Olympic National Park

Environmental Assessment

for

Restoring Interim Access to the Queets Area

December 2006

US Department of the Interior, National Park Service

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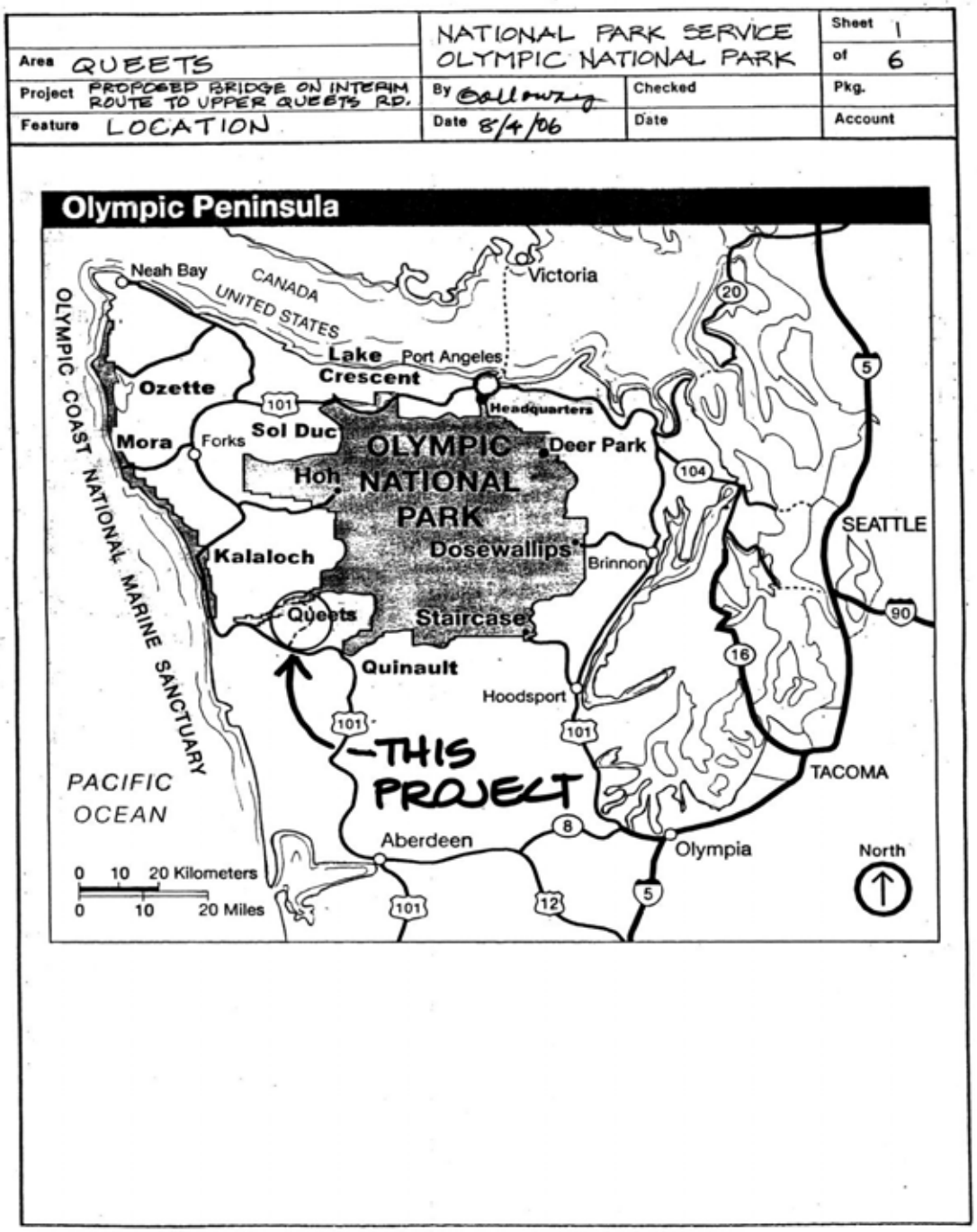
Figure 1 Project Location



PURPOSE AND NEED FOR ACTION

INTRODUCTION

The National Park Service is considering options for restoring interim access to the Queets area, within Olympic National Park (ONP). The Queets is located in the southwestern corner of the park off U.S. Highway 101 in the Olympic rainforest (Figure 1). The Queets Road provides access for visitors and park staff to: 20 primitive campsites with fire pits and picnic tables; pit toilets (no portable water or hookups); the Streater Crossing and Queets campground boat ramps; Queets Ranger Station, and two trailheads. The Sams River Trail follows the Queets River past Sams Rapids though the temperate rain forest. The Queets River Trail also begins at this location. The 17-mile trail travels northeast to the upper Queets Valley through rain forest wilderness.

The Queets area contains many natural and cultural resources including, Roosevelt elk, other lowland wildlife, a number of listed fish species and game fisheries, and excellent spawning habitat, and historic homestead sites including the Suaube/Smith Cabin (NPS 1996). Precipitation in the area exceeds 100 inches annually (NPS, 1983).

The Queets Road was damaged on March 26, 2005 by a rock slide which undercut the road near milepost 8 (Photo 1). The initial assessment of the washout found that the failure of the road resulted from river erosion at the toe of the landslide and/or groundwater seepage from behind and through the failed soil mass. Due to the instability of the road, it was closed to vehicular traffic at that time. The point of closure is the Matheny Creek Bridge.

On May 11, 2005, Western Federal Lands Highway Division (WFLHD) Engineering Geologists and Geotechnical Engineers conducted a field reconnaissance of the Queets River Road slide. The visit consisted of visually examining and walking the active slide and the immediate area adjacent to it, discussing safety issues, and identifying possible alternatives and mitigation. No subsurface testing was conducted and no samples were collected.

During the site visit many seepage areas were located throughout the failed surface of the slide, indicating that the groundwater seepage was at least partially the cause of the slide. At the time of this site visit, the middle section of the landslide had encroached within 5 feet of the roads centerline. Freshly broken shoulder material was observed at both ends of the slide, indicating that calving of the shoulder edge and recent sloughing had been continuing since the slide first occurred. Based on these observations, the slide was determined to be migrating headward seeking its natural angle of repose and could ultimately involve the entire road width. Because the slide remained unstable, the use of motorized vehicles through the slide area was determined to be unsafe. Foot traffic around the slide was allowed with the understanding that there was a continued risk of slide movement.

A much larger and older landslide was discovered during the site visit. The scarp of the older slide crossed the roadway approximately 500 feet west and 150 feet east from the

March slide. Approximately 650 feet of roadway, including the recent slide area, was within the limits of the older landslide. The engineers speculated that slow, continuous, chronic movement of the old landslide toward the river, combined with toe erosion in the area of the recent slide by the river, were causal factors in the development of the recent slide.

A second site visit was conducted on July 1, 2005, by NPS Civil Engineer and ONP maintenance staff to determine the feasibility of re-routing the gravel road around the slide area. They found that an upslope bypass would be feasible, but would require substantial woody debris and duff removal and the removal of one large spruce tree.

A third site visit was conducted on December 16, 2005 by park specialists and the NPS Regional Fluvial Geomorphologist. In his site report he concluded that the Queets slide is a natural landslide, controlled by ground water, likely reacting to seasonal precipitation trends (rather than individual storm events). The presence of the river was contributing to instability by two mechanisms: (1) over-steepening the toe of the slide by bank erosion; and, (2) removing failed material at the base of the slide (if there were no river, the failed material would self-buttress the slide, promoting stability).

On or around January 11, 2006, there was a more extensive slide which completely obliterated 150 feet of access road at the original slide area, leaving a 200-foot deep chasm. NPS staff investigated the site on January 13 and found that the slide had removed a major portion of access road, and although the upslope bypass location was still in place, it was very close to the active slide area. At its closest point, the proposed reroute was approximately 100 feet from the active slide site. After the second slide, the road was also closed to pedestrian traffic due to potential risks from more slide activity.

Photo 1. Queets Road after March 2005 slide

Photo 2. Queets Road after January 2006 slide

On February 24, 2006, engineers from the Federal Highways Administration conducted a site visit and determined that the area previously considered for the upslope bypass reroute was no longer suitable due to the proximity to the active slide area creating instability in that area. Due to this, park managers had to reassess other options for restoring public vehicular access back into the Queets area of ONP.

On May 31, 2006, the NPS met with the DNR to determine if there was the possibility of restoring access to the park through DNR lands, utilizing existing roads. They were fully supportive of the NPS exploring this alternative. A site visit was conducted in June 2006 with the NPS, WDFW, and the U.S. Forest Service to assess the conditions of the alternative route (West Boundary Road 21 and Road 2180), the previously closed road 2180-010, and the NPS portion of the back road into the Queets. It was determined that it would be feasible to reestablish public access under this alternative.

On June 30, 2006, the NPS requested that the USFS and DNR be cooperating agencies or co-leads in the preparation of the environmental assessment. Both agencies responded to the NPS and confirmed their interest in assisting the NPS with the proposed project.

This environmental assessment analyzes two alternatives: Utilizing Washington State Department of Natural Resources (DNR) and U.S. Forest Service (USFS) roads and reopening the alternate route into the upper Queets area (the preferred alternative), and the no action alternative. This environmental assessment has been prepared in accordance with the National Environmental Policy Act of 1969, as amended (NEPA), and regulations of the Council on Environmental Quality (40 CFR 1508.9); National Park Service Director's Order-12: *Conservation Planning, Environmental Impact Analysis, and Decision-making* (DO-12); the National Historic Preservation Act of 1966 (as amended); and has been prepared to meet DNR State Environmental Protection Act (SEPA) requirements.

BRIEF HISTORY AND BACKGROUND

The Queets River valley was settled in the winter of 1889. Homesteading continued through the early 1900s, but the population in the area remained low due to the access challenges, severe physical and climatic conditions, and the remote nature of the area. Because the Queets corridor was a late addition to the park, settler families continued to inhabit this area into the late 1930s.

In 1940, the Queets Corridor was added to ONP through the Public Works Administration acquisition. Because the corridor was not technically part of the park, selective timber cutting was authorized in the 1940s and 1950s (Figure 2). A few residents continued to live in the area until 1953, with the legislative addition of the Queets corridor to ONP (NPS 1983). At this time, the Queets corridor became a formal part of the park and was included in the park boundaries.

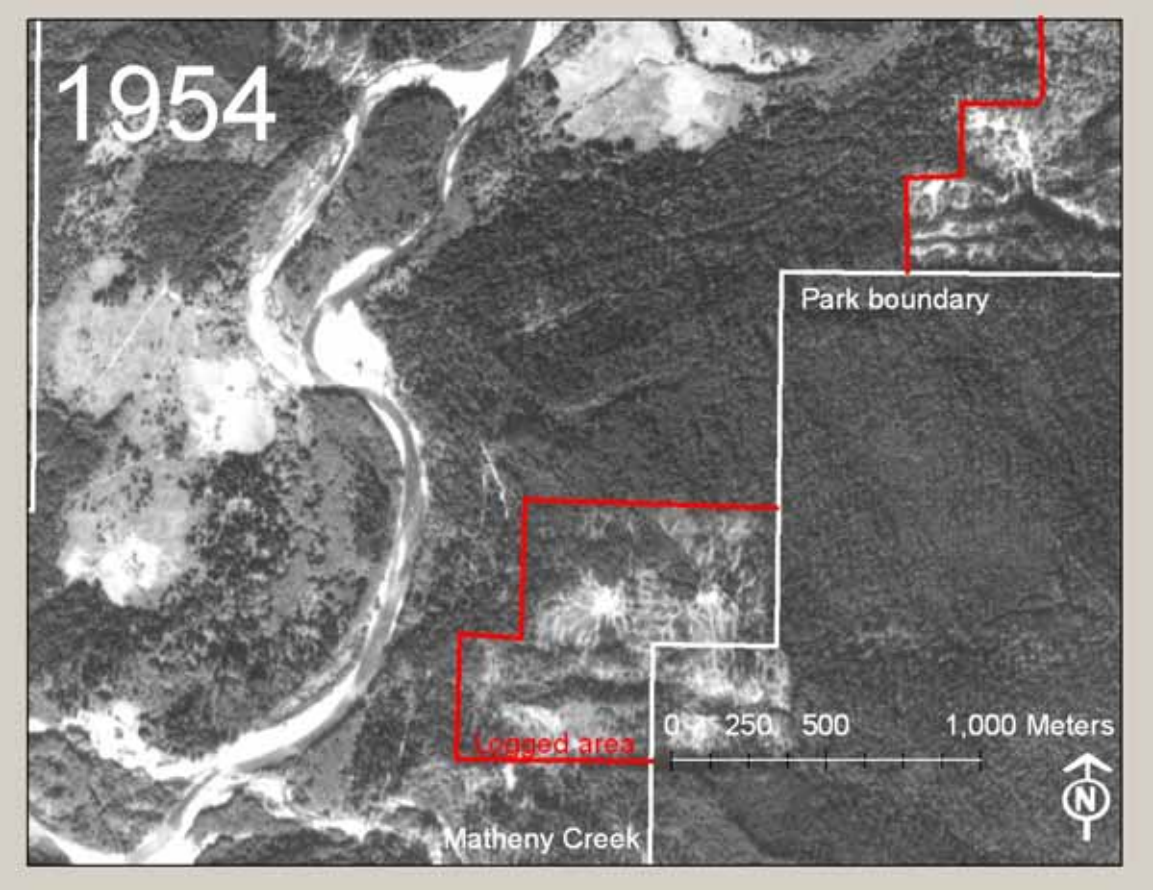


Figure 2. Historically logged area near landslide site

On October 21, 1976 an Act of Congress mandated a revised boundary between ONP and the Washington State Department of Natural Resources (DNR) lands. The new boundary fell directly on the hydrologic divide between the Clearwater and Queets drainages. In 1988, Title I of the Washington Park Wilderness Act (PL 100-668) designated about 95% of the park as wilderness or potential wilderness. The Queets area, excluding the access spur containing the Queets River Road, was designated as wilderness by this Act.

The Queets Road provides access to the Queets River, which is an important river for sports fisheries. The river historically has the most angler usage from January to mid-March for wild steelhead and late fall for coho. Prior to the slide, many of the vehicles using the Queets Road for the purpose of fishing access used the facilities located off the last six miles of the access road. Due to the winter fishing season, the Queets campground is one of the most heavily used campgrounds in the park during the winter months (pers. comm. McCool). In 2005, 14 fishing guides were permitted by the park through Incidental Business Permits (IBPs). Many of the IBP holders for fishing guide services only guide trips along the Queets River. A fishing effort estimate on the Queets River indicates that the spring 2005 steelhead season was tapering off at the time of the slide out in March 2005 (pers comm. Brenkman)

Under current conditions, the road can not be utilized either by vehicles, stock, or pedestrians for access into Queets.

NEED FOR ACTION

Need is defined as a "discussion of existing conditions that need to be changed, problems that need to be remedied, decisions that need to be made, and policies or mandates that need to be implemented." In other words, need is a discussion of why action is being proposed or taken at this time.

The project is needed for the following reasons:

- The Queets Road provides one of four vehicular access roads to the western part of the interior portion of the park;
- Access is currently not possible beyond the slide out;
- Six miles of road are inaccessible to vehicles; there is no vehicle access to the campground, two boat ramps, and Queets trailheads;
- Road access is important to park visitors, including wilderness users, fishermen, campers, and those users who are unable to hike or use other methods for transportation;
- Road access is important for emergency services and for the administration of the Queets area;
- Road access is important for research and scientific studies by NPS, Quinault Tribe, and others;
- Road access is important for area tribes to access their traditional use areas.

THE PURPOSE OF PARK ROADS

Purpose is defined by the NPS regulations as "a broad statement of goals and objectives that NPS intends to fulfill by taking action." The purpose of park roads is to enhance the visitor's experience by providing access to park facilities, resources, and recreational opportunities. Park roads are not intended to provide fast or convenient transportation but rather to access areas of recreation while being sensitive to the natural and cultural resources in the area (Section 9.2.1.1 *Management Policies*). Park roads are "intended to enhance visitor experience while providing safe and efficient accommodation of park

visitors and to serve essential park operations and to serve essential management access needs" ("Park Road Design" memorandum dated February 20, 1986, from William Mott, then Director of the National Park Service).

Park roads provide access for the protection, use, and enjoyment of the resources that constitute the park. Park roads are often narrow, winding, and hilly, and are generally planned for leisurely sightseeing.

The purpose of the project is to provide safe and sustainable vehicular access to the public, park staff, and area tribes to the Queets portion of Olympic National Park.

- The Queets Road provides access to a more remote, isolated portion of Olympic National Park. Providing access such as this assists the park in achieving its goal of providing a wide range of recreational opportunities.
- The Queets Road provides access to two boat ramps, a primitive campground, and a trailhead.
- The Queets Road provides access to the Olympic Wilderness.
- The Queets Road provides access to important recreational fishing opportunities on the Queets River within ONP.
- Based on park road counts, the Queets area receives an average 37,000 visits annually.

The purpose of the environmental assessment is to determine the most feasible method to restore sustainable vehicular access to the Queets area, while protecting park resources.

OBJECTIVES IN TAKING ACTION

Objectives are defined as "what must be achieved to a large degree for the action to be considered a success." The objectives of the analyzed alternatives must closely meet and resolve the purpose and need for action. Objectives are also consistent with and sometimes drawn from the park's enabling legislation, purpose and significance, mission goal, and direction and guidance provided in park management documents. The objectives related to the Queets Road project at ONP include:

1. Reestablish interim access for park staff, recreation users, and the Quinault Tribe.
2. Provide for visitor use and enjoyment of the Queets area.
3. Restore access in a manner sensitive to the park natural and cultural resources (see NPS *Management Policies* 9.2.1.1.).

LEGISLATION, PLANS AND GUIDANCE

The NPS Organic Act of 1916 (16 USC 1, 2-4) and the General Authorities Act (16 USC 1a-8) direct the NPS to conserve the scenery, the natural and historic objects and the wildlife, and to provide for the enjoyment of those resources in such a manner as to leave them unimpaired for future generations. The Redwood Act (March 27, 1978, 16 USC 1a-1) reaffirmed the mandates of the Organic Act and provided additional guidance on national park system management:

> The authorization of activities shall be construed and the protection, management and administration of these areas shall be conducted in light of the high public value and integrity of the National Park System and shall not be exercised in derogation of the values and purposes for which these various areas have been established.

These and other laws and mandates were incorporated into the NPS *Management Policies* (2001) that provide guidance for management of all national park units. Road systems are addressed in Section 9.2.1 which states "Park roads will be well constructed, sensitive to natural and cultural resources, reflect the highest principles of park design, and enhance the visitor experience."

The 1984 *NPS Park Roads Standards* states that roads in national parks serve a distinctly different purpose from most other road and highway systems. Among all public resources, those of the national park system are distinguished by their unique natural, cultural, scenic, and recreational qualities. Park roads are to be designed with extreme care and sensitivity to provide access for the protection, use, and enjoyment of the resources that constitute the national park system.

Directors Order #87A: Park Roads and Parkways states that park roads are constructed only where necessary to provide access for the protection, use and enjoyment of the natural, historical, cultural and recreational resources which constitute our National Park System. Park roads are designed with extreme care and sensitivity with respect to the terrain and environment through which they pass—they are laid lightly onto the land.

Purpose and Significance of Olympic National Park

Olympic National Park was established by the House Report No. 2247 of April 28, 1938. This report established the purpose of Olympic National Park, which is to:

> Preserve for the benefit, use, and enjoyment of the people, the finest sample of primeval forests of Sitka spruce, western hemlock, Douglas fir, and western red cedar in the entire United States; to provide suitable winter range and permanent protection for the herds of native Roosevelt elk and other wildlife indigenous to the area; to conserve and render available to the people, for recreational use, this outstanding mountainous country, containing numerous glaciers and perpetual snow fields, and a portion of the surrounding verdant forests together with a narrow strip along the beautiful Washington coast.

An Act to establish ONP, in the State of Washington, was approved June 29, 1938 (52 Stat. 1241), to dedicate and set apart ONP for the benefit and enjoyment of the people.

Related Planning Documents

Guiding park, forest, and state planning documents which may have relevance to the damaged area along the Queets Road include.

Olympic National Park Master Plan - 1976

The plan outlines park purposes to preserve, protect, and interpret, for the enjoyment and benefit of the American people. The plan integrates park actions into the natural environment of ONP. Established goals related to access have also been addressed in this master plan. The master plan analyzes various ecological determinants — geology, soils, slopes, drainage patterns, vegetation, animal life — indicating that natural limitations should guide development and subsequent management.

Statement for Management: Olympic National Park - 1996.
This document includes information regarding the park's purpose, the natural and cultural resources found in the park and their significance, the legislative history, and the jurisdiction over ONP and the surrounding areas of the peninsula. The document also includes the following management objectives:

1. Resource Stewardship and Protection: The primary responsibility of the NPS must be protection of resources.
2. Access and enjoyment: Each park should provide the nation's diverse public access to park resources in a way that is compatible with the understanding and enjoyment of those resources and their preservation for future generations.
3. Education and Interpretation: The NPS shall enhance visitor and community understanding, appreciation, and conservation of natural and cultural resources through education and interpretation.
4. Proactive Leadership: The NPS must be a leader in local, national, and international park affairs, actively pursuing the mission of the National Park System and assisting others in managing their resources.
5. Science and Research: The NPS must engage in a sustained and integrated program of natural, cultural, and social science research and resource management to acquire the information needed to manage and protect park resources.
6. Professionalism: The NPS must create and maintain a highly professional organization and workforce.

Olympic National Park Draft General Management Plan and Environmental Impact Statement (not completed)
ONP is currently developing a general management plan (GMP). The draft plan was released for public review from June 15 to September 30, 2006. The park anticipates final completion of the GMP in 2007. The GMP will evaluate existing and future potential road access objectives and alternatives for ONP, including the Queets area.

Olympic National Park Fire Management Plan, December 2005
A fire management plan was finalized in December 2005. The goal of the fire management plan is to allow some naturally caused wildland fires (wildland fire use) to occur in the park. In the past fire crews have utilized the Queets road to respond to fires, using the road for fire engines and for the transportation of fire fighters. Areas within the park that are accessed by the Queets Road and Queets area trails are included in both the full suppression zone and the wildland fire use zone of the park.

Olympic National Forest Land and Resource Management Plan

The 1990 Olympic National Forest Land and Resource Management Plan (Forest Plan or LMRP), as amended by the 1994 Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl (1994 ROD or Northwest Forest Plan) and its amendments provides management direction for the National Forest System lands (NFS) within the project analysis area. Direction is provided in the form of goals and objectives, and Forest-wide and Management Area standards and guidelines.

The 1994 ROD (USDA and USDI 1994) incorporates seven land allocations, which amend the allocations described in the 1990 Forest Plan. There is considerable overlay among some allocations, and more than one set of standards and guidelines may apply (such as Riparian Reserve requirements within a Late Successional Reserve). In addition, where the standards and guidelines of the 1990 Forest Plan are more restrictive or provide greater benefits to late-successional forest-related species than do those of the 1994 ROD, the 1990 standards and guidelines apply.

The 1994 amendment also includes additional forest-wide standards and guidelines, and an Aquatic Conservation Strategy, with four components—Riparian Reserves, key watersheds, watershed analysis, and watershed restoration—that are designed to help improve the health of the aquatic ecosystem.

The following land allocations are found within the project area:

> ***Adaptive Management Area (AMA):*** AMAs have been assigned the primary goal of developing and implementing innovative management practices that integrate economic and ecological values.
>
> ***Riparian Reserves:*** Riparian Reserves, a major component of the Aquatic Conservation Strategy (ACS), include areas along all streams, wetlands, ponds, lakes, and unstable or potentially unstable areas (USDA and USDI 1994, pg. A-5). Riparian Reserves overlay all other management areas. Generally, standards and guidelines for Riparian Reserves prohibit or regulate activities that retard or prevent attainment of ACS objectives. The 1994 ROD's standards and guidelines allow "silvicultural practices for Riparian Reserves to control stocking, reestablish and manage stands, and acquire desired vegetation characteristics needed to attain Aquatic Conservation Strategy objectives" (USDA and USDI 1994, pg. C-32).

Under the NWFP, species were designated as Survey and Manage Species. These are species considered to be "at risk." The list of designated species is reviewed annually by the USFS and BLM. According to the NWFP, surveys for Survey and Manage Category A and C species must be conducted prior to any habitat disturbing activity.

Department of Natural Resources Legislation and Planning Documents
Washington State Environmental Policy Act
The State Environmental Policy Act (SEPA) provides a way to identify possible environmental impacts that may result from governmental decisions. These decisions may be related to issuing permits for private projects, constructing public facilities, or adopting regulations, policies or plans. Information provided during the SEPA review process helps agency decision-makers, applicants, and the public understand how a proposal will affect the environment. This information can be used to change a proposal to reduce likely impacts, or to condition or deny a proposal when adverse environmental impacts are identified.

SEPA applies to decisions by every state and local agency within Washington State, including state agencies, counties, cities, ports, and special districts (such as a school or water district). The lead agency is responsible for identifying and evaluating the potential adverse environmental impacts of a proposal. This evaluation is documented and, in most cases, sent to other agencies and the public for their review and comment.

Some minor projects do not require environmental review, so the lead agency will first decide if environmental review is needed. If the proposed project is the type of project that has been "categorically exempt" from SEPA review, no further environmental review is needed. If the proposed project is not exempt, the applicant will usually be asked to fill out an "environmental checklist" (Appendix A). This checklist asks questions about the proposal and its potential impacts on the environment. Because a portion of the proposed action would occur on DNR administered lands, and an easement and/or permit would be required prior to the NPS opening the road to public use, this document will be prepared to address both SEPA and NEPA standards.

Forest Practices Act
In Washington State, forest practices are regulated through the Department of Natural Resources Forest Practices program by means of the Forest Practices Act, established by the legislature, and the rules established by the Washington Forest Practices Board (the Board). The Board is charged with creating rules to protect the state's public resources while maintaining a viable timber industry. The Forest Practices Act applies to primarily all non-Federal and non-tribal forestland, many of which contain habitat for aquatic and riparian-dependent species that have been listed (or may be listed in the future) under the Federal Endangered Species Act (ESA).

The forest practices rules—and the Forest Practices program as a whole—require the maintenance and restoration of aquatic and riparian habitat. As a result, this Forest Practices Habitat Conservation Plan (FPHCP) asserts that the rules and the program are a means of meeting the requirements of the ESA, as well as those of the Federal Clean Water Act (CWA).

In July 2001, the Board adopted what are commonly referred to as the “Forests and Fish Rules.” The FFR had been developed in response to listings of several species of Pacific salmon under the Federal Endangered Species Act as well as the continued listing of

surface waters on the Federal Clean Water Act 303(d) list. To address these issues, the FFR recommended modifying existing forest practices statutes and rules related to:

- The protection of riparian areas, unstable slopes and wetlands;
- The construction, maintenance and abandonment of forest roads;
- The application of forest chemicals; and
- The implementation of watershed analysis.

The FFR has four goals:

1. To provide compliance with the Endangered Species Act for aquatic and riparian dependent species on non-federal forestlands;
2. To restore and maintain riparian habitat on non-federal forestlands to support a harvestable supply of fish;
3. To meet the requirements of the Clean Water Act for water quality on non-Federal forestlands; and
4. To keep the timber industry economically viable in the state of Washington.

The FFR also set a functional objective for managing the hydrologic effects of roads. This was to:

> "Maintain surface and groundwater hydrologic regimes (magnitude, frequency, timing, and routing of stream flows) by disconnecting road drainage from the stream network, preventing increases in peak flows causing scour, and maintaining hydrologic continuity of wetlands."

Some fundamental questions for review are:

1) What are the hydrological processes affected by road systems;
2) At what spatial and temporal scales are these processes affected;
3) What can be done to mitigate the hydrologic effects of roads?

Since a portion of the project falls within Washington State administered lands, FFRs were applied during project alternative development.

OTHER FEDERAL LAWS, REGULATIONS, AND POLICIES

In addition to the laws, regulations, and policies identified above, the National Park Service is governed by the following:

National Environmental Policy Act, 1969, as Amended

NEPA regulations require that an environmental assessment be prepared for proposed federal actions in order to:

- Briefly provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact
- Aid an agency's compliance with the act when no environmental assessment is necessary
- Facilitate preparation of a statement when one is necessary

National Parks Omnibus Management Act of 1998 (NPOMA)

NPOMA (16 USC 5901 et seq.) underscores NEPA in that both are fundamental to NPS management decisions. Both acts provide direction for articulating and connecting the ultimate resource management decision to the analysis of impacts, using appropriate technical and scientific information. Both also recognize that such data may not be readily available and provide options for resource impact analysis should this be the case.

The *Omnibus Act* directs the NPS to obtain scientific and technical information for analysis. The NPS handbook for *Director's Order 12* states that if "such information cannot be obtained due to excessive cost or technical impossibility, the proposed alternative for decision will be modified to eliminate the action causing the unknown or uncertain impact or other alternatives will be selected" (Section 4.4 [NPS 2001a]).

Endangered Species Act of 1973, as Amended
This act requires all federal agencies to consult with the U.S. Fish and Wildlife Service on all projects and proposals having potential impact on federally endangered and threatened plants and animals.

Natural Resources Management Guideline, NPS-77, 1991
The purpose of this document is to provide guidance to park managers for all planned and ongoing natural resource management activities. Managers must follow all federal laws, regulations, and policies. This document provides the guidance for park management to design, implement, and evaluate a comprehensive natural resource management program.

ISSUES AND IMPACT TOPICS

Scoping
A list of issues and concerns related to re-establishing vehicular access on the Queets Road was identified through park internal scoping and through the public scoping process. Internal scoping involved an interdisciplinary team of park and regional staff, and Federal Highways Administration personnel who assessed the site conditions and determined potential issues and impact topics. Discussions occurred with the DNR in April 2005 and again in May 2006 to determine if there were feasible access options using DNR roads. Informal consultation was initiated with the U.S. Fish and Wildlife Service (FWS) in December 2005. A site visit was conducted with the FWS to look at potential options for the project and to assess the habitat.

During the park internal scoping process, public scoping was conducted. The purpose of public scoping was to gain input on the issues or comments related to the proposed project, and potential projects in the area that could lead to cumulative impacts.

ONP conducted public scoping from July 20 to August 20, 2005 via a press release sent to local news media, and a letter sent to 87 individuals, park neighbors, organizations, area tribes, and agencies on the park's mailing list. A total of 50 individuals and organizations responded during scoping. The majority of comments related to maintaining recreational and vehicular access to the Queets area. There were several commentors who wanted to road to remain closed.

The Quinault Indian Nation and Hoh Tribe were contacted to determine the effects of the proposed actions on areas of cultural significance. The project was also listed in the Olympic National Forest's *Schedule of Proposed Actions*, which describes the proposed action and is posted on the Olympic National Forest internet website.

Internal and external scoping comments were considered in the choice of impact topics and were used in the development and evaluation of alternatives discussed in this EA. Scoping issues or impact topics that were considered, but not evaluated further are addressed in section 1.5.3, "Impact topics considered but dismissed."

Potential Issues and Impact Topics

Issues and impact topics were developed from the questions and comments that were brought forth during internal and external scoping. Table 1 discusses the impact topics, the reasons for retaining the topic and the relevant laws, regulations and policies.

Table 1. Impact Topics Retained for Further Evaluation and Relevant Laws, Regulations and Policies

Impact Topic	Reasons for Retaining Impact Topic	Relevant Laws, Regulations and Policies
Vegetation, Including Rare And Unusual Vegetation	Re-opening previously closed roads and improving pull-outs would require the removal of vegetation. The grading and removal of vegetation on existing roads would create a more vulnerable environment which could increase the likelihood of a non-native species becoming established.	NPS Organic Act; NPS Management Policies; Resource Management Guidelines (NPS-77), Federal Noxious Weed Control Act; EO 13112, Invasive Species (1999)
Wildlife and Wildlife Habitat	The removal of roadside vegetation and disturbance during construction could affect area wildlife habitat, including nests, as well as species who feed on the plants and other small animals living in the understory. Roosevelt elk is an endemic species known to live in the Queets area and could be affected by the reopening of the closed road. Other wildlife could be affected by reopening the road.	NPS Organic Act; NPS Management Policies; NPS-77

Impact Topic	Reasons for Retaining Impact Topic	Relevant Laws, Regulations and Policies
Unique or Important Fish or Fish Habitat	The project involves the construction of one stream crossing with fish habitat. Although bull trout have not been observed in Phelan Creek, and the creek is atypical of usual bull trout spawning or rearing habitat, they are located in the Queets River, Matheny Creek, and Sam's River. Therefore, this topic will be evaluated further.	Endangered Species Act; NPS Management Policies; 16 USC 1535 Section 7(a)(2); Magnuson- Stevens Fishery Conservation and Management Act, Sustainable Fisheries Act of 1996 (P.L. 104-267)
Threatened and Endangered Species	There are no northern spotted owls nest sites in or near the proposed project area, but the project area could be considered dispersal habitat and owls may be affected as a result of disturbance from noise and human presence from reopening the road. There is potential marbled murrelet habitat in the area. The vehicular use of the road may have some effect on this species as a result of disturbance from noise and human presence. There would be no removal of habitat or suitable nesting trees.	Endangered Species Act; NPS Management Policies; 16 USC 1535 Section 7(a)(2)
Water Quality	Water quality could potentially be negatively affected by increased sediment washing from project work. The project would involve constructing a stream crossing which could temporarily and adversely affect the water quality of the stream.	Clean Water Act; Fish and Wildlife Coordination Act of 1934 (PL 85-624) as amended; Executive Order 12088; NPS Management Policies; NPS-77
Soundscapes	Noise generating equipment could be used for clearing of vegetation as well as for movement and placement of gravel. The presence of vehicle noise, resulting from the use of the road, would be a permanent byproduct of the project.	NPS Management Policies; Sound Preservation and Noise Management (DO-47)

Impact Topic	Reasons for Retaining Impact Topic	Relevant Laws, Regulations and Policies
Ethnographic Resources and Tribal Concerns	Any action taken to restore access to the trailhead would allow the tribe to reach their fisheries monitoring station as well as access areas of traditional use, resulting in beneficial impacts to those tribal members.	Executive Order 13084 of May 14, 1998; Executive Order 13007 of May 24,1996; American Indian Religious Freedom Act of 1978; The Native American Grave Protection and Repatriation Act of 1990; Director's Order #28; NPS Management Policies
Visitor Experiences and Recreational Resources	Restoring access into the Queets area would positively impact those visitors who wish to drive into the Queets area. The experience of these visitors would be improved because they would be able to continue to access this area of the park and take advantage of the recreation opportunities in the area.	NPS Management Policies
Public Health, Safety, and Park Operations	The Queets Road provides an access point for emergency services and NPS resource management and maintenance personnel. Restoring access would result in less time to reach the trailhead and increased ability to respond quickly to emergencies. Restoring vehicular access would allow for continued trail and facility management activities and will make it less difficult for park resource specialists and researchers to conduct research and monitoring activities.	NPS Management Policies
Socioeconomic Resources	IBP fishing guides conduct the majority of their business along the Queets River. Access to the two upper river boat ramps for the 2005-2006 fishing season was affected by the road washout. Restoring access would benefit the businesses offering fishing guide services.	NPS Management Policies

Issues Eliminated from Further Consideration

The following impact topics or issues were eliminated from the list of potential impacts because they would not be affected by reestablishing access to recreation facilities and ranger station.

- Soils: Since all project work would occur on existing roads with only minor work occurring adjacent to the roads to improve the pullouts, the impacts to previously undisturbed soils would be negligible to minor. Therefore, this topic will not be further evaluated.

- Air Quality: Olympic National Park is a Class I airshed. The recontouring and grading activities could create negligible adverse effects to air quality on a temporary and localized basis. Vehicles traveling in the park on this road would result in additional emissions in the air, but this would be slight and negligible. Since these would result in less than minor impacts, this topic will not be further evaluated.
- Cultural Resources: The project would occur on a previously existing road, therefore, the likelihood of impacting cultural resources is very low. An archeological survey will be conducted to determine if any cultural resources are located in the project site. Any sites found along the road would be protected from impacts, therefore, this topic will not be further evaluated.
- Unique Ecosystems, Biosphere Reserves, or World Heritage Sites: No unique ecosystems, biosphere reserves, or world heritage sites would be affected by the proposed project.
- Ecologically critical areas, Wild and Scenic Rivers, or other unique natural resources: The project would have no effect on any ecologically critical areas. The project is away from the Queets River and would not alter Wild and Scenic River eligibility. Unique natural resources are identified in the above section, and include vegetation and wildlife.
- Floodplains and Wetlands: The project is well above the floodplain. The project occurs on an existing road and no wetlands would be affected. Therefore, impacts to floodplains and wetlands will not be evaluated.
- Streamflow Characteristics: With the proper design of the stream crossing, no impacts to streamflow characteristics are anticipated as a result of reestablishing access to the Queets.
- Marine or Estuarine Resources: No marine or estuarine resources are located within the project area.
- Emergency Resources: No emergency resources are located within the project area.
- Resource, Including Energy, Conservation Potential: Maintaining access is not expected to impact resource conservation potential in the park
- Urban Quality or Gateway Communities: No impacts to urban quality or gateway communities are anticipated.
- Long-term Management of Resources or Land/Resource Productivity: No impact to the long-term management of resources or land/resource productivity should result from maintaining road access in the Queets.
- Other Important Environmental Resources: No additional important environmental resources have been identified that could be impacted by maintaining access to the Queets.
- Executive Order (EO) 12898 requires federal agencies to identify and address disproportionately high and adverse human health or environmental effects on minority and low-income populations. None of the alternatives would affect the described populations. No alternative would have health or environmental effects on minorities (including Native American tribes) or low-income populations or communities as defined in the Environmental Protection Agency's (EPA)

Environmental Justice Guidance (1998). Therefore, this topic will not be analyzed further in this document.

- Prime and unique agricultural lands: There are no prime or unique agricultural lands in the project area.
- Indian Trust Resources: No Indian Trust resources exist in the project area.
- Wilderness Resources and Values: The project occurs outside of wilderness boundaries, therefore, is not subject to Wilderness Act requirements. In addition, the project area is not adjacent to or near designated wilderness. Therefore this topic is dismissed from further analysis.

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ALTERNATIVES

INTRODUCTION

The alternatives section describes the no-action alternative and one management alternative for restoring interim access into the Queets area at ONP. The alternatives were developed to address to purpose and need for the project. The purpose of this project is to provide visitor and administrative vehicular access to the Queets ranger station, boat docks, campgrounds, and Queets River trailhead. Each listed alternative must meet the purpose and objectives, while resolving the needs in order to be considered reasonable. Additional alternatives considered but eliminated from detailed analysis are also discussed in this section.

The no-action alternative describes the current conditions at the Queets Road and USFS and DNR roads, and provides a basis for comparing the management direction and environmental consequences of the action alternatives.

ALTERNATIVE A – NO ACTION

Under alternative A, no action would be taken to restore road access to vehicle or pedestrian traffic. Park visitors and park staff would be required to leave their vehicles at the current road closure and proceed by foot cross country around the slide area, then travel for approximately 6 miles on unpaved roadway to access the facilities and trailhead at the end of the Queets Road. If the no action alternative is selected, a larger plan would be required to determine the best course of action to relocate or remove facilities from the Queets area.

ALTERNATIVE B – RESTORE INTERIM ACCCES SON USFS AND DNR ROADS TO NPS BACK ACCESS ROAD (PREFERRED ALTERNATIVE)

The Queets Road has access points from existing USFS and DNR roads. The roads considered for restoring access into the Queets area are USFS Roads 21 and 2180 (both currently open to the public), connecting to the 2180-010 road and DNR Road FR-Q-2100 that leads to the NPS back access road, sometimes referred to as the "back door road." Currently, about 400 feet of the 2180-010 road on USFS lands is closed to vehicular access and 0.5 mile of the road is closed on DNR lands. The NPS back door road is closed and gated at the NPS boundary and at the Queets Road. These roads have been used in the past for access by park staff, for emergency and administrative purposes, and when flooding or washouts have occurred along the first 10.5 miles of the Queets Road.

The DNR portion of the 2180-010 road was decommissioned several years ago when logging operations were completed in the area. The decommissioning work involved removing a culvert, gating the area, and constructing berms and "tank traps." No maintenance has occurred on the closed portion of the DNR road or the NPS road in several years.

The road system is confusing, there are many spurs, and road users not familiar with the area could easily become lost. Therefore, a sign plan would be developed to assist road travelers going into the Queets.

Under this alternative, the NPS would improve the 2180-010 and NPS access road as necessary to public safety standards. The DNR and NPS portion of the roadways require little work to bring them to public safety standards. The road would be improved and maintained for high clearance vehicles. Although passenger vehicles would not be prohibited from using the road, it would not be maintained to standards for passenger cars.

Generally the road is in good condition. The NPS would conduct the following activities on USFS, DNR, and NPS portions of the road to bring the road up to public safety standards:

1. Brushing and removing obstructions

Brushing and removing windfall trees would involve cutting and removing of brush, limbs and removing approximately 30 small alder trees (<8 inch dbh) along the USFS portion of the road and at selected pullouts, to restore sight distances, eliminate traffic hazards and remove encroaching vegetation.

Equipment used for this activity would include a pickup truck, dump truck, brush chipper, chain saw, and bucket truck.

Photo 3 Existing USFS Road

Figure 3 Bypass Route and Bridge Location

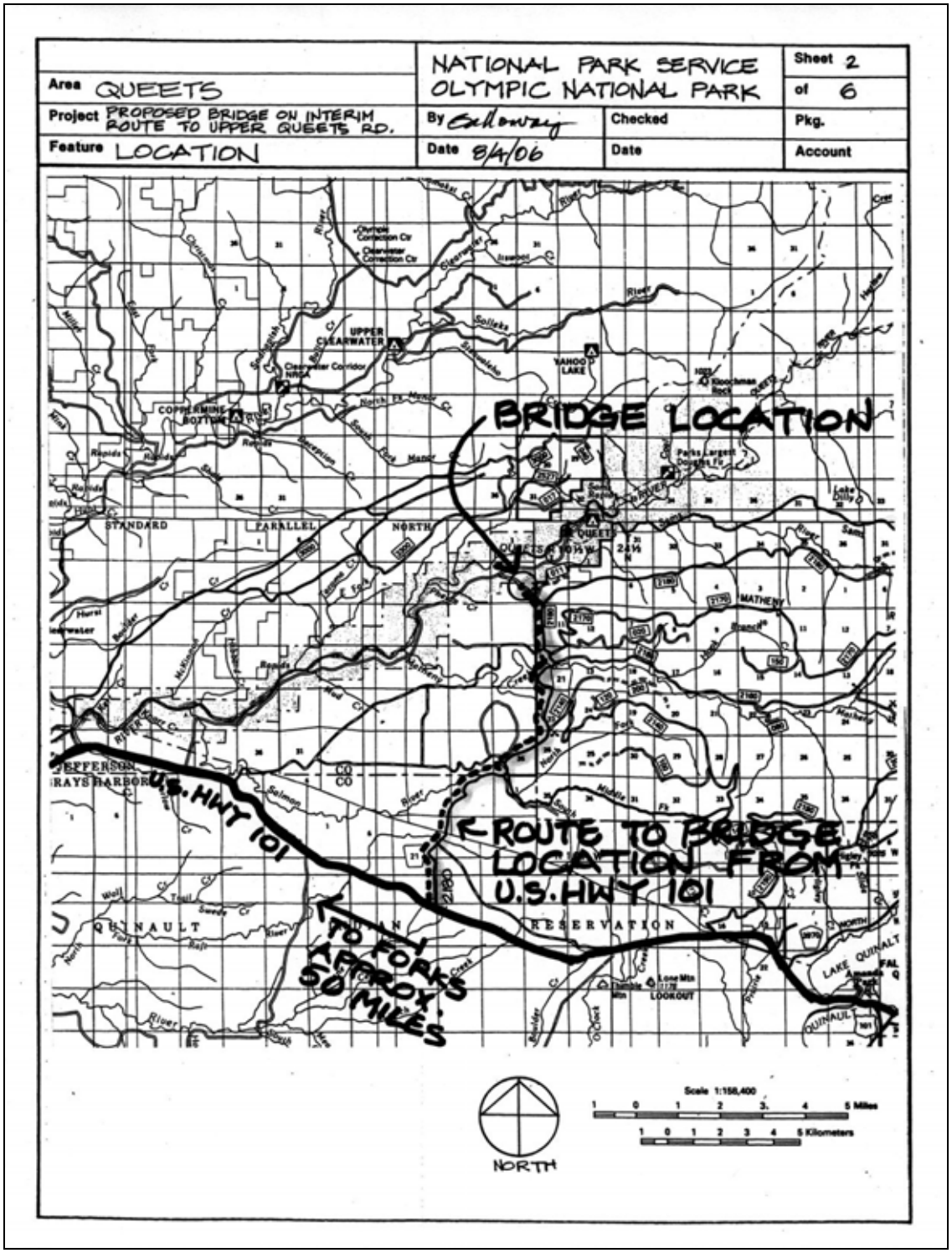
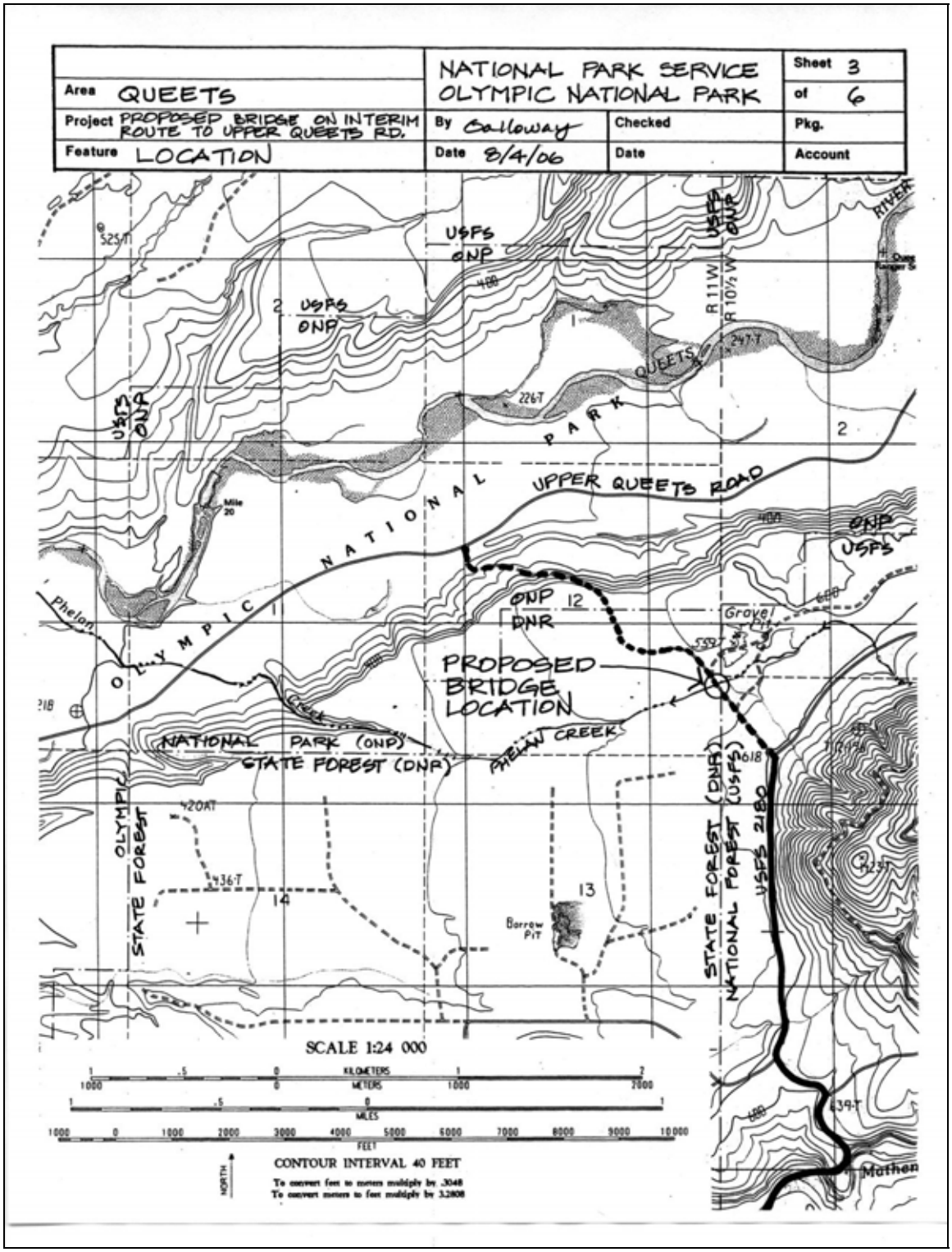


Figure 4. Proposed Route into the Queets



2. Grading and resurfacing roadway

This activity involves the grading, reshaping, and smoothing the unpaved road surfaces to restore crown, proper shape, drainage and a smooth riding surface to the roadbed. The roadbed would be graded to 13 to 14 feet wide and include mowed shoulders.

The USFS segment of the road would be re-surfaced after the trees and brush growing in the road prism are removed. Approximately 50 to 100 cubic yards of surface material would be placed on the road to repair and stabilize the surface. This work would take approximately two to three days.

The remaining surface including the DNR and NPS portions of the roadway would require filling water bars and reshaping the road surface. The estimate to complete the remaining surface restoration is 3 to 4 days.

Equipment used for these activities would include a grader, loader and dump truck.

Photo 4 Existing DNR Road

3. Restoring roadside ditches and shoulders

This activity would include pulling and cleaning roadside ditches and sloping of shoulders as required, but only to the degree necessary to remove major obstructions (shoulder and ditch maintenance would be done when ditches are dry).

Equipment used for these activities would include a grader, loader and dump truck.

4. Improving existing pull-outs

The current road width varies from approximately 13 to 16 feet with several turnouts. The existing turnouts would need to be improved and several more would be constructed along the NPS portion of the roadway to accommodate pick-ups with boat trailers and /or horse trailers. There would be a total of six 10' by 35' turnouts. These improvements would include lengthening, widening and /or adding new surfacing material. The construction of turnouts would include placing road surface material to delineate the turnouts and removal of brush. There would be no turnouts constructed along the USFS and DNR portion of the road corridor.

Equipment used for this activity would include a pickup truck, dump truck, brush chipper, chain saw, bucket truck, grader and loader.

Photo 5 NPS Back Road into Queets

5. Installing bridge on DNR road

The NPS would install a prefabricated bridge over the creek. The bridge is necessary to replace a culvert that was previously removed when the road was closed. Design and installation of the bridge would meet fish passage guidelines established by Washington

Department of Fish and Wildlife (WDFW). The WDFW and the NPS determined that the bankfull width of the creek was 15 feet; therefore, the bridge would need to be at least a 20-foot span. The plans call for a 35-foot bridge resulting in a 30-foot span. In addition, the design would allow the NPS to conduct work outside the ordinary high waterline of the creek, with no instream work necessary.

Photo 6 Stream Crossing Site on DNR Lands

A. The total length of the bridge superstructure would be 35 feet. The clear horizontal width would be 15 feet.
B. The bridge would be an open "pony" truss design with one diagonal per panel, with a treated timber deck, and with the floor system at (or very near) the bottom of the trusses. The top chord shall be parallel with the bottom chord. For maximum waterway opening, the bottoms of the floor beams (or other structural floor members) shall not be more than 3 inches higher or lower than the bottoms of the chords.
C. Wood decking material would be normal 6" X 14" No. 1 grade West Coast Douglas Fir, treated with Copper Naphthenate to above ground conditions according to the American Wood Preserves Association. Prior to treatment of timbers, manufacturer shall shape/cut timbers to exact length and drill holes as need to receive required bolts, so treatment will penetrate all exposed surfaces.
D. The process of wood treatment would use Best Management Practices to assure a clean product and minimize the potential for chemicals to enter the aquatic environment.

Figure 5. Site Plan for Proposed Bridge

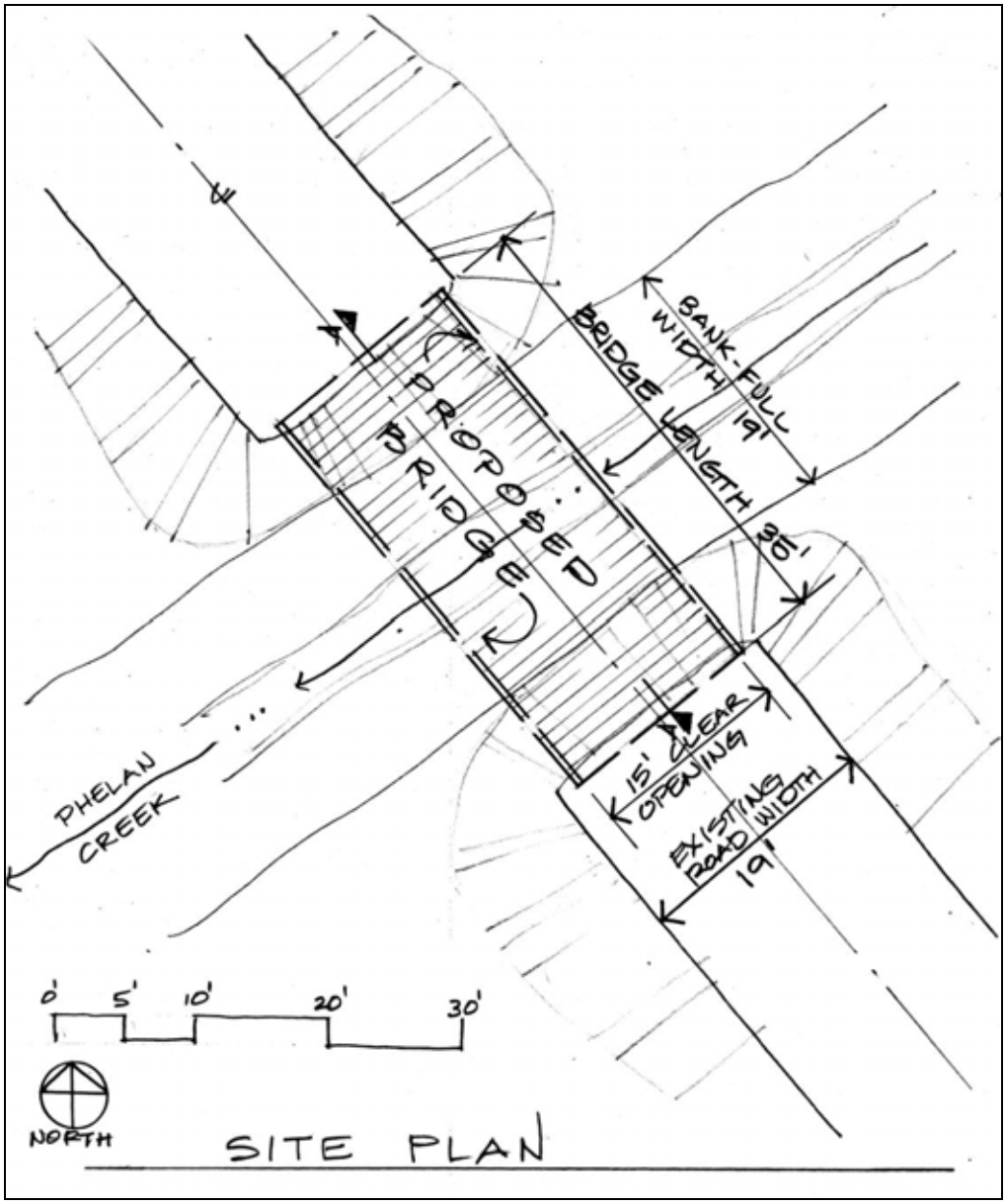
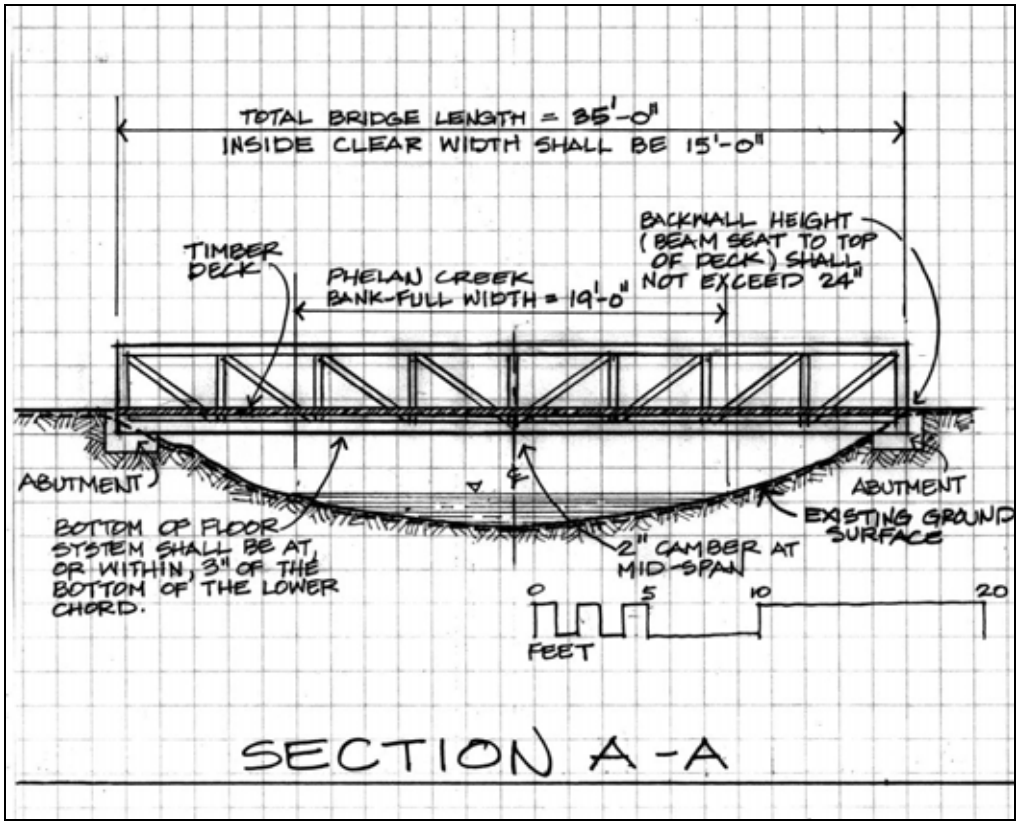


Figure 6. Bridge Design View



In some cases small trees (< 3 inch dbh), logs (8-inches to 2 feet in diameter) and shrubs may be removed from the bridge site and set aside for replacement when work is completed to channel the water flow under the bridge.

Equipment used would include a crane, excavator, backhoe, dump truck, stake truck and vibratory tamper.

6. Gate and Berm Installation

One gate would be installed on the 2180-010 to restrict public access if necessary for weather related or seasonal closures. It would be installed prior to the bridge crossing.

There are two side road junctions that would require the construction of a barrier, such as an earthen berm, or the placement of boulders or gates to prevent vehicle traffic from using that portion of the road system that is closed to vehicle traffic.

Equipment used for this operation would include hand tools, welder, backhoes, boom trucks or similar machinery.

7. Future road maintenance activities

In addition to the maintenance on the NPS portion of the road system, the NPS would take over the maintenance and upkeep of the 2180-010 road under the terms and conditions of a cooperative agreement with the USFS and DNR. Road maintenance activities would include repairing and grading road surfaces, clearing existing roads of obstructive debris, removing windfall trees and brushing roadside vegetation, shoulder and ditch maintenance, and clearing drainage structures such as ditches and culverts.

In the future, the equipment that we would routinely use for maintenance and repairs would be the grader for surface maintenance and the brush cutter for controlling brush. Surface replacement and improvements would also require dump trucks and a loader. Surface maintenance would normally happen once or twice a year and would take three to four days to accomplish.

Brush control and removing windfall trees involves the cutting and removing of brush, limbs and small (<6 inch dbh) trees along the roads and pullouts to restore sight distances, eliminate traffic hazards and remove encroaching vegetation. Most brushing and tree removal work would be performed early in the spring following winter storms, but could occur anytime during the year when needed for safe driving conditions. Brush control would be at least every other year or as needed and would require about the same amount of time as the surface maintenance.

Maintenance activities require the use of a pickup truck, grader, loader, dump truck, backhoe, chainsaws, brush chipper, bucket truck, excavator and bulldozer, welder for gate installation or repairs.

8. Development of Maintenance Agreement and Permit

The Forest Service would grant a Forest Road Special Use Permit to the NPS, which would authorize the reconstruction, use, and maintenance of the USFS portion of Road 2180-010 to be reconstructed. In addition, a maintenance agreement would be developed for the upkeep and maintenance of Forest Service roads that would receive increased public usage , including USFS Roads 21 (8.2 miles), 2180 (1.1 miles), and the existing graded portion of Road 2180-010 (0.2 miles).

In addition to the agreements, a permit would be developed with DNR to allow public use of the road system for access into park lands. This permit would include the use of NPS roads in the Kalaloch area by DNR. This use is currently authorized under a special use permit and would be authorized instead through a right-of-way permit.

ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED ANALYSIS

Construct a bypass adjacent to the existing road around the active slide
The construction of a bypass was considered after the initial slide occurred in March 2005. Because conditions have changed greatly at the slide area, the area where a bypass route would be located is unstable and would not be sustainable. Therefore, this option is no longer possible and will not be considered further.

Construct keyed rock fill around slide area
After the first slide occurred, the park considered the placement of a keyed, mechanically-placed, free-draining rock fill that would be constructed against the active slide scarp to restore the lost embankment material and buttress the slide against future movement. This would have allowed the road to be reconstructed within the existing road corridor. However, with the more extensive slide that occurred in January 2006, this alternative is no longer feasible due to the instability of the slope. Therefore, it will not be further evaluated.

Utilize Culvert at Stream Crossing instead of Bridge
During the project development phase, the NPS consulted with the WDFW to determine what type of stream crossing would meet fisheries passage requirements. It was determined that the bankfull width of the stream was 15 feet; therefore, a large culvert (15 to 20 foot culvert) would be required to meet fish passage requirements. Placing a culvert of this size and magnitude within the stream would require a substantial amount of excavation and in-stream work, which would cause unacceptable adverse impacts to the stream. Therefore, this option was ruled out.

Consider other area roads for restoring access into the Queets area
There is a potential alternative access point off FS Road 2180-010 northeast of the project area through the USFS gravel pit /storage area to DNR lands. Currently this road is closed at the gravel pit. The road currently has one stream crossing with an undersized culvert that would require either major excavation and a larger culvert to restore fish passage or the placement of a bridge. In addition, the same work as in the preferred alternative to reopen the DNR road would be required. Because this alternative was so similar to the preferred alternative, was a less direct route and more confusing route, and would require more instream work because of the culvert, the NPS ruled out this alternative from further evaluation.

Decommission Road and extend trail
This alternative is similar to the no-action alternative in that the road would not be re-opened. However, this alternative would add the decommissioning of the road past the Matheny Creek Bridge, and include constructing a trailhead and small parking lot near the bridge site. The gravel along the remaining section of road would need to be removed and revegetation efforts would be necessary to reclaim the current roadway. This process would also involve the removal of all culverts that are not necessary for the stability of the trail. Facilities at the campground would need to be removed, modified to

a more primitive service-level facility, or moved to a different location where road access exists. A trail would be constructed around the active slide area.

This alternative was eliminated from further analysis at this time because it does not meet the purpose and need of this project to allow for vehicular access to the trailhead, boat ramps, and campground. This alternative would not provide for the safety of visitors because it would increase the time necessary for emergency response. In some instances, this option would result in an increased use of helicopters. The time and effort for park operations would also be increased for trail maintenance and facility management. This alternative would result in reduced tribal access to research plots and traditional use sites. For these reasons, this alternative was not evaluated further in this EA.

MITIGATION MEASURES

Mitigation measures are presented as part of the action alternatives. These actions have been developed to lessen potential adverse effects from implementing the action alternatives. Mitigation measures are shown in table 2.

Table 2. Mitigation Measures

RESOURCE AREA	MITIGATION
General Considerations	Construction equipment staging would occur within the roadway for active work areas or at designated turnouts. All tools, equipment, barricades, signs, surplus materials, and rubbish would be removed from the project work limits upon project completion. Best management practices for drainage and sediment control would be implemented to prevent or reduce nonpoint source pollution and minimize soil loss and sedimentation in drainage areas. For safety purposes, the road would be closed to hikers, bicyclists and stock use during construction.
Vegetation	Undesirable plant species would be controlled in high-priority areas and other undesirable species would be monitored and controlled, as necessary. To prevent the introduction of, and minimize the spread of non-native vegetation and noxious weeds, the following measures would be implemented during construction: • Minimize soil disturbance. • Pressure wash and/or steam clean all construction equipment, except hauling vehicles, before entering the Park to ensure that all equipment, machinery, rocks, gravel, or other materials are cleaned and weed free before entering Olympic National Park. • Pressure wash hauling vehicles before entering the Park for the first time; subsequent entries would not require pressure washing unless the vehicle shows signs of mud, plant material, or other substances that

RESOURCE AREA	MITIGATION
	could be considered harmful. • Cover all haul trucks bringing fill materials from outside the Park to prevent seed transport. • Limit vehicle and equipment parking to within construction limits, existing roadways, parking lots, or the access routes. • Limit disturbance to roadsides, culvert areas, and other areas inside the designated construction limits. No machinery or equipment should access areas outside the construction limits. • Obtain all fill, rock, or additional topsoil from the project area, if possible. If not possible, then obtain weed-free fill, rock, or additional topsoil from sources outside the Park. • Initiate revegetation of a disturbed area as soon as possible after the disturbance. • Monitor disturbed areas for up to 3 years following construction to identify growth of noxious weeds or non-native vegetation. Treatment of non-native vegetation would be completed in accordance with NPS-13, *Integrated Pest Management Guidelines*.
Soils	Erosion and sediment control would be required. During periods of heavy rainfall, the project leader may halt work. During these work stoppage periods, project personnel would continue to check the silt fences and check dams, maintain the silt fences in effective condition, and remove accumulated sediment, as necessary, to ensure stabilization is maintained.
Threatened and Endangered Species	In potential marbled murrelet habitat, schedule project to minimize potential adverse impacts to marbled murrelets, prior to or late in the breeding season. To protect marbled murrelets during sensitive feeding periods, construction activities would not start until two hours after sunrise and would stop two hours before sunset between April 1 and September 15. The park would maintain strict garbage control to prevent scavengers (e.g., crows), which are predators on murrelet nests, from being attracted to the project area. No food scraps would be discarded or fed to wildlife.
Aquatic Resources	The bridge shall be designed to accommodate 100-year flow events and maintain fish passage for juvenile and adult salmonids, based on WDFW's Fish Passage Design at Road Culverts. Silt fencing would be installed along the perimeter of all disturbed areas. All disturbed soil will be protected from erosion by erosion control matting and/or other erosion control measures where appropriate. Disturbed soils will be replanted with either sterile grass seed, native grass seed or materials removed from the site prior to work and replaced later. The cleaning of drainage structures would be done using hand tools in the

RESOURCE AREA	MITIGATION
	short term, followed by treatment with heavy equipment, if necessary, after the water level has receded. If water is flowing through a conveyance, only floating and suspended debris would be removed. No instream work would occur during this activity.
Air Quality	Fugitive dust would be controlled by periodic water sprinkling as necessary. Construction vehicle engines would not be allowed to idle for extended periods of time.

PERMIT AND CONSULTATION REQUIREMENTS

No permits would be required for the no-action alternative (alternative A).

Alternative B would require concurrence and/or permits from one or more of the following entities before implementation:

- *U.S. Fish and Wildlife Service* – The Endangered Species Act (ESA) directs federal agencies, in consultation with the Secretary of the Interior, to ensure that any action authorized, funded, or carried out by the agency is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of designated critical habitat (16 USC 1535 Section 7(a) (2)). Consultation with the FWS and with NOAA Fisheries under ESA is required if the action may affect such species to ensure that it does not jeopardize the species' continued existence. Project work in habitat would be conducted outside of breeding season and would result in no effect to listed species. Reopening the park road would reestablish vehicular traffic to roads adjacent to habitat; therefore there could be an adverse effect to listed bird species due to disturbance from noise. Therefore, consultation will be conducted on this project.
- *Washington Office of Archaeology and Historic Preservation* – Concurrence that project implementation will result in no adverse effect to cultural resources.
- *Tribal Historic Preservation Office* – Concurrence that project implementation will result in no adverse effect to cultural or tribal resources.
- *National Oceanic and Atmospheric Administration Fisheries* - The Magnuson-Stevens Fishery Conservation and Management Act (MSA), as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), requires the inclusion of Essential Fish Habitat (EFH) descriptions in fishery management plans. In addition, federal agencies are required to consult with the NOAA Fisheries on activities that may adversely affect EFH. No EFH occurs in the project area under alternative B, therefore, consultation is not necessary.
- *Washington State Department of Ecology (DOE)* – A Joint Aquatic Resource Permit Application Form will be completed and submitted to the DOE. Under Washington's program, activities must comply with the State Program: *the Shoreline Management Act; the State Environmental Policy Act; the Clean Water*

Act; the Clean Air Act; the Energy Facility Site Evaluation Council; and the Ocean Resource Management Act and the *Federal Coastal Zone Management Act of 1972.* The selected alternative would be reviewed under the requirements of the Shoreline Management Act, the Clean Water Act and the Clean Air Act. Since ONP has exclusive federal jurisdiction on the lands within the park, the Shoreline Management Act requirements are used as a guideline for any development activities within the park.

- *Army Corps of Engineers* - Section 404 of the Clean Water Act (33 USC 1344) and section 10 of the Rivers and Harbors Act of 1899 (33 USC 401 et seq.) require that any work proposed to be conducted in waters of the United States, or affecting a wetland, requires a permit from the U.S. Army Corps of Engineers (COE). Consultation would occur for the construction of a stream crossing.

NEPA requirements take the place of any requirements of the Washington State Environmental Policy Act. Affected local government, state agencies, tribes, and federal agencies would be provided the opportunity to comment or consult on the environmental assessment during the public review period.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

The environmentally preferred alternative is determined by applying the criteria suggested in the NEPA, which is guided by the Council on Environmental Quality (CEQ). The CEQ provides direction that "[t]he environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in NEPA's section 101.

This includes alternatives that:

1) Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;

2) Ensure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings;

3) Attain the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences;

4) Preserve important historic, cultural, and natural aspects of our national heritage and maintain, wherever possible, an environment that supports diversity and variety of individual choice;

5) Achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities; and

6) Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

The NPS is required to identify the environmentally preferred alternative(s) for any of its proposed projects. In essence, the environmentally preferred alternative would be the one(s) that "causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources (Department of Interior (DOI), 2001a)."

While the no-action alternative would not result in the disturbance of acreage in the park, it would not be the considered the environmentally preferred alternative because allowing the road to remain closed would not meet the goals of providing the widest range of beneficial uses without degradation, and risk of health or safety. It would not allow park managers to effectively preserve and maintain park resources and facilities in the Queets area because it would restrict access.

Alternative B would meet the goal of preserving historic and natural aspects of our national heritage in an environment that supports diversity and a variety of individual choice because it would allow the park to restore access to the Queets area with minor impacts to park resources. It would result in providing the widest range of beneficial uses without degradation, and would reduce risks to health and safety because it would provide sustainable vehicular access to the facilities and trailheads at the Queets. Alternative B is the environmentally preferred alternative.

AFFECTED ENVIRONMENT

This section provides a summary of the resources associated with the project. More detailed information on resources in ONP may be found in the *Statement for Management: Olympic National Park – 1996,* and the *Olympic National Park Resource Management Plan* (1990, 1999).

LOCATION AND GENERAL DESCRIPTION OF THE PROJECT AREA

Olympic National Park is located on the Olympic Peninsula in the northwest corner of Washington State. The park is bordered by the Pacific Ocean on the west, the Strait of Juan de Fuca to the north and Hood Canal to the east. There are approximately 922,651 acres in the park, (913,339 in federal ownership and 9,311 that are in non federal ownership); 876,669 acres are designated wilderness. The park is known for its three ecosystems: the coast, rainforest, and mountains. The park is surrounded by a complex network of lands managed by state and federal agencies, tribes, and private landowners.

The Queets area is located in the southwest quadrant of the park, north of the Quinault area, in the southwestern corner of Jefferson County, Washington. It is bordered by USFS and state administrated lands to the south and north, Quinault Indian Nation lands to the southwest, and private lands interspersed in the area.

The Queets area was first homesteaded in the winter of 1889, and homesteading in the area continued until the 1940s. The Queets corridor was added to ONP in 1953, the boundaries were altered in 1976 to align along the hydrologic divide and prevent the view of timber harvesting on DNR lands (NPS 1983). In 1988 the Queets area from the border and trailhead to the interior of the park was designated wilderness. The access road and surrounding land was not designated as wilderness or potential wilderness by this act.

The Queets Road is an approximately 14 mile non-paved road off of Highway 101. The Queets Road provided vehicular access to area facilities, resources and trails, prior to the slide out. The facilities that have become unreachable by vehicle include: 20 primitive campsites with fire pits and picnic tables, pit toilets, but no potable water or hookups; the Streater Crossing and Queets Campground boat ramps; and the Queets Ranger Station, which is open intermittently. Two trailheads also begin at the end of the road. Sams River Trail is a 3-mile-long trail which follows the Queets River past Sams Rapids through the temperate rain forest. The Queets River Trail is a 17-mile-long trail that extends northeast to the upper Queets Valley through designated wilderness. The Queets area contains a temperate rain forest along with many natural and cultural resources including Roosevelt elk, other lowland wildlife, salmon spawning habitat and historic homestead sites.

The Queets Road is rather narrow and has areas of decent incline. Vehicles often pull boats to one of the three boat ramps. The ONP traffic counter on the Queets Road indicates that on average the road receives 37,000 visitors annually.

The alternative "back door" road to the Queets is located south of the Queets Road adjacent to a DNR access road. This one-lane road with pullouts has been used in the past for administrative access into the park when the main road into the Queets was closed due to flooding or road damage. Although it has not been maintained for approximately 10 years, the 1-mile-long road is in good condition.

DNR and USFS Administered Lands in the Project Area

The U.S. Forest Service (USFS) manages the approximately 633,677-acre Olympic National Forest that borders the national park in many locations. The Pacific Ranger District occurs in areas north, northwest, and southwest of the national park, including lands within the Queets watershed and in the project area. The portion of the project area within USFS administered lands includes the West Boundary Road (21) and Road 2180, and Road 2180-010 (all currently open to public use) and a 400-foot segment of Road 2180-010 (currently closed to public use).

The Washington State Department of Natural Resources (DNR) manages more than 5 million acres of land - forests, farms, natural areas, commercial properties and underwater lands, in the state of Washington. DNR manages most of these lands to earn income to build schools, universities and other state institutions, and help fund local services in many counties. These public lands also provide recreation, habitat, and educational and research opportunities. The DNR portion of the project is located in Granted Trust Lands, and is designated by the Department of Ecology as Water Resources Inventory Area #21. The portion of the project located within DNR lands includes approximately 0.5 miles of DNR road FR-Q-2100.

VEGETATION

Vegetation in the NPS portion of the project area consists of riparian forest and old-growth temperate rainforest unique to the Pacific Northwest coast. The Queets corridor is considered to be in the Sitka Spruce Zone. The dominant species in the rain forest are Sitka spruce and western hemlock. Douglas-fir, western redcedar, bigleaf maple, red alder, vine maple, and black cottonwood are also locally common.

Though dominated by large conifers, the rainforest is also characterized by many shrub species including salmonberry, blackberry, several huckleberry species, Scouler willow and red elderberry. Thick layers of moss on the forest floor and on tree limbs, in addition to various epiphytes, are characteristic of the rainforest. Many species of fern (sword, licorice, deer, bracken, maidenhair, lady and horsetail) are conspicuous. Beadruby and vanillaleaf are low-growing plants in the area. Oregon oxalis is a widespread ground cover. The primary trees within the project area adjacent to the project are spruce, hemlock, and alder.

No federal or state-listed threatened or endangered plant species occur in either area. Non-native species are defined as any species which has not naturally evolved within the given area. Whenever there is ground disturbance the likelihood for introducing non-native vegetation increases. Common non-native species present in the Queets area include (pers. comm Acker, 2005):

- Himalayan Blackberry (*Rubus discolor)*
- Evergreen blackberry (*Rubus laciniatus*)
- Canada thistle (*Cirsium arvense*)
- Japanese Knotweed (*Polygonum cuspidatum*)
- Giant knotweed (*Polygonum sachalinense*)
- Bohemian knotweed (*Polygonum bohemicum*)
- English holly (*Ilex Aquifolium*)
- Common foxglove (*Digitalis purpurea*)

DNR and USFS Administered Lands in the Project Area

Federally Listed Species

There are no endangered or federally listed vascular plants, bryophytes, fungi or lichens documented or suspected on the Pacific Ranger District of the Olympic National Forest. There is one federally listed Endangered vascular plant, *Arenaria paludicola* (Marsh sandwort), that could occur on the Olympic National Forest (USDA 2004). It is, however, considered extirpated from the state of Washington. There are no known current or historical sites of this species within the proposed project area and due to lack of suitable habitat, it is not likely to occur.

Regional Forester's Sensitive and Survey & Manage Species

Vascular Plants. Of the documented or suspected sensitive vascular plant species and twelve Survey and Manage vascular plant species for the Olympic National Forest, nine require pre-disturbance surveys in Washington (Category A and C species), and 17 species are identified as forest sensitive that require surveys in USFS Region 6. None were found in the proposed project area (Appendix D) during field surveys conducted in August 2006. No rare vascular plants were found.

Bryophytes (mosses and liverworts). There are 15 Survey and Manage bryophyte species for the Olympic National Forest, and two Category A species were identified as having potential habitat in the proposed project area (Appendix D). Field surveys were conducted in August 2006 and no sensitive or Survey and Manage bryophytes were found.

Fungi. There are 17 fungi species documented or suspected to occur on the Olympic National Forest that are designated as a Sensitive species, 16 of which are also categorized as Survey and Manage species. Only one, *Bridgeoporus nobilissimus*, has characteristics that make it feasible to conduct pre-disturbance surveys. Sixteen of the sensitive fungi are seasonal in nature, with fruiting bodies in the fall or spring, but not predictable from one year to the next. *Bridgeoporus nobilissimus* was not found during surveys conducted in August 2006. None of the 17 sensitive fungi species are documented as occurring in the project area**.**

Lichens. There are 41 survey and manage lichen species, and twelve that require pre-disturbance surveys. Field surveys were conducted in August 2006 and no sensitive or Survey and Manage lichens were found.

Invasive Plants

Invasive species surveys were conducted in August 2006. No invasive vascular plants were documented in the project area.

The DNR portion of the project, adjacent to the existing roadway, consists of second growth timber originally harvested in the early to mid 1950s. There is no exact data. The forest type on the DNR lands is second growth western hemlock, thinned to accelerate the development of older forest conditions. The development stage is considered understory re-initiation.

Table 3. Plants found on the USFS project site

NRCS Code	Plant Name	Plant Type
ABAM	Abies amabilis	Tree
ALRU2	Alnus rubra	Tree
PISI	Picea sitchensis	Tree
THPL	Thuja plicata	Tree
TSHE	Tsuga heterophylla	Tree
ACCI	Acer circinatum	Shrub
ALCR6	Alnus crispa	Shrub
GASH	Gaultheria shallon	Shrub
OPHO	Oplopanax horridus	Shrub
RHPU	Rhamnus purshiana	Shrub
RUDI2	Rubus discolor	Shrub
RULA	Rubus lacinatus	Shrub
RUSP	Rubus spectabilis	Shrub
RUUR	Rubus ursinus	Shrub
SACO2	Salix commuta	Shrub
SARA2	Sambucus racemosa	Shrub
VAAL3	Vaccinium alaskense	Shrub
VAOV	Vaccinium ovalifolium	Shrub
VAPA	Vaccinium parvifolium	Shrub
ATFI	Athyrium filix-femina	Fern
BLSP	Blechnum spicant	Fern
POMU	Polystichum munitum	Fern
ANMA	Anaphilis margaritacea	Herb
BOEL2	Boykinia elata	Herb
GATR3	Galium triflorum	Herb
LAMU	Lactuca muralis	Herb
LYAM3	Lysichiton americanus	Herb
MADI	Maianthemum dilatatum	Herb
MELU	Medicago lupulina	Herb
MIOV	Mitella ovalis	Herb
MOSI	Montia sibirica	Herb
OESA	Oenanthe sarmentosa	Herb
PLMA2	Plantago major	Herb
PRVU	Prunella vulgaris	Herb
PYSE	Pyrola secunda	Herb
RAAC3	Ranunculus acris	Herb
RARE3	Ranunculus repens	Herb
RUCR	Rumex crispus	Herb
SAPR	Sagina procumbens	Herb
SCLA	Scrophularia lanceolata	Herb

NRCS Code	Plant Name	Plant Type
STME	Stachys mexicana	Herb
STCR2	Stellaria crispa	Herb
TITR	Tiarella trifoliata var. trifoliata	Herb
TIUN3	Tiarella unifoliata	Herb
	Viola spp. (glabella?)	Herb
AGRE2	Agropyron repens	Grass
	Agrostis sp.	Grass
	Bromus sp.	Grass
DECA18	Descampsia caespitosa	Grass
HIOD	Hierochloe odorata	Grass
	Carex sp. (no iflorescence)	Sedge
ATUN2	Atrichium undulatum	Moss
	Bryum sp.	Moss
CLBO10	Claopodium bolanderi	Moss
CLCR4	Claopodium crispifolium	Moss
DICI5	Dicranoweisia cirrata	Moss
DISC71	Dicranum scoparium	Moss
EUOR2	Eurhynchium oreganum	Moss
HOFU70	Homalothecium fulgescens	Moss
HYSP70	Hylocomium splendens	Moss
HYSU70	Hypnum subimponens	Moss
ISMY2	Isothecium myusoroides	Moss
ORLY	Orthotrichum lyellii	Moss
PLUN4	Plagiothecium undulatum	Moss
POCO38	Polytrichum commune	Moss
RHLO70	Rhytidiadelphus loreus	Moss
SPSQ70	Sphagnum squarrosum	Moss
ULOB	Ulota obtusiuscula	Moss
BATR4	Bazzania tricrenata	Liverwort
COCO38	Conocephalum conicum	Liverwort
PLIN11	Plagiomnium insigne	Liverwort
RHLO70	Rhytidiadelphus loreus	Liverwort
	Cladonia sp.	Lichen
LOSC60	Lobaria scrobiculata	Lichen
PENE12	Peltigera neopolydactyla	Lichen
PEPR60	Peltigera praetextata	Lichen
STFU3	Sticta fuliginosa	Lichen

Photo 7. DNR Roadside Habitat

WILDLIFE AND WILDLIFE HABITAT

The following listing of some of the mammals, birds, and amphibians found in the Queets area is not all inclusive, but is provided to give a general overview of the wildlife and wildlife habitat near the project area.

Mammals

The Columbia black-tailed deer (*Odocoileus hemionus columbianus*) and the Roosevelt elk (*Cervus elaphus*) are two common ungulates in the Queets area. Black bear (*Ursus americanus*), cougar (*Felis concolor*), and raccoon (*Procyon lotor*) are also know to inhabit the temperate rainforest (NPS 2005). Though no surveys have been completed in the project site, the most common bats within the park that may utilize this area include the little brown bat (*Myotis lucifugus occultus*), big brown bat (*Eptesicus fuscus*), and Yuma myotis (*Myotis yumanensis*).

Birds

Both resident and migratory birds are found within the boarders of Olympic National Park. Common bird species found in the temperate rainforest include gray jay, dark-eyed junco, American dipper, and the chestnut-backed chickadee.

Amphibians

During the rainy season, sag ponds can form in the forests along the road and these provide habitat to aquatic species such as red-legged frogs.

DNR and USFS Administered Lands in the Project Area

Regional Forester's Sensitive and Survey and Manage Species – Mollusks

In January 2006, the U.S. Western District Court determined that the March 22, 2004, Record of Decision to Remove or Modify the Survey and Manage Mitigation Measure Standards and Guidelines in Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl was to be set aside, and the January 2001 Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measure Standards and Guidelines was to be reinstated including any amendments or modifications to the 2001 Record of Decision that were in effect as of March 21, 2004. In cases where Survey and

Manage species are also on the Regional Forester's sensitive species list, the more stringent management regulation applies.

Of the eight mollusks listed as Regional Forester's Sensitive and/or on the Survey and Manage species, four species were identified as having potential habitat in the proposed project area. Terrestrial mollusk surveys were conducted on USFS administered lands in accordance with the NWFP. The site was also examined for the presence of potential suitable habitat for other listed and sensitive species. The complete survey report is found in Appendix D.

A total of ten *Haplotrema vancouverense* and five *Vespericola columbianus* were found during the two visits to the survey segment. No Survey and Manage mollusk species were found within the areas surveyed.

Regional Forester's Sensitive Species

Of the eight species on the Regional Forester's Sensitive Species List, the following four have habitat in the project area (USDA 2004). Designation as "sensitive" means these species are given special management considerations to ensure their continued viability on National Forest lands.

Van Dyke's Salamander (*Plethodon vandykei*). This rare salamander, generally considered the most "aquatic" of the woodland salamanders, is usually associated with seepages and streams but can also be observed far from water (Leonard et al. 1993). It can be found in the splash zones of creeks or waterfalls under debris, or under logs, bark and bark on logs near water. Van Dyke's salamander is found only in Washington and only from three areas, the Olympic Mountains, the southern Cascades, and the Willapa Hills. Documented populations have tended to be small and separated from one another (Leonard et al. 1993).

Amphibian surveys on the Olympic National Forest have been sporadically conducted in conjunction with stream or fish surveys or as a specific effort. Surveys were not done specifically for this analysis, but no mapped sightings for Van Dyke's salamander in or near the project area have been recorded from previous efforts. Habitat, however, undoubtedly exists along many of the numerous streams.

Cope's Giant Salamander *(Dicamptodon copei).* This species of giant salamander is found in small, steep-gradient, permanent streams with clear, cold water (Corkran and Thomas 1996). Terrestrial Cope's giant salamanders are very rare (Leonard et al. 1993), generally remaining in their aquatic larval and neotenic forms, and spending their days concealed beneath rocks or in other hidden cavities in the stream. The few terrestrial forms found were located beneath surface debris adjacent to the water. There are no mapped sightings for Cope's Giant salamander in the project area, but potential habitat exists along the steeper, colder portions of streams, particularly in the headwater areas.

Olympic Torrent Salamander (*Rhyacotriton olympicus*). This is the only species of torrent salamanders that is found on the Olympic Peninsula. The southernmost boundary

of the range is uncertain, but probably does not extend further south than the Chehalis River Valley (Leonard et al. 1993). Olympic torrents are nearly always found around the splash zone of cold, clear streams, seepages, or waterfalls. Seepages running through talus slopes also provide habitat. There are no mapped sightings for Olympic Torrent salamander in the project area.

The four other sensitive species – Mazama pocket gopher (*Thomomys mazama melanops*), common loon (*Gavia immer*), Pacific fisher (*Martes pennanti*), and Pacific Townsend's big-eared bat (*Corynorhinus townsendii townsendii*) – do not have habitat present on National Forest lands in the project area and would not be affected by any of the alternatives.

Management Indicator Species

Management Indicator Species (MIS) are either selected species whose welfare is believed to be an indicator of the welfare of other species using the same habitat, or species whose condition can be used to assess the impacts of management actions on a particular area (Thomas 1979). In addition to the bald eagle (Haliaeetus leucocephalus) and the northern spotted owl (Strix occidentalis caurina), which are discussed in the "Threatened and Endangered Species" section, the following species were identified as MIS for the Olympic National Forest (USDA 1990):

Pileated woodpecker (*Dryocopus pileatus*). Pileated woodpecker, the largest woodpecker species in the western United States, is a denizen of mature forests, relying on dead and decaying trees for foraging and nesting. Pileated woodpeckers will return to areas after timber harvesting (Ehrlich et al. 1988), but past management in the Pacific Northwest has led to relatively few snags and down logs, especially of large diameters, remaining in many watersheds. Previous timber harvest, as opposed to wildfire events, has had the greatest effect in the project area. Although there have not been any pileated woodpecker surveys specifically done for this project, it is probable that individuals are using the area for foraging, and likely nesting as well.

Primary Cavity Excavators. Primary cavity excavators comprise a broad group of species associated with standing dead trees or snags and down logs that excavate their own cavities. They include hairy woodpecker (*Picoides villosus*), downy woodpecker (*Picoides pubescens*), brown creeper (*Certhia americana*), and northern flying squirrel (*Glaucomys sabrinus*). There have not been formal surveys for any of these species; however, based on habitat, many are likely present in the project area.

Roosevelt Elk (*Cervus Canadensis roosevelti*) and Columbia Blacktail Deer (*Odocoileus hemionus*). Roosevelt elk and Columbia blacktail deer are known throughout the Olympic National Forest and Peninsula. There are several established herds of Roosevelt elk that reside on the Forest as year-round residents, as well as many that are migratory, for example, moving into ONP during the summer. Deer occur throughout the forest, and both species use a combination of habitats comprised of cover, forage, water, and space. Taber and Raedeke (1980) reported that winter mortality, legal harvest, and poaching were the primary causes of elk morality. Poaching is the second leading cause of

mortality to elk in Washington and is prevalent on the Olympic Peninsula (WDFW 2004).

Most of the project area is considered potential elk winter range, which on the Olympic Peninsula is typically defined as land below 1,500 feet in elevation (USDA et al.1995). Preferred forage areas are in natural openings or managed stands less than 30 years old.

American marten (*Martes americana*). The American marten, also known as the Pine marten, is most closely associated with heavily forested east and north-facing slopes that contain numerous windfallen trees (Maser 1998). They tend to avoid areas that lack overhead protection and the young are born in nests within hollow trees, stumps, or logs. While no surveys were done specifically for the project area, there have been no documented sightings of marten within the project area. According to a Washington Department of Fish & Wildlife study (Sheets 1993), which combined trapper interviews with remote camera surveys in various locations on the Peninsula, it was concluded that marten may only be found within the Olympic National Park, surrounding wilderness areas, and unfragmented mature timber adjacent to the park. National Forest land, in general, may be too fragmented to support a population.

Table 4. USFS Survey Results

Common Name	*Scientific Name*	Status USFWS	Status USFS	USFS S & M Status	Status WDFW	Habitat Present in or Adjacent to Proposed Units		Species Present in or Adjacent to Proposed Units	
						In	Adjacent	In	Adjacent
USFWS LISTED SPECIES									
Bald eagle	*Haliaeetus leucocephalus*	FT	MIS		ST				
Marbled murrelet	*Brachyramphus marmoratus*	FT			ST				
Marbled murrelet critical habitat		DCH							
Northern spotted owl	*Strix occidentalis caurina*	FT	MIS		SE				
Northern spotted owl critical habitat		DCH							
USFWS CANDIDATE SPECIES									
Mazama (western) pocket gopher	*Thomomys mazama melanops*	FC			SC				
USFWS SPECIES OF CONCERN									
Newcomb's littorine snail	*Algamorda newcombiana*	FSoC			SC				
Valley silverspot butterfly	*Speyeria zerene bremnerii*	FSoC			SC				
Olympic torrent salamander	*Rhyacotriton olympicus*	FSoC	R6		SM	X	X		

Common Name	*Scientific Name*	Status USFWS	Status USFS	USFS S & M Status	Status WDFW	Habitat Present in or Adjacent to Proposed Units		Species Present in or Adjacent to Proposed Units	
						In	Adjacent	In	Adjacent
Van Dyke's salamander	*Plethodon vandykei*	FSoC	R6		SC	X	X		
Cascades frog	*Rana cascadae*	FSoC			SM	X	X		
Tailed frog	*Ascaphus truei*	FSoC			SM	X	X		
Western toad	*Bufo boreas*	FSoC			SC	X	X		
Aleutian Canada goose	*Branta canadensis leucopareia*	FSoC			ST				
Northern goshawk	*Accipiter gentilis*	FSoC			SC	X	X		
Peregrine falcon	*Falco peregrinus*	FSoC	R6		SS	X	X		
Olive-sided flycatcher	*Contopus cooperi*	FSoC			SoC	X	X		
Oregon vesper sparrow	*Pooecetes gramineus affinis*	FSoC			SC				
Long-eared myotis	*Myotis evotis*	FSoC	MR		SM				
Long-legged myotis	*Myotis volans*	FSoC	MR		SM		X		
Pacific Townsend's big-eared bat	*Corynorhinus townsendii townsendii*	FSoC	R6, MR		SC				
USFS R6 SENSITIVE SPECIES									
Puget Oregonian snail	*Cryptomastix devia*		R6	A	S2	X	X		
Burrington's jumping slug	*Hemphillia burringtoni*		R6	E	S1S2	X	X		
Malone's jumping slug	*Hemphillia malonei*		R6	C	S1S2	X	X		
Blue-gray taildropper	*Prophysaon coeruleum*		R6	A	S2	X	X		
Hoko vertigo	*Vertigo n. sp.*		R6	A	S1	X	X		
Pacific fisher (extirpated)	*Martes pennanti*	FC	R6		SE				
Pacific Townsend's big-eared bat	*Corynorhinus townsendii townsendii*	FSoC	R6, MR		SC				
Mazama (western) pocket gopher	*Thomomys mazama melanops*	FC			SC				
Cope's Giant Salamander	*Dicamptodon copei*		R6			X	X		
Olympic torrent salamander	*Rhyacotriton olympicus*		R6			X	X		
Van Dyke's salamander	*Plethodon vandykei*		R6		SC	X	X		
Common loon	*Gavia immer*		R6		S				
American peregrine falcon	*Falco peregrinus anatum*		R6		SE	X	X		

Common Name	*Scientific Name*	Status USFWS	Status USFS	USFS S & M Status	Status WDFW	Habitat Present in or Adjacent to Proposed Units		Species Present in or Adjacent to Proposed Units	
						In	Adjacent	In	Adjacent
USFS MANAGEMENT INDICATOR SPECIES									
Bald eagle	*Haliaeetus leucocephalus*	FT	MIS		ST				
Northern spotted owl	*Strix occidentalis caurina*	FT	MIS		SE				
Pileated woodpecker	*Dryocopus pileatus*		MIS		SC	X	X		
Primary cavity excavators			MIS						
Columbian black-tailed deer	*Odocoileus hemionus columbianus*		MIS			X	X		
Roosevelt elk	*Cervus canadensis roosevelti*		MIS		SoC	X	X		
Pine marten	*Martes martes*		MIS			X	X		
USFS SURVEY and MANAGE									
Puget Oregonian snail	*Cryptomastix devia*		R6	A		X	X		
Evening fieldslug	*Deroceras hesperium*		S&M	B^3		X	X		
Malone jumping slug	*Hemphillia malonei*		R6	C		X	X		
Burrington's jumping slug	*Hemphillia burringtoni*		R6	E	S1S2	X	X		
Hoko vertigo	*Vertigo n. sp.*		R6	A		X	X		
Blue-gray taildropper	*Prophysaon coeruleum*		R6	A		X	X		

FEDERAL SPECIES STATUS

* = More information needed to assess distribution of species within Forest Service boundaries

FE= Federally listed as endangered species, as of 09/05/03, USFWS, Western Washington Office

FT= Federally listed as threatened species, as of 09/05/03, USFWS, Western Washington Office

FSoC= Federally proposed, Candidate Spp or Spp of Concern: as of 09/05/03, USFWS, Western Washington Office

DCH= Federal Designated Critical Habitat, as of 09/05/03, USFWS, Western Washington Office

FC= Federal Candidate, as of 09/05/03, USFWS, Western Washington Office

C2= For USDC National Marine Fisheries Service, species is undergoing a status review

FOREST SERVICE SPECIES STATUS

MIS= Management Indicator Species: Olympic National Forest Care and Resource Mgt. Plan, 1990

R6= Region 6, USFS, Sensitive Species, 11/28/00: Updated Regional Forester's Sensitive Animal List

S&M= Survey & Manage Species, 6/17/03: Project Review Form for Survey and Manage Species

SURVEY AND MANAGE SPECIES STATUS

A= Rare; Pre-disturbance surveys practical

C= Uncommon; Pre-disturbance surveys practical

B^3= Rare; Pre-disturbance surveys not practical; Equivalent-effort pre-disturbance surveys

STATE SPECIES STATUS

SE= Listed as endangered by the WDFW (WAC 232-12-014)

ST= Listed as threatened by the WDFW (WAC 232-12-011)

SC= State Candidate species are those fish and wildlife species that will be reviewed by the department for possible listing as: Endangered, Threatened, or Sensitive according to the process and criteria defined in WAC-232-12-297

SS= Listed as State Sensitive by the WDFW ((WAC 232-12-011)

SM= State Monitored

The habitat adjacent to the DNR road provides similar habitat as that on the USFS and NPS lands. It provides habitat for elk and other wildlife.

UNIQUE OR IMPORTANT FISH OR FISH HABITAT, INCLUDING LISTED FISH SPECIES AND CRITICAL HABITAT

This project is located in the Queets watershed, however, there are no stream crossings or water resources on the NPS portion of this project.

DNR and USFS Administered Lands in the Project Area

There are no streams or rivers within the project area on USFS administered lands and no fish or fish habitat.

This project would involve one stream crossing on a tributary identified as Phelan Creek on the DNR portion of the road. Though no fish surveys were completed, biologists from WDFW and the NPS have determined through observations and accessing the Salmonscape Website that the stream may provide habitat to coho salmon, steelhead, rainbow trout, cutthroat trout, sculpin, and lamprey. The stream could also be accessible to bull trout, as this species is known to inhabit the Queets River watershed, including Matheny Creek and Sam's River immediately adjacent to Phelan Creek. However, Phelan Creek is atypical of normal bull trout spawning or rearing habitat.

THREATENED OR ENDANGERED SPECIES

The Endangered Species Act of 1973, as amended, defines an endangered species as any species in danger of extinction throughout all or a significant portion of its range. The Act defines threatened species as any species likely to become endangered in the foreseeable future throughout all or a significant portion of its range.

Northern Spotted Owls

At the time of the last survey completed in the area (DNR 1999), no spotted owl nests were known to exist in the area and this survey found only barred owls (Weidermeier, 1999). The NPS portion of the project area is not designated critical habitat for northern spotted owls. There is the potential that this area provides dispersal habitat for northern spotted owls.

Marbled Murrelet

Much of the park contains high quality marbled murrelet habitat. Critical habitat was not designated because the park habitat is protected from adverse effects by virtue of its national park status. Suitable nesting habitat is found in old growth coniferous stands that are multi-layered with moderate to high canopy closure. Forested stands with old growth remnants are also used. Trees with suitable nest platforms are typically greater than 200 years of age and at least 20 inches in diameter at breast height although trees in good growing ground may develop these characteristics at a sooner rate. Younger trees may also develop platforms through mistletoe infestation or in reaction to damage from wind or ice.

Murrelets occur within all the major drainages below about 3,000 feet elevation within the park. Habitat considered suitable for murrelet occupation includes forested areas generally to 3,500 feet on the east side of the park, and to 3,000 feet on the west side of the park including the Sol Duc and Skokomish drainages. Taking into consideration these areas, approximately 453,000 acres of forested area within the park is considered suitable marbled murrelet habitat. The park represents the largest contiguous block of suitable nesting habitat remaining within the listed range of marbled murrelets. Inland surveys have been conducted according to Pacific Seabird Group protocols in all developed areas and in a sampling of backcountry valleys. Murrelet presence is documented at every site surveyed. Occupied detections have been documented at approximately 83% of sites surveyed within the park. It is reasonable to assume that suitable habitat within ONP is occupied by marbled murrelets.

The park is located within two different murrelet recovery zones (zone 1: Puget Sound and 2: Western Washington Coast Range). The line of demarcation between the two zones essentially bisects the park on a northwest to southeastern diagonal.

The Queets corridor provides suitable habitat for marbled murrelet. The forested areas along the Queets Road have several old growth trees that are considered potential nest trees. Although surveys have not been completed in this area, there is a high probability that it is occupied by marbled murrelets. The proposed reroute area has one suitable nesting tree, and several more are within 35 yards of the project area. However, most of the area adjacent to the reroute within and outside the park is second growth forest that is not currently suitable for nesting habitat.

DNR and USFS Administered Lands in the Project Area

Designated Critical Habitat for Northern Spotted Owls

Critical habitat for the spotted owl was designated on January 15, 1992 (U.S. Fish and Wildlife Service, 1992a) on National Forest lands outside congressionally designated wilderness. The conservation principles in developing critical habitat are to: develop and maintain large contiguous blocks of habitat to support multiple reproducing pairs of owls; minimize fragmentation and edge effect to improve habitat quality; minimize distance to facilitate dispersal among blocks of breeding habitat; and to maintain range-wide distribution of habitat to facilitate recovery (Thomas et al. 1990).

Primary constituent elements for owl critical habitat consist of habitat features that support nesting, roosting, foraging, and dispersal. Dispersal habitat is considered that habitat which functions to assist juvenile dispersal and breeding dispersal of adult spotted owls. It is also habitat which connects suitable habitat patches with one another. Dispersal habitat consists of stands with adequate tree size and canopy closure to provide protection from avian predators and at least minimal foraging opportunities. Dispersal habitat does not necessarily have old-growth or mature forest characteristics. The general rule for classifying dispersal habitat is to have a stand with an average tree diameter of 11 inches dbh within a canopy cover of 40% (Thomas et al. 1990). On the Olympic National Forest, there are ten/ designated Critical Habitat Units (WA-43 through WA-52) totaling over 398,000 acres that are identified that are considered essential for the conservation of the listed species. The area of proposed road reconstruction on National Forest land is not within a designated northern spotted owl critical habitat unit.

Designated Critical Habitat for Marbled Murrelets

The U.S. Fish and Wildlife Service designated critical habitat for the marbled murrelet in 1996 (USDI 1996). Critical habitat is defined as those "lands that are considered essential for the conservation of a listed species" (USDI 2003). The Service identified two habitat features, referred to as primary constituent elements, associated with the terrestrial environment that support the requirements for nesting, roosting, and other normal behaviors. The primary constituent elements include: (1) individual trees with potential nesting platforms and (2) forested areas within 0.5 mile of individual trees with potential nesting platforms and a canopy height of at least one-half the site-potential tree height. Designated marbled murrelet critical habitat in Washington State is primarily on federal lands within Late-Successional Reserves. The area of proposed road reconstruction on National Forest land is not within a designated marbled murrelet critical habitat unit.

The USFS and DNR lands within the project area are considered suitable foraging habitat for northern spotted owls and the DNR section is close to meeting the definition of Young Forest Marginal spotted owl habitat. Neither provides suitable nesting habitat for northern spotted owl or marbled murrelet.

WATER RESOURCES

There are no rivers, streams, or wetlands within the project site within ONP.

DNR and USFS Administered Lands in the Project Area

There are no rivers, streams or wetlands within the USFS administered portion of the project site. There is one stream within the project area on DNR lands, Phelan Creek. Phelan Creek is a small, intermittent stream that flows into the Queets River. The stream has a bankfull width of 15 feet and occasionally has high flows in the fall and spring.

SOUNDSCAPES

Soundscapes throughout the Queets area vary depending upon location. The area around the project area, including the Queets Road, has both natural ambient noise and

intermittent noises associated with human use. Ambient noise found along the existing access road in the Queets would include the following:

- Passing traffic (visitors to the area)
- Talking from visitors
- Campground noise
- Intermittent noise from overhead aircraft
- The sounds of wildlife, including birds and elk
- The sounds of wind, snow, running water, and rain.

Human generated noise along the Queets, particularly from passing traffic, is greatest during fishing season in the fall and in the spring. As many as 170 vehicles were recorded in one day during the 2006 spring steelhead fishing season.

Since the road in the project area is closed, there is little noise from human use. Occasional air traffic noise is present. When the road was open during logging operations, there was human generated noise on USFS and DNR lands from vehicle use, heavy equipment and logging equipment, chainsaws, and human activities.

ETHNOGRAPHIC RESOURCES AND TRIBAL CONCERNS

Native Americans have used the Queets Valleys for thousands of years. There is currently only one pre-contact archeological site documented within the park in the Queets valley. The dynamic nature of the Queets River is not conducive to preservation of archeological material on or near the river's floodplain. Ethnographic sources suggest that numerous villages and fishing locations were scattered up and down the Queets Valley. An archeological survey in1978 attempted to locate sites associated with these ethnographically recorded locations, but was largely unsuccessful due to the instability of the floodplain environment (Wessen 1978).

The Quinault Reservation lies adjacent to the park boundary and encompasses approximately six miles of the western terminus of the Queets River. The Quinault Indian Nation has traditionally used the Queets River and the surrounding areas and has relied on the fish species within the river. Today they monitor the fish in the river and use the Queets Road to access their monitoring stations.

The Hoh Reservation is located northwest of U.S. Highway 101 along the Hoh River. It is north of the Queets area, but the Hoh Tribe historically used the Queets River and surrounding areas and likely has traditional ties to the area.

VISITOR EXPERIENCE AND RECREATION RESOURCES

The primary draws to the Queets area include fishing opportunities, sightseeing, and a primitive vehicle-access campground. The 17-mile Queets River trail starts at the end of the Queets Road and provides visitors with access to wilderness opportunities.

Fishing is one of the most popular activities in the Queets area. Fishing occurs primarily for coho (hatchery or wild) and steelhead. Under current regulations, coho can be kept in the area below the Hartzell boat ramp from September 1 through November 30. Above the Hartzell boat ramp, all salmon fishing is catch-and-release anytime any fishery is open. Hatchery steelhead may be kept from any area open for fishing from June 1 to February 28. Catch-and-release fishing for steelhead (hatchery or wild) only is permitted from March 1 to April 15. The river is closed to all fishing from April 15 to June 1.[1] Late fall to early spring are times of heavy use in the campground due to fishing seasons. Since there are limited overnight accommodations outside of the park, many multi-day anglers stay at the Queets campground. Overall the area provides a more primitive recreational experience as it is an unpaved road with limited facilities, on the edge of designated wilderness.

PUBLIC HEALTH, SAFETY, AND PARK OPERATIONS

Maintenance of the Queets Road within ONP is the responsibility of the park's maintenance staff. Park personnel use the road to access portions of the park for visitor services, maintenance, law enforcement, search and rescue, and resource management purposes.

SOCIOECONOMICS

The Queets area is in a remote and relatively undeveloped portion of Jefferson County, Washington (Jefferson County, 2004) known as "the West End." According to the Jefferson County Comprehensive Plan, the West End is not projected to experience significant growth in the next 20 years. The regional decline of forestry and fishing has resulted in distressed economic conditions in the area.

The population of the West End is limited, however, a significant number of people visit the attractions of the area year-round, and the area experiences a large influx of visitors. The West End receives visitors from Puget Sound regional metropolitan areas, as well as national and international visitors. The Hoh and Quinault Indian Reservation communities are concentrated population centers that both contribute to and rely upon the West End economy.

The Queets River is in a remote portion of the park and provides limited opportunities for area businesses. Generally, the area businesses on the west side of ONP outside the park include general stores, grocery stores, and fuel stores. There are convenience services at the Kalaloch Lodge store on NPS lands north of Queets, and at a Quinault Nation convenience store at Queets. The closest communities are Queets and Amanda Park. There are no NPS concession-operated facilities at the Queets area within the park. There are fishing-related businesses in the Queets area that have obtained Incidental Business Permits (IBP) to operate in the park. Within the park, IBP holders arrange stock trips, rafting and kayaking trips, and fishing guide services. Almost all services offered by the current 14 IBP fishing guides utilizing the Queets River.

[1] Fishing regulations are set annually and are subject to change.

ENVIRONMENTAL CONSEQUENCES

INTRODUCTION

This section describes the environmental consequences associated with the alternatives. It is organized by impact topics that were derived from internal park and external public scoping. Impacts are evaluated based on context, duration, intensity, and whether they are direct, indirect, or cumulative impacts. NPS policy also requires that impairment of resources be evaluated in all environmental documents.

For most of the impact topics, the effects to USFS and DNR administered lands are evaluated in a separate section. However, "Soundscapes," "Ethnographic Resources and Tribal Concerns," "Visitor Experiences and Recreation Resources," and "Public Health, Safety, and Park Operations" topics are evaluated together because the impacts would be the same as those discussed under the NPS sections.

METHODOLOGY

The environmental consequences section analyzes both beneficial and adverse impacts that could result from the implementation of the alternatives.

ASSUMPTIONS FOR IMPACT ANALYSIS

This section contains the environmental impacts, including direct and indirect effects and their significance to the alternatives. The analysis is based on the assumption that the mitigation identified in the *Mitigation* section of this environmental assessment would be implemented under any of the applicable alternatives.

Impacts are evaluated based on the most current and comprehensive scientific and social data available. Overall, the NPS based these impact analyses and conclusions on the review of existing literature and ONP studies; information provided by experts at the park and other agencies; professional judgment and park staff insights; input from interested local American Indian tribes; and public input. Impacts can be beneficial or adverse. Beneficial impacts would improve resource conditions while adverse impacts would deplete or negatively alter resources.

There are several terms used within the environmental consequences section to assess the impacts of each alternative on each impact topic. Unless otherwise stated, the standard definitions for these terms are:

Negligible - the impact is at the lower level of detection; no measurable change would occur.

Minor - the impact is slight, but detectable; a small change would occur over the life of the plan.

Moderate - the impact is readily apparent; a measurable change would occur and could result in a small but permanent change.

Major - the impact is severe; resulting in a permanent measurable change.

Impairment - the impact would harm the entire integrity of the resource or value, whose conservation is key to the cultural or natural integrity of the recreation area, or is a resource or value needed to fulfill a specific purpose identified in the park's enabling legislation.

Localized Impact - the impact occurs in a specific site or area, individual wildlife, or the wildlife group. When comparing changes to existing conditions, the impacts are only detectable in the localized area.

Short-term - the impact occurs only during or immediately after the actual management or project activity.

Long-term - the impact could occur for an extended period of time after the management or project activity has been completed. The impact could take several years or more.

Direct – an effect that is caused by an action that occurs at the same time and in the same place.

Indirect – an effect that is caused by an action that is later in time or farther removed in distance, but is still reasonably foreseeable.

CRITERIA AND THRESHOLDS FOR IMPACT ANALYSIS

Definitions of duration and intensity vary by resource. Therefore, the definitions for each impact topic are described separately. These definitions were formulated through the review of existing laws, policies, and guidelines, and with assistance from park, region, and Washington office specialists.

Vegetation

All available information on vegetation, vegetative communities and soils potentially impacted in the project area park was compiled. Where possible, map locations of sensitive vegetation species, populations, and communities were identified and avoided. Predictions about short- and long-term site impacts were based on previous projects with similar vegetation and soils and recent studies. Also included in the evaluation of the vegetative communities was the introduction or promotion of non-native species. The thresholds of change for the intensity of an impact are defined as follows:

Impact Intensity	Intensity Description
Negligible	No native vegetation would be affected or some individual native plants could be affected as a result of the alternative, but there would be no effect on native species populations. The effects would be on a small scale and no species of special concern would be affected.
Minor	The alternative would affect some individual native plants and would also affect a relatively minor portion of that species' population on a short-term basis. Mitigation to offset adverse effects, including special measures to avoid affecting species of special concern, could be

	required and would be effective. Mitigation may be needed to offset adverse effects and would be relatively simple to implement and likely be successful.
Moderate	The alternative would result in short term effects to some individual native plants and could also affect a sizeable segment of the species' population and over a relatively large area. Permanent impacts could occur to native vegetation but in a relatively small area. Some species of special concern could also be affected. Mitigation measures, for both vegetation and soil, would be necessary to offset adverse effects and likely be successful
Major	The alternative would have a considerable effect on native plant populations, including species of special concern, and affect a relatively large area in and out of the park for a long-term basis or permanently. Mitigation measures to offset the adverse effects would be required, extensive; success of the mitigation measures would not be guaranteed.

Wildlife and Wildlife Habitat

The NPS Organic Act, which directs parks to conserve wildlife unimpaired for future generations, is interpreted by the agency to mean that native animal life should be protected and perpetuated as part of the park's natural ecosystem. Natural processes are relied on to control populations of native species to the greatest extent possible; otherwise they are protected from harvest, harassment, or harm by human activities. According to NPS *Management Policies 2001*, the restoration of native species is a high priority (sec. 4.1). Management goals for wildlife include maintaining components and processes of naturally evolving park ecosystems, including natural abundance, diversity, and the ecological integrity of plants and animals. Information on ONP wildlife was taken from park documents and records. ONP natural resource management staff, the U.S. Fish and Wildlife Service, and the Washington Fish and Wildlife Department also provided information. The thresholds of change for the intensity of an impact to wildlife are defined as follows:

Impact Intensity	Intensity Description
Negligible	There would be no observable or measurable impacts to native species, their habitats, or the natural processes sustaining them. Impacts would be well within natural fluctuations.
Minor	Impacts would be detectable, short-term, and they would not be expected to be outside the natural range of variability of native species' populations, their habitats, or the natural processes sustaining them. Mitigation measures, if needed to offset adverse effects, would be simple and successful.
Moderate	Breeding animals of concern are present; animals are present during particularly vulnerable life-stages, such as migration or juvenile stages; mortality or interference with activities necessary for survival can be expected on an occasional basis, but is not expected to threaten the continued existence of the species in the park unit. Impacts on native species, their habitats, or the natural processes sustaining them would be detectable, short-term, and they could be outside the natural range of variability. Mitigation measures, if needed to offset adverse effects, would be extensive and likely successful.

Major	Impacts on native species, their habitats, or the natural processes sustaining them would be detectable, long-term, and they would be expected to be outside the natural range of variability. Key ecosystem processes might be disrupted. Loss of habitat might affect the viability of at least some native species. Extensive mitigation measures would be needed to offset any adverse effects and their success would not be guaranteed.

Impacts would be considered short term if the wildlife recovered in less than one year. Impacts would be considered long term if wildlife recovery takes more than one year.

Unique or Important Fish or Fish Habitat, Including Listed Fish Species
Fish and their habitat would be evaluated with the same criteria listed above under "Wildlife and Wildlife Habitat."

Threatened and Endangered Species
Section 7 of the Endangered Species Act mandates all federal agencies determine how to use their existing authorities to further the purposes of the Act to aid in recovering listed species, and to address existing and potential conservation issues. Section 7(a)(2) states that each federal agency shall, in consultation with the Secretary of the Interior, insure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. NPS *Management Policies* state that potential effects of agency actions would also be considered for state or locally listed species.

Impact Intensity	Intensity Description
Negligible	The action could result in a change to a population or individuals of a species, but the change would not be of any measurable or perceptible consequence and would be well within natural variability. This impact intensity equates to a USFWS determination of "may affect, not likely to adversely affect."
Minor	The action could result in a change to a population or individuals of a species. The change would be measurable, but small and localized and not outside the range of natural variability. Mitigation measures, if needed, would be simple and successful. This impact intensity equates to a USFWS determination of "may affect, not likely to adversely affect."
Moderate	Impacts on special-status species, their habitats, or the natural processes sustaining them would be detectable and occur over a large area. Breeding animals of concern are present; animals are present during particularly vulnerable life stages; mortality or interference with activities necessary for survival can be expected on an occasional basis, but is not expected to threaten the continued existence of the species in the park unit, or conservation zone. Mitigation measures would be extensive and likely successful. This impact intensity equates to a USFWS determination of "may affect, likely to adversely affect."
Major	The action would result in a noticeable effect to viability of the population or individuals of a species. Impacts on special-status species of the natural processes sustaining them would be detectable, both in

	and outside of the park. Loss of habitat might affect the viability of at least some special-status species. Extensive mitigation measures would be needed to offset any adverse effects and their success would not be guaranteed. The impact intensity equates to a USFWS determination of "may affect, likely to jeopardize the continued existence of a species."

Impacts would be considered short-term if the species recovered in less than one year. Impacts would be considered long-term if the species takes more than one year to recover.

Water Quality

The NPS *Management Policies 2001* state that the Park Service will "take all necessary actions to maintain or restore the quality of surface waters and ground waters within the parks consistent with the Clean Water Act and all other applicable federal, state, and local laws and regulations" (sec. 4.6.3).

A water quality standard defines the water quality goals of a waterbody by designating uses to be made of the water, by setting minimum criteria to protect the uses, and by preventing degradation of water quality through antidegradation provisions. The antidegradation policy is only one portion of a water quality standard. Part of this policy (40 CFR 131.12(a)(2)) strives to maintain water quality at existing levels if it is already better than the minimum criteria. Antidegradation should not be interpreted to mean that "no degradation" can or will occur, as even in the most pristine waters, degradation may be allowed for certain pollutants as long as it is temporary and short term.

Other considerations in assessing the magnitude of water quality impacts is the effect on those resources dependent on a certain quality or condition of water. Sensitive aquatic organisms, submerged aquatic vegetation, riparian areas, and wetlands are affected by changes in water quality from direct and indirect sources.

In order to assess the magnitude of water quality impacts to park waters under the various alternatives State water quality standards governing the waters of the park were examined and compared to baseline water quality data (if available). The thresholds of change for the intensity of an impact to water quality are defined as follows:

Impact Intensity	Intensity Description
Negligible	Impacts (chemical, physical, or biological effects) that would not be detectable, would be well below water quality standards or criteria, and would be within historical or desired water quality conditions.
Minor	Impacts (chemical, physical, or biological effects) would be detectable, short-term, but would be well below water quality standards or criteria and within historical or desired water quality conditions.
Moderate	Impacts (chemical, physical, or biological effects) would be detectable but would be at or below water quality standards or criteria; however, historical baseline or desired water quality conditions would be temporally altered.
Major	Impacts (chemical, physical, or biological effects) would be detectable and would be frequently altered from the historical baseline or desired water quality conditions; and/or chemical, physical, or biological water

	quality standards or criteria would temporarily be slightly and singularly exceeded.

Soundscapes

The NPS *Management Policies* 2001, states that the NPS will strive to preserve the natural quiet and natural sounds associated with the physical and biological resources of parks. NPS policy requires the restoration of degraded soundscapes to the natural condition whenever possible, and the protection of natural soundscapes from degradation due to noise (undesirable human-caused sound) (*Management Policies 2001*, sec. 4.9). The NPS is specifically directed to "take action to prevent or minimize all noise that, through frequency, magnitude, or duration, adversely affects the natural soundscape or other park resources or values, or that exceeds levels that have been identified as being acceptable to, or appropriate for, visitor uses at the sites being monitored" (*Management Policies* 2001, sec. 4.9). Overriding all of this is the fundamental purpose of the national park system, established in law (e.g., 16 USC 1 et seq.), which is to conserve park resources and values (*Management Policies* 2001. sec. 1.4.3). NPS managers must always seek ways to avoid, or to minimize to the greatest degree practicable, adverse impacts on park resources and values (*Management Policies* 2001, sec 1.4.3).

Noise can adversely affect park resources by modifying or intruding upon the natural soundscape, and can also indirectly impact resources by interfering with sounds important for animal communication, navigation, mating, nurturing, predation, and foraging functions. Noise can also adversely impact park visitor experiences by intruding upon or disrupting experiences of solitude, serenity, tranquility, contemplation, or a completely natural or historical environment.

The methodology used to assess noise impacts in this document is consistent with NPS *Management Policies* 2001 and *Director's Order #47: Soundscape Preservation and Noise Management.*

Context, time, and intensity together determine the level of impact for an activity. It is usually necessary to evaluate all three factors together to determine the level of noise impact. In some cases an analysis of one or more factors may indicate one impact level, while an analysis of another factor may indicate a different impact level, according to the criteria below. In such cases, best professional judgment based on a documented rationale must be used to determine which impact level best applies to the situation being evaluated.

- National literature was used to estimate the average decibel levels of the activity.
- Areas of use by visitors were identified in relation to where the activity is proposed. Personal observation from park staff and monthly use reports were used to identify these areas.

Other considerations, such as topography and prevailing winds, were then used to identify areas where noise levels could be exacerbated or minimized. The thresholds of change for the intensity of an impact to soundscape are defined as follows:

Impact Intensity	Intensity Description
Negligible	Natural sounds would prevail. Effects to natural sound environment would be at or below the level of detection and such changes would be so slight that they would not be of any measurable or perceptible consequence to the visitor experience or to biological resources.
Minor	Natural sounds would prevail in those areas where management objectives call for natural processes to predominant. In areas where activity noise is consistent with park purpose and objectives (i.e. road corridors), noise would predominate during daylight hours and would not be overly disruptive to noise-sensitive visitor activities in the area; in such areas, natural sounds could still be heard occasionally. Activity noise would be localized, short-term, and would be small and of little consequence to the visitor experience or to biological resources. Mitigation measures, if needed to offset adverse effects, would be simple and successful.
Moderate	In areas where management objectives call for natural processes to predominate, natural sounds would predominate, but activity noise could occasionally be present at low to moderate levels. In areas where activity noise is consistent with park purpose and zoning, the natural soundscape would be impacted most of the day. Effects to the natural sound environment would be readily detectable, localized, short- or long-term, with consequences at the regional or population level. Natural sounds would be occasionally heard during the day. Mitigation measures, if needed to offset adverse effects, would be extensive and likely successful.
Major	In those areas where management objectives call for natural processes to predominate, natural sounds would be impacted by activity noise frequently for extended periods of time. In areas where activity noise is consistent with park purpose and zoning, the natural soundscape would be impacted most of the day, with disruptions to conversation for long periods of time, making enjoyment of other activities in the area difficult. Effects to the natural sound environment would be obvious, long-term, and have substantial consequences to the visitor experience or to biological resources in the region. Extensive mitigation measures would be needed to offset any adverse effects and success would not be guaranteed.

Ethnographic Resources and Tribal Concerns

Ethnographic resources are those cultural and natural resources to which park-associated communities ascribe cultural significance and that continue to play an important role in a community's identity and way of life. Generally, an ethnographic resource is a site, structure, object, landscape, or natural resource feature assigned traditional legendary, religious, subsistence, or other significant in the cultural system of a group traditionally associated with it. Although the tribes themselves did not identify the intensity of the potential impacts to ethnographic resources, the NPS has developed the following intensity definitions.

Impact Intensity	Intensity Description
Negligible	Impact(s) would be barely perceptible and would neither alter resource conditions, such as traditional access or site preservation, nor the relationship between the resource and the affiliated group's body of practices and beliefs.
Minor	**Adverse impact —** impact(s) would be slight but noticeable but would neither appreciably alter resource conditions, such as traditional access or site preservation, nor the relationship between the resource and the affiliated group's body of practices and beliefs. **Beneficial impact —** would allow access to and/or accommodate a group's traditional practices or beliefs.
Moderate	**Adverse impact —** impact(s) would be apparent and would alter resource conditions. Something would interfere with traditional access, site preservation, or the relationship between the resource and the affiliated group's practices and beliefs, even though the group's practices and beliefs would survive. **Beneficial impact —** would facilitate traditional access and/or accommodate a group's practices or beliefs
Major	**Adverse impact —** impact(s) would alter resource conditions. Something would block or greatly affect traditional access, site preservation, or the relationship between the resource and the affiliated group's body of practices and beliefs, to the extent that the survival of a group's practices and/or beliefs would be jeopardized. **Beneficial impact —** would encourage traditional access and/or accommodate a group's practices or beliefs.

Visitor Experiences and Recreational Resources

NPS *Management Policies* 2001 state that the enjoyment of park resources and values by the people of the United States is part of the fundamental purpose of all parks and that the NPS is committed to providing appropriate, high-quality opportunities for visitors to enjoy the parks.

Part of the purpose of ONP is to offer opportunities for recreation, education, inspiration, and enjoyment. Consequently, one of the park's management goals is to ensure that visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and quality of park facilities, services, and appropriate recreational opportunities.

Public scoping input and observation of visitation patterns combined with assessment of what is available to visitors under current management were used to estimate the effects of the actions in the alternatives in this document. The impact on the ability of the visitor to experience a full range of park resources was analyzed by examining resources and objectives presented in the park significance statements, as derived from its enabling legislation. The potential for change in visitor use and experience proposed by the alternatives was evaluated by identifying projected increases or decreases in access and other visitor uses, and determining whether or how these projected changes would affect

the desired visitor experience and to what degree and for how long. The thresholds of change for the intensity of an impact to visitor experiences are defined as follows:

Impact Intensity	Intensity Description
Negligible	Changes in visitor use, experience, and recreational resources would be below or at the level of detection. The visitor would not likely be aware of the effects associated with the alternative.
Minor	Changes in visitor use experience, and recreational resources would be detectable, although the changes would be slight. The visitor would be aware of the effects associated with the alternative, but the effects would be slight.
Moderate	Changes in visitor use experience, and recreational resources would be readily apparent. The visitor would be aware of the effects associated with the alternative and would likely be able to express an opinion about the changes.
Major	Changes in visitor use experience, and recreational resources would be readily apparent and severely adverse or exceptionally beneficial. The visitor would be aware of the effects associated with the alternative and would likely express a strong opinion about the changes.

Visitor experience and recreational resources impacts would be considered short term if the effects last for the durations of the treatment action. Visitor use impacts would be considered long term if the effects last longer than the durations of the treatment action.

Public Health, Safety, and Park Operations

In addition to the guiding regulations and policies described in the "Visitor Experience and Recreational Resources" section, the NPS *Management Policies* also state that the NPS is committed to providing appropriate and high quality opportunities for visitors to enjoy the parks. The policies also state that, although there are limitations on the NPS ability to totally eliminate all hazards, the NPS will strive to provide a safe and healthful environment for visitors and employees, to protect human life, and to provide for injury-free visits.

Park operations, for the purposes of this analysis, refers to the quality and effectiveness of the Queets Road and the park's ability to maintain the road in order to adequately protect and preserve vital resources, maintain existing facilities and trails in the Queets area, and provide for a successful visitor experience. Park staff members knowledgeable of these issues were members of the planning team that evaluated the impacts of each alternative. Impact analysis is based on the current description of park operations presented in the "Affected Environment" section of this document.

Impact intensity	Impact Description
Negligible	The impacts to visitor safety would not be measurable or perceptible. Park operations would not be affected.
Minor	The effect would be detectable, short-term, but would be limited to a relatively small number of visitors at a localized area and would not have an appreciable effect on public health and safety.

	For park operations, the effect would be detectable, but short-term and would not have an appreciable effect on park operations.
Moderate	The effects would be sufficient to cause a permanent change in accident rates at existing low accident locations, or would be readily apparent and result in substantial, noticeable effects to public health and safety on a local scale on a short- or long-term basis. For park operations, the effects would be readily apparent, short-or long-term, and would result in a substantial change in park operations in a manner noticeable to park staff and the public.
Major	The impact to visitor safety would be substantial either through the elimination of potential hazards or the creation of new areas with a high potential for serious accidents or hazards. Effects would be readily apparent and result in substantial, noticeable effects to public health and safety on a regional scale and long-term basis. For park operations, the effects would be readily apparent, would result in a substantial change in park operations in a manner noticeable to park staff and the public, and be markedly different from existing operations.

Socioeconomic Resources

Issues were identified through the scoping process, and concerns covered by this section include effects on IBP holders, and the economic contribution of Olympic National Park to local economies, and traditional land uses external to Olympic National Park boundaries. The thresholds of change for the intensity of an impact to socioeconomics are defined as follows:

Impact Intensity	Intensity Description
Negligible	No effects would occur or the effects to socioeconomic conditions would be below the level of detection.
Minor	The effects to socioeconomic conditions would be detectable and short-term. Any effects would be small and if mitigation were needed to offset potential adverse effects, it would be simple and successful.
Moderate	The effects to socioeconomic conditions would be readily apparent and short- or long-term. Any effects would result in changes to socioeconomic conditions on a local scale. If mitigation is needed to offset potential adverse effects, it could be extensive, but would likely be successful.
Major	The effects to socioeconomic conditions would be readily apparent and would cause substantial changes to socioeconomic conditions in the region on a long-term basis. Mitigation measures to offset potential adverse effects would be extensive and their success could not be guaranteed.

CUMULATIVE EFFECTS

Cumulative actions are resource based actions that will have an additive effect on the same resource as the proposed alternatives. Cumulative effects bring together all incremental impacts of the past, present, and reasonably foreseeable future action and all

impacts. The Council on Environmental Quality regulations for implementing the National Environmental Policy Act (NEPA) define cumulative effects as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonable foreseeable future actions regardless of what agency (Federal or non-federal) or person undertakes such other actions (40 CFR 1508.7).

Methodology for Assessing Cumulative Effects

To determine potential cumulative impacts, affected resources were first identified through internal and external scoping. These resources were then evaluated to determine whether the resource is particularly vulnerable to incremental effects, whether the action is one of several similar actions in the same geographic areas, whether other activities in the area have similar effects on the resource, whether these effects have been historically significant for this resource, and whether other analyses in the area have identified a cumulative effect concern.

Through this process, the appropriate boundaries for each resource were identified on both a spatial and temporal basis. Spatial boundaries are the geographical boundaries within and outside the project area where potential impacts could occur. This generally is considered to be the distance an effect can travel, or an appropriate regional boundary, and varies with each resource impact topic. Temporal boundaries are the appropriate past and future time frames to consider for the project-specific analysis. Temporal boundaries were developed considering the timing of past impacts and the timing of resource recovery from those past actions, and the identification of future proposed or planned activities and the potential for resource impacts, either beneficial or adverse.

Projects near the proposed project area, and in nearby areas on the Olympic Peninsula were identified. Potential projects identified as cumulative actions included any planning or development activities that occurred in the past; those currently being implemented; or that are planned or would be implemented in the reasonably foreseeable future. These projects were then assessed to determine if they would have similar effects to identified resources as the proposed project.

Summary of Cumulative Effects

The following actions were considered in the cumulative impacts analysis.

Past Actions

- Development and road construction in ONP and adjacent lands
- Logging and road maintenance activities on adjacent lands
- Restricted use and road closures in ONP and adjacent lands
- Restricted fishing on the Olympic Peninsula and Puget Sound area

Current and Future Actions

- Logging and road maintenance activities on adjacent lands
- Road use, maintenance, closures, and restrictions within and outside the park boundary in the Queets area
- Introduction and spread of non-native vegetation
- Implementation of the ONP Fire Management Plan
- Threats to listed species outside park boundaries
- Overflights
- Maintenance or lack of maintenance on existing facilities and trails in Queets area

IMPAIRMENT OF OLYMPIC NATIONAL PARK RESOURCES OR VALUES

In addition to determining the environmental consequences of the preferred and no-action alternatives, NPS *Management Policies* and DO-12 require an analysis of potential effects to determine if actions would impair park resources. The fundamental purpose of the National Park System established by the *Organic Act* and reaffirmed by the *General Authorities Act*, as amended, begins with a mandate to conserve park resources and values. NPS managers must seek ways to avoid, or minimize to the greatest degree practicable, adversely impacting park resources and values. Congress has given NPS managers direction, however, to allow impacts to park resources and values when necessary and appropriate to fulfill the purpose of the park, so long as the impact does not constitute impairment of the affected resources and values.

The prohibited impairment is an impact that would, in professional judgment of the responsible NPS manager, harm the integrity of park resources or values, including opportunities that would otherwise be present for the enjoyment of those resources or values. An impact would be more likely to constitute impairment to the extent that it has a major or severe adverse effect upon a resource or value whose conservation is:

- Necessary to fulfill specific park purposes identified in the establishment legislation or proclamation of the park;
- Key to the natural and cultural integrity of the park or to opportunities for enjoyment of the park; or, is
- Identified as a goal in the park's general management plan or other relevant NPS planning documents.

Impairment may result from NPS activities in managing the park, visitor activities, or activities undertaken by concessioners, contractors, and other operating in the park. In this "Environmental Consequences" section, a determination on impairment is made in the conclusion statement of the appropriate impact topics for each alternative. Impairment statements are not required for recreational values/visitor experience, park

operations, or health and safety topics. In addition, neither NPS policies nor managerial determinations regarding impairment apply to non-NPS lands or resources.

ENVIRONMENTAL CONSEQUENCES OF THE ALTERNATIVES

ALTERNATIVE A: NO ACTION

Vegetation

Under this alternative, no new ground disturbance would occur from management or construction activities and no removal of vegetation.

The existing unpaved road beyond Matheny Creek Bridge would not be rehabilitated or decommissioned. Over the long term, vegetation from the road perimeters could start to encroach on the unused road. However, the soil compaction that exists on the existing road creates unfavorable growing conditions, therefore, this would not occur until the future.

DNR and USFS Lands

There would be no work conducted on DNR and USFS lands, therefore, no impact to vegetation on these lands would occur.

Federally Listed Species

There are no federally listed plants in the project area, and there would be no work conducted on DNR and USFS lands under this alternative, therefore no impact would occur.

Regional Forester's Sensitive and Survey & Manage Species

Since no work would occur on DNR and USFS lands under this alternative, there would be no impact to the species with potential habitat in the proposed project area.

Invasive Plants

No project work would occur under this alternative that would result in a change in conditions of invasive plants species in the project area on USFS and DNR lands.

Cumulative Impacts. Vegetation in the area has been impacted by logging and development within and outside the park boundaries. Logging activities occurred near or around the existing road between 1939 and 1954, but was halted once the ONP boundaries were expanded to include the Queets area. Logging still occurs outside park boundaries, and is likely to continue into the future. The construction and use of roads, trails, boat ramps, campgrounds and other development has resulted in long-term disturbance and removal of vegetation. Road use and maintenance, within and outside park boundaries, would continue, except on the portion of the closed road, and will continue to have adverse effects on vegetation in the Queets watershed from ditch clearing, trimming and cutting roadside vegetation. Non-native vegetation has been imported to the area, and would likely continue to spread.

The implementation of the Fire Management Plan would result in a program of wildland fire use, mechanical fuel reduction activities, and full suppression. This program would help maintain a more natural fire regime than is possible under a program of total suppression. Natural fires would contribute to a diversity of vegetative mosaics, and help perpetuate fire-adapted species. Plant species and communities dependent upon fire for seed germination, maintenance of soil conditions, and crown openings would be enhanced. Although the wildland fire use program would help restore a more natural fire regime, it would not achieve totally natural conditions. Some natural fires would require a suppression response or limited holding actions to protect human health and safety, neighboring properties, air quality, and other resources. In addition, some fires will be suppressed due to regional fire activity and limited availability of fire management personnel. In relatively wet areas, where there is a very long fire return interval, little or no change in vegetation patterns would be expected. Suppression activities could require cutting vegetation for the construction of handlines or other containment measures.

The effects of these past, present, and reasonably foreseeable future actions would have long-term, minor to moderate adverse and beneficial impacts on vegetation. The no action alternative, when viewed with these past, present, and reasonably foreseeable actions, would result in no contributions to the cumulative effects.

Conclusion. This alternative would not result in any new ground disturbance which would impact vegetation, therefore this alternative would have no impacts on the vegetation in the area. The cumulative effects of past, present, and reasonably foreseeable future actions have long-term, minor to moderate, adverse and beneficial impacts on vegetation. The no-action alternative would not contribute to the cumulative effects.

Impairment. There would be no major adverse effects to a resource or value whose conservation is (1) necessary to fulfill the specific purposes identified in the park's enabling legislation, (2) key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or (3) identified as a goal in the park's General Management Plan or other relevant planning document, there would be no impairment of resources or values related to the vegetation, including rare and unusual vegetation or soils under this alternative

Wildlife or Wildlife Habitat

Under this alternative, wildlife, wildlife habitat, and nesting sites would not be disturbed or modified. No construction would be done and access through the last six miles of road would be limited to foot traffic. There would be minor to moderate long-term benefits to wildlife as a result of not reopening the road to vehicular traffic. Wildlife would not be at risk from collisions with automobiles if the road remained closed. In addition, wildlife would not be disturbed from the presence of vehicles in their habitat. There could be short-term disturbance of wildlife from pedestrians utilizing the roadway. This would result in a negligible short-term adverse impact to wildlife, not resulting in changes to the current status of biotic communities, either in terms of species composition or population dynamics, other than those brought about by natural processes.

DNR and USFS Lands
There would be no work conducted on DNR and USFS lands, therefore, no impact to wildlife on these lands would occur.

Regional Forester's Sensitive and Survey and Manage Species – Mollusks
Since there would be no project work under this alternative, and no Survey and Manage mollusk species were found within the project area, there would be no impact as a result of this alternative.

Regional Forester's Sensitive Species
There would be no project work under this alternative, no habitat removal, and no impact to Sensitive Species or their habitat.

Management Indicator Species
Since no project work would occur under this alternative, there would be no habitat modification or impacts to Management Indicator Species.

Cumulative Impacts. Wildlife in the area has been and continues to be impacted by noise, human presence and habitat fragmentation associated with development, logging, road use and maintenance, and recreational activities, within and outside park boundaries. Fire management activities could result in disturbance, displacement, and direct mortality to wildlife and temporarily remove habitat through burning. However, allowing some wildland fire to occur is expected to increase landscape heterogeneity and consequently improve overall wildlife biodiversity at the landscape scale over the long term.

The effects of these past, present, and reasonably foreseeable future actions would have short- and long-term, negligible to minor, adverse and beneficial impacts on wildlife. Since the no action alternative would result in only a negligible impact, it would not contribute to the cumulative effects.

Conclusion. There would be no new impacts to wildlife under the no action alternative. Wildlife would be less impacted on the closed portion of the road because vehicle use would not occur. Human use in the area would continue, resulting in a negligible disturbance to wildlife. The limitation of the road to foot traffic would likely have long-term minor to moderate beneficial impacts to wildlife, and negligible to minor adverse impacts on wildlife from continued human use. There would be no cumulative effects to wildlife from the no-action alternative.

Impairment. There would be no major adverse effects to a resource or value whose conservation is (1) necessary to fulfill the specific purposes identified in the park's enabling legislation, (2) key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or (3) identified as a goal in the park's General Management Plan or other relevant planning document, there would be no impairment of resources or values related to wildlife and wildlife habitat.

Unique or Important Fish or Fish Habitat, Including Listed Fish Species
Under this alternative, no road maintenance activities would occur beyond Matheny Creek Bridge. Areas of instability would likely develop along the existing closed roadway, and could become worse due to the lack of access options and the inability to use heavy equipment to maintain the road and culverts. As a result, the river near the road and downstream could be adversely affected in the short- and long-term by increased turbidity from the existing slide out, and in the future when culverts fail, or when other portions of the road are damaged due to flooding or erosion. The No Action alternative has the potential to affect bull trout and other fish resources by contributing sediment to the mainstem Queets River due to lack of maintenance, resulting in short- and long-term, minor to moderate adverse impacts to fisheries resources from increased turbidity and sedimentation in the Queets River.

DNR and USFS Lands
There would be no work conducted on DNR and USFS lands, therefore, no impact to fisheries resources would occur.

Cumulative Impacts. Fisheries resources in the area would continue to be impacted by existing roads, development, logging, and maintenance activities near the Queets River or its tributaries resulting in short- and long-term, minor to moderate adverse cumulative effects.

The implementation of the park's fire management plan could adversely affect fish species by disturbance, habitat loss, displacement, and may cause isolated mortality of individuals. The implementation of wildland fire use has the potential to improve fish habitat in the long term through the restoration of natural fire regimes in the wildland fire use areas. However, most of the areas around rivers and streams are not within this zone due to protective measures implemented through consultation with NOAA Fisheries and the USFWS. Therefore, implementation of the fire plan would have inconsequential effects on the fisheries resources of the Queets watershed.

The no-action alternative has the potential to lead to increased erosion and sedimentation of the Queets River, resulting in short- and long-term, moderate adverse effects to the fisheries habitat and to fish species. There would be minor to moderate contribution to the overall cumulative effects, and overall cumulative effects would be short- and long-term, moderate, and adverse.

Conclusion. The no-action alternative would result in increased erosion from the unmaintained portion of the Queets Road, resulting in increased turbidity of the Queets River. This would lead to short- and long-term, minor to moderate, adverse effects to the fisheries resources in the river at and downstream of erosion sites. The cumulative effects of past, present, and reasonably foreseeable future actions should have short- and long-term, minor to moderate, adverse impacts on the fisheries resources, and the no-action alternative would result in a minor to moderate contribution to these affects. The overall cumulative effects would be short- and long-term, moderate, and adverse.

Impairment. There would be no major adverse effects to a resource or value whose conservation is (1) necessary to fulfill the specific purposes identified in the park's enabling legislation, (2) key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or (3) identified as a goal in the park's General Management Plan or other relevant planning document, there would be no impairment of resources or values related to fisheries resources within the park.

Threatened and Endangered Species
Under the no-action alternative, there would be no new activities that have the potential to change the current status of listed bird species known to occur in or pass through the Queets area. There would be no new ground disturbing activities with the potential to impact individuals or suitable habitat for these species. Disturbances associated with traffic noise (e.g. displacement or disruption) would continue on the first eight miles of the Queets Road, and would not occur in the last six miles of the Queets Road, resulting in negligible beneficial effects to these species. Disturbances to these species from the presence of pedestrians on the Queets Road would result in negligible adverse effects from noise and human presence.

DNR and USFS Lands
There would be no work conducted on DNR and USFS lands under this alternative, therefore, no impact to federally listed animal species would occur.

Cumulative Impacts. Threatened and endangered species (marbled murrelets and northern spotted owls) are impacted in the Queets area and ONP by noise, human presence, development, and habitat fragmentation due to development and road construction. These species are impacted on the Olympic Peninsula by these activities plus logging and development outside the park. The implementation of the park fire management plan could result in short- and long-term, moderate, adverse effects to marbled murrelets as a result of loss of habitat and loss of nests and nest sites. In the long-term, as natural processes are restored, habitat could improve in wildland fire use zones for listed species, resulting in minor to moderate beneficial effects. Because the no-action alternative would have negligible adverse effects that are considered inconsequential, there would be no contribution to cumulative effects.

Conclusion. There would be no effect to threatened or endangered species under the no-action alternative. There would be negligible, long-term beneficial effects from the lack of traffic noise and road maintenance activities on the last 6 miles of the Queets Road. The effects of past, present, and reasonably foreseeable future actions would be short- and long-term, moderate, and adverse. Because the no-action alternative would have inconsequential effects to listed species, there would be no contribution to the cumulative effects.

Impairment. There would be no major adverse effects to a resource or value whose conservation is (1) necessary to fulfill the specific purposes identified in the park's enabling legislation, (2) key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or (3) identified as a goal in the park's General

Management Plan or other relevant planning document, there would be no impairment of resources or values related to threatened or endangered species.

Water Quality
Under this alternative, no action would be taken to reopen the Queets Road to vehicular access. Erosion on the closed portion of the road could increase due to lack of road maintenance and culvert maintenance activities. Culverts would likely become plugged over time if the road is not maintained which may result in more slides, creating short-term moderate adverse effects to water quality at the slide locations, downstream, and near other problem areas on the Queets Road due to increased turbidity.

DNR and USFS Lands
There would be no work conducted on DNR and USFS lands, therefore, no impact to water resources would occur.

Cumulative Impacts. Prior to the land slide, the Queets Road required annual grading, cleaning of culverts, and periodic repairs from water or flood damage. In addition to human-generated impacts, there are several sources of natural turbidity, including shifts in the river channel and bank erosion, and winter and spring high water events. The open portion of the Queets Road still requires periodic maintenance. The ongoing and potential future activities, plus the natural sources of turbidity that are likely to occur in the future, would result in minor to moderate, short-term, adverse impacts to water quality in the Queets River and its tributaries located along the Queets Road. The lack of future road maintenance activities on the closed portion of the Queets Road would add to the future potential for runoff and erosion, primarily from plugged culverts, washouts, and future slides. The no-action alternative would result in a moderate contribution to these effects, and the overall cumulative effects to water quality in the Queets River would be short-term, moderate, and adverse.

Conclusion. Water quality in the Queets River would likely be impacted upstream from the slide due to the lack of road maintenance activities, resulting in short-term moderate adverse effects to water quality. The ongoing and potential future activities within and outside park boundaries, plus the natural sources of turbidity that are likely to occur in the future, would result in minor to moderate, short-term, adverse cumulative impacts to water quality. Overall, the cumulative effects to water quality from this alternative would be short-term, moderate, and adverse.

Impairment. There would be no major adverse effects to a resource or value whose conservation is (1) necessary to fulfill the specific purposes identified in the park's enabling legislation, (2) key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or (3) identified as a goal in the park's General Management Plan or other relevant planning document, there would be no impairment of resources or values related to water quality.

Soundscapes

Under this alternative, no action would be taken, and the road would not be reopened to vehicle traffic. Therefore, there would be no impact to the natural soundscape as a result of vehicular noise on the last 6 miles of existing road, and there would be no effect to the natural soundscape from road construction and/or road maintenance activities. If helicopters are utilized more for park operations and emergencies, then there would be short-term, minor to moderate adverse effects to the soundscape in the area during helicopter operations.

Cumulative Impacts. There is some expectation of human-caused noise within and near road corridors within ONP. Present and future noise levels would likely be lower than when vehicle access was possible along all 14 miles of the road corridor due to decreased use and no reinstitution of park road maintenance activities. Visitor activities would still occur in the area but would not be accompanied by vehicle noises along the 6 miles of road corridor beyond the slide out. Ambient noise from logging activity in the vicinity of the Queets area, and traffic from Highway 101 would still be present, resulting in negligible, short-term, adverse effects. The no-action alternative would not result in adverse impacts to the soundscape and it would not contribute to the cumulative effects.

Conclusion. There would be a beneficial effect on natural soundscapes beyond the road closure resulting from the implementation of alternative A. The cumulative effect of present and future activities outside park boundaries would have a short-term negligible, adverse impact on the soundscape in areas near park boundaries. There would be no contribution to the cumulative effects from the no-action alternative.

Impairment. There would be no major adverse effects to a resource or value whose conservation is (1) necessary to fulfill the specific purposes identified in the park's enabling legislation, (2) key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or (3) identified as a goal in the park's General Management Plan or other relevant planning document, there would be no impairment of resources or values related to soundscapes.

Ethnographic Resources and Tribal Concerns

Under the no-action alternative, the road would remain closed beyond Matheny Creek Bridge, resulting in limited access to area tribes for their traditional access, fisheries management, and research. However, some tribal members could still hike into the area. This would result in minor to moderate adverse impacts to the affiliated tribes.

Cumulative Impacts. Other road closures outside the park may have led to reduced access to traditional use areas. Existing development and visitor use may interfere with traditional access. This has likely resulted in moderate, short- or long-term, adverse effects. The no-action alternative would contribute slightly to the cumulative effects, resulting in a short- and long-term, moderate, adverse cumulative effect.

Conclusion. Reduced traditional access by affiliated tribes would result in long-term, moderate, adverse effects. The tribes have been restricted from elsewhere in the region due to development and private property, road closures, and visitor use, resulting in short-

and long-term moderate adverse cumulative effects. The no-action alternative would contribute slightly to the cumulative effects, resulting in a short- or long-term, moderate, adverse cumulative effect.

Impairment. There would be no major adverse effects to a resource or value whose conservation is (1) necessary to fulfill the specific purposes identified in the park's enabling legislation, (2) key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or (3) identified as a goal in the park's General Management Plan or other relevant planning document, there would be no impairment of resources or values related to ethnographic resources and tribal concerns.

Visitor Experiences and Recreational Resources

Under this alternative, the road would remain closed to vehicles at the Matheny Creek Bridge and vehicular access would not be restored into the Queets area. This would prevent visitor access by vehicles to the Queets facilities and trailheads at the end of the road, as well as to the natural and cultural resources in the area. Campers would no longer be able to "car camp" but would instead be required to hike or use stock to gain access to the Queets River campground. Wilderness users would have an added 6-mile hike to their trip. Those persons wishing to fish would either have to hike the last 6 miles of road to access fishing sites, or boat up from downstream. Visitors with limited mobility may no longer be able to visit this area of the park.

Vehicles towing boats would not be able to reach the two boat ramps upstream from the slide. These limitations have a moderate to major adverse effect on those visitors who wish to gain access to the Queets area by vehicle. Those visitors who would prefer to hike the last 6 miles of road would benefit from the no-action alternative because the road would remain closed to vehicles.

Visitors and area residents who are affiliated with the historic homestead sites may not be able to access these sites without vehicular access.

By restricting opportunities in this area, visitors may be displaced to other areas of the park and adjacent lands, increasing the visitation in those areas, resulting in a minor impact to other visitors in those areas since the effect would be detectable but would likely result in a slight change in existing conditions.

Recreational resources, such as the trails at Queets, campground, and boat ramps, would not be maintained as frequently due to the lack of vehicular access to the area. This could result in the deterioration of the facilities and the conversion of the trail to a "way trail" because trail conditions may deteriorate. The campground may have to be closed, or may be modified to accommodate walk-in users. Overall, the no-action alternative would result in long-term, adverse, moderate impacts to the visitor experience and recreational resources in the Queets area.

Cumulative Impacts. Visitors on the Olympic Peninsula have been displaced in the region by past activities or events, including road closures due to washouts or flooding,

closures for resource protection, or logging. Currently ONP has a closure on the eastern portion of the park at Dosewallips Road, restricting vehicular access into National Forest and National Park lands. This means that currently within ONP, two of the nine interior access roads, or 22% of park interior roads, are closed. Other road closures outside the park have occurred and may occur in the future for resource protection and logging activities. Future temporary closures are possible as a result of high water or flood events. The current and future road closures would have moderate to major, adverse, short- and long-term effects on the visitor experience and recreational resources. The no-action alternative would have long-term moderate to major adverse contributions. In the event that more roads are closed in the future due to damage from high water or flood events, this, combined with the no-action alternative, could result in short- to long-term, major adverse cumulative effects to the visitor experience at ONP.

Conclusion. The no-action alternative would have a moderate to major long-term, adverse impact to visitors who wish to experience the Queets area resources by vehicle. Visitors who wish for the road to remain closed at the Matheny Creek Bridge would experience a major long-term beneficial impact as a result of this alternative. This alternative would impact visitor experiences for all visitors of the Queets, as the distribution of visitors utilizing vehicles for access would be restricted to the first 8 miles of road. This alternative would alter use in the area and may increase visitor numbers to other areas of the park. Recreational resources, including park trails and facilities in the Queets area, would not be maintained as frequently without vehicular access, therefore, this would result in long-term, adverse, moderate impacts to the recreation resources in the Queets area. Collectively these effects would cause long-term, major, adverse impacts to the visitor experience. Cumulative effects to the visitor experience and recreational resources from past, present, and reasonably foreseeable future actions, including the no action alternative, would be short- and long-term, major, and adverse.

Public Health, Safety, and Park Operations

The Queets Road provides access to the previously mentioned facilities. Allowing for emergency access to these areas is important to allow effective NPS response to medical emergencies, search and rescues, fires, and for facility and trail maintenance. Without vehicular access, helicopter use in the area would likely increase, both for emergency operations, and, if funding allows, for trail maintenance. Trails and facilities would not be maintained as frequently. Research and resource management in the area would be more challenging if researchers had to carry in their equipment. Heavier equipment could not be utilized, or helicopter transport would be necessary. Some resource management and research projects have been postponed due to the existing road conditions.

The closed portion of the road would deteriorate without periodic maintenance. Funds would be saved from reduced road maintenance, but this would be negated by the increased use of helicopters for support, resource management, and emergency services. The existing conditions constitute a long-term, negligible to minor adverse impact on public health and safety, and a long-term, moderate adverse impact on park operations.

Cumulative Impacts. Maintenance would continue on the open portion of the Queets Road, allowing vehicular access to the Matheny Creek bridge site. This would provide an access point to those who wish to utilize other methods of transportation on the last 6 miles of closed road. If landslides or erosion increases on the open or closed portion of the road, hazards could increase for visitors utilizing the road. Mitigation such as road warning signs, trail head signs and other forms of public information could reduce risks. Overall, the effect to public health and safety from past, present, and foreseeable future actions is adverse, minor, and long-term.

There would be no changes to park operations related to the maintenance of the first 8 miles of the Queets Road. The existing condition constitutes a long-term, negligible, adverse impact to park operations. Periodically, additional maintenance is required on the road and Matheny Creek Bridge due to erosion, landslides and flood events. This results in short-term, minor adverse impact to park maintenance operations.

Other current and future planned operations, either by the park, tribe, or other cooperators, include research, cultural resource management, and fisheries management. These projects could be adversely impacted by the lack of vehicular access to the Queets area. Equipment related to resource management and research may need to be transported to the site by helicopter if it is unable to be carried in to the site. Stock use to carry equipment is not likely to be available because the park priority for stock is trail maintenance and the lack of a stock trail to the site. Therefore, the costs associated with projects at the Queets are likely to increase under the no-action alternatives and some projects and research would be halted or cancelled. This would result in long-term, minor to moderate, adverse impacts to park, tribal and other cooperator's resource management and research projects. Because the no-action alternative would also constitute a long-term, minor to moderate adverse effect to park operations, the overall cumulative effect to park operations would be long-term, moderate, and adverse.

Conclusion. The future lack of maintenance on park facilities in the Queets area, including the trails, could result in long-term, minor adverse impacts to public health and safety due to deteriorating trail and facility conditions leading to the potential for more accidents in that area. The no-action alternative would result in a change to park operations because the last 6 miles of road would remain closed. Park operations related to emergency response, trail and facility maintenance, and resource management and research would be altered if the road remained closed. Since the road would remain closed to vehicle use, other methods would be employed for search and rescue and medical responses, and could include more frequent helicopter-assisted operations. The existing conditions constitute a long-term, minor adverse impact on public health and safety, and a long-term, moderate adverse impact on park operations. Cumulative effects from past, present, and reasonably foreseeable future actions, including the no action alternative, to public health and safety would be adverse, minor, and long-term. Cumulative effects to park operations, including the no-action alternative, would be long-term, moderate, and adverse.

Socioeconomics

No action would be taken under this alternative; therefore, 6 miles of the Queets Road would remain closed to vehicular access. This could result in reduced visitation to the Queets area, which could create a minor to moderate adverse impact on the local economies. Those who are used to accessing fishing sites along the entire 14 miles of the Queets Road may choose to fish elsewhere, resulting in reduced visitation during fishing season, and reduced input into the local economies from fishing. Due to the inability to access the campground at the Queets by vehicle, more Queets area visitors may stay outside the park at alternative campgrounds or motels, camp in the Quinault area, or visit other nearby areas of the park, which could slightly benefit the local communities.

Under this alternative, fishing guides in the Olympic Peninsula who have operating permits for areas inside the park would be further restricted because of their inability to access 6 miles of the Queets Road by vehicle. They would have limited river access points and only one boat ramp would be available for their use. This could result in short- and long-term, moderate to major adverse impacts to their businesses.

Cumulative Impacts. The principle economic base in the western portion of the Olympic Peninsula is forestry and wood product-related sectors (Stynes, et al. 2000). Tourism in the area can help the economy of this region. Tourism related jobs account for 7 to 10% of the jobs in the region and 3 to 5% of the overall economic output. Tourism from area visitors contributes to the local area economies, and fishing plays an important role in this contribution. Further decline in fishing and other recreational opportunities caused by current road closures, current and future fishing restrictions, and potential future road closures would result in a further decline in the economic conditions of the region, resulting in long-term, minor to moderate adverse impacts to the local economies in the west end of Jefferson County.

Conclusion. This alternative would adversely affect the socioeconomic resources of the area because it would likely result in less visitation to the Queets area and less tourist dollars spent in the region that has already experienced an economic decline. In addition, fishing guides in the area could experience a decline in their business because a portion of the Queets River formerly accessed by vehicles would only be accessible by hiking, or stock. Therefore, the cumulative effects of the no-action alternative, when added to the existing and potential future conditions, would result in long-term, adverse, moderate impacts to the area's socioeconomic resources.

ALTERNATIVE B: RESTORE INTERIM ACCCESS ON USFS AND DNR ROADS TO NPS BACK DOOR ROAD (PREFERRED ALTERNATIVE)

Vegetation

There is minimal annual vegetation growing within the road prism on the alternate road access within the NPS portion of the project area. Some clearing of roadside vegetation, including small trees (<11" DBH) and shrubs would be removed in the improvements to or construction of the six turnouts. Turnout areas would be selected based on line of sight and part of the criteria for their selection would be to keep any removal of vegetation to a minimum. The six turnouts that would be improved or constructed along

the NPS corridor would result in a disturbance of approximately 2,500 square feet (0.05 acres) of small trees, shrubs, grasses, and annual vegetation.

USFS and DNR lands
Under this alternative, small shrubs and vegetation, duff, and trees would be removed from the 400-foot section of road prism within the USFS and the first 100 yards of the DNR section of roadway, resulting in 0.18 acre of vegetation removed. The first 100 yards of DNR lands has similar plants growing on the roadway as the USFS portion of the roadway, including small alders, shrubs, and annual vegetation. No more than 30 alder trees (<8" DBH) would be removed within or along the road corridor and for bridge placement. Other plants that would be removed within the first portion of the roadway include annual vegetation and shrubs (See Appendix D for complete listing).

Federally Listed Species
There are no endangered or federally listed vascular plants, bryophytes, fungi or lichens documented or suspected on the Pacific Ranger District of the Olympic National Forest. There is one federally listed Endangered vascular plant, *Arenaria paludicola* (Marsh sandwort), that could occur on the Olympic National Forest (USDA 2004). It is, however, considered extirpated from the state of Washington. There are no known current or historical sites of this species within the proposed project area and due to lack of suitable habitat, it is not likely to occur. Therefore, there would be no impact to federally listed species from implementing this alternative.

Regional Forester's Sensitive and Survey & Manage Species
No Survey and Manage vascular plant species, bryophyte species, or lichens for Olympic National Forest were found in the proposed project area. No sensitive fungi species were documented as occurring in the project area. Although no species were found during the August 2006 survey, this alternative would remove 0.18 acres of potential habitat and could result in the removal of species that may occur within the project area. Because the project work occurs on an existing, but closed road, and it involves a small area, the impact would be negligible to minor and adverse.

Invasive Plants
No invasive vascular plants were documented in the project area. The project activities would disturb the surrounding area and increase the likelihood for invasive species to become established. By reopening the road to vehicle traffic, invasive plants and their seeds may be transported into the park on vehicles, increasing the risk for the spread of exotic plant species. This is not a new impact as vehicle use has historically occurred on the Queets Road. Post project monitoring would occur and treatment would be determined on a case-by-case basis.

The remaining 0.5 mile section of DNR road is in good condition, with very little vegetation on the roadway. The road width with shoulders is currently about 16 feet wide, with shoulders, and no additional turnouts would need to be constructed, resulting in no impacts to vegetation. Overall, the effects to vegetation from reopening the road into the Queets are long-term, negligible to minor and adverse.

Cumulative Impacts. Vegetation in the area has been impacted by logging and development within and outside the park boundaries. The construction of the original road and other development in the area such as trails, campgrounds, boat ramps and the ranger station has resulted in a permanent loss of vegetation. Logging occurred near or around the existing road between 1939 and 1954, but was halted once the ONP boundaries were expanded to include the Queets area. Logging still occurs outside park boundaries, and is likely to continue into the future. Road use and maintenance, within and outside park boundaries would continue to have negligible to minor adverse effects on vegetation in the Queets watershed. Non-native vegetation has been imported to the area, and could continue to spread.

On a park-wide scale, the implementation of the Fire Management Plan would help maintain a more natural fire regime than is possible under a program of total suppression. Natural fires would contribute to a diversity of vegetative mosaics, and help perpetuate fire-adapted species. In relatively wet areas, such as the Queets rainforest, where there is a very long fire return interval, little or no change in vegetation patterns would be expected. Suppression activities could require cutting vegetation for the construction of handlines or other containment measures. This alternative would not contribute to the cumulative effects.

The effects of these past, present, and reasonably foreseeable future actions have regional short- and long-term, minor to moderate adverse and beneficial impacts on vegetation. Since the preferred alternative would result in minor impacts, it would not contribute to the overall cumulative effects.

Conclusion. This alternative would require the permanent disturbance and removal of 0.23 acres of vegetation for restoring sight distances and reopening the existing USFS and DNR roads, resulting in long-term, negligible to minor, adverse impacts to vegetation. Since the preferred alternative would result in negligible to minor impacts, it would not contribute to the overall cumulative effects.

Impairment. There would be no major adverse effects to a resource or value whose conservation is (1) necessary to fulfill the specific purposes identified in the park's enabling legislation, (2) key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or (3) identified as a goal in the park's General Management Plan or other relevant planning document, there would be no impairment of resources or values related vegetation and soils.

Wildlife and Wildlife Habitat

During the reopening of the roadway, some wildlife, particularly small mammals and birds, would be temporarily displaced or forced to relocate outside the project limits. This would increase the potential for predation and competitive stress. Direct mortality could occur in the rare circumstances when wildlife is unable to move away from equipment. The displacement could result in a slight population depression adjacent to the road corridor.

Wildlife in the area would be adversely affected by the noises from equipment used during the project work. There would be negligible to minor adverse impacts to area wildlife from reopening the road to vehicular traffic, which would place wildlife at risk from collisions with automobiles, and disturbance associated with vehicle use and noise.

Approximately 0.04 acre of wildlife habitat would be removed under this alternative to construct pullouts on the NPS portion of the roadway. Mitigation would be implemented to assure that construction activities do not interfere with breeding animals of concern, or animals in particularly vulnerable life stages. In addition, this project would not threaten the continued existence of any wildlife in the region. Therefore, the impacts to wildlife and wildlife habitat from the project would be adverse, negligible to minor, and short- and long-term.

USFS and DNR lands

Under this alternative, approximately 0.23 acres of wildlife habitat within the existing road prism and along the existing road corridor would be removed as a result of reopening the DNR and USFS portions of the road. The removal of 30 alder trees would not result in a loss of high quality wildlife habitat, but could adversely affect small mammals and birds. However there is adequate habitat nearby for these species, and the impact would be short-term, minor, and adverse.

Regional Forester's Sensitive and Survey and Manage Species – Mollusks

The project area provides potential habitat for four species of mollusks on the Regional Forester's Sensitive and Survey and Manage Species, however, none were found within the areas surveyed. This project would result in the removal of 0.18 acres of potential habitat within the USFS portion of this project. Because the project occurs on an existing but closed road, and the amount of habitat to be removed is very small, this project would result in a negligible to minor adverse impact to mollusks.

Regional Forester's Sensitive Species
Four of the eight species on the Regional Forester's Sensitive Species List have habitat within the project area – Van Dyke's salamander, Cope's giant salamander, Olympic torrent salamander, and American peregrine falcon. This project would remove 0.18 acres, some of which is considered habitat for these species. Because the project occurs on an existing but closed road, and the amount of habitat to be removed is very small, this project would result in a negligible to minor adverse impact to species on the Sensitive Species List.

Management Indicator Species
It is likely that several of the Management Indicator Species are present within or adjacent to the project area. This project would result in the direct removal of 0.18 acres of habitat from the reopening of the roadway. While the habitat in and directly adjacent to the roadway consists primarily of red alder, shrubs, and annual vegetation, there is adequate habitat nearby to support Management Indicator Species, including woodpeckers, brown creeper, northern flying squirrel, Roosevelt elk, and blacktail der.

Wildlife in the area would be adversely affected by the noises from equipment used during the project work. There would be negligible to minor adverse impacts to area wildlife from reopening the road to vehicular traffic, which would place wildlife at risk from collisions with automobiles, and disturbance associated with vehicle use and noise.

Approximately 0.18 acre of wildlife habitat would be removed under this alternative for the reopening of the roadway. Mitigation would be implemented to assure that construction activities do not interfere with breeding animals of concern, or animals in particularly vulnerable life stages. In addition, this project would not threaten the continued existence of any wildlife in the region. Therefore, the impacts to Management Indicator Species and their habitat from the project would be adverse, negligible to minor, and short- and long-term.

Cumulative Impacts. Wildlife in the area has been and continues to be impacted by noise, human presence and habitat fragmentation associated with development, logging, road construction, use and maintenance, and recreational activities, within and outside park boundaries. Fire management activities could result in disturbance, displacement, and direct mortality to wildlife and temporarily remove habitat through burning. However, allowing some wildland fire to occur is expected to increase landscape heterogeneity and consequently improve overall wildlife biodiversity at the landscape scale over the long term.

The effects of these past, present, and reasonably foreseeable future actions are short- and long-term, negligible to minor, adverse and beneficial impacts on wildlife in the project area and region. Since the effects associated with alternative B are negligible to minor, they would not contribute to the overall cumulative effects.

Conclusion. This alternative would impact 0.23 acres of wildlife habitat due to the removal of vegetation within and along the existing road prism. Wildlife could be

adversely affected by construction activities, construction-related noise, and subsequent road use by vehicles. The reopening of the road would continue to impact area wildlife from noise and the presence of vehicles as it did prior to the slide out. There would be no cumulative effects to wildlife.

Impairment. There would be no major adverse effects to a resource or value whose conservation is (1) necessary to fulfill the specific purposes identified in the park's enabling legislation, (2) key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or (3) identified as a goal in the park's General Management Plan or other relevant planning document, there would be no impairment of resources or values related to wildlife and wildlife habitat.

Unique or Important Fish or Fish Habitat, Including Listed Fish Species
There are no stream crossings within the NPS portion of the project. Periodic road maintenance activities would commence on the upper Queets Road with restored access. This would result in reduced risk of erosion and fewer areas of instability, resulting in improved roadway conditions. While major washouts and flooding could still occur, periodic maintenance would lead to short- and long-term, minor to moderate beneficial effects to fisheries resources from preventing increased turbidity and sedimentation in the Queets River.

DNR and USFS Lands
Under this alternative, a stream crossing would be constructed on DNR lands. This involves placing a 30-foot prefabricated bridge over the crossing during low water periods. Because no instream work would be required, and the bridge would be constructed to fish passage standards, no impacts to listed fish species would occur because of the project work. There are no stream crossings on the USFS portions of the project.

Under this alternative, there is the potential to increase sediment loads in the Queets River or its tributaries through increased vehicle traffic on the existing USFS or DNR roads. However, it is also important to note that the increase in this source of sediment may be more than off-set by the fact that the USFS road is paved for much of its length, unlike the existing Queets Road within the park, and could result in an overall reduction on sediment as a result of vehicle traffic.

Cumulative Impacts. Fisheries resources in the area would continue to be impacted by existing roads, development, logging, and maintenance activities near the Queets River or its tributaries, resulting in short- and long-term, minor to moderate adverse effects.

Most of the areas around rivers and streams are not within the wildland fire use zone due to protective measures implemented through consultation with NOAA Fisheries and the USFWS. Therefore, implementation of the fire plan would have inconsequential effects on the fisheries resources of the Queets watershed.

Reinstituting road maintenance activities past the slide out area could result in both adverse and beneficial effects. Road maintenance activities including cleaning out

culverts and ditchlines could result in improved drainage, reducing the potential for erosion. This would result in short- and long-term minor to moderate beneficial impacts to fisheries resources due to reduced erosion. However, there is the potential that periodic naturally occurring flood events could result in increased runoff and erosion, potentially increasing the turbidity of a localized area of the river, resulting in short-term, minor, adverse impacts. This impact can be mitigated by scheduling maintenance activities during dry periods, but this is not always possible if flood events have occurred.

Since this alternative would have negligible to minor impacts to fish habitat, it would not contribute to the cumulative effects.

Conclusion. Under alternative B, there would be no impact to fish habitat from the placement of a stream crossing and no impact to listed fish species. Past, present, and future foreseeable project work in the area would lead to short- and long-term, minor, adverse impacts, and minor to moderate beneficial impacts to the fisheries resources in the river. Since this alternative would have no impact to fisheries or aquatic resources, it would not contribute to the cumulative effects.

Impairment. There would be no major adverse effects to a resource or value whose conservation is (1) necessary to fulfill the specific purposes identified in the park's enabling legislation, (2) key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or (3) identified as a goal in the park's General Management Plan or other relevant planning document, there would be no impairment of resources or values related to fisheries resources within the park.

Threatened and Endangered Species

Along the NPS portion of the road, most of the corridor is second growth forest, with several suitable nesting trees near the main Queets Road. Under the preferred alternative, no suitable marbled murrelet habitat or potential dispersal habitat for northern spotted owl would be removed as a result of project work. No project work would occur in habitat during nesting season.

With the reopening of the road, disturbances associated with traffic noise (e.g. displacement or disruption) would occur on a corridor that was previously closed to traffic and could result in a slight disturbance associated with noise from vehicle use. However, because this area with suitable nesting habitat is near the existing Queets Road, where vehicle traffic occurred in the past, and traffic levels will likely remain low, this would result in minor adverse impacts to listed birds from harassment resulting in a may affect, but not likely to adversely affect determination.

DNR and USFS Lands

The corridor on USFS and DNR roads are not considered suitable nesting habitat for murrelets as the habitat is second growth forest and alder trees. These areas are considered Young Forest Marginal spotted owl habitat. Neither area provides suitable nesting habitat for northern spotted owl or marbled murrelet, but it is considered suitable foraging habitat. The project would be timed to avoid the most critical seasons for owls

and murrelets, but the presence of traffic and noise could result in a long-term adverse effect to these species. However, because this is a low use area, not a nesting area, and the birds will likely become accustomed to the noise or move to available habitat nearby, the impact would result in no effect to listed bird species on DNR and USFS lands.

Cumulative Impacts. Threatened and endangered species, specifically the marbled murrelet and northern spotted owl, are impacted in the Queets area and ONP by noise, human presence, development, and habitat fragmentation due to development and road construction. These species are impacted on the Olympic Peninsula by these same activities plus logging and development on federal, tribal, state, and private lands.

The implementation of the park fire management plan could result in short- and long-term, moderate, adverse effects to marbled murrelets as a result of loss of habitat and loss of nests and nest sites. In the long-term, as natural processes are restored, habitat could improve in wildland fire use zones for listed species, resulting in minor to moderate beneficial cumulative effects. Overall, these effects have resulted in short- and long-term, moderate, adverse impacts on threatened and endangered species on the Olympic Peninsula, and minor impacts within ONP. This alternative would result in negligible effects, and would not contribute to the cumulative effects.

Conclusion. The preferred alternative would result in a measurable, but small and localized, change to the species from harassment impacts due to road traffic noise, resulting in long-term, negligible, adverse effects. Because of the available habitat nearby, and the expected low use of the roadway, this alternative would result in a "may affect, but not likely to adversely affect" determination for marbled murrelets and northern spotted owls. This alternative would result in negligible to minor effects, and would not contribute to the cumulative effects.

Impairment. There would be no major adverse effects to a resource or value whose conservation is (1) necessary to fulfill the specific purposes identified in the park's enabling legislation, (2) key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or (3) identified as a goal in the park's General Management Plan or other relevant planning document, there would be no impairment of resources or values related to threatened or endangered species.

Water Quality

Reopening the road would allow the NPS to conduct periodic maintenance on the roadway, including the upper Queets Road. This maintenance is conducted to clear culverts and drainage ditches, and results in improved conditions water resources in the long-term by preventing slides that would be caused by plugged culverts and drainage ditches.

DNR and USFS

There would be no instream work involved with the placement of the bridge across Phelan Creek, and mitigation and best management practices would be imposed to reduce

the potential for erosion and runoff from project activities adjacent to the stream. Therefore, this alternative would result in negligible adverse effects to Phelan Creek.

Cumulative Impacts. In the future, the alternative access route would undergo annual grading and road maintenance work to maintain road drainage and reduce erosion. Reinstituting road maintenance past the slide out area on the existing Queets Road could result in both adverse and beneficial effects to water quality in the area. Road maintenance activities including cleaning out culverts and ditchlines, could result in improved drainage, reducing the potential for erosion. This would result in short- and long-term minor to moderate beneficial impacts to water resources due to reduced erosion. However, there is the potential that grading operations near the river, and periodic naturally occurring flood events could result in increased runoff and erosion, potentially increasing the turbidity of a localized area of the river, resulting in short-term, minor, adverse impacts. This impact can be mitigated by scheduling maintenance activities during dry periods, but this is not always possible if flood events have occurred.

Conclusion. The reopening of the roads would have no effect to water resources. The ongoing and potential future activities within and outside park boundaries, plus the natural sources of turbidity that are likely to occur in the future, would result in minor to moderate, short-term, adverse cumulative impacts to water quality. This alternative would not contribute to these cumulative effects.

Impairment. There would be no major adverse effects to resources or conservation values under alternative B, therefore, there would be no impairment of resources or values related to water quality resources.

Soundscape

Project activities would create temporary, moderate impacts on the natural soundscapes on and adjacent to the road corridor from the use of construction equipment. Other maintenance and operational activities would occur on the road and in the developed area and would also generate noise. However, these activities would be short-term, resulting in minor to moderate, temporary, adverse impacts to the natural soundscape. There would be long term minor adverse impacts to the soundscape by reopening a closed road to vehicular traffic.

Table 5. Equipment type and time of use for alternative B

Equipment Type	Work Task	Estimated Time of Use
Pickup truck, dump truck, brush chipper, bucket truck	Brushing and removing obstructions	Intermittently over a period of three days
Chainsaw	Brushing and removing obstructions	Intermittently over a period of three days
Dump truck, a motor grader and a loader	Grade and resurface roadway; Restore roadside ditches and	Intermittently over a period of 7 days.

	shoulders	
Pickup truck, dump truck, brush chipper, chain saw, bucket truck, grader and loader	Improve existing pullouts	Intermittently over a period of 7 days
Excavator, backhoe, dump truck, stake truck and vibratory tamper.	Install Bridge	Intermittently over a period of 2 weeks.
Hand tools, welder, backhoes, boom trucks or similar machinery.	Gate and Berm Installation	Intermittently over a period of 2 weeks.
Pickup truck, grader, loader, dump truck, backhoe, chainsaws, brush chipper, bucket truck, excavator and bulldozer, welder for gate installation/repairs	Future road maintenance activities	3 to 4 days, once or twice a year

Table 6. Equipment and Average A-Weighted Noise Level

Equipment	**Decibel Ranger**
Tracked Excavator	62-75 db at 300’
Bulldozer	72-98 db at 50’
End Loader	72-99 db at 50’ 50-61 db at 0.75 mile
10-yard Dump Truck	70-96 db at 50’
Chainsaw	78 db at 75’
Vehicles – Pickup driving	60-84 db at 0’
Sources: Handbook of Noise Control, Cyril M. Harris 1979, Table 3.11-1 *U.S. Forest Service Programmatic Biological Assessment for Forest Management, Appendix* G	

Cumulative Impacts*:* Park operations would resume to their preexisting levels with scheduled road and facility maintenance each spring and subsequent maintenance and roadwork as needed in the spring, summer, and fall. Equipment utilized during this project work includes graders, backhoes, power washers, chain saws, trucks, hand tools, and other mechanized equipment. This equipment use creates noise, but only temporarily in a developed area where a certain amount of human generated noise is expected. Noise related to visitor use of the road, campground, and facilities would resume to pre-road closure levels. Noise would not be generated throughout the entire day and would rarely occur at night, and is of little consequence to the visitor experience or biological resource, resulting in minor, temporary, adverse effects. Ambient noise from logging activity in the vicinity of the Queets area, and traffic from Highway 101 would still be present, resulting in negligible, short-term, adverse effects. Because these effects would occur

after project work is completed, this alternative would not contribute to the cumulative effects.

Conclusion. Reopening previously closed roads would create minor to moderate, temporary, adverse impacts to the natural soundscape from construction, and long-term minor to moderate adverse impacts from the use of the road by vehicles. The cumulative effect of present and future foreseeable activities outside park boundaries would have a short-term negligible, adverse impact on the soundscape along the road corridor, in the developed area, and in areas near park boundaries. There would be no contribution to the cumulative effects from this alternative since the impacts from the road construction would be temporary and would not occur in the same location and during the same time period as the other present and future actions.

Impairment. There would be no major adverse effects to a resource or value whose conservation is (1) necessary to fulfill the specific purposes identified in the park's enabling legislation, (2) key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or (3) identified as a goal in the park's General Management Plan or other relevant planning document, there would be no impairment of resources or values related to soundscapes.

Ethnographic Resources and Tribal Concerns
Under this alternative, vehicular access would be restored to the upper Queets, which would allow tribal members access for traditional access, fisheries management and research. This would result in minor to moderate, beneficial effects to the affiliated tribes.

Cumulative Impacts. Other road closures outside the park may have led to reduced access to traditional use areas. Existing development and visitor use may interfere with traditional access. This has likely resulted in moderate, short- or long-term, adverse effects. The preferred alternative would reopen access and would not contribute to these cumulative effects.

Conclusion. Restoring access would result in minor to moderate beneficial effects to affiliated tribes. This alternative would not contribute to the overall cumulative adverse effects.

Impairment. There would be no major adverse effects to a resource or value whose conservation is (1) necessary to fulfill the specific purposes identified in the park's enabling legislation, (2) key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or (3) identified as a goal in the park's General Management Plan or other relevant planning document, there would be no impairment of resources or values related to ethnographic resources and tribal concerns.

Visitor Experiences and Recreation Resources
Alternative B would reopen vehicular access to the trailhead, campground, and two boat ramps. Visitors, including those with limited mobility, would be able to access the upper Queets Road by vehicle. The campground would reopen and car camping opportunities

would be available. This alternative would improve vehicular access, thus improve the visitor experience and recreational opportunities for some visitors.

Visitors who would prefer that the road remained closed to vehicles would not be satisfied with this alternative as they would no longer have the opportunity to explore the last 6 miles of Queets Road on foot without the presence of vehicles.

Visitors and area residents who are affiliated with the historic homestead sites would again be able to utilize the Queets Road by vehicle to access these sites.

Recreational resources, such as the trails at Queets, campground, and boat ramps, would again be maintained because vehicular access would be restored, resulting in beneficial effects. Overall, this alternative would result in long-term, moderate beneficial effects to the visitor experience and recreational resources in the Queets area, and minor to moderate adverse effects to those visitors who preferred that the road remained closed to vehicles.

Cumulative Impacts. Visitors on the Olympic Peninsula have been displaced in the region by past activities or events, including road closures due to washouts or flooding, closures for resource protection, or logging. Currently ONP has a closure on the eastern portion of the park at Dosewallips Road, restricting vehicular access into National Forest and National Park lands. This means that currently within ONP, two of the nine interior access roads, or 22%, are closed. Other road closures outside the park have occurred and will likely occur in the future for resource protection and logging activities. Future temporary closures are possible as a result of high water or flood events. The current and future road closures would have moderate to major, adverse, short- and long-term effects on the visitor experience and recreational resources. This alternative would restore access to one of the two closed roads in the park, which would benefit the visitor experience and recreational resources, and would not contribute to the adverse cumulative effects.

Conclusion. Under this alternative visitor experiences will be both beneficial and adverse, depending on the recreation user. This alternative would not contribute to the cumulative effects.

Public Health, Safety, and Park Operations

Allowing vehicular access to the trailhead and facilities at the end of the Queets Road would allow a more effective NPS response to medical emergencies, search and rescue, and fires, and also improved access for research, resource management, and facility and trail maintenance. This would create a long-term, minor to moderate beneficial effect to public health, safety, and park operations.

Cumulative Impacts. Maintenance operations would resume to their pre-closure levels on the two stretches of the Queets Road and in the developed area. Periodically, additional maintenance and repairs are required on the road due to erosion, landslides and flood events. The existing and future project work constitutes a long-term, negligible, adverse impact to park operations.

Other current and future planned operations, either by the park, tribe, or other cooperators, include research, cultural resource management, and fisheries management. These projects would benefit from the restoration of vehicular access to the Queets area. This would result in long-term, minor to moderate, beneficial effects to park, tribal, and other cooperator's resource management and research projects. There would be no cumulative effects from restoring road access.

Conclusion. This alternative would create a long-term, minor to moderate beneficial effect to public health, safety, and park operations from restoring vehicular access to the Queets area. There would be no cumulative effects.

Socioeconomics

According to area rangers, visitation to the Queets area has decreased with the road closure. Restoring road access could result in increased visitation to the Queets, which could create minor to moderate beneficial effects to the local economies, primarily during the busy seasons (fishing season and summer use). Reopening the campground could result in decreased camping or overnight occupancy in facilities outside the park, which could adversely affect the local communities.

Under this alternative, fishing guides in the Olympic Peninsula who have operating permits for areas inside the park would no longer be restricted and could access the most of the Queets Road by vehicle. Restoring road access would provide fishing guides with the opportunity to utilize the boat ramps and facilities in the park, resulting in long-term, minor beneficial effects to their businesses.

Cumulative Impacts. The principle economic base in the western portion of the Olympic Peninsula is forestry and wood product-related sectors (Stynes, et al. 2000). Tourism in the area can help the economy of this region. Tourism related jobs account for 7 to 10% of the jobs in the region and 3 to 5% of the overall economic output. Tourism from area visitors contributes to the local area economies, and fishing plays an important role in this contribution.

Overall, restoring vehicular access would result in beneficial effects to the local economies and would not add to the cumulative adverse impacts.

Conclusion. Restoring vehicular road access as proposed by this alternative would have a long-term, minor, beneficial cumulative effect on the local economies, including permit holders who utilize the river for their guided trips. There would be no cumulative effects associated with implementing this alternative.

CONSULTATION AND COORDINATION

A press release was circulated on July 20, 2005, requesting scoping comments related to maintaining visitor access along the Queets Road. The press release was sent to 64 media outlets, interested groups, public official, agencies, and individuals in the Puget Sound and Olympic Peninsula area. The press release was also distributed via email to individuals on the ONP electronic mailing list. A follow-up letter was sent to 87 individuals, organizations, businesses and agencies on August 2, 2005 requesting input on issues and concerns relating to the Queets Road. A total of 50 commentors responded with scoping comments.

An additional press release was provided to area media on January 18, 2006 to provide an update on the current conditions at Queets, and inform the public of the additional slide activity and hazards.

Agencies and organizations contacted to assist in identifying issues and provided an opportunity to review or comment on this environmental assessment include, but are not limited to, the following:

Federal Agencies

Department of Agriculture, U.S. Forest Service
Olympic National Forest

Department of Commerce
National Oceanic and Atmospheric Administration

Department of Interior
U.S. Fish and Wildlife Service, Western Washington Office

Department of Transportation
Federal Highways Administration

U.S. Army Corps of Engineers

Congressional Representatives

Senator Parry Murray
Senator Maria Cantwell
Rep. Norm Dicks
Rep. Lynn Kessler
The Honorable Jim Hargrove

State Agencies

Department of Natural Resources
Department of Ecology
Department of Fish & Wildlife
Department of Park & Recreation

Office of Archaeology and Historic Preservation

Local Agencies

Forks Chamber of Commerce
Grays Harbor Chamber of Commerce
Grays Harbor County Commissioner
Jefferson County Commissioners
City of Sequim
City of Forks
City of Hoquiam

American Indian Tribes

Hoh Tribal Business Council
Quinault Indian Nation

Other Groups and Individuals

Eastern Washington Steelhead Foundation
Federation of Fly Fishers
Institute for Policy Research
National Parks and Conservation Association-NW regional District
Northwest Ecosystem Alliance
National Audubon Society
Olympic Park Associates
Olympic Peninsula Intertribal Cultural Advisory Committee
Protect the Peninsula's Future
Quinault Community Action Forum
Sierra Club- Cascade Chapter
Sunnydell Shooting Grounds
The Wilderness Society
Washington Environmental Council
Washington's National Park Fund
Wilderness Watch

Area Libraries

North Olympic Library System
- Port Angeles Branch
- Sequim Branch
- Forks Branch

Timberland Regional Library
- Aberdeen Branch
- Amanda Park Branch
- Hoquiam Branch

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APPENDIX A – SEPA CHECKLIST

WAC 197-11-960 Environmental checklist.

ENVIRONMENTAL CHECKLIST

Purpose of checklist:

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Use of checklist for nonproject proposals:

Complete this checklist for nonproject proposals, even though questions may be answered "does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer," and "affected geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable:

Restore Interim Access to the Queets Area, Olympic National Park

2. Name of applicant: National Park Service, Olympic National Park
3. Address and phone number of applicant and contact person:
William Laitner, Superintendent
600 East Park Avenue
Port Angeles, WA 98362
360-565-3004

4. Date checklist prepared: November 14, 2006
5. Agency requesting checklist: Department of Natural Resources
6. Proposed timing or schedule (including phasing, if applicable):
Project would commence after the completion of an environmental assessment, which is likely to occur by January 2007.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.
No.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.
An environmental assessment is being prepared for this project and is attached.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

Yes, the National Park Service is working with DNR and the USFS to restore public access on their roadways adjacent to Olympic National Park in the Queets area.

10. List any government approvals or permits that will be needed for your proposal, if known.
Special Use Permit from USFS; Permit with DNR.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

The Queets Road has access points from existing USFS and DNR roads. The roads considered for restoring access into the Queets area are USFS Roads 21 and 2180 (both currently open to the public), connecting to the 2180-010 road and DNR Road FR-Q-2100 that leads to the NPS back access road, sometimes referred to as the "back door road." Currently, about 400 feet of the 2180-010 road on USFS lands is closed to vehicular access at 0.5 mile of the road is closed on DNR lands. The NPS back door road is closed and gated at the NPS boundary and at the Queets Road. These roads have been used in the past for access by park staff, for emergency and administrative purposes, and when flooding or washouts have occurred along the first 10.5 miles of the Queets Road.

The DNR portion of the 2180-010 road was decommissioned several years ago when logging operations were completed in the area. The decommissioning work involved removing a culvert, gating the area, and constructing berms and "tank traps." No maintenance has occurred on the closed portion of the DNR road or the NPS road in several years.

The road system is confusing, there are many spurs, and road users not familiar with the area could easily become lost. Therefore, a sign plan would be developed to assist road travelers going into the Queets.

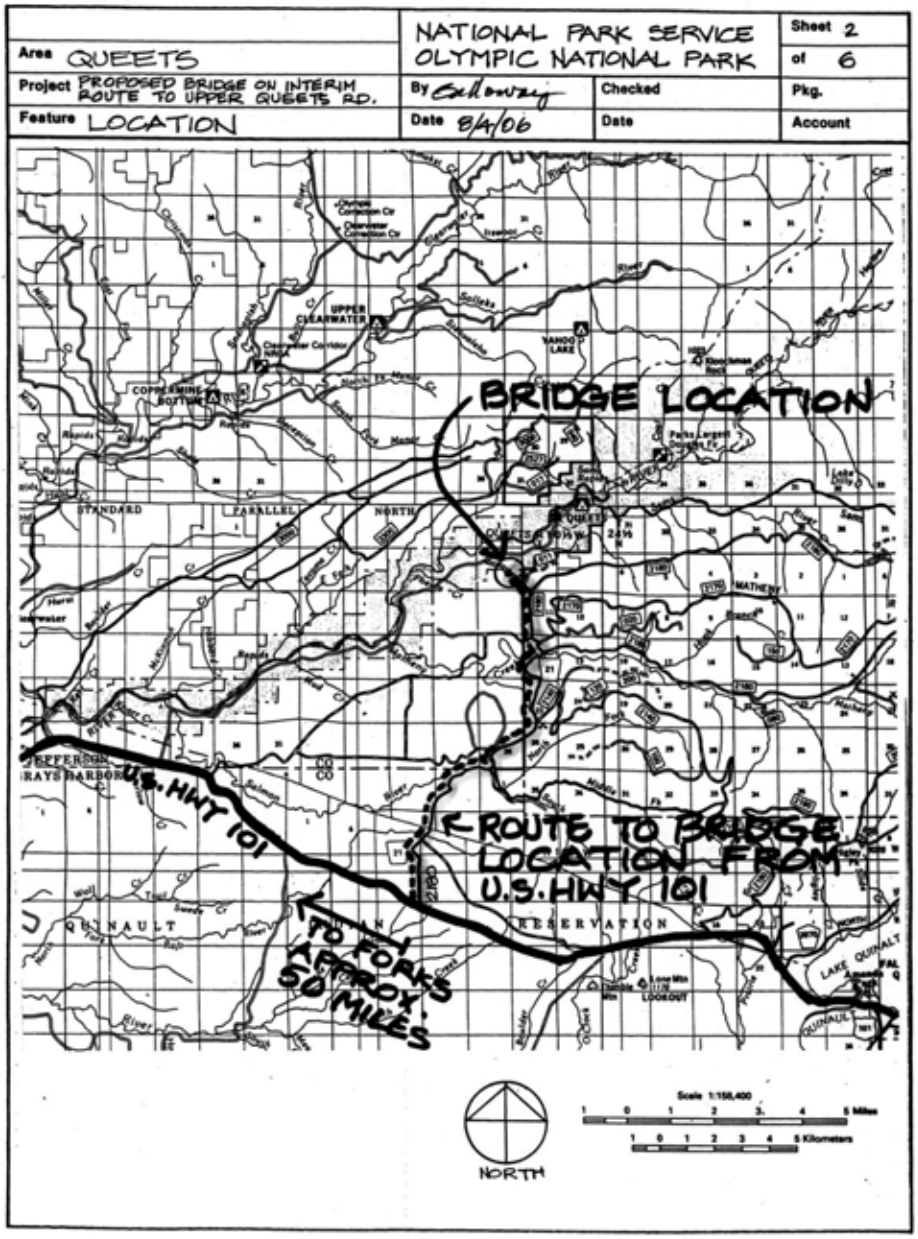
Under this alternative, the NPS would improve the 2180-010 and NPS access road as necessary to public safety standards. The DNR and NPS portion of the roadways require little work to bring them to public safety standards. The road would be improved and maintained for high clearance vehicles and not recommended for passenger cars.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit

any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

Project Location: DNR Road 2180-010 off Road 2180 and 21 West Boundary Road, Queets, Jefferson County, WA 98331

SE Section 12 T24 N R11W



B. ENVIRONMENTAL ELEMENTS

1. **Earth**

a. General description of the site (circle one): Flat, rolling, hilly, steep slopes, mountainous, other . . . . . .

Flat

b. What is the steepest slope on the site (approximate percent slope)? Unknown – the roadway is relatively flat.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.
The project occurs on an existing logging road. Soils are generally gravel. There is no farmland.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.
Not in the immediate vicinity on DNR lands.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.
The DNR portions of the roadway would require filling water bars and reshaping the road surface. The estimate to complete the remaining surface restoration is 3 to 4 days. Equipment used for these activities would include a grader, loader and dump truck. Gravel would be hauled in to resurface the roadway at the bridge site for the bridge approach (75 cubic yards). The other portion of the DNR road would be regraded and resurfaced with road surfacing rock where needed (approximately 100 cubic yards of crushed rock).

Restoring roadside ditches and shoulders would include pulling and cleaning roadside ditches and sloping of shoulders as required, but only to the degree necessary to remove major obstructions (shoulder and ditch maintenance would be done when ditches are dry). Equipment used for these activities would include a grader, loader and dump truck.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.
No.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?
None

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:
All work would occur on existing roadways. The road would be reshaped to restore the crown and drainage. Roadside ditches would be cleaned and maintained to remove major obstructions. This would occur during dry conditions.

Air

a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

The use of heavy equipment for recontouring and grading activities could create negligible adverse effects to air quality on a temporary and localized basis in the project area. Vehicles traveling to the park on this road would result in additional emissions in the air, but this would be slight and negligible. These would result in less than minor impacts and quantities of emissions are inconsequential.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

Fugitive dust would be controlled by periodic water sprinkling as necessary. Construction vehicle engines would not be allowed to idle for extended periods of time.

3. **Water**

a. Surface:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

The project would involve placing a prefabricated bridge over Phelan Creek, which flows into the Queets River. It is an intermittent stream.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

The NPS would install a prefabricated bridge over the creek. The bridge is necessary to replace a culvert that was previously removed when the road was closed. Design and installation of the bridge would meet fish passage guidelines established by Washington Department of Fish and Wildlife (WDFW). The WDFW and the NPS determined that the bankfull width of the creek was 15 feet; therefore, the bridge would need to be at least a 20-foot span. The plans call for a 35-foot bridge resulting in a 30-foot span. In addition, the design would allow the NPS to conduct work outside the ordinary high waterline of the creek, with no instream work necessary.

A. The total length of the bridge superstructure would be 35 feet. The clear horizontal width would be 15 feet.
B. The bridge would be an open “pony” truss design with one diagonal per panel, with a treated timber deck, and with the floor system at (or very near) the bottom of the trusses. The top chord shall be parallel with the bottom chord. For maximum waterway opening, the bottoms of the floor beams (or other structural floor members) shall not be more than 3 inches higher or lower than the bottoms of the chords.
C. Wood decking material would be normal 6” X 14” No. 1 grade West Coast Douglas Fir, treated with Copper Naphthenate to above ground conditions according to the American Wood Preserves Association. Prior to treatment of timbers, manufacturer shall shape/cut timbers to exact length and drill holes as need to receive required bolts, so treatment will penetrate all exposed surfaces.
D. The process of wood treatment would use Best Management Practices to assure a clean product and minimize the potential for chemicals to enter the aquatic environment.

Bridge site plans are attached.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.
None.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.
No.

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.
No.

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.
No

b. Ground:

1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.
No.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.
None.

c. Water runoff (including stormwater):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

There are current drainage ditches on the side of the roadway that will be maintained to allow for surface water runoff from the road.

2) Could waste materials enter ground or surface waters? If so, generally describe.
No.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:
The bridge shall be designed to accommodate 100-year flow events and maintain fish passage for juvenile and adult salmonids, based on WDFW's Fish Passage Design at Road Culverts.

Silt fencing would be installed along the perimeter of all disturbed areas around the bridge.

All disturbed soil will be protected from erosion by erosion control matting and/or other erosion control measures where appropriate. Disturbed soils will be replanted with either sterile grass seed, native grass seed or materials removed from the site prior to work and replaced later.

The cleaning of drainage structures would be done using hand tools in the short term, followed by treatment with heavy equipment, if necessary, after the water level has receded. If water is flowing through a conveyance, only floating and suspended debris would be removed.

No instream work would occur during this activity.

4. **Plants**

a. Check or circle types of vegetation found on the site:

X deciduous tree: alder, maple, aspen, other
X evergreen tree: fir, cedar, pine, other
X shrubs
X grass
——— pasture
——— crop or grain
X wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other (at Phelan Creek)
——— water plants: water lily, eelgrass, milfoil, other
——— other types of vegetation

b. What kind and amount of vegetation will be removed or altered?
Small shrubs and vegetation, duff, and trees would be removed from the road prism within the first 0.25 mile of the DNR section of roadway. No more than 30 alder trees (<8" DBH) would be removed within or along the road corridor and for bridge placement. Other plants that would be removed within the first portion of the roadway include annual vegetation and shrubs. The remaining 1-mile section of DNR roadway is in good condition, the road width with shoulders is currently about 16 feet wide, with shoulders, and no additional turnouts would need to be added. No vegetation would be removed from this area.

c. List threatened or endangered species known to be on or near the site.
No listed threatened or endangered plant species are located in the project site.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:
Undesirable (exotic and invasive weeds) plant species would be controlled in high-priority areas and other undesirable species would be monitored and controlled, as necessary.

To prevent the introduction of, and minimize the spread of non-native vegetation and noxious weeds, the following measures would be implemented during construction:

- Minimize soil disturbance.
- Pressure wash and/or steam clean all construction equipment, except hauling vehicles, before entering the Park to ensure that all equipment, machinery, rocks, gravel, or other materials are cleaned and weed free before entering Olympic National Park.
- Pressure wash hauling vehicles before entering the Park for the first time; subsequent entries would not require pressure washing unless the vehicle shows signs of mud, plant material, or other substances that could be considered harmful.
- Cover all haul trucks bringing fill materials from outside the Park to prevent seed transport.

5. **Animals**

a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:

birds: hawk, heron, eagle, songbirds, other:
mammals: deer, bear, elk, beaver, other: Elk sign has been noted in the project area.

fish: bass, salmon, trout, herring, shellfish, other:

Mammals
The Columbia black-tailed deer (*Odocoileus hemionus columbianus*) and the Roosevelt elk (*Cervus elaphus*) are two common ungulates in the Queets area. Black bear (*Ursus americanus*), cougar (*Felis concolor*), and raccoon (*Procyon lotor*) are also know to inhabit the temperate rainforest (NPS 2005). Though no surveys have been completed in the project site, the most common bats within the park that may utilize this area include the little brown bat (*Myotis lucifugus occultus*), big brown bat (*Eptesicus fuscus*), and Yuma myotis (*Myotis yumanensis*).

Birds
Both resident and migratory birds are found within the boarders of Olympic National Park. Common bird species found in the temperate rainforest include gray jay, dark-eyed junco, American dipper, and the chestnut-backed chickadee.

Amphibians
During the rainy season, sag ponds can form in the forests along the road and these provide habitat to aquatic species such as red-legged frogs.

Fish
Though no studies or surveys have occurred, WDFW and NPS biologists met on site and determined that the following fish could use Phelan Creek: Coho Salmon, Steelhead, Rainbow Trout, Cutthroat Trout, Lamprey, and Sculpin. The creek could also be accessible to Bull Trout but that is unlikely.

b. List any threatened or endangered species known to be on or near the site. Marbled murrelets could use the area as a foraging area. However, most of the area adjacent to the reroute within and outside the park is second growth forest that is not currently suitable for nesting habitat.

c. Is the site part of a migration route? If so, explain.
Unknown.

d. Proposed measures to preserve or enhance wildlife, if any:

Park would be required to maintain strict garbage control so that scavengers (e.g., corvids) are not attracted to the project area. No food scraps would be discarded or fed to wildlife. In potential marbled murrelet habitat, schedule project to minimize potential adverse impacts to marbled murrelets, prior to or late in the breeding season.

To protect marbled murrelets during sensitive feeding periods, construction activities would not start until two hours after sunrise and would stop two hours before sunset between April 1 and September 15.

No work would occur within the stream. Erosion control measures and BMPs would be used for any work adjacent to the stream.

6. **Energy and natural resources**

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.
Does not apply.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.
Does not apply.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:
Does not apply.

7. **Environmental health**

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.
No.

1) Describe special emergency services that might be required.
Does not apply.

2) Proposed measures to reduce or control environmental health hazards, if any:
All tools, equipment, barricades, signs, surplus materials, and rubbish would be removed from the project work limits upon project completion.

Best management practices for drainage and sediment control would be implemented to prevent or reduce nonpoint source pollution and minimize soil loss and sedimentation in drainage areas.

For safety purposes, the road would be closed to hikers, bicyclists and stock use during construction.

b. **Noise**

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?
None.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

See below table – heavy equipment on a short term basis during daylight hours during the initial road preparation work. Long-term noise from public use of the access road with vehicles and periodic (no more than twice yearly) road maintenance equipment.

Equipment Type	**Work Task**	**Estimated Time of Use**
Pickup truck, dump truck, brush chipper, bucket truck	Brushing and removing obstructions	Intermittently over a period of three days
Chainsaw	Brushing and removing obstructions	Intermittently over a period of three days
Dump truck, a motor grader and a loader	Grade and resurface roadway; Restore roadside ditches and	Intermittently over a period of 7 days.

	shoulders	
Pickup truck, dump truck, brush chipper, chain saw, bucket truck, grader and loader	Improve existing pullouts	Intermittently over a period of 7 days
Excavator, backhoe, dump truck, stake truck and vibratory tamper.	Install Bridge	Intermittently over a period of 2 weeks.
Hand tools, welder, backhoes, boom trucks or similar machinery.	Gate and Berm Installation	Intermittently over a period of 2 weeks.
Pickup truck, grader, loader, dump truck, backhoe, chainsaws, brush chipper, bucket truck, excavator and bulldozer, welder for gate installation/repairs	Future road maintenance activities	3 to 4 days, once or twice a year

3) Proposed measures to reduce or control noise impacts, if any:
Use equipment with latest technology to reduce noise impacts.

8. **Land and shoreline use**

a. What is the current use of the site and adjacent properties?
Site currently not used. Adjacent site has been logged previously.

b. Has the site been used for agriculture? If so, describe.
No.

c. Describe any structures on the site.
None.

d. Will any structures be demolished? If so, what?
No.

e. What is the current zoning classification of the site?
Unknown

f. What is the current comprehensive plan designation of the site?
The DNR portion of the project is located in Granted Trust Lands, and is designated by the Department of Ecology as Water Resources Inventory Area #21. The portion of the project located within DNR lands includes approximately 0.5 mile of DNR road FR-Q-2100.

g. If applicable, what is the current shoreline master program designation of the site? None

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.
Unknown.

i. Approximately how many people would reside or work in the completed project?
None.

j. Approximately how many people would the completed project displace?
None.

k. Proposed measures to avoid or reduce displacement impacts, if any:
Does not apply.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:
The DNR and NPS would develop an agreement to establish conditions of use compatible with future land uses and plans.

9. **Housing**

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.
Does not apply.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.
Does not apply.

c. Proposed measures to reduce or control housing impacts, if any:
Does not apply.

10. **Aesthetics**

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?
Does not apply.

b. What views in the immediate vicinity would be altered or obstructed?
None.

c. Proposed measures to reduce or control aesthetic impacts, if any:
None.

11. **Light and glare**

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?
Lights from headlights from vehicles used by the public and park staff.

b. Could light or glare from the finished project be a safety hazard or interfere with views?
No.

c. What existing off-site sources of light or glare may affect your proposal?
None.

d. Proposed measures to reduce or control light and glare impacts, if any:
None.

12. **Recreation**

a. What designated and informal recreational opportunities are in the immediate vicinity?
Recreational use of DNR and USFS lands including hunting, fishing, hiking, ATV use, stock use, wildlife watching, etc. The Queets Road provided vehicular access to NPS facilities, resources and trails, prior to the slide out, including: 20 primitive campsites with fire pits and picnic tables, pit toilets, but no portable water or hookups; the Streater Crossing and Queets Campground boat ramps; and the Queets Ranger Station, which is open intermittently. Two trailheads also begin at the end of the road. Sams River Trail is a 3-mile-long trail which follows the Queets Rive past Sams Rapids through the temperate rain forest. The Queets River Trail is a 17-mile-long trail that extends northeast to the upper Queets Valley through designated wilderness.

b. Would the proposed project displace any existing recreational uses? If so, describe.
No.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:
Gates would be installed and the road would be closed to vehicular travel, if determined appropriate by the State and NPS, during elk season to reduce potential for poaching.

13. **Historic and cultural preservation**

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.
No.

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.
None.

c. Proposed measures to reduce or control impacts, if any:
None.

14. **Transportation**

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.
The Queets Road is an approximately 14 mile non-paved road off of Highway 101. The portion of the project area within USFS administered lands includes the West Boundary Road (21) and Road 2180 (both currently open to public use) and a 500-foot segment of Road 2180-010 (currently closed to public use). The portion of the project located within DNR lands includes approximately 0.5 miles of DNR road FR-Q-2100. (see previous map)

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?
No. Unknown.

c. How many parking spaces would the completed project have? How many would the project eliminate?
None.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).
No new roads but improvements to existing DNR, USFS, and NPS roads (Public). See description above.

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.
No.

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

The ONP traffic counter on the Queets Road indicates that prior to the road closure on NPS lands, on average the road received 37,000 visitors annually, which amounts to approximately 14,000 vehicles per year. Traffic counts indicate that the primary season of use is fishing season (late fall to early spring). Fishing occurs primarily for coho (hatchery or wild) and steelhead. Under current regulations, coho can be kept in the area below the Hartzell boat ramp from September 1 through November 30. Above the Hartzell boat ramp, all salmon fishing is catch-and-release anytime any fishery is open. Hatchery steelhead may be kept from any area open for fishing from June 1 to February 28. Catch-and-release fishing for steelhead (hatchery or wild) only is permitted from March 1 to April 15. The river is closed to all fishing from April 15 to June 1.

g. Proposed measures to reduce or control transportation impacts, if any:
The road would remain a graded, primitive, one-lane road with occasional pullouts and would not be recommended for passenger vehicles.

15. **Public services**

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.
No.

b. Proposed measures to reduce or control direct impacts on public services, if any.
None.

16. **Utilities**

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.
None.

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.
Does not apply.

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature:

Date Submitted:

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APPENDIX B. State and Federal Listed Species in Olympic National Park(September 2005)

WILDLIFE SPECIES OF CONCERN

SPECIES	FEDERAL STATUS	STATE STATUS	Notes
Brown pelican (*Pelicanus occidentalis*)	Endangered	Endangered	
Gray wolf (*Canis lupus*)	Endangered	Endangered	Extirpated
Marbled murrelet (*Brachyramphus marmoratus*)	Threatened	Threatened	
Northern bald eagle (*Haliaetus leucocephalus*)	Threatened	Threatened	Proposed for delisting
Northern spotted owl (*Strix occidentalis caurina)*	Threatened	Endangered	
Stellar sea lion (*Eumetopias jubatus*)	Threatened	Threatened	
Mazama pocket gopher (*Thomomys mazama*)	Candidate	Candidate	Endemic
Streaked horned lark (*Eremophila alpestris strigata)*	Candidate	Candidate	
Whulge (Edith's) checkerspot (*Euphydras editha taylori*)	Candidate	Candidate	
Pacific fisher (*Martes pennanti pacifica*)	Candidate (2005)	Endangered	Possibly extirpated
Northern goshawk (*Accipiter gentilis*)	Species of Concern	Candidate	
Long-eared myotis (*Myotis evotis*)	Species of Concern		
Long-legged myotis (*Myotis volans*)	Species of Concern		
Olive-sided flycatcher (*Contopus cooperi*)	Species of Concern		
Cascade frog (*Rana cascadae*)	Species of Concern		
Makah's copper butterfly (*Lycaena mariposa charlottensis)*	Species of Concern	Candidate	
Northern Sea Otter (*Enhydra lutris kenyoni*)	Species of Concern	Endangered	
Olympic torrent salamander (*Rhyacotriton olympicus)*	Species of Concern		Endemic
Pacific Townsend big-eared bat (*Corynorhinus townsendii townsendii)*	Species of Concern	Candidate	
Peregrine falcon (*Falcon peregrinus*)	Species of Concern	Sensitive	
Tailed frog (*Ascaphus trueii)*	Species of Concern		
Van Dyke's salamander (*Plethodon vandykei*)	Species of Concern	Candidate	
Western Toad (*Bufo borealis*)	Species of Concern	Candidate	
Common Loon (*Gavia immer*)		Concern	
Brandt's Cormorant (*Phalacrocorax penicillatus*)		Candidate	
Common Murre (*Uria aalge*)		Candidate	

SPECIES	FEDERAL STATUS	STATE STATUS	Notes
Golden Eagle (*Aquila chrysaetos*)		Candidate	
Keen's myotis (*Myotis keenii)*		Candidate	
Merlin (*Falco columbarius*)		Candidate	
Pileated Woodpecker (*Dryocopus pileatus*)		Candidate	
Purple martin (*Progne subis)*		Candidate	
Vaux's Swift (*Chaetura vauxi*)		Candidate	
Western Grebe (*Aechmophorus occidentalis)*		Candidate	

FISH SPECIES OF CONCERN

SPECIES	FEDERAL STATUS	STATE STATUS	Notes
Bull trout (*Salvelinus confluentus*)	Threatened		Critical Habitat; EFH*
Puget Sound Chinook (*Oncorhynshus tshawytscha*)	Threatened		EFH
Hood Canal chum (*Oncorhynchus keta*)	Threatened		EFH
Ozette Lake sockeye (*Onocorhynchus nerka*)	Threatened		Critical Habitat; EFH
Puget Sound/Strait of Georgia coho (*Oncorhynchus kisutch*)	Species of Concern	Candidate	EFH
River lamprey (*Lampertra ayresi*)	Species of Concern		
Olympic mudminnow (*Novumbra hubbsi*)			
Pygmy whitefish (*Prosopium coulteri*)			
Eulachon (*Thaleichthys pacificus*)			
Rockfish (marine species)			
Pacific herring (*Clupea pallasi*)			Marine waters
Pacific lamprey (*Lampertra tridentata*)	Species of Concern		

* EFH is essential fish habitat

OTHER SENSITIVE/LISTED SPECIES THAT OCCUR NEAR OLYMPIC NATIONAL PARK

SPECIES	FEDERAL STATUS	STATE STATUS	NOTES
Western snowy plover (*Charadrius alexandrinus nivosus)*	Threatened	Endangered	
Cassin's auklet (*Ptychoramphus aleuticus*)	Species of Concern	Candidate	
Tufted puffin (*Fratercula cirrhata)*	Species of Concern	Candidate	
Brandt's cormorant (*Picoides articus)*		Candidate	

APPENDIX C SURVEY AND MANAGE REPORTS

See document attachments (electronic version only)

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APPENDIX E – Joint Aquatic Resources Permit Application Form

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AGENCY USE ONLY	
Agency Reference #:	Date Received:
Circulated by:	(local govt. or agency)
Project Tracking Number:	

JOINT AQUATIC RESOURCES PERMIT APPLICATION FORM (JARPA)

(for use in Washington State)

Please type only in white fields and use blank ink.

To fill in electronically, use F11 to move through the form. To use the help feature you must have an internet connection.

☐ Application for a Fish Habitat Enhancement Project per requirements of RCW 77.55.290. You must submit a copy of this completed JARPA application form and the (Fish Habitat Enhancement JARPA Addition) to your local Government Planning Department and Washington Department of Fish & Wildlife Area Habitat Biologist on the same day.

NOTE: LOCAL GOVERNMENTS – You must submit any comments on these projects to WDFW within 15 working days.

Based on the instructions provided, I am sending copies of this application to the following: *(check all that apply)*

☐ Local Government for shoreline: ☐ Substantial Development ☐ Conditional Use ☐ Variance ☐ Exemption ☐ Revision ☐ Floodplain Management ☐ Critical Areas Ordinance

☒ Washington Department of Fish and Wildlife for HPA (Submit 3 copies to WDFW Region)

☒ Washington Department of Ecology for 401 Water Quality Certification (to Regional Office-Federal Permit Unit)

☐ Washington Department of Natural Resources for Aquatic Resources Use Authorization Notification

☒ Corps of Engineers for: ☒ Section 404 ☐ Section 10 permit

☐ Coast Guard for: ☐ General Bridge Act Permit ☐ Private Aids to Navigation (for non-bridge projects)

☐ For Department of Transportation projects only: This project will be designed to meet conditions of the most current Ecology/Department of Transportation Water Quality Implementing Agreement

PROJECT TITLE:

Queets Road Bypass – Bridge Placement Component

PROJECT DESCRIPTION:

Installation of a 15' wide by 35' long road bridge by ONP on the bypass route through USFS and DNR land. The location is on DNR land just south of the park boundary. The bridge would be installed across Phelan Creek to meet fish passage guidelines established by Washington Department of Fish and Wildlife (WDFW).

SECTION A - Use for all permits covered by this application. Be sure to ALSO complete Section C (Signature Block) for all permit applications.

help 1. APPLICANT
William Laitner, Superintendent, National Park Service, Olympic National Park

MAILING ADDRESS
600 East Park Avenue

WORK PHONE	E-MAIL ADDRESS	HOME PHONE	FAX #
360-565-3008	nancy_hendricks@nps.gov		360-565-3015

If an agent is acting for the applicant during the permit process, complete #2. Be sure agent signs Section C (Signature Block) for all permit applications

help 2. AUTHORIZED AGENT

MAILING ADDRESS

WORK PHONE	E-MAIL ADDRESS	HOME PHONE	FAX #

help 3. Relationship of applicant to property: ☐ OWNER ☐ PURCHASER ☐ LESSEE ☒ Permittee

help 4. Name, address and phone number of property owner(s) if other than applicant:
Washington Department of Natural Resources, Olympic Region, 411 Tillicum Lane, Forks, WA 98331, 360-374-6131

help 5. Location (street address, including city, county and zip code, where proposed activity exists or will occur)
DNR Road 2180-010, Queets, Jefferson County, 98331

help Local government with jurisdiction (city or county) N/A

help Waterbody you are working in Phelan Creek

help Is this waterbody on the 303(d) List** ☐ YES ☒ NO

If **YES**, what parameter(s)?

**For 303d List, http://www.ecy.wa.gov/programs/wq/303d/index.html

help Tributary of Queets River

help WRIA # 21

help Shoreline designation

help Zoning designation

¼ Section	Section	Township	Range	Government Lot
SE	12	24 N	11W	

help DNR stream type if known

help Latitude and Longitude:

Tax Parcel Number

help 6. Describe (a) the current use of the property, (b) structures existing on the property, and (c) existing environmental conditions.
Have you completed any portion of the proposed activity on this property? ☐ YES ☒ NO
For any portion of the proposed activity already completed on this property, indicate month and year of completion.

The DNR portion of the 2180-010 road was decommissioned several years ago when logging operations were completed in the area. The decommissioning work involved removing a culvert, gating the area, and constructing berms and "tank traps." No maintenance has occurred on the closed portion of the DNR road or the NPS road in several years.

help Is the property agricultural land? ☐ YES ☒ NO help Are you a USDA program participant? ☐ YES ☒ NO

help 7a. Describe the proposed work that needs aquatic permits: Complete plans and specifications should be provided for all work waterward of the ordinary high water mark or line, including types of equipment to be used. If applying for a shoreline permit, describe all work within and beyond 200 feet of the ordinary high water mark. If you have provided attached materials to describe your project, you still must summarize the proposed work here. Attach a separate sheet if additional space is needed.

The NPS shall install a prefabricated bridge over the creek.

Equipment to be used includes a crane, excavator, backhoe, dump truck, stake truck and vibratory tamper.

PREPARATION OF DRAWINGS: See sample drawings and guidance for completing the drawings. ***ONE SET OF ORIGINAL OR GOOD QUALITY REPRODUCIBLE DRAWINGS MUST BE ATTACHED.*** NOTE: Applicants are encouraged to submit photographs of the project site, but these DO NOT substitute for drawings. ***THE CORPS OF ENGINEERS AND COAST GUARD REQUIRE DRAWINGS ON 8-1/2 X 11 INCH SHEETS. LARGER DRAWINGS MAY BE REQUIRED BY OTHER AGENCIES.***

help 7b. Describe the purpose of the proposed work and why you want or need to perform it at the site. Please explain any specific needs that have influenced the design.

The purpose of the project is to restore interim public access to the Queets portion of Olympic National Park by reopening a previously closed USFS, DNR, and NPS access road. A bridge is necessary to replace an undersized culvert that was previously pulled from the site several years ago when the road was closed. The bridge has been designed in accordance with WDFW fish passage guidelines. In addition, the design will allow the NPS to conduct work outside the ordinary high waterline of the creek, with no instream work necessary.

help 7c. Describe the potential impacts to characteristic uses of the water body. These uses may include fish and aquatic life, water quality, water supply, recreation and aesthetics. Identify proposed actions to avoid, minimize, and mitigate detrimental impacts and provide proper protection of fish and aquatic life. Identify which guidance documents you have used. Attach a separate sheet if additional space is needed.

Though all work would occur above the active stream channel, there is the potential for short-term impacts to the creek during project activities from run-off created by construction actions. Best management practices and an erosion control plan would be developed to minimize this effect.

Best management practices for drainage and sediment control would be implemented to prevent or reduce nonpoint source pollution and minimize soil loss and sedimentation in drainage areas.

Silt fencing will be installed along the perimeter of all disturbed areas.

All disturbed soil will be protected from erosion by erosion control matting and/or other erosion control measures where appropriate. Disturbed soils will be replanted with either sterile grass seed, native grass seed or materials removed from the site prior to work and replaced later.

Project is not located in habitat for threatened or endangered bird species. Project work would occur outside of fish spawning seasons and will not alter fish habitat.

help 7d. For in water construction work, will your project be in compliance with the State of Washington water quality standards for turbidity WAC 173.201A-110? ☐ YES ☐ NO (See USEFUL DEFINITIONS AND INSTRUCTIONS)

help 8. Will the project be constructed in stages? ☒ YES ☐ NO

Proposed starting date: April to June 2007

Estimated duration of activity: 2 weeks total work during the above time period. First the roadway would be prepared (graded) up to the crossing and the bridge abutments would be installed. Then the prefabricated bridge would be placed across the creek when it is delivered in late May or early June.

help 9. Check if any temporary or permanent structures will be placed:

☐ Waterward of the ordinary high water mark or line for fresh or tidal waters AND/OR

☐ Waterward of the mean higher high water for tidal waters?

help 10. Will fill material (rock, fill, bulkhead, or other material) be placed:

☐ Waterward of the ordinary high water mark or line for fresh waters?
If **YES**, VOLUME (cubic yards) / AREA (acres)

☐ Waterward of the mean higher high water for tidal waters?
If **YES**, VOLUME (cubic yards) / AREA (acres)

help 11. Will material be placed in wetlands? ☐ YES ☒ NO

If **YES**:

help A. Impacted area in acres:

help B. Has a delineation been completed? **If YES**, please submit with application. ☐ YES ☐ NO

help C. Has a wetland report been prepared? **If YES**, please submit with application ☐ YES ☐ NO

help D. Type and composition of fill material (e.g., sand, etc.)

help E. Material source:

help F. List all soil series (type of soil) located at the project site, and indicate if they are on the county's list of hydric soils. Soils information can be obtained from the natural Resources Conservation Service (NRCS).

help G. WILL PROPOSED ACTIVITY CAUSE FLOODING OR DRAINING OF WETLANDS? ☐ YES ☐ NO
If **YES**, IMPACTED AREA IS ACRES OF DRAINED WETLANDS.

NOTE: If your project will impact greater than ½ of an acre of wetland, submit a mitigation plan to the Corps and Ecology for approval along with the JARPA form.
NOTE: A 401 water quality certification will be required from Ecology in addition to an approved mitigation plan if your project impacts wetlands that are: a) greater than ½ acre in size, or b) tidal wetlands or wetlands adjacent to tidal water. Please submit the JARPA form and mitigation plan to Ecology for an individual 401 certification if a) or b) applies.

help 12. Stormwater Compliance for Nationwide Permits Only: This project is (or will be) designed to meet ecology's most current stormwater manual, or an Ecology approved local stormwater manual. ☐ YES ☐ NO

If **YES** – Which manual will your project be designed to meet?

help If **NO** – For clean water act Section 401 and 404 permits only – Please submit to Ecology for approval, along with this JARPA application, documentation that demonstrates the stormwater runoff from your project or activity will comply with the water quality standards, WAC 173.201(A)

help 13. Will excavation or dredging be required in water or wetlands? ☐ YES ☒ NO

If **YES**:

A. Volume: (cubic yards) /area (acre)

B. Composition of material to be removed:

C. Disposal site for excavated material:

D. Method of dredging:

help 14. Has the State Environmental Policy Act (SEPA) been completed ☐ YES ☒ NO

SEPA Lead Agency: National Park Service is currently preparing an environmental assessment for this project to be released for public review this fall.

SEPA Decision: DNS, MDNS, EIS, Adoption, Exemption Decision Date (end of comment period)

SUBMIT A **COPY OF YOUR SEPA DECISION LETTER** TO WDFW AS REQUIRED FOR A COMPLETE APPLICATION

help 15. List other Applications, approvals or certifications from other federal, state or local agencies for any structures, construction discharges or other activities described in the application (i.e. preliminary plat approval, health district approval, building permit, SEPA review, federal energy regulatory commission license (FERC), Forest practices application, etc.). Also, indicate whether work has been completed and indicate all existing work on drawings. NOTE: For use with Corps Nationwide Permits, identify whether your project has or will need an NPDES permit for discharging wastewater and/or stormwater.

TYPE OF APPROVAL	ISSUING AGENCY	IDENTIFICATION NO.	DATE OF APPLICATION	DATE APPROVED	COMPLETED?

help 16. Has any agency denied approval for the activity you're applying for or for any activity directly related to the activity described herein?

☐ YES ☒ NO

If **YES**, explain:

SECTION B - Use for Shoreline and Corps of Engineers permits only:

help 17a. Total cost of project. This means the fair market value of the project, including materials, labor, machine rentals, etc.

$57,000 for the bridge delivered to site; $5,000 for crane rental; $5,000 for ONP labor, equipment, gas, etc; TOTAL: $67,000

help 17b. If a project or any portion of a project receives funding from a federal agency, that agency is responsible for ESA consultation. Please indicate if you will receive federal funds and what federal agency is providing those funds. See instructions for information on ESA.* ESA consultations will occur this fall.

FEDERAL FUNDING [X] YES [ ] NO If **YES**, please list the federal agency. National Park Service

help 18. Local government with jurisdiction:

help 19. For Corps, Coast Guard and DNR permits, provide names, addresses and telephone numbers of adjoining property owners, lessees, etc. ***Please note:*** *Shoreline Management Compliance may require additional notice – consult your local government.*

NAME	ADDRESS	PHONE NUMBER
Department of Agriculture, U.S. Forest Service	353 South Shore Road, PO Box 9, Quinault, WA 98575	360-288-0278

SECTION C - This section MUST be completed for any permit covered by this application

help 20. Application is hereby made for a permit or permits to authorize the activities described herein. I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief, such information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities. I hereby grant to the agencies to which this application is made, the right to enter the above-described location to inspect the proposed, in-progress or completed work. I agree to start work **ONLY** after all necessary permits have been received.

_____Signature on file_____ SIGNATURE OF APPLICANT	DATE
_____ SIGNATURE OF AUTHORIZED AGENT	DATE

I HEREBY DESIGNATE_____TO ACT AS MY AGENT IN MATTERS RELATED TO THIS APPLICATION FOR PERMIT(S). I UNDERSTAND THAT IF A FEDERAL PERMIT IS ISSUED, I MUST SIGN THE PERMIT.

_____
SIGNATURE OF APPLICANT DATE

_____
SIGNATURE OF LANDOWNER (EXCEPT PUBLIC ENTITY LANDOWNERS, E.G. DNR)

THIS APPLICATION MUST BE SIGNED BY THE APPLICANT AND THE AGENT, IF AN AUTHORIZED AGENT IS DESIGNATED.

18 U.S.C §1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly falsifies, conceals, or covers up by any trick, scheme, or device a material fact or makes any false, fictitious, or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious, or fraudulent statement or entry, shall be fined not more than $10,000 or imprisoned not more than 5 years or both.

COMPLETED BY LOCAL OFFICIAL

A. Nature of the existing shoreline. (Describe type of shoreline, such as marine, stream, lake, lagoon, marsh, bog, swamp, flood plain, floodway, delta; type of beach, such as accretion, erosion, high bank, low bank, or dike; material such as sand, gravel, mud, clay, rock, riprap; and extent and type of bulkheading, if any)

B. In the event that any of the proposed buildings or structures will exceed a height of thirty-five feet above the average grade level, indicate the approximate location of and number of residential units, existing and potential, that will have an obstructed view:

C. If the application involves a conditional use or variance, set forth in full that portion of the master program which provides that the proposed use may be a conditional use, or, in the case of a variance, from which the variance is being sought:

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Olympic National Park News Release

July 20, 2005
For Immediate Release
Barb Maynes 360-565-3005

Olympic National Park Seeks Public Input Regarding Proposed Repairs to Queets Road

Olympic National Park is seeking public input about a proposal to reopen the Queets Road, which was damaged by a major rockslide this past March. The 14-mile road has been closed at the Matheny Creek bridge since then, leaving the last six miles of the road off limits to vehicle traffic, along with the 20-site Queets campground, ranger station, trailhead and two boat ramps.

"The Queets road provides vehicle access to a primitive and remote area of Olympic National Park," said Olympic National Park Superintendent Bill Laitner. "We are committed to maintaining visitor access so that everyone can have an opportunity to experience Olympic's primeval beauty."

In late March, a large amount of rock, clay and other material broke loose from a point next to the road and slid about 100 feet down to the river. The roadbed was severely compromised and large cracks developed in the road surface, making the road unsafe for vehicle traffic.

A site inspection by road engineers revealed that river erosion at the base of the slide area, along with groundwater seepage on the hillside most likely caused the slide. Based on these indicators, it appears that the road will need to be rerouted around the 60-foot slide in order to provide safe and sustainable vehicle access. Public input is now solicited to help define the issues and alternatives to be addressed and will be used to develop an Environmental Assessment to examine several alternative strategies for reopening the road, along with a no action alternative.

Public comment will be accepted through August 20, 2005 and may be submitted online by selecting Olympic National Park at the NPS Planning, Environment and Public Comment website, **http://parkplanning.nps.gov**, or sent to:

Superintendent – Queets Road Repair
Olympic National Park
600 East Park Avenue
Port Angeles, WA 98362

Fax: 360-565-3015
Website: **http://parkplanning.nps.gov**

Email: olym_ea@nps.gov

Commenters should be aware that their comments, including names and home addresses, are considered public information and may be released to the public. However, individual commenters may request that their name and home address be withheld from public release by stating this in their comment letter.

For more information about this or other Olympic National Park projects, people may call the park at 360-565-3004.

- NPS-

Olympic National Park News Release

January 18, 2006
For Immediate Release
Barb Maynes 360-565-3005

Queets Road Sustains Additional Damage; 150 Feet of Road Gone As Result of Mudslide

Olympic National Park's Queets Road, closed since last March because of a major slide, was further damaged late last week after extensive heavy rain. Another landslide in the same area completely destroyed about 150 feet of the road, and created a 200 foot vertical drop to the river.

"The Queets Road will remain closed to all vehicle traffic at the Matheny Creek bridge," said Olympic National Park Superintendent Bill Laitner. "Anyone on foot should stay well behind the safety fencing, as the slide is still active and very hazardous."

Last March, a large amount of rock, clay and other material broke loose from a point next to the road and slid about 100 feet down to the river. The roadbed was severely compromised and large cracks developed in the road surface, making the road unsafe for vehicle traffic. A site inspection by road engineers revealed that groundwater seepage on the hillside most likely caused the slide. The recent prolonged rains added to the groundwater seepage; a creek is now flowing from the base of the new slide.

National Park Service employees have been developing an environmental assessment (EA) to analyze a proposal to reroute the road around the slide area. Initial public input was gathered this past summer to help define the issues and alternatives to be addressed in the EA. The EA will be released within the next several months for public review and comment and will consider the current repair challenge.

All other park roads remain open, with the exception of the Deer Park and Obstruction Point roads which are closed for the season, and the Dosewallips Road which is closed outside the park boundary due to a washout.

The 14-mile Queets Road is closed at the Matheny Creek bridge (milepost 8), leaving the last six miles of the road off limits to vehicle traffic. The Queets campground, ranger station, trailhead and two boat ramps above the slide are closed.

--NPS--

Note: Print-quality versions of these images are available by calling 360-565-3005.