



U.S. Highway 101 Lake Crescent and East Beach Road Rehabilitation Environmental Assessment Finding of No Significant Impact

August 2016

This Finding of No Significant Impact (FONSI) documents the decision of the National Park Service (NPS) to adopt the preferred alternative in the U.S. Highway 101 Lake Crescent and East Beach Road Rehabilitation Environmental Assessment. Alternative 3, the Selected Alternative, includes rehabilitation of both roadways, accessibility improvements at Sledgehammer Point and Clallam Transit stop improvements. This alternative was evaluated against Alternative 2, which would not have included night work, and Alternative 1 No Action (Continue Current Management). All three alternatives were described and analyzed in the U.S. Highway 101 Lake Crescent and East Beach Road Rehabilitation Environmental Assessment (EA). Attached is a determination that no impairment of park resources or values will result from implementation of the Selected Alternative.

Purpose and Need

The purpose of this project is to rehabilitate 12.3 miles of Highway 101 adjacent to Lake Crescent and 4.0 miles of East Beach Road to address safety and long-term maintenance concerns. Coupled with the rehabilitation of U.S. Highway 101, a Clallam Transit shelter is proposed near Barnes Point.

There is a mix of public recreational, local commuter, and commercial (primarily logging truck) traffic on U.S. Highway 101 in the park. Highway 101 has substandard and/or failing guardrail, roadside hazards such as missing drop-inlet grates, rock fall hazards, and poor pavement conditions (potholes, edge failures, and poor surfacing). Rehabilitation is needed to improve subsurface pavement conditions, apply new pavement, stabilize cut and fill slopes, improve drainage, improve and replace guardrails, mitigate rockfall hazards and improve intersections while protecting natural, cultural and recreational resources within Olympic National Park.

A transit stop is located at Barnes Point but does not have facilities for pedestrians or bicyclists waiting for the bus. As a result, Clallam Transit and the Federal Lands Access Program have identified the need for bus shelters at this location.

East Beach Road is a very narrow road primarily used for travel on the north side of Lake Crescent, including for access to park lands at the East Beach Picnic Area and Log Cabin Resort as well as for access to private cabins on that side of Lake Crescent. At Log Cabin Resort the road divides, with East Beach Road continuing east toward the Lyre River, providing access to the Spruce Railroad Trail, and Joyce Piedmont Road extending north toward the town of Joyce. Rehabilitation is needed to improve pavement conditions and safety along the roadway. The paved top-width of the road ranges from 16-21 feet. It has no centerline striping, limited shoulders, blind curves and multiple residential driveways that descend steeply to Lake Crescent. There are breaks where the road moves away from the lake and the hillside, but it is largely characterized by its tight fit between existing features.

Alternatives Analyzed

The following alternatives were considered in the EA for rehabilitation of U.S. Highway 101 Lake Crescent and East Beach Road:

- Alternative 1: No Action (Continue Current Management).

- Alternative 2: Rehabilitate Lake Crescent Segment of U.S. Highway 101 and East Beach Road. To complete construction, there would be maximum 30-minute delays throughout the duration of construction plus a small number of shoulder season day-time delays of up to 4 hours for actions, such as rock fall mitigation and culvert replacement.
- Alternative 3: Rehabilitate Lake Crescent Segment of U.S. Highway 101 and East Beach Road. To complete construction, there would be maximum 30-minute delays throughout the duration of construction, plus a small number of 4-hour delays to complete rock-fall mitigation. To expedite construction, there would also be night work (up to 6-hour delays) after Labor Day when it would be less likely to affect nesting marbled murrelets.

Selected Alternative

The NPS has selected Alternative 3 as described and analyzed in the EA for implementation. Although the construction season will be March – November, night work is only planned between Labor Day and November. As requested through public review, accessible sanitary facilities, likely trailer mounted, will be provided during long delays. In addition, there will be widespread advance notification and additional coordination with the community to reduce the impacts of delays.

A single change to the description of the project has been made. Based on additional design, anticipated delays to replace the Log Cabin/Piedmont Creek culvert on East Beach Road could take up to 10 days, with closure from either the west side or east side of East Beach Road, near Log Cabin Resort. This is instead of the three days anticipated previously. Up to three days would be required for paving East Beach Road.

Under the selected alternative, the existing alignment and width of U.S. Highway 101 and East Beach Road will be retained. Rehabilitation will take place within the road prisms (cutslope to fillslope), repairing sideslopes, pavement, drainage and other subsurface and surface characteristics. Access to Barnes Point and regular and emergency vehicle passage through the construction area will be maintained and there will be a small number of well-advertised day- and night-time delays.

During construction, the Lake Crescent segment of U.S. Highway 101 and East Beach Road in Olympic National Park will be open during the day with maximum 30-minute delays. To expedite construction, from Labor Day-March 31 (after the marbled murrelet early nesting season), there will also be night work on U.S. Highway 101. Night work could entail delays of up to 6-hours. Proposed night work will be scheduled by the contractor and announced via press releases upon approval by the superintendent. There will also likely be a small number of 4-hour day-time delays when rock fall mitigation or culvert replacement is being conducted. These delays will be well-publicized and signed and will occur outside of primary commuter hours to the extent possible.

The project would include the following modifications on U.S. Highway 101 adjacent to Lake Crescent:

- repair pavement deterioration and stabilize road shoulders, including construction of deep patches and mechanically stabilized earthen (MSE) walls
- installing additional riprap along Lake Crescent
- improving drainage by conveying water underneath and alongside the roadways through larger and/or realigned culverts with improved fish passage, where needed and by adding missing drop-inlet grates and improving stormwater management (ditch clearing, paved waterways, curb and gutter, etc.)
- replacing deteriorated guardrail
- conducting rockfall mitigation (scaling and bolting to improve stability of steep rock faces above the roadway)
- improving Sledgehammer Point accessibility, interpretation and parking
- constructing Clallam Transit shelters at Barnes Point, including connecting these with accessible trails

- modifying roadside turnouts, including removal of 12 informal turnouts and improving another 11, while retaining another 20
- road resurfacing, striping and signing

The project would include the following modifications on East Beach Road:

- asphalt surfacing on several sections (milepost 3.9-7.2 on East Beach Road, 0-0.5 on the extension, and 0-0.2 on Waterline Road),
- replacement of approximately nine culverts in poor condition,
- hanging culvert replacement near Log Cabin Resort (to improve fish passage),
- Lyre River turnout rehabilitation (to alleviate impacts to fish spawning area),
- striping and signing, and
- options to include subexcavation and additional drainage and turnout improvements, as well as guardrail replacement and ditch cleaning.

Implementation of the project will also require revegetation and restoration treatments along both roadways, including removing nonnative invasive plants and replanting excavating areas with native seed mixtures and plants. Temporary materials storage and staging areas will also be used and rehabilitated after use. Temporary traffic control measures and travel delays will facilitate construction.

Under the Selected Alternative road rehabilitation is also expected to last approximately three construction seasons (March through November in each of three years), however because of the night work the total number of construction days could be fewer.

Other Alternatives Evaluated

Alternative 1: No Action (Continue Current Management)

U.S. Highway 101 and East Beach Road would not be rehabilitated. Existing deteriorated pavement and slope conditions would remain. Although ongoing maintenance activities would continue, over time, the roadways would become increasingly uneven and patched. Because existing conditions would continue without rehabilitation, catastrophic failure of portions of U.S. Highway 101 could occur, necessitating an increasing frequency of unplanned delays and closures to repair the road.

U.S. Highway 101 in the park currently includes substandard and/or failing guardrail, roadside hazards such as missing drop-inlet grates, rock fall hazards, and poor pavement conditions (potholes, edge failures, and poor surfacing). Geotechnical evaluation of the roadway for the proposed project area has identified numerous unstable areas, where catastrophic failure of the road could occur if the roadway is not repaired.

Among the existing conditions of the roadway that could cause future problems include:

- Substandard and/or failing guardrail, including rotting guardrail posts and rails,
- Deteriorated, uneven pavement, including potholes and pavement edge failures,
- Unstable slopes,
- Subsurface pavement problems,
- Poor drainage, including blocked and/or undersized culverts and missing drainage features, such as drop-inlet grates,
- Rockfall hazards, and
- Failing retaining walls (including concrete crib, riprap, and gabion basket).

Alternative 2: Rehabilitate Lake Crescent Segment of U.S. Highway 101 and East Beach Road. To complete construction, there would be maximum 30-minute delays throughout the duration of construction plus a small number of shoulder season day-time delays of up to 4 hours for actions, such as rock fall mitigation and culvert replacement.

This alternative is very similar to Alternative 3, however, no night work was proposed. Under Alternative 2, the park would retain the existing alignment and width of U.S. Highway 101 and East Beach Road. Rehabilitation would take place within the road prisms (cutslope to fillslope), repairing sideslopes, pavement, drainage and other subsurface and surface characteristics. Access to Barnes Point and regular and emergency vehicle passage through the construction area would be maintained with a minimum number of day-time delays.

To facilitate this construction there would be maximum 30-minute delays on the Lake Crescent segment of U.S. Highway 101 and East Beach Road in Olympic National Park throughout the duration of road rehabilitation. There would be no night work in this alternative. Instead, work would occur from two hours after sunrise to two hours before sunset during marbled murrelet nesting season and could be extended to encompass these hours outside of that season.

Other actions would be the same as the Selected Alternative.

Under Alternative 2, the road rehabilitation was expected to last approximately three construction seasons (March through November in each of three years).

Preliminary Alternatives and Actions Considered But Dismissed

Under the National Environmental Policy Act (NEPA) alternatives may be eliminated from detailed study based on the following reasons [40 CFR 1504.14 (a)]:

- Technical or economic infeasibility;
- Inability to meet project objectives or resolve need for the project;
- Duplication of other less environmentally damaging alternatives;
- Conflicts with an up-to-date valid plan, statement of purpose and significance, or other policy; and therefore, would require a major change in that plan or policy to implement; and
- Environmental impacts too great.

The following alternatives or variations were considered during the design phase of the project, but because they met one or more of the above criteria, they were rejected.

- Resurface U.S. Highway 101 and/or East Beach Road without Rehabilitation

This alternative was considered but dismissed because it would lengthen the road's service life by only a few years but would not fix pavement subsidence, failing guardrail, failing walls, etc. This alternative would not meet the purpose and need for the project.

- Close the Road to Facilitate Construction

Several closure alternatives were considered during the preliminary design phase of the project and in the preliminary alternatives presented to the public. They were rejected because closing the road (even during the shoulder season) would have more impacts than Alternatives 2 or 3.

Under the reroute proposed during preliminary alternative analysis, traffic from the west would have been directed onto Washington State Highway 113 and then onto Washington State Highway 112. For traffic from the east, the reroute would have been reversed. Washington State Route 112 intersects U.S. Highway 101 approximately 3.5 miles west of the intersection of State Highway 117 and U.S. Highway 101 in Port Angeles. Highway 112 is part of the Strait of Juan de Fuca Scenic Byway and provides access to a variety of recreation sites, including Crescent Beach (off Camp Hayden Road), the Washington Department of Natural Resources (DNR) Lyre River Campground, and Clallam County's Salt Creek Recreation Area and Pillar Point Recreation Area before rejoining U.S. Highway 101 west of Lake Crescent. Highway 112 offers outstanding coastal views and access.

This reroute would have added approximately 9.5 miles, or 18 minutes, to trips around the proposed rehabilitation work at Lake Crescent. Although the road is generally in reasonably good condition, there are a few sections signed as "Rough Road" and "Slides and Washouts Next 39 miles." Because Highway

112 is also subject to tsunamis, it is possible that if one occurred, both routes could be closed to access. The speed limit varies on Highway 112 but is generally 55 m.p.h. The road is curvy and there are several hairpin turns and speed warning signs which indicate much lower speeds should be used.

A range of impacts on park visitors, local communities and on and from the proposed reroute (State Highways 112/113) were identified during the public scoping period. These impacts would be greater than impacts from the alternatives considered in this environmental assessment.

- Locate Clallam Transit Bus Stop within the Barnes Point Developed Area Instead of on Highway 101

This alternative was considered but dismissed because it does not meet Clallam Transit's objective of a minimal stop for loading/unloading passengers, although it would have provided increased accessibility. The bus would have to pull into Barnes Point, which can be extremely congested in summer. If the stop was located elsewhere, there would not be enough sight distance or an acceleration lane available for the bus to safely transition from the bus stop onto the roadway.

- End Highway 101 work at Sol Duc intersection

This alternative was incorporated into the design phase of the project, but because the road is in good condition within this part of the park boundary and because approximately half of this road (north side) is outside the park boundary, it was rejected. Project funding is only applicable to areas within the park.

- Reconstruct Camp David Jr. Road Intersection with Highway 101

Although this idea was initially considered, upon further examination of accident records and of the intersection, analysis indicates that the intersection has good visibility for sight distance and the small number of problems that are known from it have occurred related to the speed with which vehicles are coming downhill from outside the park into a more congested area. As a result, Alternatives 2-3 propose to change the speed limit at the park boundary, instead of closer to the intersection.

- Use Barnes Point as a Staging Area for Road Construction

Because there is a great deal of congestion in this area from existing operations and visitor use activities during the peak season at the NatureBridge learning center, Lake Crescent Lodge concession, Marymere Falls day use area, the Storm King Ranger Station, and the boat ramp, staging in this area was considered but dismissed because it would adversely affect these operations to a greater degree than if staging was not located there. In addition, a variety of other usable staging areas, including existing turnouts are located throughout the project area.

Why the Selected Alternative Will Not Have a Significant Effect

After considering the environmental consequences described in the EA, the NPS has determined that the Selected Alternative and its associated actions will not have a significant effect on the quality of the human environment considering the context and intensity of impacts (40 CFR 1508.27). Thus, an environmental impact statement will not be prepared. This finding is based on the following:

- The Selected Alternative has a wide range of beneficial and adverse effects (see Measures to Minimize Environmental Harm below).
- The finding of no significant environmental effects is not biased by the beneficial effects of the action.
- The Selected Alternative will not adversely affect public health or safety. Existing hazardous conditions would be mitigated through rehabilitation of the roadways.
- The Selected Alternative will not result in significant effects on the unique natural resource characteristics of the area, including prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.

- The effects on the human environment are known, and there were no controversial impacts or aspects of the proposed project that surfaced during the environmental analysis process. There is no scientific controversy over the impacts of the project.
- The Selected Alternative will have *no adverse effect* on historic properties. Mitigation measures cited in the EA will prevent loss or destruction of significant scientific, cultural, or historical resources.
- The Selected Alternative would either have *no effect* (Pacific fisher), *may affect, is not likely to adversely affect* (northern spotted owls), and *may affect and is likely to adversely affect* (marbled murrelet) species listed or proposed for listing as endangered or threatened or their critical habitat as determined under the Endangered Species Act of 1973. These effects have been described in formal consultation with the USFWS through preparation of a biological opinion.
- No significant cumulative effects and no highly uncertain, unique or unknown risks were identified during preparation of the EA or during the public review period. The Selected Alternative neither establishes an NPS precedent for future actions with significant effects, nor represents a decision in principle about a future consideration. The effects analysis shows that the effects are known, and do not involve unique or unknown risks.
- The Selected Alternative will not violate federal, state, or local laws or requirements for the protection of the environment.

Measures to Minimize Environmental Harm

All mitigation measures will be implemented for the Selected Alternative at Olympic National Park to ensure resource protection, promote visitor enjoyment, and improve operational efficiency.

Impact Mitigation Matrix

Note: The project manager is the Contracting Officer's Representative for the construction and/or the park's Chief of Maintenance (for park-implemented actions)

Resource	Selected Alternative Impacts	Measures to Avoid, Minimize or Mitigate Impacts	Responsibility
Geology	A small degree of short- and long-term adverse effects from rock scaling and rock bolting to decrease rockfall hazards and from changing the underlying conditions on the roadway.	n/a	Project Manager; Chief Resources Management
Soils and Vegetation	Short-term adverse effects on soils and vegetation on the road, road shoulders, including cut and fill slopes, and in staging areas. Long-term beneficial effects from restoration of disturbed areas and from retaining existing road alignment.	<ul style="list-style-type: none"> Locating staging areas where they will minimize new disturbance of area soils and vegetation. Minimizing ground disturbance to the extent possible. Minimizing driving over or compacting root-zones. Reusing excavated soil, where possible in the project area, such as in rehabilitation of some turnouts. 	Project Manager; Plant Ecologist
Soils	<ul style="list-style-type: none"> Not piling excavated soil alongside trees to remain. Adjusting trenches and other excavation to preserve the dripline soils of trees to remain. Revegetating project areas through native seeding or planting of appropriate areas along the road and obliterated turnouts. Importing of weed-free specified clean fill and topsoil (if used). Employing careful excavation where tree roots might be encountered. Where roots two inches and larger are encountered, hand excavation would be used as appropriate to prevent damage to roots. 		
Vegetation	<ul style="list-style-type: none"> Preserving vegetation within the project area by clearly identifying it through marking, fencing, or another appropriate technique. Removing vegetation would be done in a manner that would not affect vegetation not proposed for removal. Erecting temporary barriers (e.g., orange construction fence) to protect existing large trees, plants and critical root zones designated to remain but which are within or just outside the clearing limits. Where larger roots need to be removed, they are cut with a sharp tool rather than torn by an excavator. Including a contractor damage clause for impacts to trees / vegetation not within the project area as part of the contract for road rehabilitation. Taking measures to prevent the introduction of exotic species in the project area and staging areas. All earth moving equipment and hand tools would be required to enter the park free of dirt, dust, mud, seeds, or other potential contaminants. Cleaning equipment exhibiting any dirt or other material attached to frame, tires, beds, wheels, or other parts, thoroughly. The contractor would use pressure washing and/or steam cleaning before entering the park. Preventing the introduction of nonnative aquatic species, on all barges or any other vessels entering the lake by pressure washing the vehicles and inspecting them prior to entering the water. Certifying as weed free or clean, all fill, rock, or additional topsoil used in the project, including ensuring that the park has approved the source of this 		

<p>material in advance.</p> <ul style="list-style-type: none"> • Requiring all workers to check boots, backpacks, tools, equipment, and vehicles for weed seeds, such as mud that could harbor weed seeds, and plant parts, before first entering the park or after use in another area outside the park. • Protecting staging areas from spillover impacts by the placement of silt fencing or other barriers as appropriate and returning these areas to pre-construction conditions upon completion of the proposed project. • Using only native species, appropriate to the site, in revegetation (seeding or planting). • Using existing roadways or travel paths whenever reasonable, including minimizing the number of new access paths to reduce impacts to vegetation and functions. • Ceasing project operations under high flow conditions that inundate the project area, except for efforts to avoid or minimize resource damage. • Rehabilitating disturbed areas in a manner that results in similar or better than pre-work conditions through spreading of stockpiled materials, seeding, and/or planting with locally native seed mixes or plants. Planting shall be completed no later than fall planting season of the year following construction. • Maximizing vegetation restoration efforts after completion of construction activities by salvaging topsoil, as well as incidental native vegetation (as feasible), from construction areas for reuse during restoration in disturbed areas; and by monitoring revegetation success for up to three years following construction; and implementing remedial and control measures as needed. <p>Nonnative Invasive Plants</p> <ul style="list-style-type: none"> • Controlling undesirable plant species in high-priority areas and controlling other undesirable species as necessary. To prevent the introduction of, and minimize the spread of nonnative vegetation and noxious weeds, the following measures would be implemented during construction: <ul style="list-style-type: none"> ◦ 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 the 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 which could be considered harmful. ◦ Cover all haul trucks bringing asphalt or other fill materials from outside the park to prevent seed transport. ◦ Limit vehicle parking to within construction limits; existing roadways, parking lots, or the access routes. ◦ Limit disturbance to roadsides and culvert areas, including limiting equipment to the roadbed area-no machinery or equipment should access areas outside the construction zone. ◦ Obtain all fill, rock, or additional topsoil from the project area, if possible. If not possible, then obtaining weed-free fill, rock, or additional topsoil from NPS approved sources outside the park would be required. ◦ Initiate revegetation of disturbed sites as soon as practicable following construction activities. ◦ Monitor disturbed areas for up to three years following construction to identify growth of noxious weeds or nonnative vegetation. Treatment of nonnative vegetation would be completed in accordance with NPS-13, Integrated Pest Management Guidelines. 	<p>Acoustic Environment and Soundscapes</p> <p>Heavy traffic on the Highway 101 would continue to create a fairly loud acoustic environment. East Beach Road would remain relatively quiet. In addition, the project would contribute short-term noise impacts throughout the duration of construction (approximately three construction seasons for Highway 101 and one year for East Beach Road). Beneficial effects from reducing noise could be contributed by roadways in good condition. Construction noise would also continue during the night.</p> <ul style="list-style-type: none"> • Data will continue to be collected by the park to measure the impacts of construction and after improvements to the road are made. • Mitigation of sounds at their source and on their path is possible. Therefore, efforts will be made to mitigate the sounds at their source, by specifying the use of modern equipment (containing engine insulation and mufflers). Efforts to mitigate sounds via their path would likely be limited, but could include relocating noisy work to a louder acoustic environment, <p>Project Manager Wilderness Specialist (Soundscape Manager)</p>
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		<p>conducting the work during a different time of day, or considering noise barriers for extraordinarily loud work.</p> <ul style="list-style-type: none"> Work in the vicinity of residences, especially near private residences near Barnes Point and on East Beach Road would be limited to day-time working hours, for example from 7:00 a.m. to 7:00 p.m. 	
Water Resources	<p><i>Hydrology:</i> Existing adverse impacts from alteration of drainage channels, drainage through side ditches and culverts, and shoreline riprap would continue. There would also be short-term adverse effects from additional erosion and runoff related to removal of vegetation and paving.</p> <p><i>Water Quality:</i> Most existing impacts would continue, however larger culverts would more easily carry runoff/stream flow, other improvements could result in faster runoff. Potential for most impacts would be reduced by mitigation measures. Beneficial effects from restoring natural stream processes through installation of properly sized culverts on Lake Crescent drainages.</p> <p><i>Wetlands:</i> Temporary effects on 0.2 acres of wetlands, including 0.1 acres of stream channels on Highway 101, 0.13 acres of riprap along Lake Crescent, and up to 0.069 acres of wetlands for Log Cabin Creek off of East Beach Road. Long-term beneficial effects from restoration of wetlands up and downstream from culvert.</p>	<ul style="list-style-type: none"> Using vegetable-based hydraulic fluid in all machinery. Inspecting all machinery for leaks (fuel, oil, hydraulic fluid, etc.) prior to starting work each day and making all necessary repairs to machinery before the commencement of work. Employing appropriate best management practices when working in or near wetlands. Locating staging and stockpiling areas away from and protecting nearby surface water resources. Delineating staging areas to prevent incremental expansion. Covering stockpiled fine-grained soil and rock near surface water, and if overwintered, with a breathable, water-repellent fabric, such as silt fence, anchored around the perimeter. Using temporary sediment-control devices such as filter fabric fences, sediment traps, or check dams as needed during culvert replacement to minimize fine sediment delivery to the lake. 	Project Manager; Plant Ecologist
	<ul style="list-style-type: none"> Using mulching, matting, and netting; filter fabric fencing; sediment traps and ponds; temporary stream bypasses; or surface water interceptor swales and ditches to prevent water runoff from contamination. Identifying the minimum area to be cleared to define the extent and clearing only those areas necessary for construction. Minimizing the amount of disturbed earth area and the duration of soil exposure to rainfall. Minimizing soil disturbance, and reseeding or revegetating disturbed areas as soon as practical. Scarifying slopes, if necessary, to slow erosion. Retaining silt fencing in disturbed areas until stabilization (by reseeding or revegetation). Constructing temporary diversion devices such as swales, trenches, culverts, or drains to divert stormwater runoff away from disturbed areas, including exposed slopes. Using native duff and imported topsoil to cover exposed soil as soon as practical. Installing protective construction fencing around, adjacent to, or near wetland and/or riparian areas to be protected. Limiting the duration of the in-water work as much as possible. 		

<ul style="list-style-type: none"> • Timing projects undertaken adjacent to or near wetlands to occur during the dry season, usually late summer. • Developing and implementing a Stormwater Pollution Prevention Plan (SWPP) for construction activities to control surface runoff, reduce erosion, and prevent sedimentation from entering water bodies during construction. • Developing and implementing a comprehensive Spill Prevention/Response Plan that complies with federal and state regulations and addresses all aspects of spill prevention, including notification, emergency spill response strategies for spills occurring on land and water, reporting requirements, monitoring requirements, personnel responsibilities, response equipment type and location, and drills and training requirements. • Using work area isolation techniques when work near water is necessary. <p><i>Measures specific to riprap placement:</i></p> <ul style="list-style-type: none"> • Using equipment excavators from a barge or from the shoreline to place rock below the ordinary high water mark, to reduce the potential for introducing pollutants, including possible leaks of hydraulic fluid or other substances from heavy equipment. • Ensuring that the contractor properly contains all fuel and other potentially hazardous liquids/materials (for example hydraulic fluid, chemicals, etc.) to prevent entry into the water. • Any machinery maintenance involving potential contaminants (fuel, oil, hydraulic fluid, etc.) shall occur away from the lake at a distance of at least 150 feet from the edge, with the exception of equipment on the barge. • Fueling equipment on the barge within a containment system approved by FHWA. • Providing containment in advance of fueling or other maintenance operations prior to work on the boat ramp or any other area with direct flow into the water. <p><i>Prevention of Fuel Spills:</i> The following BMPs to control adverse impacts of fuel spills would also be used:</p> <ul style="list-style-type: none"> • Conducting refueling activities at least 100 feet from water sources. • Identifying and providing containment devices, such as temporary earth berms, for areas where refueling or maintenance of equipment would occur. • Making absorbent pads available within the work site to clean up spills if needed. • Restricting the location of fueling sites and ensuring requirements for spill containment, and other measures to safeguard aquatic and terrestrial habitat from construction-related contaminants are identified. 			Project Manager; Fisheries Biologist; Wildlife Biologist
Fish and Wildlife	<p>Short-term adverse impacts from project noise and activity. Loss of native and nonnative vegetation would adversely affect habitat.</p> <p>Long-term beneficial impacts from revegetation, and improved access to and quality of aquatic habitats through installation of properly sized culverts. There would also be additional adverse impacts from night work, including from unnatural lighting and noise and disturbance during an otherwise quieter time of day.</p>	<ul style="list-style-type: none"> • Scheduling construction activities with seasonal consideration of wildlife lifecycles to minimize impacts during sensitive periods (e.g., bird nesting and breeding seasons) • The timing of the work in water, including culvert and riprap placement, would be limited to avoid spawning and other sensitive periods for fish and aquatic wildlife. 	
<ul style="list-style-type: none"> • Minimizing the degree of habitat removal (vegetation clearing) by delineating construction limits. • Limiting the effects of light and noise on wildlife habitat through controls on construction equipment and timing of construction activities, as well as by the type of lighting used. • Maintaining escape routes for animals that might fall into excavated pits and trenches. If erosion control matting is used, only tightly woven fiber netting or non-bound materials (e.g., rice straw) would be used to ensure that small animals would not be trapped. No plastic netted materials would be used. 			

<ul style="list-style-type: none">Using spill-prevention measures to prevent inadvertent spills of fuel, oil, hydraulic fluid, antifreeze, and other toxic chemicals that could affect wildlife.Discouraging construction personnel at work sites from providing a source of human food to wildlife, avoiding habituating of wildlife and increased human/wildlife conflicts. (Title 36, Code of Federal Regulations, Chapter 1, Section 2.10(d) prohibits anyone from leaving food unattended or stored improperly where it could attract or otherwise be available to wildlife. Title 36, CFR, Chapter 1, Section 2.14(a) prohibits the disposal of refuse in other than refuse receptacles. Title 36, CFR, Chapter 1, Section 2.2(a)(2) prohibits the feeding and molesting of wildlife.)Maintaining proper food storage, disposing of all food waste and food-related waste promptly in an animal-resistant receptacle, and removing all garbage off site at the end of each working day.Because fish eggs incubate in the gravel for several months after spawning, any in-water work should be carefully planned to not only avoid disturbing spawning fish but also incubating eggs.The delivery of fine sediment to Lake Crescent would be limited by mitigation measures associated with culvert replacement (see water resources section).			
Special Status Plants	With mitigation measures, no effect on water lobelia.	<ul style="list-style-type: none">Using erosion control devices, such as wattles, within areas where culvert replacements are proposed near water lobelia habitat to reduce the potential for affecting this species.Using silt or turbidity curtains to minimize siltation and undesirable sediment deposition in areas of the lake with surveyed populations of water lobelia.Avoiding placement of temporary barge pilings within or near known water lobelia populations.	Project Manager Plant Ecologist
Special Status Wildlife	<p><i>Crescenti Cutthroat Trout</i>: Potential for adverse effects from setting and removal of temporary barge pilings and riprap from habitat impacts.</p> <p><i>Beardslee Rainbow Trout</i>: Reduced potential for sedimentation over spawning area from rehabilitation of turnout.</p> <p><i>Pacific Fisher</i>: No effect.</p> <p><i>Marbled Murrelet and Northern Spotted Owl</i>: May affect, likely to adversely affect.</p>	<ul style="list-style-type: none">Delineating construction limits with construction fencing, tape, snow fencing, or similar materials.Ensuring that resource protection measures are clearly stated in special contract requirements.Using scheduling to avoid construction during the nesting season and during sensitive feeding periods by limiting construction activities to two hours after sunrise and before sunset during the early nesting season (April 1 to Labor Day).	Project Manager; Fisheries Biologist; Wildlife Biologist
	<ul style="list-style-type: none">Educating contractors regarding the sensitivity of park resources, including special status species.Avoiding actions beyond the construction zone.Staging construction equipment and materials in designated area.Avoiding impacts, from activities such as blasting.Properly maintaining construction equipment (i.e., mufflers) to minimize unintended noise.Requiring the contractor to maintain strict garbage control to prevent scavengers (e.g., ravens and crows), which are predators on murrelet nests, from being attracted to the project area. No food scraps would be discarded or fed to wildlife.		

<ul style="list-style-type: none"> • Using only approved commercial material sources and disposal sites. • Developing and implementing a revegetation plan to restore disturbed areas. • Restoring areas disturbed by construction to approximate natural contours, replacing topsoil, and seeding and/or planting. This work would occur as soon after the completion of construction as possible. • Monitoring revegetated areas after construction to determine if reclamation efforts are successful or if additional remedial actions are necessary. • Remedial actions could include installation of erosion control structures, reseeding, and/or replanting the area, and controlling nonnative plant species. • Avoiding introduction of nonnative, including noxious, plant species. On a case-by-case basis the following materials may be used for any erosion control dams that may be necessary: certified weed free rice straw, cereal grain straw (treated to kill weed seed), and wood excelsior bales. • Adhering to noise and work restrictions during the nesting season. 			Project Manager; Archeologist
Archeological Resources and Historic Structures	<p>No adverse effect. No additional ground disturbance except as needed to perform routine/recurring road maintenance. Although there is a potential for finding archeological resources, that potential is low because areas of impact have been previously disturbed and because archeological surveys have not revealed areas of concern.</p> <p><i>Historic Structures:</i> No adverse effect on the character-defining features of U.S. Highway 101 that contribute to making the road eligible for the National Register.</p> <p>No other historic structures are located along U.S. Highway 101 or East Beach Road in the area of potential effects.</p>	<ul style="list-style-type: none"> • Stopping work in the area of identification and nearby areas if archeological resources are discovered at any point during the project work (as directed by the park) until the find is evaluated and action taken to avoid or mitigate the impact. • When it is necessary to stop work due to archeological resources discovery, the contractor would cease all activities in the area of discovery, allow archeologists to complete investigations, and take measures to protect the resources discovered as directed by the park. (During this time, work may proceed in unaffected areas.) 	
<ul style="list-style-type: none"> • Avoiding further impact by modifying project implementation as needed at the site if archeological resources are discovered during implementation. If this is not possible, as much information as possible would be collected about the site in accordance with applicable laws and regulations and additional consultation with applicable agencies and tribes would occur as specified in implementing regulations for Section 106 of the NHPA. • Monitoring ground-disturbing actions as appropriate during construction to ascertain presence/absence of archeological materials within the proposed construction zone. Monitoring would be focused where buried historical deposits might be present beneath existing development. Evaluating the eligibility of the site under National Register of Historic Places criteria if monitoring results in the discovery of archeological materials. • Following procedures outlined in the Native American Graves Protection and Repatriation Act in the unlikely event that human remains or any objects protected under Native American Graves Protection and Repatriation Act are exposed. This would include the potential need to stop work for a minimum of 30 calendar days. (During that time, work may resume in non-sensitive areas.) 			
Visitor Experience:	<p><i>Access and Transportation:</i> Short-term adverse impacts from delays (30-minutes to four-hours) over three construction seasons from road rehabilitation actions. Beneficial effects from maintaining access to Barnes Point from one direction year-round. Diminished adverse effects from minimizing work</p>	<ul style="list-style-type: none"> • Limiting most construction delays and one-lane closures through the project area to no longer than 30 minutes. • Requiring a traffic management plan from the Contractor for review and approval by the Federal Highway Administration and the park. 	Project Manager; Chief of Interpretation

	<p>delays during commute hours.</p> <p>Long-term beneficial effects from improved roadway in good condition.</p> <p><i>Opportunities:</i> New visitor use opportunities from linkage trails at the Barnes Point Clallam Transit stop, improved opportunities from improved road with better turnouts, safer roadsides, and reduced nonnative species. Some short-term adverse effects from elimination of turnout on East Beach Road which contributes to sedimentation of spawning area in the Lyre River. Eventual replacement of trailer and kayaker parking closer to the Spruce Railroad Trail. Additional adverse effects from six-hour delays at night. Although visitors and commuters could choose to avoid travel on the road at those times or could choose an alternate route, it is likely that these options would be cumbersome over the estimated three years of the construction project.</p> <p><i>Interpretation and Education:</i> Long-term indirect beneficial effects from improved trail connections at Barnes Point for NatureBridge programming. Long-term beneficial effects from improvement of Sledgehammer Point, including from future planned improvements to wayside exhibits and signs.</p>	<p>This plan would include: proposed areas of construction and anticipated delays, safety considerations, estimated lengths of delay, and estimated number of vehicles stopped at any one point, as applicable to the construction. The 30-minute delay in each direction (plus limited 4-hour delays and additional 6-hour night delays would be considered maximum) and the plans would include proposals for less than 30-minute delays for the total length of the road. The plan would also include, as necessary, a limit on the number of vehicles that could be stopped at any one point to avoid backup into critical areas.</p> <ul style="list-style-type: none"> • Allowing for no more than two sections of road under alternate one-way traffic control at any one time. • Requiring the contractor to provide a weekly delay schedule with daily updates to the Federal Highway Administration's project engineer to better inform management and the public regarding impacts on visitation and park operations. • Providing a means to allow for evening, weekend and holiday work, including construction delays, with permission of the superintendent. 	
<ul style="list-style-type: none"> • Making materials deliveries (to the degree possible) during non-commute hours and by proceeding along the shortest route possible. • Using press releases to inform visitors through local media, signs in the park and state highway information recordings of road conditions in the park during the project. • Scheduling work that would affect or close major visitor use areas, such as Sledgehammer Point, at the beginning and end of the primary visitor use season to avoid impacts to the greatest number of people. • Maintaining one lane of traffic at all times except when during the 4-hour day-time or 6-hour night-time delays. • Routing emergency traffic immediately through the project area (to the degree possible). • Using electronic sign boards to notify travelers of upcoming and active project work that would affect travel along U.S. Highway 101 and East Beach Road. • Limiting vehicle and equipment parking and materials storage to existing disturbed areas within the project construction limits. These would be in existing turnouts, parking lots, and the Aurora quarry, or other park-approved locations. • Taking advantage of long-daylight days with an increased road construction period. • Minimizing construction delays during commute hours on Highway 101. • Implementing the park's vehicle idling policy through liaison with the contractor and project manager and in the project's special contracting requirements. 			

Public Involvement

Olympic National Park conducted public scoping of six preliminary alternatives. Two public meetings were held in Port Angeles (May 18, 2015) and Forks, Washington (May 20, 2015). Articles about public scoping were published in the Peninsula Daily News (5-11-15), Sequim Gazette (5-13-15), and The Tacoma News Tribune (5-11-15). There were also two radio broadcasts (KONP Radio Port Angeles (5-11-15) and KBKW Newstalk Grays Harbor (5-8-15). During the public scoping period, from May 7 – June 7, 2015, 42 correspondence letters were received. These included 26 PEPC comments, six letters, six optional public comment forms, one email and one phone message. Many commenters responded to the three public scoping questions. Correspondence letters generated 285 separate comments, categorized in 46 topics. A summary of public alternatives scoping comments is posted on the PEPC website (<http://parkplanning.nps.gov/olym/53794>).

The park also conducted a 30-day public comment period for the U.S. Highway 101 (Lake Crescent) and East Beach Road rehabilitation project EA from April 1-30, 2016. Two public meetings were held in Port Angeles (Monday, April 18, 2016) and Forks, Washington (Tuesday, April 19, 2016), each with two presentations an hour apart. Approximately 10 people signed in at the meetings in Port Angeles and 26 signed in at (34 attended) the meetings in Forks.

An article about the EA/public comment period was published in the Peninsula Daily News (peninsuladailynews.com 4-3-16). Another was published the previous November following the release of the public comment summary (peninsuladailynews.com 11-16-15). Notice of the public meeting was also sent to approximately 75 people, businesses and organizations, as well as other civic and government entities on the park's mailing list.

In response to the public review press release and supplemental information about the three alternatives, the park received 18 pieces of correspondence. Correspondence was received via the NPS Planning, Environment and Public Comment (PEPC) website (www.parkplanning.nps.gov), and/or via email, formal letter, or in a hardcopy using a public comment form completed and submitted at a public meeting. Optional public comment forms were available at both public meetings. In addition to the two public meetings, where comments were transcribed and entered into PEPC, there were seven website (PEPC) comments, one letter, eight optional public comment forms, and one email. One public comment form was a request from Representative Derek Kilmer to be added to the mailing list for the project. Correspondence was received from people in five cities or communities in Washington State (Beaver, Forks, Port Angeles, Sequim, Tacoma, and Tumwater). One PEPC comment was received from outside of the region (Yosemite National Park).

In addition to the general public, three letters were submitted from two government entities (Washington Department of Transportation (WSDOT), and the City of Forks); three businesses (Riverview RV Park, Cuts on the Run, Hungry Bear Cafe/Bear Creek Motel); and one organization (Backcountry Horsemen of Washington: Peninsula Chapter). No comments were received from Native American Indian tribes or environmental groups.

Of the 18 correspondences there were 26 separate comments generated. These comments were categorized into 4 overall topics (resources, safety, delays, and communications) and 10 specific topics.

Responses to substantive comments are provided as an attachment to this Finding of No Significant Impact (FONSI).

Some comments that were received are considered outside the scope of the current project. These comments pertain to actions or subject matter that is not related to the rehabilitation of the Lake Crescent segment of U.S. Highway 101/East Beach Road. Categories of comments outside the scope of the project include comments about constructing horse trailer parking/turnaround for the Spruce Railroad Trail;

comments about impacts of alternatives considered but dismissed; comments offering opinions about safety or speculation about project costs; and compliments.

Agency Consultation

State Historic Preservation Office (SHPO)

The public outreach called for by Section 106 of the NHPA was integrated into the NEPA process in accordance with the *NPS Programmatic Agreement* (2008) and *Management Policies: The Guide to Managing the National Park System* (2006). Consultation with the Washington State Historic Preservation Office has occurred regarding the finding associated with impacts to U.S. Highway 101 and East Beach Road. The SHPO concurred with the finding of *no adverse effect* in a letter dated July 20, 2016. SHPO also requested some additional information related to the archeological survey, which was provided and which does not change the determination of effect.

U.S. Fish and Wildlife Service

Federal agencies must consult with the U.S. Fish and Wildlife Service (USFWS) to ensure their actions will not jeopardize the continued existence of any federally listed or proposed threatened or endangered species, or designated or proposed critical habitat [ESA, Sec. 7 (a)(2), 16 USC 1531 *et seq.*]. If listed species are present, the federal agency must determine if the action will have *no effect*, *may affect*, [is] *not likely to adversely affect* or *may affect*, [is] *likely to adversely affect* those species. The NPS made the determination of effect for the Selected Alternative following guidance outlined in the *Endangered Species Act Consultation Handbook: Procedures for Conducting Section 7 Consultations and Conferences* (USFWS and National Marine Fisheries Service 1998). The NPS has determined that the Selected Alternative *may affect*, and is *likely to adversely affect* marbled murrelets and *may affect*, and is *not likely to adversely affect* northern spotted owls. The Selected Alternative would have *no effect* on Pacific fishers. The USFWS concurred with these determinations of effect in the Biological Opinion for the U.S. Highway 101 Lake Crescent and East Beach Road Rehabilitation EA on August 19, 2016. The Biological Opinion is provided as an attachment to the FONSI.

Native American Indian Tribes


NPS consulted with culturally associated American Indian groups during the development of the *U.S. Highway 101 Lake Crescent and East Beach Road Rehabilitation Environmental Assessment*. No responses from tribes were received during the public review period. All tribes were notified of the project over the course of the past several tribal Memorandum of Understanding (MOU) meetings (the most recent of these occurred December 9, 2016) and none has expressed concerns about the project.

Finding

On the basis of the information contained in the EA as summarized above, the NPS has determined that implementing the Selected Alternative is not a major federal action nor is it an action without precedent or similar to an action that normally requires an Environmental Impact Statement (EIS). The conclusions of non-significance are supported by the conservation planning and environmental impact analysis completed and the capability of listed mitigation measures to reduce or eliminate impacts. No adverse effects to cultural or historical resources will occur; and there are no unacceptable impacts. This determination also included due consideration of the minor nature of agency and public comments.

Therefore, in compliance with the National Environmental Policy Act, an EIS will not be prepared, and the selected project may be implemented immediately.

Recommended:

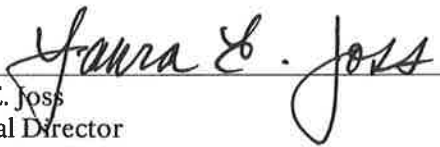


M. Sarah Creachbaum
Superintendent
Olympic National Park

8/23/16

Date

Approved:



Laura E. Joss
Regional Director
Pacific West Region

8/31/2016

Date

**Olympic National Park
U.S. Highway 101 Lake Crescent and East Beach Road Rehabilitation
Environmental Assessment**

Response to Public Comments

1) Seeps (1 comment)

Public Concern: Address new larger seeps along roadway.

Response: Existing seeps and other drainage problems would be fixed as part of the rehabilitation project on U.S. Highway 101.

2) Concerns about Safety Associated with Road Delays (4 comments)

Public Concern: Use a sensor instead of stoplight at night in one-way traffic zones

Response: The National Park Service and Federal Highway Administration planning team is looking into the possibility of placing sensor lights. If these are not viable for the proposed project, lights would likely be placed on a 10-15 minute timer.

Public Concern: Add flashing lights to stop signs to improve safety and increase the ability to distinguish the signs (including for color blind drivers).

Response: The Federal Highway Administration planning team is looking into the possibility of hand held stop signs with a flashing light. If these are not viable for the proposed project, an unlit stop/slow sign would be used.

Public Concern: Stop traffic in flat areas, rather than on slopes to improve safety for truck drivers.

Response: Project work will be planned to minimize the use of flaggers on the steep grades, however in some cases flaggers would likely be placed on these grades to minimize traffic delays.

3) Impacts on Safety from Taking Reroute (2 comments)

Public Concern: There is a potential for adverse impacts from additional traffic on SR112/113.

Response: Providing a high degree of public notification about the timing of day- and night-time delays will allow visitors and residents to make choices about whether to delay their trips or to use another route. Although there are no planned closures of U.S. Highway 101 or East Beach Road there may limited increases in traffic on State Routes 112/113, depending on the decisions of drivers to take that route.

4) Socioeconomic Impacts of Delays on Sports Teams' Travel (2 comments)

Public Concern: Schedule work in cooperation with Educational Services District to avoid lengthy night delays during sports event trips

Response: Based on comments from individuals at the public meetings, the park and FHWA understand that most sports team travel occurs on Tuesdays and Thursdays. Because night work will most likely focus on Monday through Wednesday nights, sports teams and others will experience relatively uninhibited travel at other times. Because of work requirements, such as for replacement of large culverts, scheduling a block of several days for work to take place is important to the proposed project.

5) Socioeconomic Impacts on Commuters (1 comment)

Public Concern: Road work should be spread out over a longer period to minimize effects on commuters from pilot lines.

Response: Project work has been planned to minimize both costs and impacts on park visitors and residents. Although the contractor could decide to further shorten or lengthen project timing or this could occur due to unforeseen circumstances, the current estimates are based on analysis of the best cost to benefit scenarios.

6) Socioeconomic Impacts on EMS (4 comments)

Public Concern: Road work may affect the ability of ambulances, fire trucks and other emergency services to get through the project area, increasing costs for transport.

Response: Public and agency comments have demonstrated that past construction work has provided an adequate means of emergency passage through the project area and/or has relied on other transportation means or routes. Although project managers and Emergency Medical Services (EMS) providers would work together to provide access through the construction zone, it is possible that air transport or other means would also be needed during the construction. The National Park Service and Federal Highway Administration will communicate known delays to EMS providers.

7) Timing of Delays (7 comments)

Public Concern: Delays should be timed to avoid the most impacts to commuters and visitors.

Response: To the degree possible, proposed delays will avoid commute hours and weekends/holidays. Depending on project needs proposed delays would likely occur between 9:00 a.m. and 1:00 p.m. and/or between 10:00 a.m. and 2:00 p.m. Night-time delays are projected to occur between 10:00 p.m. and 4:00 a.m. Providing consistent times for day- and night-time delays will likely help visitors and residents to plan trips and travel through the project area. These delays will be well-signed and communicated via a variety of means.

8) Provide Facilities (2 comments)

Public Concern: Provide restrooms where there will be 4-hour delays

Response: In response to public comments, the park and FHWA intend to provide an accessible portable toilet (likely trailer-mounted) during long day- and night-time delays.

9) Information about Delays (3 comments)

Public Concern: Advertise delays through as many means as possible, including radio, texts, emails, newspapers and public notices.

Response: Among the intended communications tools to advertise delays would be: coordination with Washington State Department of Transportation notifications (affected people can sign up for texts, tweets, emails and other notifications for desired roadways), variable messaging electronic signs at the beginning and end of the project area, press releases, posted signs at area post offices, website information (park, FHWA, WSDOT), and fixed signs.

10) Business Open Sign (2 comments)

Public Concern: Provide a sign showing that businesses past Sappho are open.

Response: The National Park Service and Federal Highway Administration will provide a sign indicating that businesses are open despite construction.

11) Lyre River Trailhead Parking (2 comments)

Public Concern: The informal parking area used by horse trailers is being lost as part of the proposed East Beach Road rehabilitation.

Response: Although the need for this parking is outside the scope of the rehabilitation project because it is related to the Spruce Railroad Trail, there are proposed improvements associated with the Spruce Railroad Trail Environmental Assessment that include a horse trailer turnaround and associated informal parking near the Lyre River. The turnout on East Beach Road is being eliminated to avoid impacts to a trout spawning area.

Attachment A: Biological Opinion Conservation Measures and Conservation Recommendations

U.S. Fish and Wildlife Service Reference: OIEWFW00-2016-F-0656
U.S. Highway 101 Lake Crescent and East Beach Road Rehabilitation Project

Northern Spotted Owl **(Biological Opinion page 3)**

The Park has committed to a number of conservation measures which are intended to avoid and minimize potential impacts to the northern spotted owl, and has provided information in support of a “may affect, not likely to adversely affect” determination for the northern spotted owl (NPS 2016a, pp. 4-5):

- Adhering to applicable noise and work restrictions as outlined in the 2007 Olympic National Park General Management Plan Biological Opinion (USWFS 2007, p 30):
 - During the breeding season, reduce the number of days of above ambient noise activities utilizing heavy equipment at each project site located within 35 yards of suitable marbled murrelet or northern spotted owl habitat. Restrict the use of jackhammers, rock drills, and pile drivers within 60 yards of suitable habitat during breeding season for northern spotted owls and marbled murrelets.
 - Within or near suitable northern spotted owl during the applicable season, minimize idling of motors when power tools and equipment, including vehicles, are not in use.
 - Muffle above ambient noise whenever possible to reduce noise impacts
- Night work would not occur until well after the early nesting season for northern spotted owls is over starting around Labor Day (early September) each year.
- Lights used for night work will be downcast to reduce light pollution and disturbance.

Marbled Murrelet

(Biological Opinion page 7)

Conservation Measures for the Marbled Murrelet

1. Limit night work until late in the murrelet nesting season (after Labor Day) when most chicks are reported to have left forested areas for marine waters.
2. Night construction will begin one hour after sunset, and will cease one hour prior to sunrise, from April 1 to September 23. This restriction would not apply to nighttime activities conducted between September 23 and April 1 of each calendar year.
3. Implement standard noise abatement measures during the project, including: scheduling to minimize impacts in noise-sensitive areas, using the best available noise control techniques wherever feasible, using hydraulically or electrically powered impact tools when feasible, and locating stationary noise sources as far from sensitive uses as possible.
4. Minimize idling of motors when power tools, equipment, and vehicles are not in use.

5. Muffle above ambient noise whenever possible to reduce noise impacts.
6. Protect and preserve critical habitat features, such as potential nest trees, whenever possible.

(Biological Opinion pages 33-34)

TERMS AND CONDITIONS

In order to be exempt from the prohibitions of section 9 of the ESA, the Park Service must comply with the following terms and conditions, which implement the reasonable and prudent measure (RPM), described above and outline required reporting/monitoring requirements. These terms and conditions are non-discretionary.

The following terms and conditions are required for the implementation of RPM 1:

1. When developing final plans for construction, the Park shall include enforceable contract specifications to ensure full and successful implementation of the agreed-upon conservation measures.
2. The Park shall prepare a schedule in advance of each year's construction activities. The schedule shall outline and communicate seasonal and day/night work timing restrictions, with reference to specific work locations, staging locations, and/or roadway sections. The Park shall provide the schedule to the selected Contractor(s) and work cooperatively to refine and adaptively manage implementation of the schedule, including contingencies. The Park shall provide a copy of each year's construction schedule to the Service at their earliest convenience, but no later than June 1.
3. The Park shall conduct a field review of work and staging locations in advance of each year's construction activities. The Park shall assess the limits of construction, and identify and confirm unavoidable impacts to mature vegetation, with reference to specific locations and/or roadway sections. The Park shall plan, cooperatively refine with Contractor(s) input, and adaptively manage the implementation of best management practices (BMPs) designed to avoid and minimize impacts to mature trees and stands providing suitable habitat.
4. In the project description the Park states that habitat within the project area has been surveyed for trees with suitable murrelet nest platforms. If during the project the areas impacted should be for any reason altered and suitable nest trees must be removed the Park shall notify the Service at their earliest convenience to manage clearing and other work activities to avoid any possibility of nest destruction. The Park shall coordinate with the Service to positively confirm the absence of nesting murrelets and/or postpone clearing until after the murrelet nesting season.
5. The Park shall prepare, and provide to the Service no later than December 15, a summary of each year's construction activities. The summary shall describe implementation of the seasonal and day/night work timing restrictions, schedule/construction contingencies and adaptive management, current year survey findings, and the implementation of BMPs designed to avoid and minimize impacts to mature trees and stands providing suitable habitat.
6. All materials for submittal to the Service shall be sent to the Washington Fish and Wildlife Office's Consultation and Conservation Planning Division (Attn: Manager, Forest Resources Branch).

We expect that the amount or extent of incidental take described above will not be exceeded as a result of the proposed action. The RPMs, with their implementing terms and conditions, are designed to minimize the impact of incidental take that might otherwise result from the proposed action. If, during the course of the action, this level of incidental take is exceeded, such incidental take represents new information requiring reinitiation of consultation and review of the RPMs provided. The Park must provide an explanation of the causes of the taking and review with the Service the need for possible modification of the RPMs.

The Service is to be notified within three working days upon locating a dead, injured or sick endangered or threatened species specimen. Initial notification must be made to the nearest U.S. Fish and Wildlife Service Law Enforcement Office. Notification must include the date, time, precise location of the injured animal or carcass, and any other pertinent information. Care should be taken in handling sick or injured specimens to preserve biological materials in the best possible state for later analysis of cause of death, if that occurs. In conjunction with the care of sick or injured endangered or threatened species or preservation of biological materials from a dead animal, the finder has the responsibility to ensure that evidence associated with the specimen is not unnecessarily disturbed. Contact the U.S. Fish and Wildlife Service Law Enforcement Office at (425) 883-8122, or the Service's Washington Fish and Wildlife Office at (360) 753-9440.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the ESA directs Federal agencies to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information. The Service offers the following non-binding conservation recommendation to the Park Service to promote the recovery of federally listed species and their habitats:

1. Minimize or eliminate night work during the nesting season of the murrelet April 1 through September 23.
2. To the greatest extent possible within suitable murrelet habitat, do not allow day work in the same area where night work occurred. Night construction work zones should be restricted to those areas a distance of 100 meters or greater from day construction work zones.

In order for the Service to be kept informed of actions minimizing or avoiding adverse effects or benefitting listed species or their habitats, the Service requests notification of the implementation of any conservation recommendations.

