

USDA Forest Service
Gifford Pinchot National Forest
EXISTING INFORMATION ANALYSIS
For
Packwood Lake Recreation Resources

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Last Edited: December 13, 2004

Abstract

The area affected by the Packwood Lake Hydro-electric Project includes both non-wilderness lands designated for semi-primitive conditions and experiences, and wilderness lands, all surrounding the centerpiece of the site, Packwood Lake, a natural feature. Forest Service facilities in the Project include two trails providing access, a historic log cabin built by the Valley Development Company, an early predecessor to the Project, a current Forest Service guard station, one transportable vault toilet currently out of service, a non-potable water source well, and two pit-toilets.

The primary contribution of the Project to management and resource impacts, i.e., Project induced activities, is through increased access, particularly by mechanized and motorized vehicles. Recreation opportunities at Packwood Lake are influenced by the ease of access related to the Project. Prior to the development of the Project, access was by a 6 mile foot trail. Currently the area may be accessed by either a 4.5 mile non-motorized trail or a 4.5 mile motorized trail open to both motorcycles and ATV's.

Current levels of use result in vegetative removal, soil compaction, surface erosion, and sanitation problems in both non-wilderness and wilderness areas. In addition, motorized use increases total use and compromises the natural environment adjacent to the Wilderness.

In order to mitigate the adverse effects of Project induced activities and encourage the licensee to fulfill their obligations under 18CFR 2.7, the Forest Service will seek a share of the costs of management of recreation activities and facilities in the Project area, including installation, operation and maintenance of toilet facilities; continued operation and maintenance of the Pipeline Road and Trail #74; improvement, operation and maintenance, or rehabilitation of dispersed camp sites; and provision of interpretive signing.

The Forest Service will also ask the proponent to provide for studies of use on Trails 74 and 78, a study of non-wilderness campsite conditions in the Project area, and a study of user attitudes related to prohibiting overnight use.

I. Existing Situation

The purpose of the EIA is to describe the continuing effects of Project operation on the resource and opportunities for enhancing recreation opportunities pursuant to 18CFR 2.7. Study needs are identified where existing information is inadequate.

Recreation resources within the Packwood Lake Hydroelectric Project offer a variety of backcountry and wilderness opportunities. Access to the lake is relatively easy and available by foot, horseback, mountain bike, or motorcycle/ORV via one of two trails. Both trails are approximately 4.5 miles long. The motorized trail (Pipeline Trail #74) is maintained by Energy Northwest and is under special use permit to allow Energy Northwest to access, operate and maintain the hydroelectric dam at the lake's outlet. The motorized trail serves as the licensee's primary access for administration and maintenance. In addition, some users tow small trailers and boats or bring inflatable boats in on ATV's. Only human-powered boats are allowed on Packwood Lake.

The non-motorized trail (#78, Packwood Lake Trail) is maintained by the Cowlitz Valley Ranger District wilderness trails crew. The trail system (#78, Packwood Lake Trail, and #81, Upper Lake Creek Trail) continues along the lakeshore and enters the Goat Rocks Wilderness approximately ¼ of a mile beyond the lake outlet on the east shoreline of the lake. This trail is non-motorized.

The trailhead for both the Pipeline #74 and Packwood Lake #78 trails is located at the end of FS Road 1260. The parking lot is of adequate size for the level of use the two trails receive. A single vault CXT toilet is located at the parking lot in addition to a loading ramp for stock and a trailhead bulletin board. A routed wood trail map is also located at the trailhead near the beginning of the Packwood Lake #78 trail. The beginning of the Pipeline road/trail is located approximately 100 yards back down FS Road 1260, which requires ATVs riding back to the trail on the road and then going around a gate that prohibits access to larger vehicles.

Non-Wilderness Area

Historically the lake has been extremely popular for fishing, boating and camping. Limited motorized trails on the District, as well as a destination lake, make this a very popular, although short, motorized trail route. Prior to 1992, the availability of special use permittee services, which included boat rental, a small store, and primitive lodging, attracted heavier recreational use to the area. The special use permit was terminated in December 1991, due to failure to meet the terms and conditions of the permit. Remaining permit holder facilities were removed in 1992 after analysis showed that continued services at the lake were contrary to recreation and resource management objectives.

Approximately two-thirds of the non-wilderness use at the lake is day use. Estimates of use in years prior to 1992, indicate an average of about 60 people per day during the summer months and up to 300 people per day on weekends. During the summer of 1992, when cabin and boat rentals were not available, it was estimated that there were approximately 30 people per day during the summer months. Packwood Lake contains a unique population of native trout. Unlike other local lakes, it is not presently stocked

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with hatchery fish by the Washington Dept. of Fish and Wildlife in order to maintain the genetic integrity of the native trout population.

There are two administrative use cabins near the lake outlet. A log cabin, built in 1910, was recently (2004) the site of a Passport in Time project, where several cedar logs were replaced and a new cedar shake roof was installed. This cabin is the second oldest structure on the Forest, and one of six remaining log structures in Forest Service Region 6, and as such has significant historical and interpretive value. This cabin was originally built by the Valley Development Company as an administrative site for the initial stages of hydroelectric development. The second building, a Forest Service guard station circa 1960's, is occasionally used by wilderness trails and patrol personnel. Energy Northwest provides electricity to this newer guard station for year-around heating. A toilet is also located near the lake outlet. This toilet was designed as a transportable vault to be maintained by an ATV. However, due to vandalism, this toilet is not functional at this time and there are no other public sanitation facilities available.

A well was drilled to provide potable water to the public, the guard station, and for the special use permittee in the early 1990's. However, water from the well never tested as acceptable for potable uses and the handpump has been partially disassembled to prevent public use.

There are approximately 20 documented campsites along the non-wilderness portion of Packwood Lake. Because of the steep terrain of the shoreline, most of these sites are within 100 feet of the lakeshore, which is in conflict with Forest Plan standards. In addition, there are two pit toilets remaining from the "resort". Both are in poor condition. User developed fire pits and connector trails are abundant throughout this area. Soil compaction, accumulations of trash, enlarged campsites, and sanitation have been identified as problems at some of these sites.

There is a control building, associated with the drop structure, owned and maintained by the licensee. Though painted in earth tones, like the Forest Service guard station, it is a very utilitarian structure that detracts from the natural landscape.

Wilderness

While the lake itself is outside of the Goat Rocks Wilderness boundary, over three quarters of the lake's shoreline is the designated wilderness boundary. Packwood Lake offers a popular access point for entry into the Goat Rocks Wilderness.

There are 23 camp sites monitored within wilderness along the shoreline, three of these sites are new since 1993. Of these 23 sites, 16 violate Gifford Pinchot National Forest Land and Resource Management Plan (as amended by the Wilderness Protection Environmental Assessment, 1998) standards for vegetative loss. The standard for this Wilderness Resource Spectrum "transition" classification is for sites not to exceed 600 sq. ft. of barren core. Four sites within this area exceed 2,000 sq.ft. of barren core including a site of 3,865 sq.ft. In addition, 20 of the sites are within 100 feet of the lakeshore. It is currently a violation of wilderness regulations to camp within 100 feet of lakeshores, though few alternatives exist due to the steep nature of the shoreline.

Wilderness permits indicate that an average of 900 people enter the Wilderness at this location each year. This is the third most popular entry point into the Goat Rocks

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Wilderness on the Cowlitz Valley Ranger District. Approximately one third of this use is day use, which is opposite to the use pattern identified for the non-wilderness area of the lake.

II. Management Direction

Forest Plan

The Gifford Pinchot National Forest Land and Resource Management Plan (Forest Plan) establishes the management direction for the Gifford Pinchot National Forest. The area surrounding Packwood Lake is classified as Unroaded Recreation Without Timber Harvest (UH) and Wilderness (WW) under Amendment 11. It is also identified as a late-successional reserve (LSR) and a Tier 1 Watershed. In general, the goal of Management Area UH is to provide high quality dispersed recreation in a predominately natural setting.

The goal of wilderness is to preserve the wilderness character, allowing for natural processes and providing opportunities for solitude, challenge and inspiration. Within these objectives, and following a policy of non-degradation management, it is the intent to provide for appropriate levels of recreation, scenic, education, scientific and in some cases historical uses. (Wilderness Protection Environmental Assessment, GPNF 1998)

Within the Unroaded Recreation Without Timber Harvest (UH) Management Area, Packwood Lake has the recreation opportunity Spectrum (ROS) management prescription of “semi-primitive motorized.” According to the ROS guidelines identified in the Forest Plan for semi-primitive motorized, off road vehicle use is limited to designated trails. The area will be managed to produce no more than 15 encounters between groups of visitors per day. Groups should be no larger than 25 persons (encounter no more than 400 individuals each day). Campsites should be located away from lakeshores, streamsides, and trails. No more than three other campsites should be visible from a given site. Current camping use is marginal or unacceptable by these standards. The visual quality objective (VQO) is “retention.” Cultural sites or other features of interest may be interpreted if they can be adequately protected. (Gifford Pinchot National Forest LRMP, 1995).

The Wilderness area immediately surrounding Packwood Lake is designated as “transition” in the Wilderness Resource Spectrum. According to the Wilderness Protection Environmental Assessment, for those areas identified as “transition,” standards and guidelines direct that the average number of people encountered each day should be 24 or less. All campsites should be located at least 100 feet from the shoreline. No more than two campsites should be visible from a given site (Wilderness Protection Environmental Assessment, GPNF, 1998). As stated previously, there are several situations where the physical conditions are already in violation of established standards and guidelines.

The Northwest Forest Plan outlines nine Aquatic Conservation Strategy (ACS) objectives that were developed to restore and maintain the ecological health of watersheds and aquatic ecosystems contained within them on public lands. The following ACS objectives provide direction for resource management associated with the existing recreation use at Packwood Lake:

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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. Water quality must remain within the range that maintains the biological, physical, and chemical integrity of the system and benefits survival, growth, reproduction, and migration of individuals composing aquatic and riparian communities.*
8. *Maintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands to provide adequate summer and winter thermal regulation, nutrient filtering, appropriate rates of surface erosion, bank erosion, and channel migration.*
9. *Maintain and restore habitat to support well-distributed populations of native plant, invertebrate, and vertebrate riparian-dependent species.*

The following Forest Plan standard and guideline applies to recreation developments within riparian reserves. Riparian reserves are one site-potential tree height or 150 feet, whichever is greater, in width.

RM-2. Adjust dispersed and developed recreation practices that retard or prevent attainment of Aquatic Conservation Strategy objectives. Where adjustment measures such as user education, use limitations, traffic control devices, increased maintenance, relocation of facilities, and/or specific site closures are not effective, eliminate the practice or occupancy.

18 CFR Part 2.7

This statement of FERC policy interpreting the Federal Power Act says that the FERC “will seek the ultimate development of recreational resources consistent with the needs of the area to the extent that such development is not inconsistent with the primary purpose of the project. Reasonable expenditures by a licensee for public recreational development pursuant to an approved plan, including the purchase of land, will be included as part of the project cost....The Commission expects the Licensee to assume the following responsibilities:...”

- (b) To develop suitable public recreational facilities upon project lands and waters and to make provisions for adequate public access to such project facilities and waters and to include therein consideration of the needs of persons with disabilities in the design and construction of such project facilities and access.
- (c) To encourage and cooperate with appropriate local, State, and Federal agencies and other interested entities in the determination of public recreation needs and to cooperate in the preparation of plans to meet these needs, including those for sport fishing and hunting.
- (d) To encourage governmental agencies and private interests, such as operators of user-fee facilities, to assist in carrying out plans for recreation, including operation and adequate maintenance of recreational areas and facilities.
- (e) To cooperate with local, State, and Federal Government agencies in planning, providing, operating, and maintaining facilities for recreational use of public lands administered by those agencies adjacent to the project area.

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- (f)(1) To comply with Federal, State and local regulations for health, sanitation, and public safety, and to cooperate with law enforcement authorities in the development of additional necessary regulations for such purposes.
- (2) To provide either by itself or through arrangement with others for facilities to process adequately sewage, litter, and other wastes from recreation facilities including wastes from watercraft, at recreation facilities maintained and operated by the licensee or its concessionaires.
- (g) To ensure public access and recreational use of project lands and waters without regard to race, color, sex, religious creed or national origin.

Forest Service Manual 2303 - POLICY.

- 1. Public use facilities provided by the Forest Service must contrast with urbanization and harmonize and complement the natural environment. Facilities provided by the private sector should meet this policy as much as possible...
- 4. Enhance the quality of the recreation experience through interpretive services, programs, and professional development of recreation managers.
- 5. Ensure high-quality experiences through location, design, and maintenance of facilities that afford a reasonably safe and healthful recreation experience and provide access to as many people as possible, including persons with disabilities.

FSM 2330.3 - Exhibit 01

Recreation opportunity spectrum class	Development scale	Level of site modification
Semi-primitive (Motorized and non-motorized)	2	Little site modification. Rustic or rudimentary improvements designed primarily for protection of the site rather than the comfort of the users. Use of synthetic materials avoided. Minimum controls are subtle... Spacing informal and extended to minimize contacts between users. Motorized access provided or permitted. Primary access over primitive roads. Interpretive services informal.

2331 – OPERATION AND MAINTENANCE

Prepare and annually update an operation and maintenance plan for recreation sites. Includes subsections on Public Safety, Tree Hazards, Other Natural Hazards, Potable Water, Waste Treatment and Disposal, Cleaning and Policing, Refuse and Garbage Disposal, Pack-It-In, Pack-It-Out.

2332.5 Maintenance

Maintain all improvements to the standard to which originally constructed or subsequently improved or modified...

2382.4 – (Scenery Management System) Applications to Project Management

Refer to the Agriculture Handbook series on Landscape Management (FSM 2380.61) as guidance in project-level work to:

1. Plan, design, and construct utilities to reduce negative impacts to scenery associated with the utilities.

Chapter 2770 - Federal Power Act Projects (2003)

2770.3 - Policy

1. Consider energy potential a National Forest System resource in arriving at management decisions concerning proposed hydropower projects....

4. Coordinate with FERC and other Federal and State agencies, as appropriate, in determining the license conditions necessary for the protection and utilization of National Forest System lands and resources. Transmit to FERC those section 4(e) license conditions the Forest Service considers necessary to mitigate effects on National Forest System lands and resources that are directly attributable to project operations and maintenance. Section 4(e) conditions shall be:

- a. Necessary to protect and utilize National Forest System lands and resources; these conditions must be clearly described or guided by the applicable land management plan and authorities;
- b. Capable of achieving the desired results and supported by substantial evidence regarding their effectiveness; and
- c. Directly attributed to the operation, maintenance, and/or occupancy of the project on National Forest System lands.....

6. Coordinate with other Federal and State agencies that have the authority for mandatory license conditions to achieve consistency and avoid conflicting license conditions.

7. Coordinate with the license applicant(s), Federal and State authorities, and, where appropriate, Tribal and local governments and other interested parties to develop mutually agreed upon license conditions....

9. Provide additional license conditions to FERC as recommendations under section 10(a) of the Federal Power Act. Such additional license conditions may include mitigation or enhancement measures contained in settlement agreements applicable to National Forest System lands or resources. ...

III. Forest Plan Desired Condition

The desired future condition of management area Unroaded Recreation Without Timber Harvest (UH) is that the natural-appearing environment has been maintained and changes are largely the result of natural succession. The area should afford visitors an experience that is usually free from the sight and sound of other people.

The desired future condition of Wilderness follows the policy of non-degradation of the wilderness character. Management direction is guided by the Wilderness Act of 1964. It is anticipated that measures will be taken to keep wilderness use within carrying capacities, including a permit system that may limit use or designate campsites.

IV. Need for Change

The primary Project impact to recreation resources is increased public access to the lake. Without the Pipeline Trail #74, which is the primary access used by Energy Northwest, access to the lake would most likely be limited to Trail 78, a non-motorized trail. This access is also somewhat more difficult as the Packwood Lake Trail gains and loses more elevation than the Pipeline Trail.

Motorized access contributes to the level of use of both shoreline areas and the lake itself. It adds to the amount of refuse left at the lake, and detracts from the aesthetic environment in the area. This is particularly important adjacent to the Wilderness.

There is continued growth of dispersed campsites that are located directly on the shoreline and that are in conflict with existing standards and guidelines. In most locations, two or three campsites blend together to create a very large impacted area along the shoreline.

The level of use should be that which is appropriate for the site (non-wilderness and wilderness). This would suggest suitably hardened camp sites in appropriate number and location; motorized use managed to protect resources and maintain the desired aesthetic conditions; and overnight use managed in such a manner to provide for resource protection within and outside wilderness.

If recreational ATV use is to continue, the Pipeline Road and Trail #74 need to be maintained or improved for safe use by ATVs. Also, explore opportunities to improve ATV access to the Pipeline Road from the trailhead parking area.

Mechanized incursions into the wilderness would be discouraged by a bicycle stand and defined ATV parking area near the end of Trail #74.

Alternatively, Forest Service may prohibit recreational motorized ATV use to the lake.

With continued public access to the control structure area, the design of the structure should be brought up to standards consistent with the visual quality objective of the area. The Forest Service guide book, *The Built Environment Image Guide*, provides examples of various architectural styles that fit into a regional context. As repairs and maintenance are performed to the building, some of these features should be incorporated into the design. By doing so, over time, the character of the building would be modified to more closely conform to the visual quality objective.

V. USDA Forest Service Interests and Preliminary Objectives

The Forest Service interest is to provide a semi-primitive and wilderness recreation experience in the Packwood Lake area that meets established standards for recreation experience and resource protection.

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

- A. Participate in the cost of annual administration, operation, maintenance and periodic replacement of recreation facilities at Packwood Lake. This includes: installation, operation, and maintenance (O&M) of a public toilet at the site; developing a parking area for bicycles at the lake, removal and rehabilitation of existing pit toilets; O&M of dispersed camp sites that may include site definition or designation and site hardening and enforcement of ATV prohibition on the Pipeline Road/Trail if Forest Service elects to prohibit recreational ATV use.
- B. Participate in removing, improving, and/or rehabilitating selected camp sites along the shoreline.
- C. Modify the appearance of the control building over time, using materials that would make the building appear more rustic. This might include more rustic appearing siding and building colors in keeping with a rustic theme. Additions or reconstruction of the building should incorporate elements of the Cascadian architectural style.
- D. Continue to provide operation and maintenance of the Pipeline Trail #74. Continue to provide electricity to the Forest Service guard station.
- E. Maintain the vegetation in a natural appearing condition. Brushing along the road, trails and the control building area should be done in a way to maintain the natural appearing character of the Forest.

VI. Study Requests

The Forest Service will request that the proponent conduct the following studies to provide information for evaluation of issues and determination of commensurate share percentages:

- A. Study use of Trails 74 and 78 to determine:
 1. Total use by user group (hiker, bicycle, OHV, horse, other) and by date of use.
 2. Purpose of visiting the lake (site-seeing, camping, hiking, wilderness use, fishing, photography, etc.)
 3. Visitor preferences and attitudes associated with the potential for prohibiting overnight use from the Packwood Lake Trailhead parking lot to a point one-fourth mile beyond the south end of the lake.

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B. Study/monitor use of lakeside campsites in non-wilderness area affected by the Project to determine

1. Total use, day use and overnight use, by date of use and duration of stay.
2. Number, size and condition of sites.

VII. References Cited

USDA Forest Service. 1995. Land and Resource Management Plan, Gifford Pinchot National Forest.

USDA Forest Service. 1998. Wilderness Resource Protection Environmental Assessment, Gifford Pinchot National Forest.

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