

VOLCANO REVIEW

FREE A Visitor's Guide to Mount St. Helens National Volcanic Monument • Winter 1997



USDA Forest Service Photo by Mike King

Winter exploration at Mount St. Helens opens new doors of discovery.

A Warm Winter's Welcome

Winter is a special time to visit the Monument. Influences from winter weather provide unique activities and opportunities to explore and learn about Mount St. Helens. Sculpted by wind, snow, ice and rain, the landscape is constantly changing. Take advantage of some of the exciting wintertime activities to view and learn about these changes. Visit one of our interpretive centers, hike a trail, cross-country ski, or simply sit and listen to the sounds of winter. Whatever activity you choose, remember that even covered in snow the landscape is still fragile. Stepping off a

designated trail or snow play in a restricted area could damage the new features irreversibly. Become a part of the future of Mount St. Helens and please help us care for it.

What's Inside

- ❖ Winter Trail Opportunities
- ❖ Wildlife in Winter
- ❖ Vicinity Map
- ❖ Planning Your Visit



Plan Ahead for a Safe Visit

Weather and road conditions can change quickly in the wintertime. It's a good idea to check road conditions prior to your journey. For information on weather or road conditions within the Monument, call one of our Visitor Centers or National Forest offices (see page 4 for phone #'s.)

For road conditions in Washington State call 1-888-SNO-INFO or contact the local county sheriff's office.

To more fully enjoy your visit, have your vehicle properly equipped and be prepared for harsh winter conditions. Carry traction devices, tire chains, a full tank of gas, shovel and emergency supplies such as sleeping bags, food, water, and warm clothing in case you become stranded.



The Crater at Mount St. Helens – Cycles of Changes

Mount St. Helens has undergone many cycles of growth and destruction in the past 50,000 years. For 123 years the mountain slept. Then on May 18, 1980, catastrophic changes replaced gradual ones, when the volcano transformed itself in a few short days. Between 1980 and 1986 these "instantaneous" changes were replaced by intermediate processes, including the growth of a lava dome. When the lava dome stopped growing in 1986, processes of change began to slow down once more.

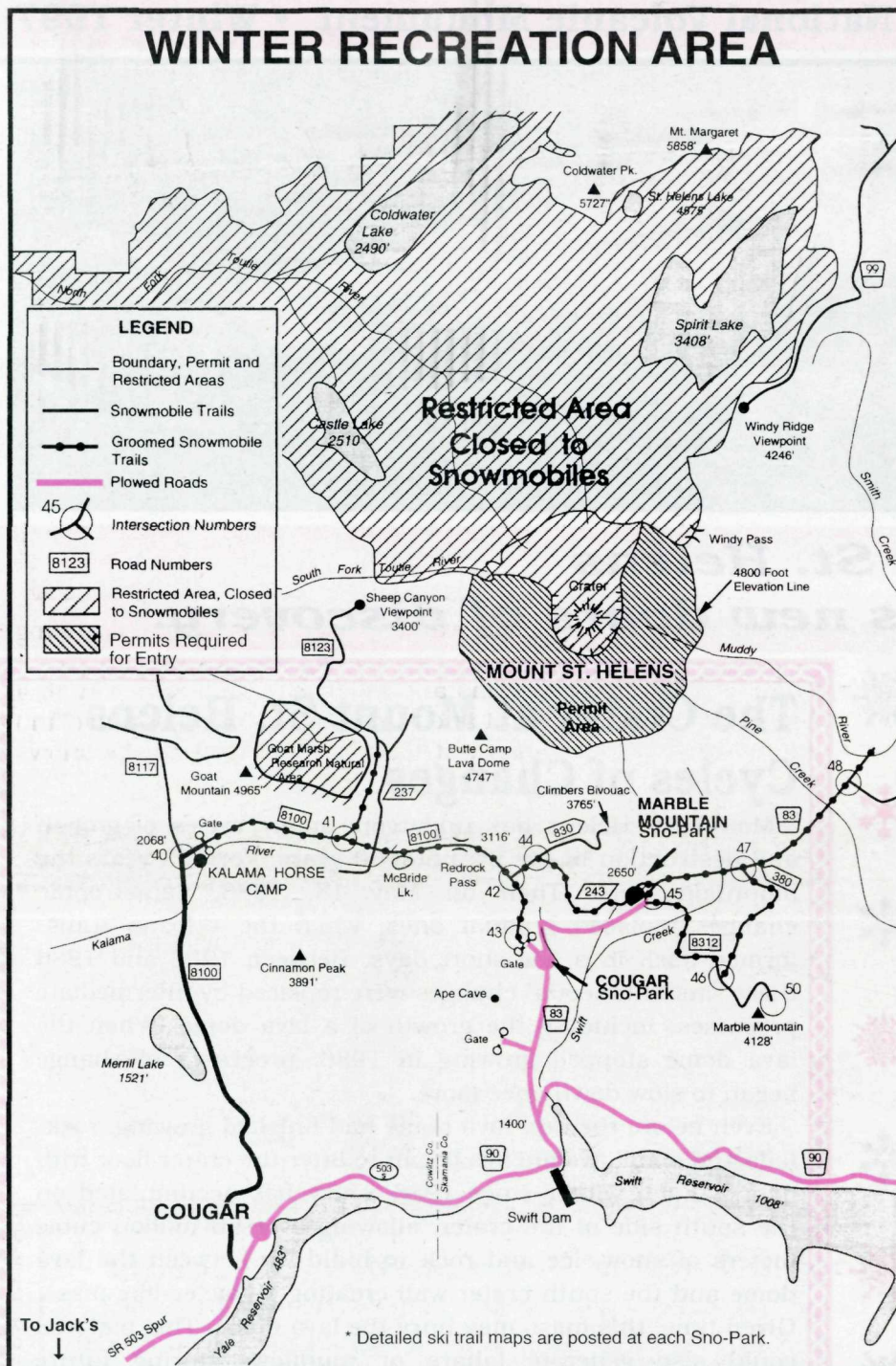
Even before the new lava dome had finished growing, rock-falls and small avalanches began to litter the crater floor with debris. Each winter since 1986, snow has accumulated on the south side of the crater, allowing over 50 million cubic meters of snow, ice and rock to build up between the lava dome and the south crater wall creating a glacier-like mass. Given time, this mass may bury the lava dome. This material could also generate lahars or mudflows during future eruptions.

Much of the material within the crater, both from the 1980 eruption and more recent rock falls, is fairly loose. Heavy rains and collapsing snow fields could mobilize this material into future debris flows. Early on the morning of September 17, 1997, rain-initiated debris flows surged out of the crater, spilling onto the Pumice Plain below. Smaller debris flows came off the western flank of the volcano as well, damaging trails and roads and spilling sediment into Blue Lake. As winter approaches, more snow will accumulate and most of the material in the crater will freeze. In the spring, however, melting snow and rain will mix with the loose volcanic debris, creating the potential for new debris flows.

Rock falls, snow and ice accumulation, and debris flows are only part of the processes reshaping Mount St. Helens. The current changes have taken on a more gradual pace, but some day the mountain will reawaken and the process of constant change will once again be accelerated.

WINTER RECREATION

Wintertime offers exciting opportunities to see the volcano in snow-covered splendor. Winter trails on the south slope of Mount St. Helens are a popular destination for skiers and snowmobilers. The area is served by two Sno-Parks, Cougar and Marble Mountain. Please remember that snowmobilers and skiers share many trails. Courtesy and respect, observing posted speed limits, and yielding the right of way will make your visit a safe and enjoyable one.



Winter Use Areas and Sno-Parks

Sno-Park permits are required for all vehicles using the Sno-Parks. The fee pays for the installation, maintenance, and plowing of parking areas. Permits may be purchased in Cougar and at the Randle Ranger Station as well as throughout the state from private vendors including sporting goods dealers.

For more information, write or call Washington State Parks, Office of Winter Recreation, 7150 Cleanwater Lane, Olympia, WA 98504, (360) 903-8552. Oregon Sno-Park permits are honored when displayed on vehicles of Oregon registry.



Who May Use Winter Trails?

Snow trails in the Mount St. Helens Winter Recreation Area are available for snowmobiling, cross-country skiing, and snowshoeing. Snowmobile trails are marked by orange diamonds and ski trails with blue diamonds.

Ski trails are closed to all motorized use, while many of the snowmobile trails are shared by snowmobilers and skiers. The West

Cougar Sno-Park (Parking for 30 cars)

From Cougar travel east on SR 503 7.25 miles to Forest Road 83 intersection, turn left on Forest Road 83 for 2.75 miles. The Sno-Park is located at the intersection of Forest Roads 83 and 81. Leading from the Sno-Park is the 81 Road snowmobile trail (shared with skiers) and the Kalama Ski Trail.

The Kalama Ski Trail, # 231, starts at the Cougar Sno-Park and ends 12.5 miles to the west at the Kalama Horse Camp. This long and challenging trail climbs high on the south side of Mount St. Helens, providing spectacular winter vistas. The trail can be skied as a series of winter loops using Forest Roads 81 and 8100-830 as return routes. The "Bear Loops" provide a series of short excursions near the Sno-Park.

Marble Mountain Sno-Park (Parking for 120 cars)

From the Cougar Sno-Park continue on Forest Road 83 another 2.5 miles to Marble Mountain Sno-Park. This popular site provides restrooms and a large log cabin warming shelter equipped with tables and a wood stove. A 911 emergency phone, connected directly to the Clark County Emergency Dispatch Center in Vancouver, can be found at the edge of the parking lot. The nearest commercial phone is in Cougar.

The Marble Mountain Sno-Park is very popular, providing access to miles of snowmobile and cross country ski trails. Snow-covered portions of Forest Road 83 east of the Sno-Park and Forest Road 8312 provide snowmobile access to Marble Mountain, the Lahar, and Plains of Abraham. These routes are shared with skiers.

Skiers will find many miles of dedicated ski trails radiating from the Sno-Park. Popular trails can be found around Wapiti Meadow, June Lake, Swift Creek, and the Sasquatch Loops. The area is often described as providing some of the best winter scenery in the Northwest.

Wakepish Sno-Park (Parking for 30 cars)

Wakepish can be reached by following U.S. Highway 12 to Randle. Head 19 miles south on Forest Road 25 to Forest Road 99. The Sno-Park is .13 mile up Forest Road 99. Both roads are paved and are plowed by the Forest Service. (Forest Road 99 is gated closed to vehicle traffic beyond the Sno-Park).

Facilities include a shelter with a wood stove, barrier-free toilet, and an information board. Wakepish Sno-Park provides access to miles of non-groomed snowmobile and cross-country ski trails into the blast zone and to spectacular views of the volcano. (Refer to vicinity map on back for location.)

Winter Climbing At Mount St. Helens

Permits to climb Mount St. Helens are required year-round above 4800' elevation. From November 1 - May 14 each year, permits are available in unlimited numbers and can be purchased at Jack's Restaurant and Store located on State Route 503.

Winter weather and snow can make climbing more difficult and approaches longer. Keep in mind additional skill, time and equipment may be needed.

For more information, contact the Climbing Information Line at (360) 247-3961 or Jack's Restaurant (6 am - 8 pm) at (360) 231-4276.

Fork Snowmobile Trail (between Marble Mountain Sno-Park and Forest Road 830) is closed to all ski and foot traffic. Snowshoe use on ski trails is permitted.

The use of wheeled vehicles (including motorcycles & ATVs) on snow trails is strictly prohibited. Remember - many snow trails are shared by snowmobilers, skiers, and snowshoers; please use caution and be courteous.

WINTER: A TIME OF SURVIVAL AND CHANGE

A Tale of Survival

The landscape and developing forest ecosystem around Mount St. Helens have been shaped, in part, by winter snow. Thick accumulations of snow and ice helped many plants and animals survive the May 18, 1980, eruption. The eruption occurred during the early spring when burrowing animals such as deer mice, northern pocket gophers, insects and the roots of dormant plants were protected beneath snow and overlying soil. Shrubs and small trees survived beneath late lying snowbanks on north facing slopes and high mountain meadows. These snow-protected plant and animal survivors helped provide a foundation for the future forest.

Although lifesaving during the eruption of May 18, 1980, winter snow offers challenges and hardships for wildlife. Animals deal with winter conditions in a variety of ways. For the truly hardy, winter survival is a matter of alternately seeking shelter and scavenging for food. Coyotes and ravens are two examples of year-round Mount St. Helens residents who, weather permitting, prowl the winter landscape in search of food. Ground dwelling animals such as deer mice and northern pocket gophers survive winter by remaining in their burrows, feeding on roots and seeds beneath a protective blanket of snow.

For some animals winter survival is a matter of avoidance. Black bear and ground squirrels are examples of animals who minimize the stress of winter temperatures and scarce food through hibernation – the technical term for a long winter's nap. Deer and elk seek shelter at lower elevations, relying on available forage and a layer of stored fat to survive. Energy reserves are critical for most animals to survive and stress from human intrusion can drastically reduce those reserves.

Some species avoid winter altogether by traveling great distances. Each fall, osprey fly south thousands of miles to spend the winter fishing in South America. One of our most impressive travelers is the tiny

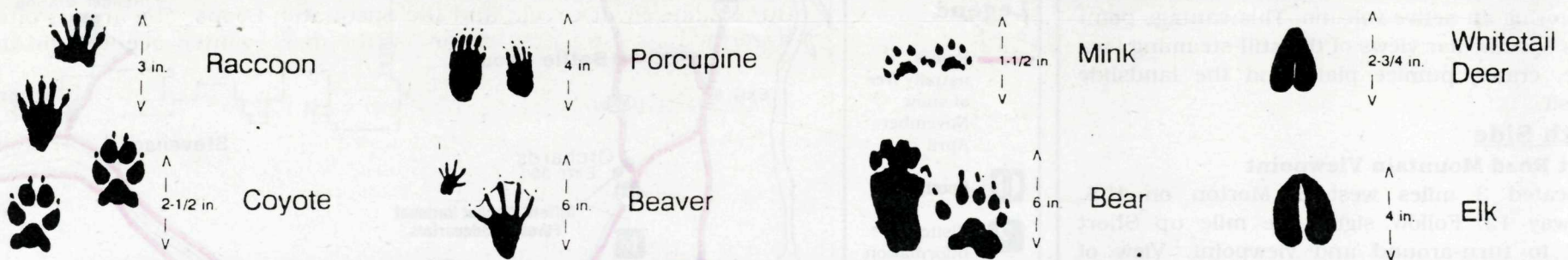


USDA Forest Service Photo by Jim Quiring

rufous hummingbird who flies all the way to Mexico in search of flowering plants.

Each spring, however, winter storms and silent snowfalls give way to a developing forest teeming with plant and animal life. This abundance and the amazing landscape that supports it have been shaped by the snows and struggles of winter.

Have you seen these tracks?



Monument Pass Information

The Monument Pass is a per person charge is good for unlimited use at all the sites listed below for up to three days. Costs are:

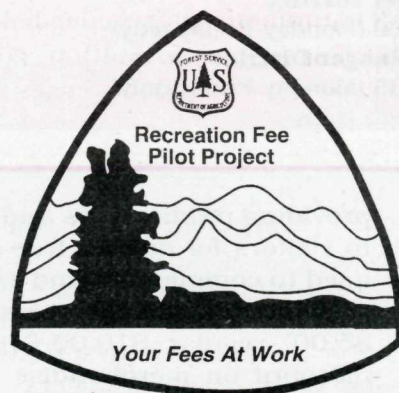
Free	Ages 15 & under
\$8 Regular Pass	Ages 16-61
\$4 Discount Pass	62 & older/Golden Access Passport Holders
\$16 Annual Pass	Ages 16-61, Valid 1/1-12/31
\$8 Discount Annual Pass	62 & older/Golden Access Passport Holders, Valid 1/1-12/31

During the winter months, a Monument Pass is required at the following developed recreation sites:

Mount St. Helens Visitor Center
Coldwater Ridge Visitor Center
Coldwater Lake Recreation Area
Loowit Viewpoint
Johnston Ridge Observatory

Monument Passes may be purchased at Monument Visitor Centers through the Northwest Interpretive Association.

For more information, contact Reed Gardner, Public Service Program Manager, at (360) 247-3943.



Recreation Fee Demonstration Program

Since March 1997, recreation use fees have been in effect at Mount St. Helens for visitors using certain developed recreation sites and/or climbing the volcano. The fees are part of a 3-year pilot program established by Congress in 1996 directing the Forest Service to test new admission and use fees at sites around the country. Mount St. Helens was selected as one of these test sites. Use fees support Monument recreation and interpretive programs. The Monument also utilizes volunteers, partners and concessions to improve efficiency and reduce costs.

How are the fees used?

The Recreation Fee Demonstration Program allows pilot sites, like the Monument, to keep up to 80% of the fees collected to fund basic operations, maintenance, and interpretive programs. In 1997 revenue from use fees provided the following services for visitors:

- Extended seasons and hours of operation at Monument Visitor Centers, information stations, and interpretive sites.
- Daily cleaning and maintenance of developed viewpoints, picnic areas, trailheads, and other recreation facilities.
- Trail maintenance completed on over 80 miles of trails.
- Regular climbing patrols of main climbing routes.

MOUNT ST. HELENS AND VICINITY

Come see Mount St. Helens in winter! Even though many of the popular summer viewpoints are closed by snow from November to May, there are still a variety of viewpoints and visitor centers available. During periods of clear winter weather and breaks between winter storms, dramatic views of the volcano can be found!

West Side

Keep in mind snow play and off-trail travel is prohibited in the restricted area. Check at visitor centers for more information.

Mount St. Helens Visitor Center

Open Daily 9:00 am - 5:00 pm • (360) 274-2100
Located 5 miles east of Castle Rock on State Route 504. This center offers an excellent introduction to the May 18, 1980, eruption. Views of Mount St. Helens (30 miles distant) and the Silver Lake wetlands await the visitor.

Coldwater Ridge Visitor Center

Open Daily 9:00 am - 5:00 pm • (360) 274-2131
Located in the National Volcanic Monument 43 miles east of Castle Rock on State Route 504. Visitors are invited to discover the fascinating ways that plants and animals have reappeared throughout the blast zone. Enjoy panoramic views of the volcano, newly formed lakes, and the debris-filled Toutle River Valley.

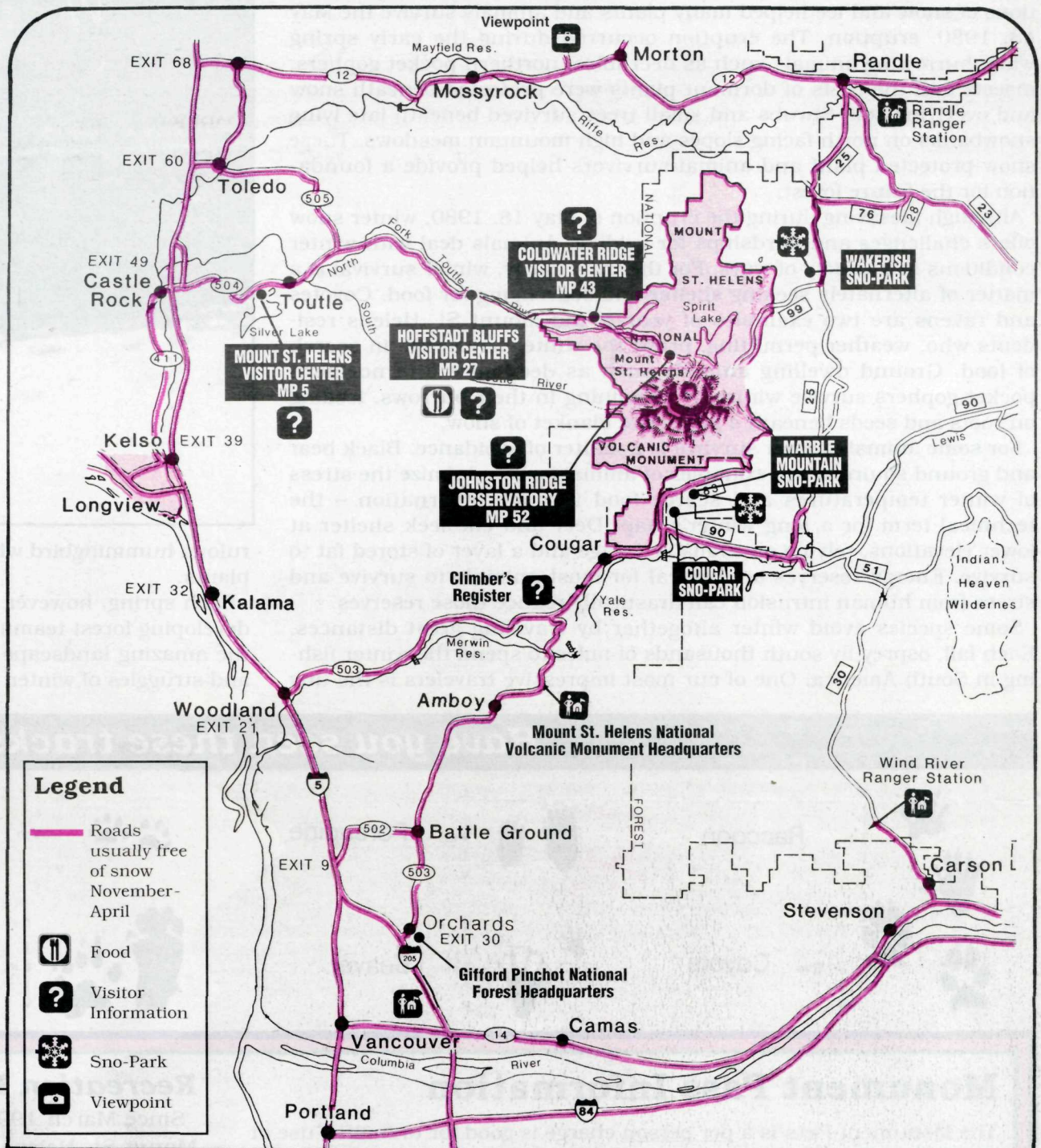
Johnston Ridge Observatory

Open Daily 10:00 am - 4:00 pm • (360) 274-2140
Located in the National Volcanic Monument 52 miles east of Castle Rock at the terminus of State Route 504. The observatory welcomes visitors to learn about the sequence of geologic events that changed the landscape around the volcano and to discover the art and science of monitoring an active volcano. This vantage point offers spectacular views of the still-steaming lava dome, crater, pumice plain and the landslide deposit.

North Side

Short Road Mountain Viewpoint

Located 3 miles west of Morton on U.S. Highway 12. Follow signs one mile up Short Road to turn-around and viewpoint. View of Mount St. Helens (27 miles distant).



Legend

- Roads usually free of snow November-April
- Food
- Visitor Information
- Sno-Park
- Viewpoint

Driving Times

In Hours:	Mount St. Helens V.C.	Coldwater Ridge V.C.	Johnston Ridge Observatory	Cougar Sno-Park	Marble Mt. Sno-Park	Wakepish Sno-Park	Woodland	Cougar	Portland	Seattle
Mount St. Helens V.C.	-	1:00	1:30	1:45	2:00	2:00	0:45	1:15	1:00	2:30
Coldwater Ridge V.C.	1:00	-	0:30	2:45	3:00	3:00	1:45	2:15	2:00	3:30
Johnston Ridge Obs.	1:30	0:30	-	3:15	3:30	3:30	2:15	2:45	2:30	4:00
Cougar Sno-Park	1:45	2:45	3:15	-	0:15	3:45	1:00	0:30	2:00	4:15
Marble Mt. Sno-Park	2:00	3:00	3:30	0:15	-	4:00	1:15	0:45	2:15	4:30
Wakepish Sno-Park	2:00	3:00	3:30	3:45	4:00	-	2:45	3:15	3:00	2:45
Woodland	0:45	1:45	2:15	1:00	1:15	2:45	-	0:30	0:15	3:15
Cougar	1:15	2:15	2:45	0:30	0:45	3:15	0:30	-	0:45	3:45
Portland	1:00	2:00	2:30	2:00	2:15	3:00	0:15	0:45	-	3:30
Randle	1:30	2:30	2:45	2:15	2:30	0:30	2:15	2:45	2:30	2:30
Seattle	2:30	3:30	4:00	4:00	4:15	3:00	3:15	3:00	3:30	-

Need help or information?

Mount St. Helens National Volcanic Monument
(360) 247-3900 (Monday-Friday only)
(360) 247-3903 (24-hour recording)

Gifford Pinchot National Forest Headquarters
(360) 891-5000 (Monday-Friday only)
(360) 891-5009 (24-hour recording)

Randle Ranger District
(360) 497-1100 (Monday-Friday only)

Wind River Ranger District
(509) 427-5645 (Monday-Friday only)

Packwood Ranger District
(360) 494-0600 (Monday-Friday only)

Mt. Adams Ranger District
(509) 395-3400 (Monday-Friday only)

National Weather Service Forecast
(360) 694-6136

Jack's Restaurant (Climber's Register)
(360) 231-4276

Avalanche Forecast
WA. (206) 526-6677 OR. (503) 808-2400

Washington State & Pass Info
1-888-SNO-INFO

Web Site:
www.fs.fed.us/gpnf

Northwest Interpretive Association

The Northwest Interpretive Association (NWIA) is a nonprofit organization whose purpose is to promote and support the educational and interpretive activities of the National Park Service, USDA Forest Service, Bureau of Land Management, and U.S. Army Corps of Engineers in the Pacific Northwest. It fulfills that purpose by



providing publications and other educational material and programs to visitors for sale or free distribution. Net proceeds from sales are used to complement and enhance visitor services.

Donations and memberships to NWIA are tax-deductible (student \$5.00, regular \$10.00-\$100.00). Members are entitled to a 15% discount on merchandise at any branch. Make checks payable to: Northwest Interpretive Association, 909 1st Ave., Seattle, WA 98104.