

Lewis River Hydroelectric Projects Relicensing

Merwin Hydroelectric Project (FERC No. 935)
Yale Hydroelectric Project (FERC No. 2071)
Swift No. 1 Hydroelectric Project (FERC No. 2111)
Swift No. 2 Hydroelectric Project (FERC No. 2213)

USDA Forest Service Gifford Pinchot National Forest

Existing Information Analysis

8. Project Induced Recreation

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I. Existing Situation

Mount St. Helens National Volcanic Monument

The project is located adjacent to the Mount St. Helens National Volcanic Monument, administered by the United States Department of Agriculture (USDA), Forest Service, Gifford Pinchot National Forest. The events of May 18, 1980 made this portion of southwestern Washington internationally known. Over a century had passed since the last known eruption of Mount St. Helens, yet within minutes a huge volcanic explosion altered the landscape. In the process, an unparalleled opportunity to study the dynamics of geological force and biological response was created. The eruption destroyed roads, trails, campgrounds and other recreation facilities, and lay waste to 250 square miles of forest. All National Forest campgrounds within 10 miles of Mount St. Helens were destroyed, including Clearwater Campground and Kalama Spring Campground in the Lewis River watershed. Mudflows swept down Pine Creek, Swift Creek, and the Muddy River, depositing logs and sediment in Swift Reservoir, and in the process destroyed eight bridges.

In October of 1981, *The Mount St. Helens Land Management Plan* allocated 84,700 acres of land to an "Interpretive Area", to protect distinctive features and processes for public education, interpretation, recreation, and research. In August, 1982, the United States Congress passed an Act establishing the "Mount St. Helens National Volcanic Monument", an area of approximately 110,000² acres (Public Law 97-243). The Act directs the Secretary of Agriculture to make the area available for scientific studies, research, and to provide facilities for interpretation and

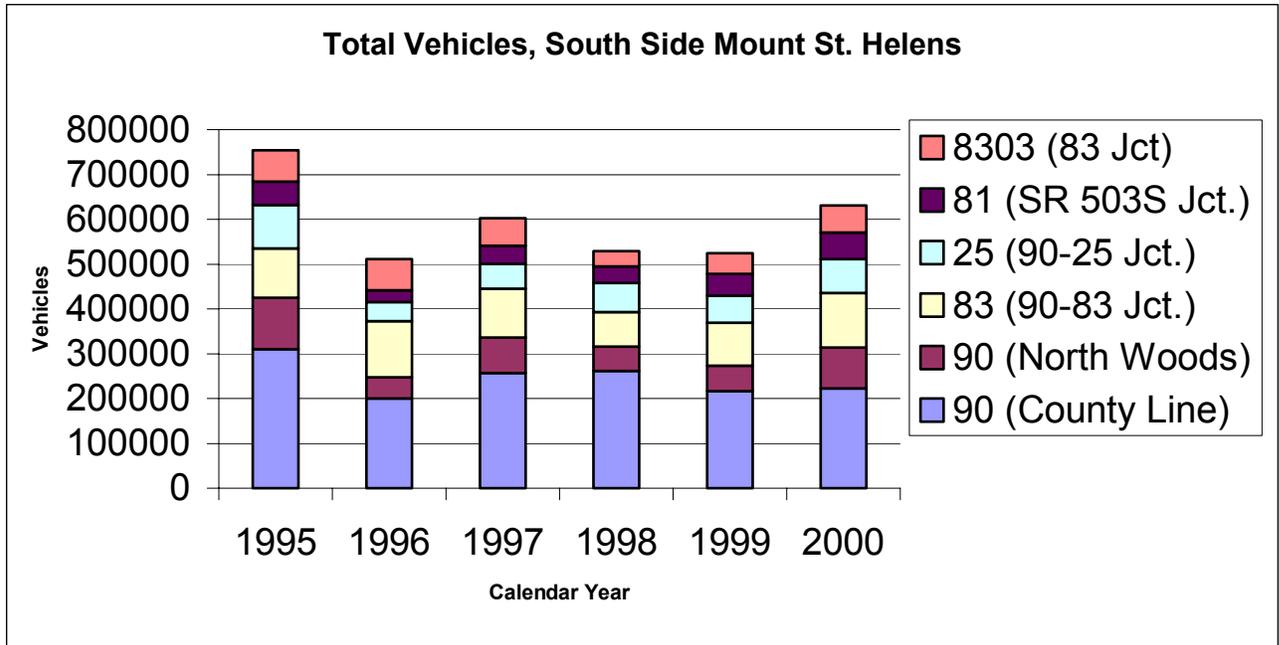
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² As an administrative unit, the Mount St. Helens National Volcanic Monument includes the 110 thousand acre legislated monument and another approximately 351 thousand acres of other lands managed for multiple uses.

recreational use. In October of 1985 the *Mount St. Helens National Volcanic Monument Final Environmental Impact Statement Comprehensive Management Plan (CMP)*, was completed. In 1990 the CMP was adopted as a portion of the *Gifford Pinchot National Forest Land and Resource Management Plan*. In 1996 the area between the Lewis River and Mount St. Helens was examined as part of the *Lower Lewis River Watershed Analysis*. The analysis examined recreation use and made recommendations for improvements in recreational facilities, and reduction of environmental impacts due to uncontrolled dispersed camping. National Forest Lands outside the National Monument, between Mount St. Helens and the Lewis River, are managed primarily for recreational use. Many trails, and support facilities are found on both sides of the national monument boundary.

The CMP analyzed the recreational carrying capacity of the area on the south side of Mount St. Helens, including opportunities for scientific study, and environmental concerns. The plan directed the construction of hiking trails, road improvements, development of interpretive sites, re-establishment of climbing on Mount St. Helens, the construction of sno-parks, and improvements at Ape Cave and Trail-of-two-forests. The establishment of campgrounds was considered, but a general lack of suitable sites prevented regaining full pre-eruption camping capacity. Four campgrounds were constructed, or improved: the Climbers Bivouac, at the beginning of the Monitor Ridge climbing route, Kalama Horse Camp, Lewis River Horse Camp, and Lower Falls Campground.

Visitor use varies depending upon weather conditions, and road access. The following table and chart show traffic counter data for the south side of Mount St. Helens between the years 1994 and 1999. Flooding and road washouts in late 1996 washed out the Marble Creek fill on road 90 between the 83 road intersection and Pine Creek Work Center. By late summer 1997 a bypass route was completed, and in the summer of 1998 a new bridge finished. During the winter of 1998-1999 record snowfall occurred in the Cascade Mountains, with the snow pack in the Mount St. Helens area is as much as 350 percent of normal. Roads opened late and spring weather remained wet and cold until the end of June keeping many early season visitors away. Heavy snow pack allowed the winter recreation season to extend to late May. Winter recreation usually ends around April 15.



The Lewis River drainage is a popular recreation destination. Many of the activities are seasonal with levels of use largely dictated by favorable weather, lake water levels, and permit seasons. Major recreational activities include:

- Mountain Climbing
- Hiking
- Horseback Riding
- Mountain biking
- Skiing
- Snowmobiling
- Swimming
- Picnicking
- Snowshoeing
- Cave Exploring
- Hunting
- Visiting Interpretive Sites
- Photography
- Fishing (shore and boat)
- Boating
- Berry Picking
- Camping (developed and dispersed)
- Motorcycle Riding on Trails
- Viewing Waterfalls
- Waterskiing

Ape Cave

Ape Cave was discovered in 1951, explored and named after a group of local youths who called themselves the St. Helens Apes. The cave was acquired by the Forest Service in the early 1960's following a series of land exchanges. In 1967 the cave was developed as an interpretive site, including a parking lot, interpretive sign, restrooms, and stairways to enter the cave. Estimated visitation was 3-6,000 visitors per year when the site first opened. Following the eruption of Mount St. Helens in 1980 improvements were made to the site including a new parking lot, the "Ape's Headquarters" lantern rental building, new stairways, an interpretive kiosk, and a trail to the upper entrance. During the summer, Memorial Day through Labor Day, the Ape's Headquarters is staffed by employees of the Northwest Interpretive Association who rent lanterns and sell interpretive books, and Forest Service interpretive naturalists who lead hourly interpretive walks into the cave. Annually 165,000 to 185,000 people visit Ape Cave, making it one of the most popular developed caves in the Northwest. Parking capacity is exceeded on many days, particularly in late July and August, when visitors will sometimes

park along road 8302, as much as a mile away, and walk to the cave. Some visitors combine a visit to the cave with an outing to the reservoirs, arriving at the Ape's Headquarters clad in swimwear. This particularly seems to be the case during hot weather when the reservoirs are crowded or there is difficulty finding parking near the reservoirs.

Trail-of-Two-Forests

The Trail-of-Two-Forests an interpretive site one-mile south of Ape Cave on road 8303. The site is has a restroom, picnic tables, and a ¼ mile long boardwalk. Along the boardwalk are interpretive signs explaining geologic features created by a pahoehoe basalt flow nearly 2000 years ago. Features include vertical and horizontal tree cast, a small lava tube, and a 75 foot long "log crawl", where visitors are invited to crawl through a horizontal tree cast. In the winter the 12 car parking lot is plowed as part of the sno-park program.

Mountain Climbing

Climbing is a popular activity at Mount St. Helens that has gradually increased from an average 1,100 climbers per year in 1965 to an average of 16,000 per year, currently. Between 1980 and 1986 Mount St. Helens was closed to climbing due to volcanic hazard. Starting in the spring of 1986 Mount St. Helens was reopened to climbing , under a permit system. A permit is required for climbing above 4800 feet in elevation, or roughly the elevation of the Loowit Trail. The permit is intended to spread use over the entire week, and to limit impact to sensitive biological communities and research sites, when protective snow cover is absent. The permit system tends to cap the number of climbers during the summer months, but modest increases in winter mountaineering are taking place. During the winter and spring, climbers start their climbs from the Marble Mountain Sno-Park, and follow the Swift Ski Trail to timberline.

A quota of 100 climbers per day is in effect for the period of May 15 through October 31, the period when adequate snow cover is usually absent. Permits are available by advanced reservation (70%), and "day of the climb permits" on the evening prior to the climb (30%). During the winter months, no limit on the number of climbers is imposed (Nov. 1 through May 14). Climbers pick up their permits at Jack's Restaurant, five miles west of Cougar, where the climbers register is also located.

In 1997, under the National Fee-Demo Program, a \$15 fee was instituted for climbing permit. Fees are charged April 1 through October 31. The 100 climber per-day quota only applies between May 15 and November 1. Free, unlimited, self-registration permits are available at Jack's between Nov. 1 and March 31. Climbing fees are used to provide facilities, maintain trails, and program administration.

Permits are not required for the operation of snowmobiles on Mount St. Helens, but are only allowed between November 1 and May 14, above 4800 feet.

During the summer, most climbers climb Mount St. Helens using the Ptarmigan Trail--Monitor Ridge Route, starting at the Climbers Bivouac at the end of road 8100830. The Climbers Bivouac provides parking for 60 vehicles, a restroom, and space for climbers to pitch a tent and spend the night before their climb; tables and fire rings are not provided.

Lower Falls Campground

Lower Falls Campground is located 14 miles east of Swift Reservoir on the Lewis River. This 46-unit campground is a popular destination for persons visiting the Lewis River Drainage. The campground is commonly full during summer months, particularly late July and August. Facilities include drilled wells with hand pumps, restrooms, picnic tables, fire rings, river access for water play, and paved roadways. Foot trails connect various areas of the campground with the Lewis River Trail, and a waterfall viewing site. Day-use parking is provided separate from the campground, to provide access for waterfall viewing and Lewis River Trail access. A campground host resides at the site between Memorial Day and Labor Day. A camping fee is charged for use of the campground.

The campground is popular due to its scenic location, and proximity to Mount St. Helens and Swift Reservoir. Some visitors are in the area because they have been attracted by the reservoirs, while others come to enjoy the surrounding Gifford Pinchot National Forest.

Kalama Horse Camp

The Kalama Horse Camp is located along Forest Road 81, eight miles north of Cougar. The camp was established to provide an area for horse use displaced by the 1980 eruption of Mount St. Helens. Most trails in the legislated Monument are closed to horse use because of concern for introducing foreign seed into scientific research areas. All trails in the “blast zone” north of Mount St. Helens are closed to stock use.

The camp has 10 single family pull through units, a group camping area, corrals, manure collection bins, trailhead for the Toutle Trail, restrooms, a water trough, mounting assist area, horseshoe pit, and a log cabin shelter. Under construction are an additional 16 camp sites, funded through an IAC grant, which will come on line in the late summer of 2000. Kalama is the most popular horse camp on the Forest, and in the summer fills to capacity as early as Thursday night. A network of trails developed for horse use radiate from the campground, providing 38 miles of riding on loops of varying length. Horse club volunteers help maintain and construct trails, provide campground hosts, help maintain the campground, and have assisted with facility construction. Because of the high level of volunteer help, no camping fees are charged, but a donation box is present near the campground entrance. The campground is recognized state-wide for its facilities and is a popular destination for horse owners from southwest Washington.

Equestrians estimate that Clark County alone has a horse population of 50,000 animals. Many of the animals are raised and maintained on small farms and “ranchetts” of two to five acres, where riding opportunities are limited. The Kalama Horse Camp, with its adjacent trails, offers a close-by opportunity for equestrians to ride their horses, and to socialize with other horse owners. Club outings are a frequent event at the campground.

The campground was constructed to provide opportunities for horse camping, but camping by non-horse users is permitted. Some user conflict exists between the two groups, particularly when horse users find the limited camp sites occupied by people without horses. It appears that a percentage of the non-horse users are attracted to the area primarily for the purpose of water-related recreation along the reservoirs but for one reason or another end up at the Kalama Horse Camp. Some horsemen will park their horse trailers near Speelyai Creek and ride their horses along the dike road, and on trails leading to the Saddle

Dam, before moving to the horse camp to spend the night. Others ride under the power lines north of Aultman Road.

Dispersed Camping

Fifty-six dispersed camp sites are located on national forest system lands southwest of Mount St. Helens, particularly along roads 81 and 8123. Use of the dispersed campsites increased sharply in 1996 when private lands west of the Forest were closed to camping and 22 campsites made unavailable. Camping use was shifted to the Forest, concentrating use at dispersed campsites. Ten new disperse camp sites appeared in the year following closure of the private lands. Campers are also forced onto the National Forest when Beaver Bay Campground and Cougar Campground are closed, particularly during hunting season.

During the summer of 1999 many of the dispersed camp sites were modified by the placement of large boulders to limit off-road travel of vehicles. Where unacceptable environmental impacts were taking place, a few camp sites were permanently closed.

A variety of users are found at the dispersed camp sites, depending upon the time of year. Heaviest use takes place in the fall during elk hunting season. During the summer the sites are frequently used by equestrians that can not find a place to camp in the Kalama Horse Camp, or by persons seeking camping experiences outside developed campgrounds. It appears that a percentage of the users are attracted to the area primarily for the purpose of water-related recreation along the reservoirs but end up using the dispersed camp sites.

During elk hunting season, it is common for all available dispersed campsites to be full, with many visitors unable to find a place to camp. This often results in environmental damage when hunters try to drive their vehicles off roads and set up new camps. While dispersed camping is permitted in the Gifford Pinchot National Forest, the impacts in some areas are becoming severe.

South Lakeshore Trail

As part of the Swift Reservoir project, in 1956 PP&L and the Forest Service entered into an agreement to provide a trail from the area of the Swift Dam along the south side of the reservoir connecting with the Lewis River road near Muddy Fork (i.e. Northwoods area). This trail was intended to replace lost connections with the Overland Trail #63, McClelland Mountain Trail #156, and White Bluff Trail #251, caused by reservoir filling. The Forest Service was also to be provided a right-of-way instrument, acceptable to the Forest Service, across land ownership other than National Forest Lands. A portion of this trail may have been constructed between Swift Dam and some point short of Drift Creek. No record of a right-of-way agreement has been found in Forest Service files, so it is unknown if an agreement was ever provided, or the actual extent of trail construction. No name has been discovered for the replacement trail, nor does it appear on historic Forest Service maps. This trail is of interest, however, since it may provide a link in a trail route proposed to run the length of the hydroelectric relicensing project, and would become part of a "regional" trail running the length of the Lewis River drainage.

When the Eagle Cliff Bridge was reconstructed following the May 18, 1980 mudflows from Mount St. Helens, a pedestrian walkway was added to the down stream side of the bridge to provide safe passage between the PacifiCorp day use area at the north end of the bridge, and Northwoods to the south. A short section of trail was also constructed as a pedestrian walkway leading through the road cut at the

south end of the bridge. This location provides a potential connection point for the “regional” trail mentioned above.

Parking at Power Canal for Fishing

The power canal, between Swift Dam and the Swift No. 2 Power House, is stocked with fish by the Washington State Department of Fish and Wildlife. This creates a popular fishing location that is active all summer. There is a small vehicle turnout on the west side of Forest Road 90 at the north end of the power canal bridge. During hunting season, it is common to find a hunter camp occupying the turnout. When fishing use is heavy, parked vehicles spill out onto Road 90, posing a potential threat of collision when they are parked on the narrow road shoulder.

A drainage ditch limits available parking at the turnout. Most of the turnout is located outside the USFS Road 90 right-of-way on Cowlitz County PUD property. (18CFR 2.7 (c))

RV Holding Tank Dump Station

PacifiCorp once provided a dump station for RV holding tanks at Yale Park. This service was discontinued in about 1997 when the road to the dump station was blocked with large boulders. Except in the fee campgrounds, this service no longer exists in the North Fork Lewis River drainage. Visitors to the area are no longer able to legally empty their holding tanks unless they stay in a fee campground. The closing of the dump station encourages illegal dumping along roads and at dispersed campsites. Alternatives for holding tank dumping are not generally known to area visitors, or that they are available at certain campgrounds.

Drift Creek Dispersed Recreation Area

Located on the south side of Swift Reservoir is the Drift Creek Inlet, a parcel of National Forest land surrounded by private and/or state ownership. Boat-in dispersed recreation sites have been developed by users along this inlet. Issues dealing with this area are covered separately in the Existing Information Analysis for the Drift Creek Dispersed Recreation Area.

II. Management Direction

Forest Plan Direction for National Forest Lands

Management of the Monument is governed by the Mount St. Helens Comprehensive Management Plan (CMP), which directs recreation development within the area. The CMP is adopted as a portion of the Gifford Pinchot National Forest Land and Resource Management Plan. The Gifford Pinchot National Forest Land and Resource Management Plan has direction to provide a wide range of recreational opportunities across a broad spectrum of experiences. The primary emphasis in developed sites is to improve and enhance facilities in existing campgrounds. Direction for dispersed recreation is to continue to provide dispersed recreation opportunities, with increased consideration for resource impacts and management of dispersed activities.

The recreation management guideline within The Northwest Forest Plan is "Adjust dispersed and developed recreation practices that retard or prevent attainment of Aquatic Conservation Strategy objectives. Where adjustment measures such as education, use limitations, traffic control devices, increased maintenance, relocation of facilities, and/or specific site closures are not

effective, eliminate the practice or occupancy." Three Aquatic Conservation Strategy objectives pertinent to the recreation program include:

3. *Maintain and restore the physical integrity of the aquatic system, including shorelines, banks and bottom configurations.*
4. *Maintain and restore water quality necessary to support healthy riparian, aquatic, and wetland ecosystems.*
5. *Maintain and restore the sediment regime under which aquatic ecosystems evolved.*

Forest Service Handbook (FSH 2709.15, 23.4) states that the Forest Service will cooperate with licensee in the development of project recreation plans. The licensee is "responsible for the construction, operation, maintenance, and replacement of project recreation facilities." The licensee is also responsible for "providing the necessary measures to accommodate project-induced recreation."

The Lewis River has been recommended to Congress for designation as part of the National Wild and Scenic River system. Until Congress takes action, Forest Plan direction is to manage the river corridor to protect the values that make them eligible for designation. The outstanding values of the Lewis River are scenery and recreation opportunities.

III. Information Analysis

Developed and Dispersed Camping

A portion of the campers using dispersed recreation sites on the south side of Mount St. Helens are attracted to the area primarily because of the reservoirs. Rather than camping at PacifiCorp or other private campgrounds, they come to the National Forest to spend the night. Twenty-five percent of the campers poled by EDAW indicated that the reservoirs were either very important to their decision to come to the site (1998 Lewis River Recreation Survey Results, page 39). Twenty percent cited one of the three reservoirs as their main destination (ibid., page 36). The survey data could be improved by including developed Forest Service campgrounds such as Kalama Horse Camp and Lower Falls campgrounds, since the camping experience they offer most closely resembles that of the PacifiCorp campgrounds.

Campgrounds such as Lower Falls and the Kalama Horse Camp are being used, in part, by persons primarily attracted to the area by the reservoirs. Either because they do not want to pay a fee to use PacifiCorp campgrounds, prefer less crowded conditions, or think the reservoir campgrounds are full, they arrive at the national forest campgrounds, and dispersed campsites. This imposes a cost to provide services to visitors whose primary interest in the area is reservoir related recreation.

In the case of the Kalama Horse Camp, when reservoir induced users arrive and use the campground, and they do not have horses, they displace horse users. The displaced users then move to dispersed camp sites along Forest Road 81, where there are no facilities for corralling horses, or managing their waste. Vegetative damage, tree damage, manure accumulation, and introduction of foreign plants from horse manure and hay occurs.

The demand for hunter campsites, particularly during elk hunting season, exceeds the availability of campsites in the National Forest. Generally, following Labor Day, PacifiCorp campgrounds are closed for the season. This forces not only hunters but also campers attracted to the

reservoirs to use the only campsites available, those on national forest system lands. This is causing increased impact at dispersed campsites, and growing environmental impacts caused by user development of new campsites along national forest roads.

South Lakeshore Trail

In accordance with original licensing of the Swift Project, a trail was constructed on the south shore of Swift Reservoir. This trail, while not currently in use, provides potential recreation access to the south shore. The trail also would provide an important link for a regional trail running the length of the Lewis River Hydroelectric Projects. Extension of this trail through the Drift Creek arm would be consistent with Forest Service management objectives. This trail could be connected with the south end of the Eagle Cliff Bridge.

Parking at the Canal Bridge

Parking at the Road 90 crossing of the Swift Power Canal is limited, and at times causes a safety hazard. The Washington State Department of Fish and Wildlife plants fish in the canal, which encourages fishermen to use the site. Parking is limited by a PacifiCorp fence and an open drainage ditch. When capacity is exceeded parking takes place on the shoulder of Road 90.

RV Holding Tank Dump Station

The holding tank dump station across Hwy 504S from Yale Park was closed about 1997. Its closure has left visitors to the area with no place to empty RV holding tanks unless they are guests in fee campgrounds. This is not always an option for area travelers, which encourages illegal and unsanitary dumping along roads and at dispersed campsites.

IV. Preliminary Forest Service Objectives

The Forest Service will seek to recover a fair share of costs associated with the impacts of project-induced activities on Forest Service facilities and programs. The Forest Service believes the applicant should:

1. Provide a commensurate share of the annual administration, operation, and maintenance and periodic replacement of facilities for project induced recreational use occurring on national forest system lands, including but not limited to campgrounds, dispersed sites, and fishing sites. This share is based on an estimate of the proportion of recreation use in the Lewis River drainage induced by the projects. Rates will be based on the above cited PacifiCorp study showing that 20-25% of dispersed and developed campground users are in the area because of recreation opportunities related in part to the reservoirs. The share will be adjusted periodically based on inflation, and any changes in project-induced recreation on NF lands. (18CFR 2.7 (e))
2. Provide a commensurate share of the annual administration, operation, and maintenance of the interpretive programs on national forest system lands in the Lewis River Drainage. This share is based on an estimate of the proportion of recreation use in the Lewis River drainage induced by the projects. The share will be adjusted periodically based on inflation, and any changes in project-induced recreation on NF lands.
3. Licensee will periodically monitor project-induced recreation in the Lewis River drainage at a frequency and using methods agreed to by the Forest Service.

4. Share in the cost of maintaining National Forest roads, used by project visitors to access dispersed campsites, and developed campgrounds, where their primary reason for being there is related to the reservoirs. This may be accomplished by the licensees entering into a road cost-share agreement with the Forest Service.
5. Provide maps of the area showing lands open and closed to dispersed recreation at license operated campground and boat launches. (18CFR 2.7 (c))
6. To discourage hazardous parking on the shoulder of Forest Road 90, licensee should enlarge and improve parking at the north end of the Canal Bridge to adequately accommodate parking of persons attracted to fishing in the power canal. (18CFR 2.7 (c))
7. Use the existing portion of the south shore trail as part of the proposed trail that would run the length of the hydroelectric project, and would allow hiker, horse and mountain bike access to the Drift Creek Area. This trail should not be open to motorized traffic due to wildlife concerns in the Drift Creek Area (see Drift Creek EIA). (18CFR 2.7 (h))
8. Reopen the holding tank dump station at Yale Park for public use, or an alternative site designated. Collecting a fee for dump station use is an option for the licensee. (18CFR 2.7 (f) (2))
9. Open one campground in the Cougar area and Swift Forest Camp through the end of elk hunting season to provide hunters and reservoir users a place to camp. (18CFR 2.7 (h))
10. A visitor contact center could be built in the Cougar area to provide a place where visitors can obtain information about recreation opportunities within and adjacent to the project. The facility could provide space to interpret project activities such as heritage resources, recreational opportunities, fisheries, hydrology, flood control and project operation. The center could also provide space for curation of cultural artifacts from the project area. The Forest Service is interested in cooperating with the utility to in providing information to visitors visiting Mount St. Helens National Volcanic Monument, adjacent to the project area. (18CFR 2.7 (e), (h))

V. Information Needs

1. A statistically valid baseline study is needed to determine the volume, nature and location of project induced recreation occurring in developed and dispersed recreation sites on the Mount St. Helens National Volcanic Monument, and the impacts of this recreational use.
2. Periodically, following the baseline study, for the life of the license, monitor to determine and evaluate changes in project induced recreation use occurring on national forest system lands.
3. Determine the extent and condition of the existing segment of the South Shore Trail. Provide a map showing the trail location, ownerships crossed, and perform a condition survey indicating tread width, damage, clearing and brushing needs, and the status of drainage structures or bridges.