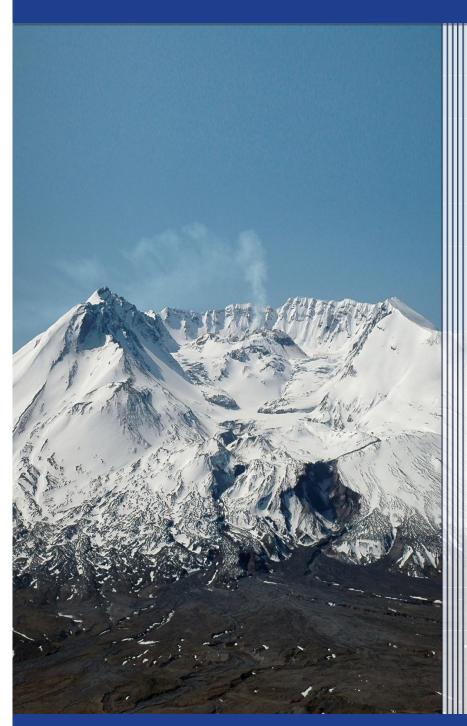
Mount St. Helens Existing Conditions Summary



December 2012



This document was prepared for the Federal Transit Administration by the Paul S. Sarbanes Transit in Parks Technical Assistance Center

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BACKGROUND

INTRODUCTION

The Mount St. Helens National Volcanic Monument is located in Cowlitz, Skamania, and Lewis counties, Washington, in the Pacific Northwest region of the United States. It is a sub-unit of the Gifford Pinchot National Forest. It is 96 miles (154 km) south of Seattle, Washington, and 50 miles (80 km) northeast of Portland, Oregon. At 8:32 Sunday morning, May 18, 1980, Mount St. Helens erupted. Within a few moments, nearly 150 square miles of forest was blown over or left dead and standing, leaving a dramatically changed landscape.

In 1982, the President and Congress created the 110,000-acre Mount St. Helens National Volcanic Monument (MSHNVM). The monument's purpose is to be managed for research, recreation, education, protecting local communities, and allowing natural processes to unfold. Management of the monument was entrusted to the U.S. Forest Service (USFS). The monument has been identified by the Mount St. Helens Citizens Advisory Committee as a "key tourist destination and economic engine for local communities while preserving natural resources and remaining a world leader for scientific research." (Looking Forward Strategic Investment Plan, Mount St. Helens National Volcanic Monument. United States Forest Service).

From 1985 to 1997, two visitor centers and an observatory were constructed, a number of viewpoints were created, and trail development and a climbing program were established along with programs for recreation, interpretation, education, and science. State Route (SR) 504 was relocated and extended. USFS's vision for collaboration with local communities around the SR 504 corridor is to:

- Build new relationships in local communities of place and interest and empower these new voices in a collaborative process.
- Work with communities so that they attain a realistic sense of the sideboards (boundaries) to a collaborative process so that the monument continues to meet its legislated mission.
- Explicitly align with the National Framework for Sustainable Recreation.
- Validate the desire on the part of the Monument to develop a niche in educational tourism with communities of place and interest.
- Increase community awareness of existing recreation and learning opportunities that may be underutilized, including trails, classes, programs, and other unique experiences, along the SR 504 corridor.

The MSHNVM seeks to build and nurture collaborative relationships with its neighboring communities, especially those in Cowlitz County The Monument has established several goals that focus its collaborative strategy, including:

- 1. Bring people together, continue building relationships, and inspire a collaborative process.
- 2. Design and implement a collaborative process together.
- 3. Enhance communication with the public and other relevant stakeholders.

- 4. Lay groundwork for a more business-friendly environment, both internally and externally.
- 5. Develop and implement a monitoring strategy and protocol together.

DRAFT PURPOSE OF THE STUDY

The Mount St. Helens National Volcanic Monument (MSNVM) is a recreational and educational resource of local and national significance. Although there are many attractions within the vicinity of the monument, most visitors do not take advantage of them. Over 80 percent of visitors are day trippers, and visitation has declined in recent years. The USFS, Cowlitz County, and other partners would like to better integrate the monument and the local communities to enhance the visitor experience, improve educational opportunities, and promote economic development. This project builds on the momentum generated by recent USFS improvements to facilities on the monument (Johnston Ridge Observatory and the Coldwater facility), the newly adopted Seaquest State Park Plan advocating better connections between Castle Rock, the park, and the Monument; and the ongoing Fire and Ice Scenic Loop Plan linking two scenic byways.

This project will consider a range of sustainable transit and nontransit transportation alternatives and potential marketing strategies to support the local communities, businesses, and visitors. The resulting solutions will better connect the SR 504 corridor, and possibly other highway corridors; Cowlitz County; and the major traveler origins with the MSHNVM, raising awareness of the resource and promoting visitation, while protecting the visitor experience, natural resources, and the values of the USFS and the local communities.

EXISTING CONDITIONS

HOW THE MONUMENT IS ACCESSED

AUTO

There are several routes to access various points of the monument but only one to access the Johnston Ridge Observatory: SR 504, also known as the Spirit Lake Memorial Highway. State Route 504 extends 51.76 miles (83.30 km) from Interstate 5 (I-5), SR 411, and Interstate 5 Business (I-5 Bus) in the city of Castle Rock, east to the Johnston Ridge Observatory, where it dead ends. It takes approximately 1 hour, 15 minutes to drive from the I-5 interchange to the Observatory on SR 504. SR 504 is a state highway, owned and operated by the Washington Department of Transportation. The highway is kept relatively snow free up to Coldwater Lake.

SR 505 provides a northern connection from I-5 to SR 504 where it terminates via Toledo. SR 505 intersects I-5 approximately 21 miles north of Castle Rock and 23 miles south of Centralia.

State Route 503, also known as the St. Helens South Roadway, starts at I-5 in Woodland. SR 503 splits into a main highway and a spur; the main highway goes south on Yale Bridge Road. The spur follows Lewis River Road to Mount Saint Helens. SR 503 provides connections to the monument via Forest Road 81 which connects to Forest Roads 83 and 90. Forest Road 90 also connects to Wind River Road, which can be taken south to intersect with the Lewis and Clark Highway (SR 14) which follows the Columbia River Gorge. State Highway 503 is open year round, while Forest Roads 83, 81,

and 90 are usually open from Memorial Day until snow blocks the roads. See Figure 1 on the following page for a map of the monument and surrounding roadways.

TRAIN/BUS/BIKE

Castle Rock and the western starting point of SR 504 can be accessed via bus. CAP Rural Public Transit provides connections from Castle Rock to Longview and Vancouver via I-5. Service is provided by two morning buses and two afternoon buses to and from Longview to Castle Rock and one bus to and from Vancouver in the morning and afternoon. The Castle Rock Park & Ride is located on Huntington Avenue (the beginning of SR 504) next to I-5 Exit 49. Service runs Monday through Friday. Fare is one dollar.

The Kelso Multimodal Transportation Center is the Amtrak rail service station stop closest to the SR 504 and I-5 interchange in Castle Rock. Community Urban Bus Service provides bus service from the Kelso transportation center to the Longview Transit Center with two buses an hour between 7 a.m. and 7 p.m., Monday through Friday. From the Longview Transit Center, CAP Rural Public Transit can be taken to Castle Rock. Amtrak also provides connections to Portland, Tacoma, and Seattle, and there are connections from those stations to major airports such as Portland International Airport (PDX) and SeaTAC via bus.

Castle Rock has a Riverfront Trail that runs along both sides of the Cowlitz River. On the east side, the trail begins at Lions Pride Park, runs past the Rock Community Park, and 1.5 miles later reaches the PH10 bridge. On the west side, the trail runs 1,100 feet to the Castle Rock Sports Complex. Castle Rock is planning an additional trail along Huntington Avenue and SR 504.

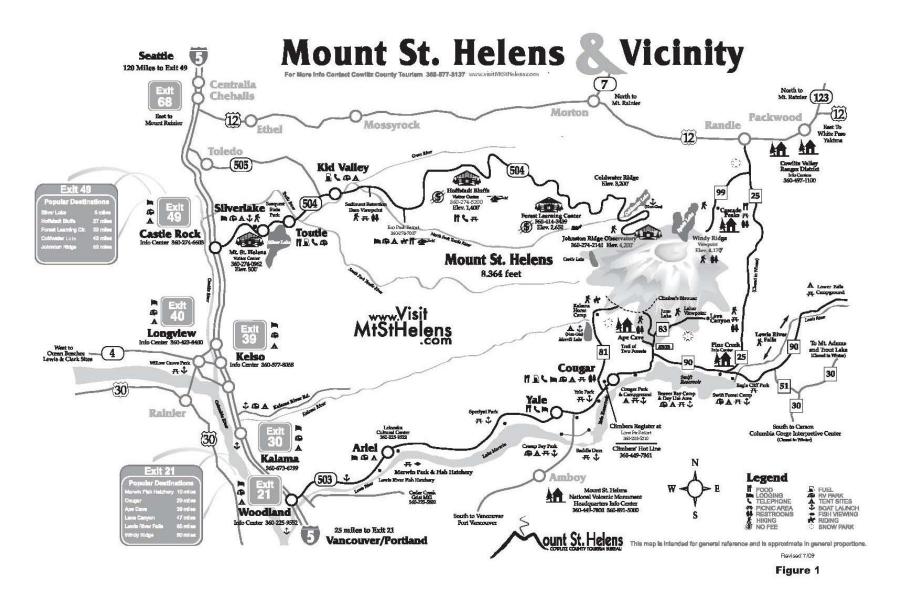


Figure 1 - Mount St. Helens Vicinity Map

TRAFFIC AND VISITATION COUNTS

Several factors have affected visitation to MSHNM in the past 10 years, such as the level of volcanic activity, road closures, and whether facilities are open. Mount St. Helens was frequently erupting from 2004 to 2008, with the most volcanic activity in late 2004 and early 2005. When volcanic activity is high, interest in the MSHNVM grows, and visits increase. However, for reasons of safety, Johnston Ridge Observatory closed early in the fall of 2004 during periods of high volcanic activity. At that time, other facilities such as the Coldwater Ridge Visitor Center remained open. Additionally, local roads must be closed from to time because of foul weather and floods, thus limiting access for visitors.

Traffic counts, which count the number of vehicles, can be used to estimate the number of visitors to the monument. Traffic counts were taken over a period of years at different locations around the Monument. One traffic counter was on SR 504, just west of where traffic splits to head either to Johnston Ridge or to the Coldwater Ridge facility. This counter captured all vehicles going to Coldwater Ridge Visitor Center (when it was open), Johnston Ridge Observatory, Coldwater Lake recreation area, and a few trailheads.

Table 1 shows visitation to MSHNVM from 2002 to 2011 based on vehicle traffic counts at the location on SR 504 for May through October. Each vehicle that passed was multiplied by 2.4 to account for the average number of passengers in the vehicle and that number was then multiplied by 1.25%. The 1.25% represents the margin of error in calculating visitors at Johnston Ridge Observatory by pass information versus vehicle count information for 2011. At the beginning of the vehicle counts in 2002, the estimate of traffic on SR 504 from May to October was 275,409 vehicles. In 2011, it was 215,307 vehicles. This is a 22 percent decrease in a ten-year period.

Table 1 2002 to 2011 Visitation (May through October)

YEAR	Visitors*
2002	275,409
2003	273,696
2004	277,473
2005	290,463
2006	285,054
2007	0
2008	237,648
2009	0
2010	208,791
2011	215,307

^{*}Visitor estimate is based on traffic counts on SR 504 near Johnston Ridge Observatory.

Vehicle traffic on SR 504 is highest in the summer months when Johnston Ridge Observatory is open (and, previously, when Coldwater Ridge was open to the public –before 2007) and the road is snow-free. Table 2 shows the monthly variation for traffic counts on SR 504 for a seven-year period. Based on these data, July is the most visited month, followed by August, June, and May.

Table 2 2005 to 2011 Monthly Traffic Counts on SR 504 Corridor

YEAR	May	June	July	August	September	October
2005	13,510	15,052	25,073	22,992	13,687	6,507
2006	12,370	15,515	22,880	21,334	15,046	7,873
2007	Data Unavailable					
2008	9,258	12,880	18,935	17,531	13,413	7,199
2009	Data Unavailable					
2010	4,927	12,243	18,994	16,941	10,691	5,801
2011	6,338	11,572	19,271	18,442	12,271	3,875

According to the 2011 Region 6 Recreation Use Study: Mount Saint Helens National Monument Gifford Pinchot NF, most (79.2 percent) of respondents had one vehicle per group. This suggests that most of the visitors traveled to the monument in personal vehicles. Visitation numbers based on traffic surveillance at the MSHNVM recreation sites are summarized in the table below.

Table 3 Recreation Site Visitor Counts

Site	2004	2005	2006	% Change From 2005 to 2006
Johnston Ridge Observatory	209,992	206,575	195,496	-5%
Coldwater Ridge Visitor Center	224,954	194,685	191,330	-2%
Mount St. Helens Visitor Center	171,156	225,895	214,104	-5%
Windy Ridge/FS RD 99 Viewpoints	133,761	105,403	105,556	-1%
Ape Cave Interpretive Site	147,756	105,019	80,923	-23%
	(Year 2,000)*			
Mile Point 42 on SR 504	Not available	280,092	259,993	-7%

Methodology: Data is based on USFS traffic surveillance summaries from 1994 through 2006. The formula involved multiplying the annual number of vehicles by 2.4 individuals. No adjustment for tour or school buses has been included. Approximately 12,500 additional individuals can be added to both the Coldwater Ridge Visitor Center and Johnston Ridge Observatory visitor counts to account for the higher occupancy in those vehicles. The 2.4 multiplier was derived from a PENN State University study titled "Recreation on the Gifford Pinchot NF: A Survey of User Characteristics, Behaviors, and Attitudes," dated November 11, 2002.

Source: USFS.

TRAVEL AND TRAVELER MARKET ANALYSIS

A shuttle service needs to serve the monuments:

- 1) Travel markets (major origin and destination pairs—where are people going), and
- 2) Traveler markets (the type of visitor going to the monument).

The monument is visited by two major traveler markets—recreational visitors and volunteers. Any future shuttle service could be used to serve recreational visitors and/or volunteers.

This section reviews data from the 2011 Region 6 Recreation Use Study: Mount Saint Helens National Monument Gifford Pinchot NF to illustrate where recreational visitors are coming from, their travel patterns and characteristics, and their demographics to understand how they could be served by a future shuttle. It also reviews the Mount St. Helens Institute (MSHI) 2012 volunteer demographic records to understand where monument volunteers are coming from.

^{*}No traffic surveillance data available at this site in for year 2004.

VOLUNTEERS

The Mount St. Helens Institute (MSHI) is a 501(c) 3 private, nonprofit organization that was founded in 1996 to help people understand and protect the volcano. It aims to enrich people's experience at Mount St. Helens through field seminars, guided climbs, lecture series, work parties restoring trails, and outings, mostly through the use of dedicated volunteers.

Volunteer records from MSHI provide information on where the volunteers come from. The MSHI 2012 data showed that the vast majority of volunteers come from Washington and Oregon. Of the 342 individual volunteers counted, 252 lived in Washington (74 percent) and 71 lived in Oregon (21 percent). Table 4 shows the origins (including the cities) of most volunteers. A shuttle system designed for volunteers would need to consider how to serve volunteers from the major locations in Clark County (especially Vancouver), as well as the Portland metropolitan area in Oregon.

Table 4 2012 Mount St. Helens Institute Volunteer Origins

Volunteer Origins	Volunteers	Percent of Volunteers
All	342	100%
Washington	252	74%
Oregon	71	21%
Other States	18	5%
Other Countries	1	0.3%
Washington Cities (Major Origins)		% of Washington Origins
Vancouver	78	31%
Battleground	14	6%
Ridgefield	13	5%
Woodland	10	4%
Castle Rock	9	4%
Seattle	8	3%
Longview	8	3%
Kelso	3	1%
Oregon Cities (Major Origins)		% of Oregon Origins
Portland	30	42%
Other Portland Metro Areas	18	25%
Corvallis	4	6%

In addition, Volunteer groups work with Weyerhauser- Forest Learning Center. There are approximately 50 volunteers with the group.

RECREATIONAL VISITORS

During the 2011 recreation season, researchers from West Virginia University conducted a recreation use study for the MSNVM, the 2011 Region 6 Recreation Use Study: Mount Saint Helens National Monument Gifford Pinchot NF. Face-to-face interviews were conducted with a total of 944 visitors at various sites at the MSNVM from May through August 2011. As shown in Table 3 above, in 2006 (the latest visitor counts by site obtained) depending on the site along SR 504, there were between 195,496 and 259,993 visitors.

Visitor Origins

Visitor origins were derived from the recreation use study interviews based on survey respondents' place of origin. Most visitors (88.2 percent) were from the United States. Survey respondents came from all over the continental United States to visit the monument. Not surprisingly, the states with highest respondent representation were Washington (309), Oregon (170), and California (45).

Numerous visitors were from distant states such as Texas (25), Florida (11), Colorado (11), Arizona (10), New York (8), and Virginia (8). The data suggests that the monument is a popular destination for those vacationing in the Pacific Northwest. Figure 2 shows the distribution for U.S. visitor origins.

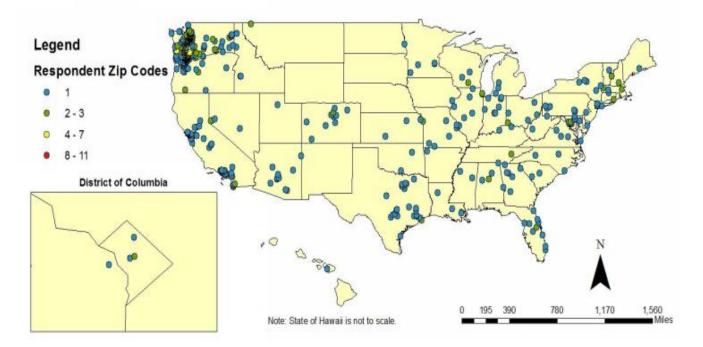


Figure 2 - Spatial Distribution of Respondents by Zip Code - U.S.A.

(Source: 2011 Region 6 Recreational Study: Mount St. Helens National Monument Gifford Pinchot NF)

Oregon and Washington state visitors constituted 44 percent of all visitors to the monument, with Washington accounting 33 percent and Oregon accounting for 11 percent of all respondents. Figure 3 shows the distribution by zip code for the two states and western Idaho.

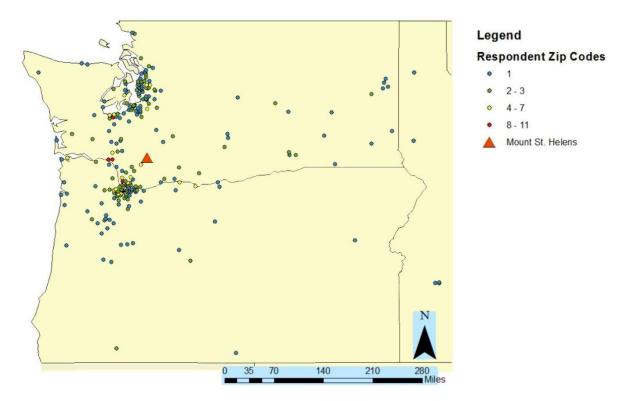


Figure 3 - Spatial Distribution of Respondents by Zip Code - Oregon and Washington

(Source: 2011 Region 6 Recreational Study: Mount St. Helens National Monument Gifford Pinchot NF)

Figure 4 on the following page shows the distribution of responses by county for the two states. County data shows that counties in the I-5 corridor accounted for the highest number of visitor responses, with Clark, Multnomah, and King counties having the highest response rates, followed by Cowlitz County, and then by Pierce, Thurston, and Washington counties. The insets on the map show the response rates within the metro areas by zip code. The highest response rate was for a zip code in Olympia for the Seattle metropolitan area (although all the responses for King County combined to a higher rate than Olympia's county, Thurston County). The highest response rate by zip code in the Portland metropolitan area was in inner east Portland).

The individual zip code with the highest response representation was 98632 (N=11) which is Longview, Washington. The cities with the highest response rate with all zip codes combined were Portland, Oregon (N=76); Vancouver, Washington (N=44); Seattle, Washington (N=24); and Olympia, Washington (N=23).

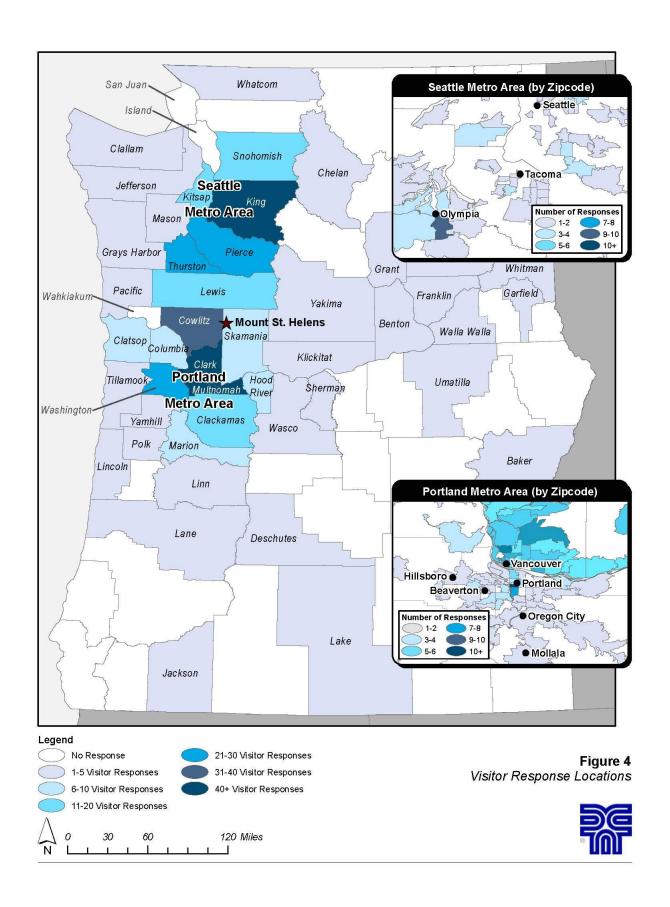


Figure 4 - Visitor Response Locations

Table 5 shows the number of survey responses by state and county origin of respondent. This is a good proxy for the proportion of visits from different parts of the Oregon and Washington. It also shows a potential number of visitors coming from these locations if we assume the proportions of visitors' origins match the proportions of the respondents' origins. The table assumes a total of 195,000 visitors based on 2006 visitor data at Johnston Ridge Observatory.

Table 5 2011 Visitor Origins

Origins	Responses	% of WA and OR Responses	Estimated Corresponding Number of Annual Visitors*
Washington and Oregon Total	452	100%	195,000
Washington State Total	309	63%	122,900
Oregon State Total	170	37%	72,200
By County			
Multnomah County, OR	70	15%	28,500
Clark County, WA	67	14%	27,300
King County, WA	53	11%	21,600
Cowlitz County, WA	39	8%	15,900
Pierce County, WA	28	6%	11,400
Thurston County, WA	26	5%	10,600
Washington County, OR	24	5%	9,800
Clackamas County, OR	18	4%	7,300
Snohomish County, WA	14	3%	5,700
Kitsap County, WA	12	3%	4,900
Lewis County, WA	12	3%	4,900
Marion County, OR	8	2%	3,300
Spokane County, WA	7	2%	2,900
Skamania County, WA	7	2%	2,900

^{*} Proportional number of visitors based on 195,000 visitors per counts at Johnston Ridge Observatory in 2006. Potential visitor numbers are rounded to the nearest 100.

VISITOR DEMOGRAPHICS

Visitor demographics can help determine likely traveler behaviors. For example, families with children will often visit museums for a shorter period of time than adults traveling alone. Key demographic data, based on the 2011 study, showed the following.

- Two-thirds (66 percent) of the sample of recreationists reported having one or two adults in their group, and the majority (55.7 percent) stated that there were no children within the group. (Averaging out the visitors at given spots along SR 504 based on 2006 data, 55.7 percent equates to approximately 126,854 visitors.)
- 15.4 percent of respondents had 2 children (under the age of 16) in their group, 13.2 percent had one child, 9.7 percent had 3 to 4 children, and 5.9 percent had 5 children or more.
- Just over half of the respondents were male and just under half were between the ages of 31 and 50
- The sample respondents were overall highly educated with about two-thirds having a bachelor's or master's degree or higher.

- The sample population was relatively equal in regard to gender representation—55.2 percent male and 44.8 percent female.
- A vast majority (94.3 percent) of the population was Caucasian.

VISIT PROFILES

Visitor behaviors can reveal where people want to go and how much time they spend in key locations.

- According to 316 surveys taken,¹ most visitors to the monument were day users (81 percent) as opposed to overnight visitors (19 percent). Among overnight visitors, 62 percent spent one night on their trip, 27 percent spent two nights, and 12 percent spent three or more nights. Among all visitors, 85 percent used the monument-based overnight facilities on their trip, 10 percent used one overnight facility, and 5 percent used two or more overnight facilities. The majority of respondents (59.2 percent) were repeat visitors spending day trips that average four hours at the monument.
- While visiting the monument, visitors contribute an average of \$586.30 per group to the local economy.
- Popular activities on trips to the MSHNVM include experiencing Mount Saint Helens (81.5 percent), viewing/photographing wildlife/scenery (66.7 percent), sightseeing (64.7 percent), and hiking or walking (60.8 percent).
- Visitors also took advantage of the educational opportunities that the monument provides, such as visiting visitor centers (51.5 percent), volcano-specific education opportunities (32.4 percent), nature study (29.2 percent), and interpretive tours (17.1 percent).
- The vast majority of respondents (93.4 percent) visited the Johnston Ridge Visitor Center.
- Over one-third (37.7 percent) of respondents visited the Silver Lake Visitor Center.
- Nearly one-third of visitors (31.1 percent) reported visiting the Hoffstadt Bluffs Visitor Center.
- Just under one-fourth (22.1 percent) of respondents visited the Weyerhaeuser Visitor Center.

SURVEYED VISITOR EXPERIENCE

People visit the national monument for the experience. Design of future shuttle or other transportation options for visitors should consider the experience of visitors and what they care about. The 2011 study revealed the following about visitor experience:

- Respondents indicated that their main motivations for visiting the monument were to experience
 natural surroundings, to be outdoors, and to get away from their regular routine. Although
 respondents generally came to the monument to enjoy the place itself, more than one-third of the
 respondents felt that the monument was a good place to participate in the activities that they
 enjoy and also came to spend more time with companions.
- Overall, visitors felt only slightly crowded while at the MSHNVM. While on the monument, visitors reporting seeing other groups just over half of the time. However, they felt that this was an acceptable percentage to be in sight of others. More than one-third of the visitors saw the

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¹ These data are from the "Value Add" study, "Recreationists on the Gifford Pinchot National Forest: A Survey of User Characteristics, Behaviors, and Attitudes" (data collected between October 1, 2000, and September 30, 2001).

- amount of crowding that they expected, and an additional one-third saw less crowding than they expected. Most respondents did not feel that waiting at choke points mattered. Those that felt that it mattered indicated that it would be okay to wait about fifteen minutes.
- Visitors to the monument were generally extremely satisfied with their visits. No major conflicts
 with other visitors were reported, and generally speaking, visitors felt little or no crowding while
 at the monument.

TOURISM AND RECREATIONAL ATTRACTIONS

There are multiple tourism and recreational attractions located along SR 504. Notable attractions along SR 504 going west to east from Castle Rock to the end of the highway are:

- **Cinedome Theater:** Just off the freeway in Castle Rock, this now-closed theater formerly showed a 30-minute, 70 mm, IMAX film about the eruption. There has been some interest from private parties in purchasing the site. In addition, the City of Castle Rock has expressed an interest in using the site for a tourist information center.
- **Silver Lake Visitor Center**: This center is located five miles east of Castle Rock on the shores of Silver Lake. It is operated by Washington State Parks year-round. A theater shows the films The Fire Below Us and Fire Mountains of the West, each of which is about 25 minutes long. Exhibits chronicle the days before, during, and after the Mt. St. Helens eruption, and a walk-through volcano shows how it happened. A refreshment stand and restrooms are outside. There is also a staffed information desk and a Discover Your Northwest book sales area. A nature trail and magnificent views of the Silver Lake wetlands provide year-round opportunities to observe waterfowl, wildlife, and native vegetation.
- **Seaquest State Park:** This park is across the highway from the Silver Lake Visitor Center. It offers picnic, camping, and recreational facilities. This is a 475-acre, year-round camping. There is one mile of wetland trail and six miles of woodland trails for hiking and bicycling. There are also children's play areas and playing fields. Great seasonal fishing, boating, and swimming are available nearby.
- **Hoffstadt Bluffs:** Operated by Cowlitz County year-round, Hoffstadt Bluffs has a snack bar/grill and gift shop. There is a paved path that is a memorial for the people who perished in the eruption. In the summer, Mount St. Helens Glass Company does glass-blowing demonstrations, using glass containing ash from the eruption. Mount St. Helens helicopter tours can be accessed from here. There are also meeting rooms and event space overlooking the Toutle River Valley and Mount St. Helens.
- The Mount St. Helens Forest Learning Center is located inside the blast zone of the May 18, 1980 eruption of Mount St. Helens on SR 504 at Milepost 33. It is a partnership between Weyerhaeuser Company, Washington State Department of Transportation, and the Mountain Elk Foundation. The learning center is open to the public from May to October free of charge. Visitors can learn about forest recovery, reforestation, and conservation of forest resources.
- The Mount St. Helens Science and Learning Center at Coldwater is seven-and-a-half miles from the crater of Mount St. Helens, overlooking Coldwater Lake. The Mount St. Helens Science and Learning Center at Coldwater hosted a volunteer appreciation event on May 18, 2012. The facility, formerly known as the Coldwater Ridge Visitor Center, had been closed since 2007 as

- result of expensive repairs that were needed on the roof and window walls. It has recently been refurbished and is owned and operated by the USFS. The facility is not currently open to the public, but is being developed as a Science and Learning Center with a possible restaurant and nearby camping.
- **Johnston Ridge Observatory**: This is closest visitor center to the Mount St. Helens crater, located at the end of SR 504 and inside the blast zone. Admission is \$8.00 and includes numerous exhibits. There are award-winning films followed by a dramatic view of the mountain itself, and you can view the lava dome, pumice plain, and landslide deposits. There are often ranger talks on-site. The Johnston Ridge Observatory is closed from November through April.

TOURISM AND RECREATION ATTRACTIONS ALONG OTHER ROUTES

There are a number of attractions on the south side of the monument and many outdoor recreational opportunities on the east side of the monument. Food, lodging, gas and other services are available in nearby communities.

To access the south side, visitors would take exit 21 east from I-5 (at Woodland), then follow SR 503 (open year-round) east toward Yale. Visitors would then travel on Forest Road 83 north to visit:

- **Ape Caves:** Mile-long lava tubes formed during previous eruptions. Rangers lead tours in summer. From here, visitors can hike to Lehar Viewpoint. Guided lantern walks are conducted daily at Ape Cave from June through the beginning of September.
- **Lava Canyon:** A trail leads to a view of the canyon cut by the upper Muddy River. A lava flow traveled through the canyon approximately 1,900 years ago. Roving Rangers provide interpretive talks on the geology of the area.
- **Pine Creek Information Center:** East on SR 503 at its intersection with Highway 25. A gift shop, picnic area, and restrooms are available at this site.
- **Sno-Parks:** Cougar Sno-Park and Marble Mountain Sno-Park are near the intersection of Forest Roads 81 and 83.
- Climbing: Everyone must have a climbing permit to be above 4,800 feet elevation on Mount St. Helens. Climbing permits are required year-round, are valid for 24 hours starting at midnight for the date of climb, and are nontransferable. The maximum party size is 12 climbers. During the limited use season (May 15–October 31), permits are restricted to 100 daily permit holders. The permit system is to protect the volcano's physical and biological features and processes, and to reduce crowding. Camping is allowed at Climber's Bivouac. It is a developed site with parking, tent pads, fire grates, and toilets, but no running water and no picnic tables. A permit is required for parking at the Climber's Bivouac.

The east side of the monument includes many outdoor attractions located within the Gifford Pinchot National Forest. To reach the east side from the south, visitors would follow Forest Route 25 north from Pine Creek. From I-5, they would take exit 68 east (near Chehalis), then follow US 12 to Randle and turn south. There are numerous hikes, campgrounds, sno-parks, caves, lakes, creeks, and falls in the eastern part of the forest.

COMMUNITIES (WEST TO EAST ALONG SR 504 FROM I-5 TO MONUMENT

Castle Rock is situated between the Cowlitz River and I-5, located 134 miles south of Seattle and 63 miles north of Portland, Oregon, with a population of 2,120. Spirit Lake Memorial Highway (SR 504) connects the city to the MSHNVM and Spirit Lake recreation areas—two outstanding recreation areas in the state.

Castle Rock has a historic downtown. There are shops, antique stores, restaurants, and lodging. Castle Rock Exhibit Hall/Visitor's Information Center displays carvings, photographs, and exhibits relating to Mount St. Helens.

Silver Lake is about 30 miles (48 km) west of Mount St. Helens. It is home to a nature trail and the visitor center for the monument. The lake itself is 3,000 acres (12 square km) in size, and camping is available at Seaquest State Park, which occupies 475 acres along 1 mile of the lakeshore. Camping, fishing, and boating, and some cabins are available at Streeters Resort, Silver Lake Resort, Silver Cove, and Mount St. Helens RV Resort.

Other Communities: Toutle has a population of 731. Toutle and Kid Valley have some tourist-supporting amenities such as gas stations and camping or RV grounds. Except for areas directly adjacent to SR 504, most of the land is designated forest land and is devoid of development. Toledo is a small town north of Castle Rock along SR 505. The population was of Toledo was 725 at the 2010 Census.

LARGER COMMUNITIES ALONG 1-5

Cowlitz County includes much of the monument and nearly all of SR 504. As of the 2010 census, Cowlitz County's population was 102,410. Recreational activities in the county include climbing, hiking, camping, biking, wildlife viewing, fishing, horseback tours, and hunting. Communities in Cowlitz County include Toutle, Castle Rock, Longview, Kelso, Kalama, Woodland, and Cougar. Cowlitz County historically has a high lumber industry presence.

Kelso is just off I-5 with a population of 11,925, based on the 2010 Census. A renovated Amtrak train depot is in Kelso. There is also a museum, visitor center, and historical walking tour. Longview is across the Cowlitz River from Kelso and is along the Columbia River. Longview's population was 36,648 at the time of the 2010 census. Longview was built as a planned community to support the number of workers needed to work at the local lumber mills. Longview has a historic downtown district, parks, and community attractions such as farmers markets.

Vancouver is Washington State's fourth largest city and is located across the Columbia River from Portland, Oregon. At the time of the 2010 Census, the population was 161,791. Downtown Vancouver has restaurants, art galleries, and shopping. Esther Short Park is a public park and town square in downtown that hosts farmers markets, concerts, and other cultural events. Clark County Amphitheater is in Ridgefield, just north of Vancouver, and hosts larger concerts and events.

Portland is approximately a two-hour drive southwest of the Johnston Ridge Observatory. As of the 2010 Census, it had a population of 583,776. The city has an active arts, music, and food scene, which results in ongoing cultural events. Portland is an easy city in which to bike, walk or use public transport.

From Seattle it is approximately a three-hour drive to the Johnston Ridge Observatory. As of the 2010 Census, Seattle had a population of 608,660. The city is a major coastal seaport situated on Puget Sound. Seattle also has an active cultural scene and has great public transportation; the city is pedestrian-friendly.

CAMPING AND ACCOMMODATIONS

Camping and accommodations in the direct vicinity of the Spirit Lake Memorial Highway (SR 504) include camping and RV grounds and hotels. Table 6 describes the 12 camping and RV grounds along the highway, many of which are full during the summer months.

Table 6 Camping Accommodations Along Spirit Lake Memorial Highway (SR 504)

Name	Price Ranges	Amenities	Reservations
Mt. St. Helens RV Park	RV \$30 a day Tent \$20 +	88 spaces, 48 full hookups Minimart, laundry, clubhouse, showers, Wi-Fi, cable	Yes Full during summer
Paradise Cove Resort and RV Park	RV \$33.20 a day Tent \$13.30 a day	52 sites, showers, laundry	Yes Usually not full
Seaquest State Park	RV \$28 + Tents \$14+ Yurts	55 tent spaces, 474 acres Restrooms, showers, cover shelter, shoreline, trails, dump station	Yes Mostly full in summer
Toutle River RV Resort	RV \$42 a day Tent \$42 a day Installing yurts	306 full hookups Fire pits, tennis, pool, spa, disk golf, store, picnic shelter, gym, arcade	Yes One-half full most of summer
Mt St Helens RV Resort	RV \$22-\$30 a day Tent \$20-\$15 a day	Showers, restrooms, dock on lake, cable, phone 42 RV sites	Yes (Under new ownership)
Silver Lake Resort	RV \$25 a night Tent \$15 Cabins\$ 85 a night	19 RV sites, electric only Wi-Fi, general store, fishing, boating, playground, volleyball	Yes Full during summer
Silver Cove RV Resort	RV \$ 33 -\$27 a night No tent sites 3 cabins \$150-\$70	Full hookups, Wi-Fi, cable, boat launch, fishing, pavilion 161 sites	Yes Full during summer
Streeter's Resort	RV \$27.50 a day Tent \$18 a day Cabins \$30-\$35 a day	3 cabins 7 tent sites 17 RV sites	Yes Mostly full in the summer
Drew's RV Park	RV \$15 a day	Electric and water	Yes Usually has some open
Eco Park Resort	RV or tent \$18 a day Yurts \$150 -\$75 Cabins \$110-\$100	Café, gift shop, horses helicopters, special events	Yes Mostly full in summer
Kid Valley Campground	RV \$25 a day Tent \$18	Showers, picnic area Full and partial RV hookups	Yes Usually has some open- full during hunting season

In addition, there are three motels at the SR 504 and I-5 interchange: 7 West, Timberland Inn and Suites, and Mt. St. Helens Motel. Blue Heron Inn is just west of Seaquest State Park. The Silver Lake Resort is in Silver Lake just east of Seaquest Park.

Lewis and Clark State Park is a 621-acre camping park north of Toledo. It is in one of the last major stands of old-growth forest in the state. Numerous other camping opportunities can be found east of the mountain.

PREVIOUS SHUTTLES STUDIES AND SERVICES

In 1986, an Environmental Impact Statement (EIS) was completed for MSHNVM. The EIS concluded that a shuttle between the Cold Water Ridge Center (then open to the public) and Johnston Ridge Observatory would be a positive addition.

In the past, private businesses have offered shuttle service to MSNVM. Currently, there are private tour companies that provide service from Seattle and Portland for day trips on private buses or vans. However, these tour buses typically go straight to MSHNVM and are not as likely to stop at the local businesses.

ONGOING PLANNING EFFORTS TO CONSIDER AND COORDINATE

The Cowlitz-Wahkiakum Council of Governments in partnership with Cowlitz, Skamania and Lewis Counties and the U.S. Forest Service, have been working to develop the Fire and Ice Scenic Loop as part of the Washington State Scenic Byway program.

The Fire and Ice Scenic Loop would link two scenic byways- the White Pass Scenic Byway in Lewis and Yakima Counties and the Columbia River Gorge Scenic Byway in Skamania County. The Fire and Ice Loop will link the byways through a series of existing routes:

- Wind River Road,
- National Forest Road 90 (Curly Creek Road),
- National Forest Road 25, and
- State Routes 503 and 504 in Cowlitz County.
- Interstate 5

The Fire and Ice Scenic Loop was identified by the Mt. St. Helens Advisory Committee as a key opportunity to expand tourism, marketing and development activities in the July 2009 Recommendations to the Washington Congressional Delegation. Additionally, more information may be coming out of a separate study that is looking at hotel needs in Longview. The study will consider whether Longview needs a magnet hotel and where. It will look at travel patterns and origins and destinations.

Other agencies and organizations that may have planning efforts which should be researched: Clark County, Klickitat County, the Yakima Nation and PacifiCorp (that owns three dams on the Lewis River and land surrounding Swift Reservoir).

EMOTIONAL CONSIDERATION

There was a deep feeling of loss by local residents when Mount St. Helens erupted. Local residents were grieving rather than focusing on the development of the monument. Since the eruption, a generation has gone by and locals are beginning to heal and may be able to better embrace the task of developing a destination. It is important to acknowledge the real and heartfelt loss when looking at the amazing natural phenomenon of the eruption.

CONCLUSIONS AND NEXT STEP

This narrative documents the existing conditions along SR 504 and the MSHNVM visitor profiles. Visitation to the MSHNVM has waned over the years. However, there is a renewed interest within the USFS, Cowlitz County, and other community partners to better integrate the monument with the communities and optimize visitation without degrading the visitor experience. Visitors who do visit often do so just for the day and are repeat visitors. Public transit connections do not exist all the way to the monument and are weak to the head of SR 504 due to infrequent service and lack of service on weekends. An opportunity to elevate the MSHNM geological and overall scientific value exists, as does the opportunity to elevate the surrounding area resources, such as the historical town centers of Castle Rock and Longview, as desirable places to stay.

The perception is that SR 504 was developed largely as a day trip corridor. Nowadays, many people like to spend more time and be more interactive when they travel compared to the opportunities presented. Impediments to the type of travel that is more interactive include: a lack of access to trail heads, overnight facilities being full, and the fact that the area was developed to focus on crowd control rather than recreation.

A future study will look at how to serve major travel markets (recreational visitors, primarily from the I-5 corridor in Oregon and Washington, and volunteers, primarily from the Vancouver-Portland metropolitan area) with transit and nontransit alternatives. A shuttle could be used to tie together the local communities and destinations (particularly along SR 504) with the national attraction, that is, the monument. In addition, the study would look at marketing strategies to promote the major educational and recreational resources at MSHNVM, while protecting the visitor experience and the values of the USFS and local communities.

PRELIMINARY GOALS AND OBJECTIVES

Preliminary goals identified to direct the next phase of the project which is an Alternative Transportation Feasibility Study are:

Goal 1. Identify transit options to MSHNVM that promote visitation to attractions along SR 504
and to local communities, as well as to Johnson Ridge Observatory. The transit options will
provide opportunities for visitors to access the monument from off-site locations and better
connect to the local community.

Objective 1.a: Identify existing and potential attractions, features origins and destinations both within and outside of MSHNVM and in the local communities to connect with stops and routing.

Objective 1.b: Identify existing transportation facilities, hubs, multimodal connections and services (e.g. bus, Amtrak, trailhead, parking, park-and-rides, and airports) that could be leveraged to provide visitor connections to a new shuttle service.

Objective 1.c: Identify existing barriers to accessing MSHNVM including management policy, and physical and psychological barriers.

Objective 1.d: Promote more visitor interaction with the surrounding attractions with alternative access to trailheads, campgrounds, and other destinations.

Objective 1.e: Identify attributes of a transit which would enhance the quality of the transit experience to make it competitive with automobile trips. These may include: interpretive opportunities, convenient access, cost advantages such as visitor discounts for transit users, and hiker shuttles.

• Goal 2. Identify how transit can serve the different types of visitors to MSHNVM including: volunteers, local and regional visitors, and local employees and employers.

Objective 2.a: Identify major origins and destinations, and travel patterns for all types of monument visitors. Determine tourism demand, tourism draws, tourist needs. Determine volunteer travel patterns, demand, and needs. Determine local employment travel patterns, demand, and needs.

Objective 2.b: Explore opportunities to connect the MSHNVM to the larger regional tourist market through transit connections to communities and transportation hubs (such as airports and Amtrak stations).

Objective 2.c: Coordinate with ongoing studies to understand how potential transit options could be leveraged to increase overnight stays in the area, be marketed to improve connections for visitors, and bolster economic activity.

Objective 2.d: Identify how to tailor service to the targeted visitor groups.

• Goal 3. Assess the feasibility of transit options and determine if there is a preferred transit operating scenario.

Objective 3.a: Analyze potential operators or strategies for operating transit including identifying potential community partners and service providers. (For example, utilizing existing resources such as existing parking at Castle Rock.)

Objective 3.b: Provide a cost analysis for each transit option.

Objective 3.c: Provide a potential framework for an operation and management plan and a funding program to implement a transit option.