mid summer, climbers can expect to encounter snow.

At 8,365 feet elevation, Mount St. Helens provides outstanding views of the crater, lava dome, blast area and surrounding volcanic peaks. The most popular route, Monitor Ridge, begins at Climbers Bivouac, at the end of Forest Road 830. This narrow gravel road is suitable for standard passenger vehicles. Start on the Ptarmigan Trail #216A; this trail climbs forested slopes for 2 miles to timberline. Above timberline, scramble over steep, blocky lava flows on the lower slopes and loose, sandy volcanic ash on the upper slopes. Take great care at the crater rim, it is extremely precipitous and portions may be unstable.

Most climbers complete the round trip in 7 to 12 hours. The route climbs 4,500 feet from trailhead to rim in a distance of 5 miles. Climbers should carry extra clothing and rain wear, sun protection for eyes and skin, extra food and water, sturdy boots and gaiters, a topographical map and a first aid kit. If you plan to climb on snow, carry and know how to use an ice axe. Wind, rain, fog and even snow can form quickly any time of year. The temperature at the rim can be 20 to 30 degrees colder than the surrounding valleys. Be prepared!

Climbing permits are required for each person above 4,800 feet elevation on Mount St. Helens. To help reduce disturbance to alpine plants and natural features, access is limited to 100 people a day from May 15 through October 31. During this season advance reservations are available from Monument Headquarters. Plan ahead as demand is high and many dates fill far in advance. Unreserved permits for 50 climbers are available at the Climbers Register starting at 6:00 PM each evening for the following day.

April 1 through October 31 a \$15 fee is charged for a climbing permit. An annual Cascades Volcano Pass may be purchased for \$30 and is valid for climbing fees at Mount Adams and Mount St. Helens. The climbing permit fee is part of the National Fee Demonstration Program. The Monument retains 80% of permit fees to support facilities and services for climbers. Climbers will be issued a parking voucher to use in lieu of parking fees during their climb.

All permits and registration materials are all available at the Climbers register, located at Jack's Restaurant and Store, located on State Route 503, 23 miles east of Woodland, WA (I-5, exit 21).

For current information call 360-247-3961 or visit our web page at www.fs.fed.us/gpnf/mshnmv.

Symbol Key

Users



Hiking



Accessible



Horseback



Mountain Bike



Caving

Trailhead Facilities



Picnic Area



Parking



Campground



Restrooms



Drinking Water



Information Station

Trail Difficulty Definitions:



Easiest

Level to gentle rolling. Easy hiking, suitable for children or individuals seeking a leisurely walk.



More Difficult

Vigorous hiking with moderate hills and slopes.



Most Difficult

Steep grades, narrow tread widths, low levels of maintenance. May require stepping over logs or traversing steep slopes or stream fords. Trails may be difficult to locate or follow. Suitable for experienced hikers in good physical condition. Expect a challenging experience.

There are many trails in the Monument leading hikers into diverse landscapes. Crater views, new lakes, blown down trees, ancient lava flows, mudflows and old-growth forest can all be discovered here. Trails vary in difficulty from short, accessible interpretive loops to long, steep and narrow trails that challenge even experienced hikers. Consult with Monument staff to pick the trails that best meet your needs.



VRT assists injured climber.

Emergency Medical Services

NCEMS

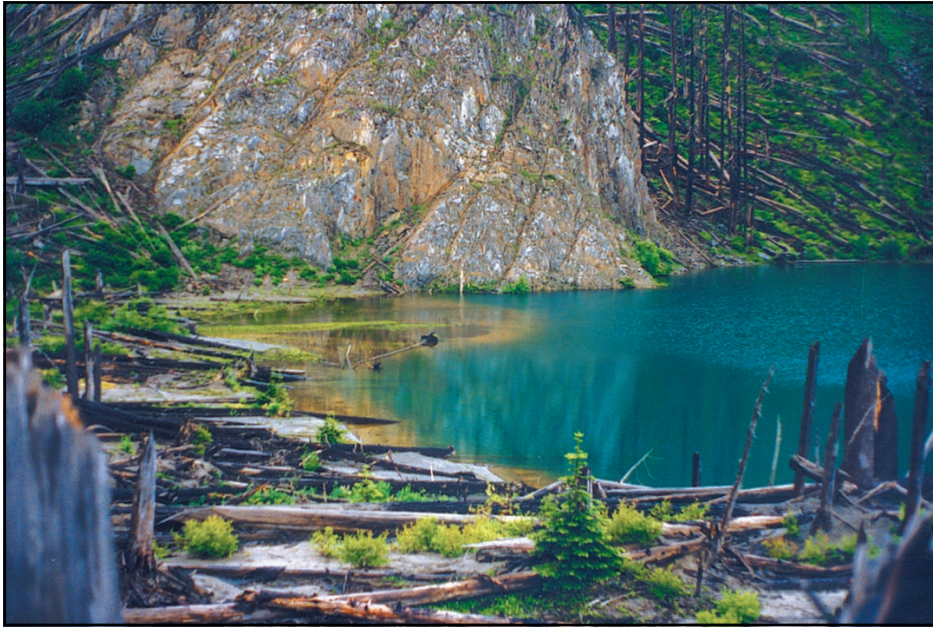


VOLCANO RESCUE TEAM

The Volcano Rescue Team (VRT) is a certified, rapid response, search and rescue team that has served the Mount St. Helens area since 1986. The volunteer members of the VRT are trained in high angle rescue, and snow and winter emergencies. Some members have many years of climbing and mountaineering experience; some are Paramedics and EMT's. With these combined skills the members, the VRT provide search and rescue services to visitors, hikers, climbers and cavers in the Mount St. Helens area.

For additional information, or contact the VRT at (360) 686-3271 or www.northcountryems.org

Mount Margaret Backcountry



Obscurity Lake

The MOUNT MARGARET BACKCOUNTRY

Hikers may once again explore trails that lead to the sapphire lakes, pinnacle studded ridges and flowered mountain slopes of the Mount Margaret Backcountry. Visitors to this rugged and spectacular portion of the Monument can see effects of the 1980 eruption of Mount St. Helens. The lateral blast, a hot stone filled wind shattered trees and swirled around peaks and basins as it toppled thousands of acres of pristine forest.

Trails in the Mount Margaret Backcountry have narrow tread, are steep in places and can climb over 2,000 feet in elevation. Portions of trails are often covered by snow until midsummer. Be prepared to cross snow slopes if you plan an early season visit. **The Whittier Trail #214 is closed** this season as a landslide has removed a portion of the trail.

Eight camps can accommodate tent campers at four lakes and four upland sites. Camping permits are required and camping is limited to these campgrounds only. Maximum group size for camping is four people. Camping permits can be obtained at Monument Headquarters in Amboy, WA and at Coldwater Ridge Visitor Center. The permit holder must also purchase and carry a valid Northwest Forest Pass for the duration of their visit. The Northwest Forest Pass is part of the National Fee Demonstration Program which allows the Monument to use revenue to support services and facilities for campers.

Each campsite has a level, wooden framed, earth filled tent pad as well as a gray water sump for waste water from washing and cooking. Solar composting toilets are also provided. Please use these facilities to help protect vegetation, water quality and other natural features.

Pets and pack stock are prohibited in the Mount Margaret Backcountry. Fires are not allowed, plan to use a camp stove for cooking.

For additional information call 360-891-5090 or visit our web page at www.fs.fed.us/gpnf.

Leave No Trace

These seven easy to follow principles will help you protect Mount St. Helens And enjoy your visit even more.



1. Plan ahead and prepare:

- Know the regulations of the area you plan to visit.
- Many areas require permits or fees. Find details in the Volcano Review.
- Prepare for weather extremes: heat, rain, wind and snow.
- Shelter and shade are scarce in many parts of the Monument.
- When possible, visit in small groups.

2. Travel and camp on durable surfaces:

- Stay on trails and established routes.
- Avoid fragile riparian areas by staying at least 200 feet from lakes and streams
- Use designated campsites where available.

3. Dispose of waste properly:

- Pack out all trash and litter.
- Always use toilets where provided.
- Otherwise, use a cat hole at least 6 inches deep and pack out toilet paper.

4. Leave what you find:

- Leave rocks, plants and all natural objects as you find them.
- Do not touch or disturb cultural or historic objects.

5. Minimize campfire impacts:

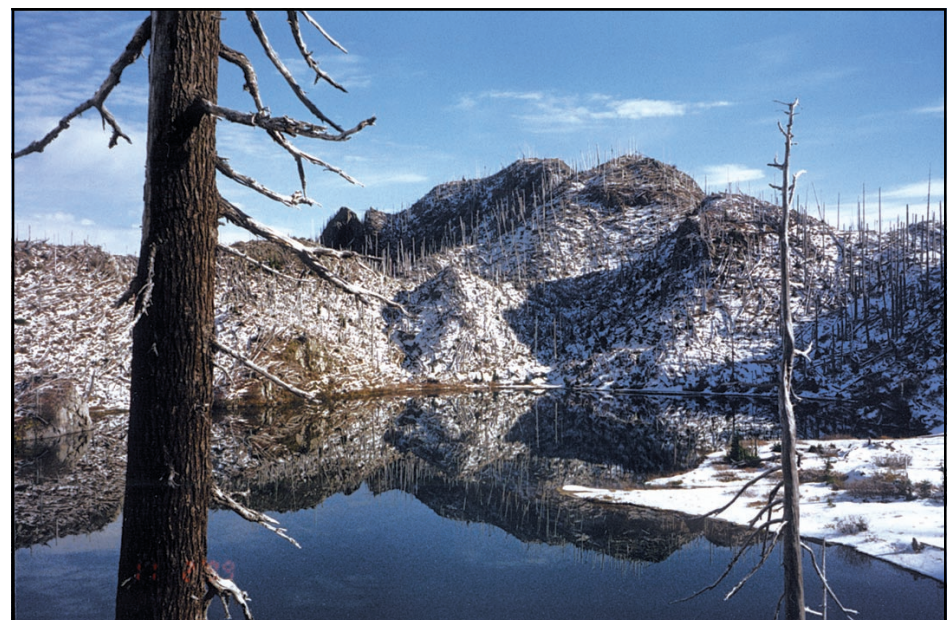
- Carry and use a camp stove. Fires are prohibited in many areas.
- Where fires are allowed, use established fire rings.
- Keep fires small. Use only sticks from the ground that can be broken by hand.
- Do not burn trash.

6. Respect wildlife:

- Observe them from a distance, do not attempt to approach or follow them.
- Never feed animals, it damages their health and is dangerous.
- Control your pets at all times, better yet, leave them at home.

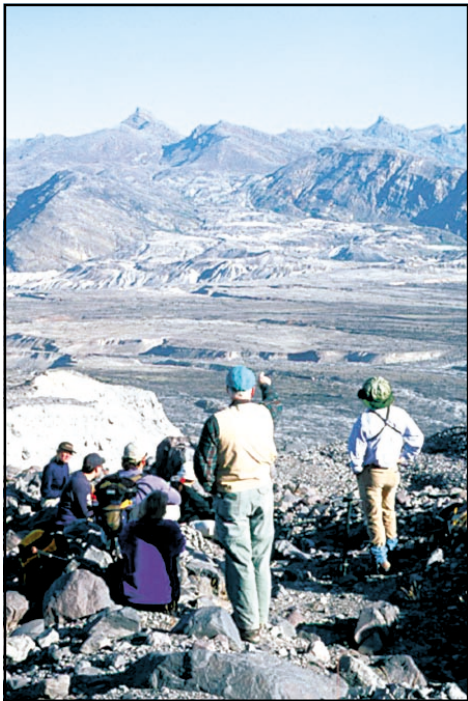
7. Be considerate of other visitors:

- Be courteous. Yield to other trail users.
- Let nature's sounds prevail. Avoid loud voices and noises.



Early snow at Panhandle Lake

Special Opportunities



Field Seminar Participants



Mount St. Helens Institute

COME EXPLORE THE SECRETS OF THE VOLCANO

WE'RE READY TO SHOW YOU LUPINES, LADYBUGS AND LAHARS

Don't know what to do with your lazy summer days? Join MSHI for a day trip or weekend camp-out and see the volcano's captivating landscape with new eyes. Learn about critters as small as grylloblattids or the largest landslide in human history. Climb to the crater rim,

explore Ape Cave, or hike the only trail to Spirit Lake. Our 2002 catalogue is filled with adventure outings for you to choose from. You can even earn college credits! To enroll, visit our web site, contact us, or pick up a catalog at a Monument visitor center. If you're an educator, contact us to order a copy of one of our exciting field trip guides.

BECOME A MEMBER OF MSHI!

As an Institute member, you'll receive special discounts, advance notice of outings and events, and a semi-annual newsletter. And your tax-deductible contribution will help fund innovative hands-on science programs for teachers, schoolchildren, and underserved communities. It's a great way to learn more about the volcano and show you care.

Mount St. Helens Institute
360/891-5095

PO Box 820762

Vancouver, WA 98682

Fax: 360/891-5045

Email: mshi@teleport.com

www.mountsthelensinstitute.org

Our mission is to awaken, in people of all ages, a deepened understanding and appreciation of the natural processes, ecosystems and cultural heritage of the Northwest's volcanic landscapes.

Be a Volcano Volunteer at Mount St. Helens!

Spend at least 12 weeks helping visitors gain an understanding of the geologic and biologic processes that have shaped this National Volcanic Monument.

Do you enjoy:

- learning,
 - sharing information with the public,
 - giving talks,
 - providing guided walks,
 - talking with visitors while roving trails, and
 - assisting Forest Service staff with day-to-day Visitor Center operations,
- then this is the volunteer opportunity for you. Come experience and be a part of this ever-changing landscape as a Volcano Volunteer.

The Forest Service may provide volunteers with: bunkhouse-style housing, a small daily stipend, a variety of in-depth training opportunities, and uniforms.

Positions Needed: Enthusiastic individuals, who are willing to perform a multitude of different tasks.

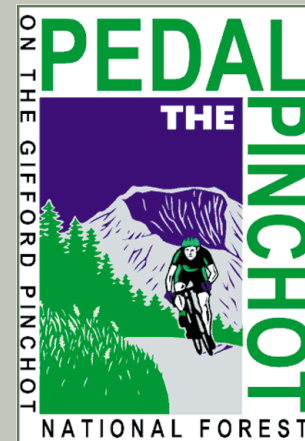
For more information write: Kristine Cochrane, Gifford Pinchot National Forest, Coldwater Ridge Visitor Center, 3029 Spirit Lake Highway, Castle Rock, WA 98611; call 360-274-2131; or email kcocrane@fs.fed.us.

Ride through the Cascade Mountains and enjoy spectacular views of Mount St. Helens and ancient forests.

July 20, 2002

- Four routes from 30 to 88 miles
- Two road bike options
- Two mountain bike options
- For Information contact the ride hotline at 360-891-5151

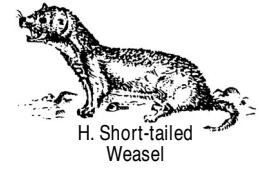
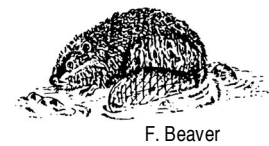
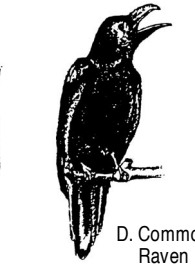
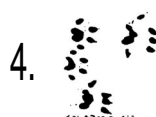
The website is: www.pedaltheinchot.com



Can You Track the Wildlife?

Draw a line to the animal to the track it would leave.

*Animals & tracks not drawn to scale.



Answers on Page 11.

Hey Kids!

If you enjoyed this ask a Park Ranger about our JUNIOR RANGER PROGRAM.



Northwest Interpretive Association

Northwest Interpretive Association is a non-profit organization that supports educational programs and visitor services of the Forest Service and other public land agencies. Proceeds from the sale of educational materials are used to fund Monument interpretive programs, the *Volcano Review* newspaper, new exhibits and displays and much, much more. Members receive a 15% discount.

Orders must be accompanied by full payment: check, charge or money order. Make checks payable to Northwest Interpretive Association (NWIA). Washington residents must add sales tax. Allow 3 to 4 weeks for delivery. All books are paperback unless otherwise noted. Prices are subject to change without notice. For more information call (360) 274-2127.

MOUNT ST. HELENS

Eruptions of Mount St. Helens: Past, Present And Future

Tilling, 47 p..... \$6.95
This photo-packed book explores the vast array of information gathered from one of the world's most studied geologic sites.

Fire Mountain

Boly, 74 p Softcover..... \$9.95
Boly, 74 p Hardcover..... \$18.95
Information about Mount St. Helens' eruption in a conversational tone. Includes diagrams and black and white as well as color photos.

Story Behind the Scenery: Mount St. Helens

Corcoran, 48 p..... \$8.95
Spectacular photographs and revealing text tell the Mount St. Helens story, focusing on the May 18, 1980 eruption.

Mount St. Helens, The Continuing Story in Pictures

Quiring, 48 p..... \$8.95
French, German or Spanish... \$9.95
A continuation of the Story Behind the Scenery book about Mount St. Helens, focusing on the rebirth of plants and animal life in the area.

Truman of St. Helens: The Man and His Mountain

Rosen, 163 p..... \$12.95
Conveys Truman's love for the mountain in a colorful style.

Ape Cave

Halliday, 25 p..... \$2.50
Learn how and when this longest known continuous lava tube in the contiguous 48 states was formed.

Mount St. Helens

The Eruption and Recovery of a Volcano
20th Anniversary Edition
Rob Carson, 160 p..... \$19.95
Updated edition documents how the people, landscape and wildlife of Mount St. Helens have been changed by the eruption of the volcano.

Portrait of Mount St. Helens

Williams/Warren, 80 p..... \$12.95
With vivid photographs, this book illuminates the mountain's pristine pre-eruption beauty, the blast itself, the dramatically changed post eruption landscape, and astonishing recovery of the ecosystem surrounding it.

LAPEL PINS

Interpretive Label Pins from parks and forests around the Northwest: Mount St. Helens NVM, Mount Rainier NP, Olympic NF, North Cascades NP.
Each \$3.95

MAPS AND TRAIL GUIDES

Mount St. Helens NVM Map
Each.....\$4.00
A map and guide for visitors to the National Volcanic Monument.

A Complete Guide to Mount St. Helens
Vielbig, 157 p..... \$12.95
A guide for hiking, climbing, skiing and nature viewing for the Mount St. Helens area.

Road Guide to Mount St. Helens
Decker, 59 p..... \$5.95
German translation..... \$6.95
This book is designed to guide visitors on a driving tour of the major sites in the National Volcanic Monument.

National Forest Maps

Each.....\$6.00
Detailed district topographic maps of Mount Adams, Mt. Baker-Snoqualmie NF, Gifford Pinchot NF, Goat Rocks Wilderness, Mount Hood NF, Olympic NF, Wenatchee NF, Willamette NF.

Huckleberry Book

Bowen, 90 p..... \$9.95
A charming book which examines the lore and fact of the huckleberry of the west. Full attention is given to defining types, picking, preserving and proper manners in a huckleberry patch. Generously supplied with recipes from across the mountains.

VIDEO

The Fire Below Us

DVD..... \$29.95
VHS..... \$24.95
A dramatic 60 minute documentary combining eyewitness accounts and spectacular footage about Mount St. Helens, reminding us of the power of nature. VHS and PAL format.

Fire Mountain: The Eruption and Rebirth of Mount St. Helens

VCR & DVD..... \$24.95
A 60 minute exploration of Mount St. Helens, before and after the eruption of May 18, 1980. Explains why the mountain erupted, how life survived, and what the future may hold for this changing landscape. VHS and PAL format.

Message from the Mountain... \$19.95

Experience one of the earth's most dramatic eruptions with a film that puts you in the path of Mount St. Helens fury. This award winning movie is shown at Johnston Ridge Observatory. 20 min.

POSTCARDS AND POSTERS

12 Mount St. Helens postcards..... \$3.95
Rosenquist Strip..... \$1.80
5 postcards showing the actual sequence of the eruption.

Eruption Poster..... \$7.95
Power and Spirit Panorama.. \$5.95
12x36 panoramic poster of Mount St. Helens and Spirit Lake.

PACIFIC NORTHWEST

Cascade/Olympic Natural History
Mathews, 625 p..... \$24.00
A field guide for the Cascade and Olympic Mountain ranges. With photographs and drawing.

Volcanic Landscapes

Mueller, 223 p..... \$12.95
Area maps and photographs of South Cascades volcanic cinder cones, lava flows, caves, craters and more.

Plants of the Pacific Northwest Coast

Pojar/MacKinnon, 528 p..... \$19.95
Easy to use field guide features 794 species of plants found along the Pacific Coast from Alaska to Oregon.

FOR CHILDREN

Discovering Volcanos

Fields/Maclis, 31 p..... \$5.95

Earthsearch

Cassidy, 109 p..... \$19.95
A children's hands-on geography museum in a book. Conceived and developed by teachers.

Mount St. Helens Activity Kit.. \$24.00

Activity kit that explores geological processes and events that occur during an eruption. Includes tested classroom activities, teacher info, map and ash from the 1980 eruption.

Magnets.....each \$1.00

Assorted Mount St. Helens magnets displaying the beauty of the 1980 .. eruption and the post-eruption landscape.

Mount St. Helens T-shirts

Sizes (Adult M-L-XL)..... \$18.95
Ash / Ivory / Green

Send your order form and any correspondence to:
Northwest Interpretive Association
3029 Spirit Lake Highway
Castle Rock, WA 98611
or e-mail your request to
nwiavc@yahoo.com
www.nwpubliclands.com
Fax # (360) 274-7124



Become an Association Member

Annual Membership:

All memberships are tax deductible

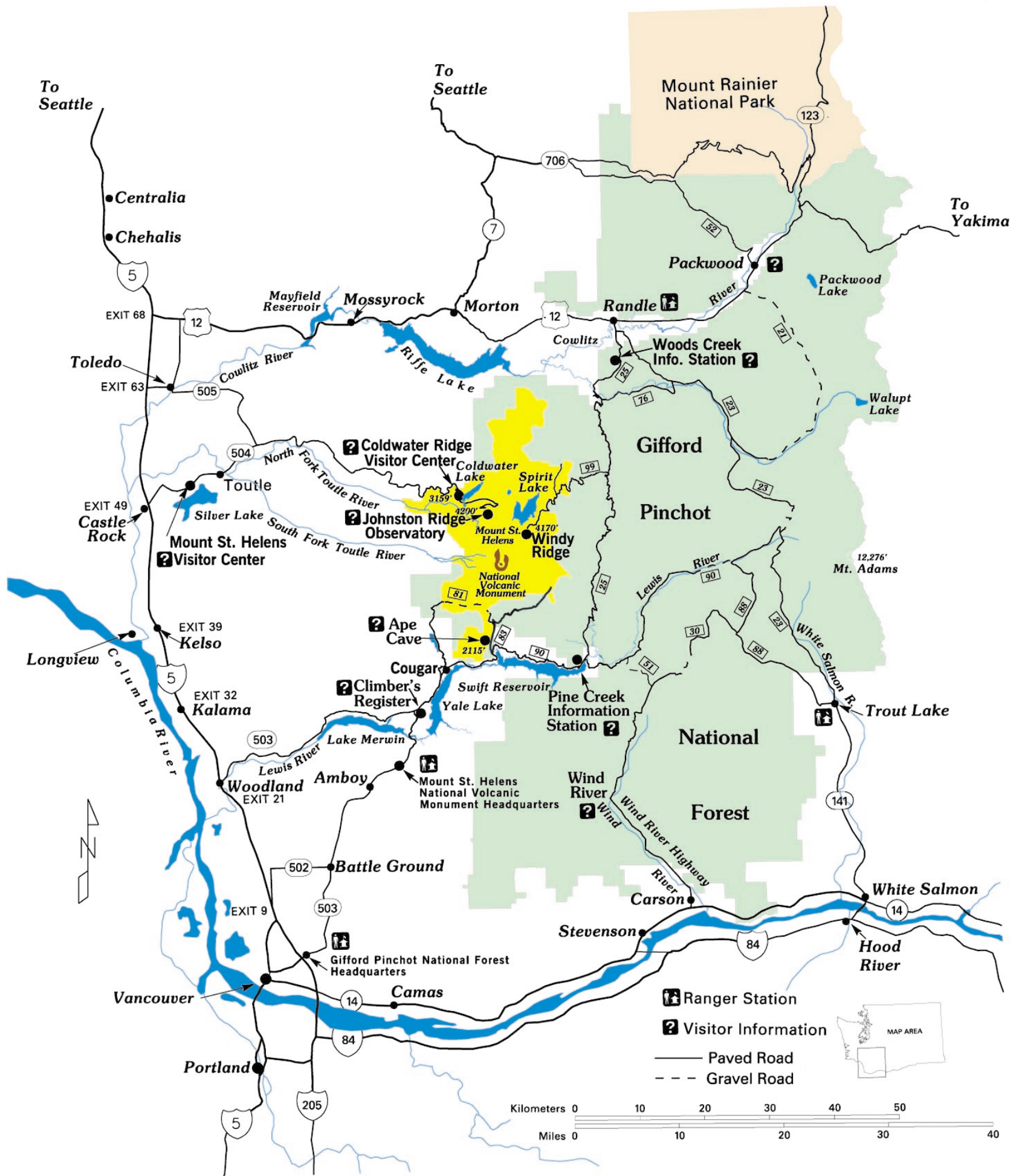
River.....\$25
Forest\$40
Mountain.....\$100

ORDER BLANK

Quantity	Title	Retail Price	Total Cost

Name _____	For posters add \$2.25 for tube _____
Address _____	Postage & Handling _____
City _____	\$5.00 first item (\$1.00 ea. add'l) _____
State _____ Zip _____	\$13.05 Overseas _____
Phone _____ (day/night) _____	Subtotal _____
	Membership discount _____
	Sales tax 7.5% _____
	(WA Residents) _____
	Membership _____
	Amount Enclosed _____

Area Road Map



Keep and use or return for others to use.

