

Finding of No Significant Impact

Relocation of the Stehekin Valley Road at Milepost 5.5 Environmental Assessment
National Park Service, U.S. Department of the Interior
North Cascades National Park Service Complex
Lake Chelan National Recreation Area
May 2021

INTRODUCTION

This Finding of No Significant Impact (FONSI) has been prepared in accordance with the National Environmental Protection Act (NEPA) for the [Relocation of the Stehekin Valley Road at Milepost 5.5 Environmental Assessment](#) (EA) in Lake Chelan National Recreation Area. This FONSI documents the decision of the National Park Service (NPS) to adopt Alternative I: Proposed Action. This alternative was evaluated in comparison with Alternative II: No Action. These were the only alternatives fully analyzed in the EA. This FONSI describes the Selected Action, and further documents the NPS determination that no significant impacts and no impairment to park resources will occur from rerouting approximately 0.25 miles of the Stehekin Valley Road at milepost 5.5. The FONSI and environmental assessment constitutes a complete record of the environment impact analysis process for this proposal.

SUMMARY OF ENVIRONMENTAL ASSESSMENT

The NPS in partnership with the Federal Highways Administration (FHWA) proposed to reroute approximately 0.25 miles of the Stehekin Valley Road at milepost (MP) 5.5 in Lake Chelan National Recreation Area. The proposal provides a solution to road damage that was caused due to a series of events that took place between November of 2017 and the fall of 2018. During this time, the Stehekin River undercut the north bank near MP 5.5 of the road causing erosion and the toppling of two large trees, which took a part of the road with it. The damage is expected to worsen given the recent movement of the main channel of the river toward the side channel along the road. Temporary emergency stabilization of the road was accomplished on December 9, 2018. Therefore, the road is currently passable; however, additional stabilization could not be performed. As a result, this portion of Stehekin Valley Road cannot be sufficiently stabilized for the long term and is vulnerable to further erosion and degradation by the river during future flood events. For these reasons, it is anticipated that the temporary bank stabilization measure will fail, eventually leading to road closure. The longevity of the existing stabilization and the road at this location is likely dependent on the magnitude and timing of future flood events. (EA, p. 1)

The purpose of the Proposed Action is to sustainably maintain safe and reliable vehicle access on the Stehekin Valley Road by addressing the threat of bank erosion below the road near MP 5.5 (EA, p. 1). Maintaining this access is essential for local transportation needs and ensuring the health and safety of the local populace, NPS employees, and visitors. This proposal is aligned with the purpose of the [Stehekin River Corridor Implementation Plan](#) (NPS 2013) and the goals and direction provided in the [Lake Chelan National Recreation Area General Management Plan](#) (NPS 1995).

To address this issue, the EA included Alternative I: Proposed Action, to reroute the road away from the vulnerable area near the Stehekin River and out of private property to an upland location through NPS-managed forested lands (EA, p. 3-7). The EA also considered Alternative II: No Action Alternative, where the NPS would take no action to stabilize the riverbank or road (EA, p. 7). Other Alternatives Considered but Dismissed were a slight variation of the reroute, which was determined to be infeasible, and

maintaining the road in its current alignment, which was determined to be an unsustainable solution (EA, p. 7).

In the EA, Alternative I and Alternative II were thoroughly analyzed to enable informed decision making (EA, p. 8-15). This process involved examining several issues with a detailed analysis, including Visitor Use and Experience, Socioeconomics, Human Health and Safety, Vegetation, and Wildlife Habitat. However, the EA dismissed several issues from detailed analysis, including Environmental Justice and Indian Trust Resources, Cultural Resources, the Federally Threatened Northern Spotted Owl, the Western Gray Squirrel, and migratory land birds (EA, p. 8-9).

Consultation and coordination were completed as required by NEPA, the National Historic Preservation Act Section 106, and the Endangered Species Act Section 7 (EA, p. 15-16).

SELECTED ALTERNATIVE

The NPS selects Alternative I: Proposed Action for implementation. The selected alternative consists of all actions described as proposed in the EA - there are some minor modifications to the alternative that are outlined below in the Errata section.

Under the selected alternative, the NPS will reroute the road away from the vulnerable area near the Stehekin River and out of private property to an upland location through NPS-managed forested lands. This is also the environmentally preferred alternative. The dimensions of the proposed realignment are the same as the existing roadway encompassing two 7-foot lanes with 1-foot shoulders for a total width of 16 feet. A 1-foot deep drainage ditch will be included with cut slopes. No turnouts or viewpoints are planned. The final road surface is expected to be a chip seal or similar type of material to match the current surface. The approximate width of the footprint of disturbance from construction will vary between approximately 40-feet to 70-feet depending on the topography, affecting approximately 1.4 acres.

This new alignment will meet safety and design requirements and is laid out to 1) avoid disturbing adjacent drainage culverts on each end; 2) maximize the distance from the nearby private property; and 3) avoid a small alluvial fan to the northwest of the realignment. Due to landscape features and characteristics, the realignment is placed below the headwall of the existing fan feature; the road cannot be moved any farther upland without significantly impacting the fan feature which would likely result in erosion and additional long-term maintenance costs. To minimize both environmental impacts and costs associated with new cuts and fills, the realignment is being designed to match the existing topography to the extent possible.

The proposed road is also designed to reduce the potential for storm water runoff onto the adjacent private property. Best management practices (BMPs) to address stormwater runoff will include drainage ditches along the realignment in cut slope areas, rock check dams to reduce flow velocities, fabric liners, sediment waddles, erosion control blankets, wood fiber mulch and seeding, which all minimize erosion and deposition of sediment to the existing streams. As the project design progresses, a storm water pollution prevention plan, (SWPPP) will be developed identifying the type and location of the BMPs as well as the maintenance and inspection requirements to ensure those BMP's remain in good working order during the life of the project and until the area has been permanently stabilized by vegetation.

Access to the private property of Parcel 07-142 is anticipated to be from the west side with a new driveway that will exit the new road at a 90-degree angle to facilitate the ability for vehicles to enter and exit while traveling in either direction on the road. This corner will be designed to accommodate a vehicle the size of a small bus or a passenger car towing a trailer. The new driveway will connect the new road with a portion of the old road which is all entirely on NPS land.

Treatment of the abandoned road alignment to the east of the eroded road will consist of maintaining a primitive road from where the realignment takes off, up to a Chelan Public Utility District (PUD) utility pole and then, from there, scarification and revegetation to the eroded road site. The eroded area is likely to grow in future years. The primitive road is needed to permit the PUD access to the utility pole for maintenance purposes. Reclamation of this portion of the remaining abandoned alignment is needed to address safety concerns and prevent public access to the damaged road site.

Land clearing work may begin as early as September 2021, as a smaller separate contract from that of earth moving and road construction. Approximately 44 trees that are 18-inches or greater in diameter at breast height are expected to be removed. Timber from the cleared area will be utilized for firewood (as stipulated in the Stehekin Firewood Management Plan), shredded to use for soil stabilization in revegetation areas, stockpiled for future riverbank stabilization projects, and any excess will be burned in a burn pile. The wood from the project intended for firewood will be moved to the log yard and available to residents that have a current firewood permit.

Earth moving and road construction work may begin as early as September 2022. To ensure the road meets the vertical grade standard of less than 4%, cut and fill will be required, with the goal of balancing the cut and fill as much as possible. This means that whatever is excavated from roadway cuts will be used as fill elsewhere in the design, assuming the material meets minimum quality requirements. Balancing cut and fill on a project has several benefits. It minimizes the associated costs of purchasing and importing material, which at this project location, is expensive and logistically challenging. It also keeps to a minimum truck traffic that can be disruptive to the Stehekin community and the potential for introducing invasive or noxious weed to the project area. Finally, it eliminates the expense of disposing of unneeded material.

The current preliminary project design estimates roughly up to 2,500 cubic yards of cut and roughly up to 1,500 cubic yards of fill. These amounts will change as the design is further refined but it is not expected that, in the current alignment, that the amounts will dramatically increase. Regardless of how well-balanced the project is, some materials will need to be imported including suitable roadway base material, topsoil, and additional unclassified fill material. There will be no use of local gravel pit material as it is not available for this type of project. Material imported from outside the Stehekin Valley will be required to be weed free. Note, at the time of writing of this FONSI, plans were under review and had not been finalized. So while the general alignment of the route is accurate, there may be some minor adjustments. Details and quantities may shift as the final details in designs are refined.

At this time blasting is not anticipated but it may be required to remove any large boulders discovered that cannot be removed by excavation alone.

FHWA is a cooperating agency and will administer the construction contract for the project. To secure the most cost-effective construction price and efficient schedule, requirements for construction methods are kept to a minimum and are left to the contractor to determine. Exceptions to this approach include timing restrictions and method requirements required to secure various environmental clearances and permits. Contract conditions provide both standard specifications (*see the [FP-14 document](#)* (U.S. DOT 2014) and project specific conditions to direct the contractor. For example, contract language prohibits the contractor from working outside of the construction limits identified on the plans sets. In addition, the contract will require the contractor to specify refueling procedures and prepare and comply with a Hazardous Spill Plan. Also, the contractor will abide by any pertinent restrictions on equipment use based on local wildfire risk advisories.

To ensure quality control, the FHWA staff overseeing the construction contract will work closely with NPS staff, including weekly meetings with the NPS, FHWA, and the contractor to coordinate upcoming activities and provide the NPS ample notice to monitor construction as needed. Another quality control step FHWA takes is to adjust construction inspection duties and frequency based on risk and contractor

performance; Normally weekly inspections are performed to ensure compliance. In extreme circumstances, FHWA does have the authority to remove contractors or their sub-contractors from projects or terminate the contract altogether.

Federal Highways Administration will provide regular updates with a newsletter to the Stehekin community and public.

To allow for assessment of possible nesting of northern spotted owls (a federally Threatened species) in the vicinity, construction activities cannot begin before July 1st or, should same year surveys identify a nearby nesting pair, before September 6th. In addition, clearing of trees and vegetation for the road reroute cannot take place before September 1 to prevent impacting nesting migratory land birds and western gray squirrel (listed as a Washington State Threatened species).

Work will likely be conducted Monday-Friday during daylight hours. The work will take approximately 60 days to complete with the goal of completion in one construction season, although the construction could span two seasons depending on fall weather conditions. No road closures are anticipated although there may be some traffic delays of up to 30 minutes. Given that most of the work is on a new alignment, traffic disruption should be minimal since most of the work will be off the existing road. If delays are anticipated these will be publicly communicated in advance by the NPS. Otherwise, a precise construction schedule in terms of number of days, seasons and daily work schedule will not be known until after a contract is awarded. If unanticipated conditions (weather, fire) warrant night or weekend work to complete the project, FHWA will coordinate with the NPS to ensure these changes are communicated to the public in a timely fashion.

Two staging locations outside of the reroute area are anticipated to store equipment and materials: 1) the existing gravel pit off Company Creek Road that is west of the Stehekin Landing strip (Company Creek Pit); and 2) a previously disturbed field at MP 7.5 (locally known as Lower Field). Other staging areas may be identified and used as needed. Logistics such as barging, local equipment transport, and temporary lodging will be determined by the contractor. The following construction equipment should be anticipated for use in the construction activities: pickup trucks and trailers, refueling and maintenance trucks, skid-steer, track mounted excavator, motor grader, low-boy trailer, and transport. At this time, it is not possible to provide an accurate estimate the number and timing of truck trips on the Stehekin Valley Road, but these details can be publicly communicated by the FHWA once the information is known.

Exposed slopes will be covered with standard soil erosion and sediment control measures as required by environmental permits and then permanently stabilized through revegetation to minimize the potential for erosion and undermining of the new road subgrade. Post project revegetation with native species will be accomplished by the NPS likely in the fall of 2023 as it is ineffective to plant seed in the hot dry summer months. The National Pollutant Discharge Elimination System Permit (NPDES) requires exposed surface to be vegetated to 70% of background cover before the permit can be terminated. The permit holder must maintain soil erosion and sediment control measures (needed because there is no vegetation to prevent sedimentation) and conduct weekly inspections of those measures, until 70% of background cover is accomplished. FHWA and the contractor are the NPDES holders through construction of the road and then the permit will be transferred to the NPS.

Environmentally Preferred Alternative

The Selected Alternative is the environmentally preferred alternative. While there will be environmental impacts associated with the construction of the road, those impacts were determined to be less harmful than the impacts associated with continually implementing and repairing riverbank stabilization measures on the existing road. More specifically, allowing the river to its natural processes and removing the threat of any stabilizing materials from entering the river in the future was deemed more environmentally preferable than

habitat and vegetation loss associated with constructing the reroute. The Selected Alternative aligns with the long-term sustainability solutions evaluated and approved through the Record of Decision for the Stehekin River Corridor Implementation Plan EIS.

Mitigation Measures and Best Management Practices

The following best management practices are included to minimize the degree and extent of adverse impacts and will be implemented under the Selected Alternative. The NPS and FHWA are responsible for implementing these. Most will be incorporated into the construction contract(s).

Land Use

- Clearly identifying the construction limits, to prevent expansion of construction operations into undisturbed areas.
- Minimizing the extent of vegetation removal associated with road construction.

Air Quality

- Spraying water to minimize fugitive dust resulting from roadway construction.
- Covering trucks transporting soils and aggregate to Lake Chelan barge.
- Encouraging contractor employees and National Park Service (NPS) employees to travel in groups to and from the project site, rather than in multiple separate vehicles (pending the living of COVID-19 health-related restrictions).
- Revegetating bare and staging areas as soon as possible (upon final grading or when staging area is no longer in use).
- Encouraging the use of local labor sources and large-volume material delivery to minimize trip generation during construction activity.
- Encouraging use of a biodiesel mix fuel rather than traditional diesel fuel.

Soils

- Locating staging areas where they would minimize new disturbance of area soils and vegetation.
- Minimizing ground disturbance to the extent practicable.
- Minimizing driving over or compacting root-zones.
- Salvaging topsoil and duff from excavated areas for use in re-covering source area or other project areas.
- Windrowing topsoil at a height that would help to preserve soil microorganisms (less than three feet).
- Not leaving excavated soil alongside trees and providing tree protection if needed for specimen trees.
- Reusing excavated materials where possible in the project area.
- Revegetating project areas through native seeding and planting.

- Importing weed-free clean fill.
- Whenever possible storing imported topsoil and fill in a weed free area and covered by weed cloth to prevent contamination.
- Identifying clearing limits to minimize the amount of vegetation loss.
- Clearing and grubbing only those areas where construction would occur.
- Reusing topsoil from the reroute areas, to the extent practicable, to obliterate and revegetate abandoned road sections.
- Preparing and approving a hazardous spill plan or Spill Prevention, Containment and Control Plan (SPCC), whichever is appropriate, before construction begins.
- Encouraging the use of non-petroleum based hydraulic fluid in heavy equipment.

Vegetation

- Minimizing construction limits and areas to be cleared, where possible.
- Revegetating road reroute clearing areas not occupied by the roadway.
- Retaining specimen trees where possible adjacent to erosion protection sites and along the reroute/realignment areas (as identified by park staff).
- Whenever possible, salvaging plant material, prior to construction, from areas to be disturbed.
- Whenever possible, replanting salvaged plants on reroute side slopes and obliterated areas to accelerate site recovery and to reduce the opportunity for invasive species to establish.
- Restoring staging and other temporarily impacted areas following construction.
- Obliterating and revegetating abandoned road segments and areas disturbed by construction with native plant species (where applicable).
- Keeping fill slopes as steep as possible where fill is proposed to raise the road to minimize the disturbance footprint.

Noxious Weeds

- Only importing freshly exposed subsurface materials.
- Imported topsoil, fill and other construction materials capable of harboring seeds would be weed free, and would include certification if applicable.
- Washing all vehicles prior to barging to Stehekin. This includes all vehicles, but especially those having contact with soil or materials that may contain noxious weed seed prior to working in weed free areas or transporting weed free materials.
- Covering stored soil and rock, as appropriate, to prevent exposure to noxious weed seed.
- Separating contaminated soil from weed free soil and using the contaminated soil for subsurface fill.
- Conducting annual monitoring for potential weed infestation using early detection / rapid response eradication techniques.
- Identifying and controlling exotic plant species infestations prior to construction.

Water Resources

- Locating staging and stockpiling areas away from the Stehekin River.
- Delineating staging areas to prevent incremental expansion of the staging area.
- 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.
- Identifying the area to be cleared to define 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 re-seeding or revegetating disturbed areas as soon as practical.
- Using available topsoil and duff from the reroute areas to rehabilitate (re-create habitat) the obliterated road segments and road shoulders.
- Stabilizing disturbed areas until seeding and/or revegetation takes hold.
- Constructing temporary diversion devices such as swales, trenches, culverts, or drains to divert storm water runoff away from disturbed areas, including exposed slopes.
- Using native duff and topsoil to cover exposed soil as soon as practical.
- Installing protective construction fencing around, adjacent to, or near wetland and/or riparian areas that are to be protected or other erosion control measures to protect water resources in the project area.
- Using a Storm Water Pollution Prevention Plan (SWPPP) for construction activities to control surface run-off, reduce erosion, and prevent sedimentation from entering water bodies during construction.

Prevention of Fuel Spills

- Developing and implementing a comprehensive spill prevention/response plan that complies with federal and state regulations and addresses all aspects of spill prevention, 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 an oil and hazardous materials spill prevention, control, and countermeasure plan to address hazardous materials storage, spill prevention, and responses.
- Refueling activities would be done at least 100 feet from the river and its tributaries or other surface water.
- Areas where refueling or maintenance of equipment would occur would be identified and have containment devices such as temporary earth berms.
- Absorbent pads would be available to clean up spills.
- Restrictions on the location of fueling sites, requirements for spill containment, and other measures to safeguard aquatic and terrestrial habitat from construction-related contaminants would be identified.

Hazardous Materials

- Refueling vehicles and equipment at least 100 feet from the river and its tributaries or other bodies of water.
- Identifying areas where refueling or maintenance of equipment would occur and providing containment devices, such as temporary earth berms surrounding these areas.
- Ensuring that spill clean-up materials, such as absorbent pads, are present onsite where needed.
- Identifying the locations of fueling sites, requirements for spill containment, and other measures to safeguard aquatic and terrestrial habitat from construction-related contaminants.
- Locating fuel storage tank outside of the floodplain / channel migration zone floodplains and other sensitive areas.

Fish and Wildlife

- Scheduling construction activities with seasonal consideration of wildlife lifecycles to minimize impacts during sensitive periods (e.g., bird nesting and breeding seasons).
- 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, such as limiting construction to daylight hours to the extent practicable.
- At the end of the day covering excavated pits and trenches to prevent animals from being trapped.
- Soil and erosion control best management practices employed on the project will minimize the potential for trapping small animals.
- 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 conditioning of wildlife and in human/wildlife conflicts:
 - Title 36, Code of Federal Regulations (CFR), 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 a bear-resistant receptacle and removing all garbage off-site at the end of each working day.
- Using intake screening devices to draw water from near the surface of fast-moving water habitats to avoid impacts to aquatic organisms during water withdrawal.
- Employing, monitoring, and maintaining erosion control measures at construction locations to minimize sediment inputs to aquatic habitats.

Special Status Species

Consultation under Section 7 of the Endangered Species Act for the [Stehekin River Corridor Implementation Plan](#) (NPS 2013) was confirmed to cover the Selected Action by the US Fish and Wildlife Service (BO USFWS Ref # 13260-2010-F-0036). The following conservation measures and reporting requirements with respect to northern spotted owls will be implemented from that Biological Opinion:

- Aligning the road to avoid as many large diameter trees (~30" dbh) and those with nesting features (conifers with upper canopy crotch or mistletoe broom) as possible.
- Complete spotted owl surveys to protocol March 1 - June 30 during years of construction. Surveys would be completed prior to the start of construction.
- In order to monitor the impacts of implementation of the reasonable and prudent measure, the NPS shall prepare a report describing the progress of the proposed Project, including implementation of the associated terms and conditions and impacts to the spotted owl (50 CFR §402.14[I] [3]). The report, which shall be submitted to the Central Washington Field Office of the US Fish and Wildlife Service on or before February 1 of each year, shall list and describe:
 1. Annual survey results and reproductive status of affected spotted owls.
 2. Any observed adverse effects resulting from Project activities, including type, location, and frequency of the event, especially any interaction between spotted owls and their predators and competitors.
 3. The details regarding any newly discovered nesting or territorial spotted owl nest sites or activity centers.
- Upon locating a dead, injured, or sick endangered or threatened species specimen, prompt notification must be made to the nearest US Fish and Wildlife Service Law Enforcement Office (Special Agent Corky Roberts, Richland, Washington; telephone 509.546.8344) and the Central Washington Field Office (Wenatchee, Washington; telephone 509.665.3508). Care should be taken in handling sick or injured specimens to ensure effective treatment and care or the handling of dead specimens to preserve biological material in the best possible state for later analysis of cause of death. In conjunction with the care of sick or injured endangered species or preservation of biological materials from a dead animal, the finder has the responsibility to carry out instructions provided by Law Enforcement to ensure that evidence intrinsic to the specimen is not unnecessarily disturbed.

Visitor and Resident Experience

- Allowing construction delays and one-lane closures to be no longer than 30 minutes per passage through the project (longer delays could be approved in advance).
- Avoiding evening, weekend, and holiday work by requiring approval in advance. Longer construction delays or total road closures would also be approved in advance.
- Night work could be approved by the Park Superintendent.
- Distributing press releases to the Stehekin resident email list, local media, locating signs in the recreation area, and providing information on the Stehekin passenger ferries to inform visitors about road conditions in the Lower Stehekin Valley during the project.
- Using a public information program to warn of construction related road closures, delays, and road hazards.

- Managing vehicle traffic and contractor hauling of materials, supplies, and equipment within the construction zone to minimize disruptions in visitor traffic.
- Developing a safety plan prior to the initiation of construction to ensure the safety of recreation area visitors, workers, residents, and park staff.
- Minimizing dust during construction on public roadways (by minimizing soil disturbance, spraying water but no chemicals over disturbed soil areas during dry periods and revegetating disturbed soil areas as soon as practical following construction).
- The road would be open for all shuttle bus service, as well as the Rainbow Falls tour.
- Emergency vehicles, hikers and bicyclists would be allowed safe passage through the work areas.

Park Operations

- Providing and maintaining emergency vehicle access through the project area during construction.
- Coordinating work with park liaison to minimize disruption to normal park activities.
- Monitoring construction activities to ensure adherence to mitigation measures.
- Monitoring construction activities to provide recommendations to minimize impacts on park resources.
- Providing emergency vehicle access through the project area during construction. Coordinating work with park staff to reduce disruption to normal activities.
- Informing construction workers about the special sensitivity of park resources and values and regulations.
- Providing orientation about park resources for the contractor(s).
- Encouraging park resource specialists to be involved in inspections and monitoring and providing recommendations during the road rehabilitation.

Inadvertent Discovery Plan

Based on the Inadvertent Discovery Plan prepared for this project the following protocols will be followed if needed:

Inadvertent Discovery of Cultural Resources Protocol

Prior to commencement of project activities, construction personnel will be prepared for the possibility of encountering prehistoric and/or historic archaeological materials during ground-disturbing activities. The FHWA representative will be responsible for disseminating the information within this document to construction crews and contacting the NOCA Point of Contact in the event of an inadvertent discovery.

In the event that construction activities associated with the Stehekin Valley Road Reroute Project encounter any cultural materials (e.g., bones, shell, stone tools, beads, ceramics, old bottles, hearths, etc.), including archaeological artifacts, and/or sites, all work in the immediate vicinity will halt and the NPS, DAHP, the affected Native American Tribes, and the NOCA Archaeologist will coordinate the treatment of the materials. Work shall not proceed in the area of discovery until notification to proceed is granted by the NPS.

If potential cultural resources are encountered during construction excavation, the construction company will immediately stop work, contact the FHWA representative who shall ensure that the following procedures are followed:

- Secure the location of the discovery immediately by halting all ground-disturbing activity within at least 30 feet (10 meters) of the find;
- Secure all spoils piles and/or trucks that might contain cultural materials from the location;
- Contact the NOCA Point of Contact who will contact the NOCA Archaeologist to report the discovery;
- Record general information concerning the discovery, including the time, date, location, depth, and discovery method of the material.

The NOCA Archaeologist will be responsible for contacting DAHP and the affected Native American Tribes in the event of an inadvertent discovery of cultural resources. The individuals and representatives of these agencies will coordinate an on-site meeting to determine if the discovery represents cultural resource material and, if so, to ascertain the nature of the find. The treatment of the cultural resources will be determined through coordination and consultation with these agencies/individuals at that time.

Inadvertent Discovery of Human Remains Protocol

If human remains are encountered during any phase of the project, the FHWA representative will immediately notify the NOCA Point of Contact who will notify the NOCA Archaeologist. The NOCA Archaeologist will contact the Chelan County Coroner, the Chelan County Sheriff Department, and an appropriate DAHP representative and the following protocol will be applied:

- The county coroner will assume jurisdiction over the human skeletal remains and make a determination of whether those remains are forensic or non-forensic;
- If the county coroner determines the remains are non-forensic, then the DAHP will take jurisdiction over the remains;
- The State Physical Anthropologist will make a determination of whether the remains are Indian or Non-Indian and report that finding to the affected parties;
- The NPS will handle all consultation with the affected parties as to the future preservation, excavation, and disposition of the remains if there is no federal agency involved.

Errata

During the course of the FONSI review with FHWA staff, several minor changes were identified to the Proposed Action in the EA (below). These are updated in the Selected Alternative above.

- EA, p. 5: Change “up to 44 trees” to “approximately 44 trees”.
 - Explanation: Further planning in the late stages of the EA process identified that there may be a few more trees that need to be cut and others that won’t so the total may exceed 44. The total will not be known until construction starts.
- EA, p. 6: Add a sentence after the first sentence of the sixth paragraph on the page:
 - “Other staging areas may be identified and used as needed.”

- Explanation: Giving potential competing staging needs for the construction of a new fire dorm, cache, and housing near the Stehekin Airstrip, alternate staging areas may be needed.
- EA, p. 18: Delete the following Mitigation Measure under Vegetation:
 - “Clearly identifying the construction limits, to prevent expansion of construction operations into undisturbed areas.”
 - Explanation: This requirement is identified elsewhere in the list and through standard contract requirements the contractor will be responsible to stay within construction limits which will be indicated on plan sheets. Note that construction practices are moving toward “stakeless” sites in which flagging, or stakes may not be present.
- EA, p. 18-19: Add “Whenever possible” to the following Mitigation Measures to allow for greater flexibility in implementation given current conditions under Soils and Vegetation:
 - “Whenever possible storing imported topsoil and fill in a weed free area and covered by weed cloth to prevent contamination.”
 - “Whenever possible salvaging plant material, prior to construction, from areas to be disturbed.”
 - “Whenever possible replanting salvaged plants on reroute side slopes and obliterated areas to accelerate site recovery and to reduce the opportunity for invasive species to establish.”
- EA, p. 19: Delete the following Best Management Practice under Water Resources
 - “Using vegetable based hydraulic fluid in heavy equipment.”
 - Explanation: This can add unnecessary expense and is only required by FHWA if the equipment is operating in the wetlands or waters of the US, which they will not be for this project.
- EA, p. 21: Add “Stehekin resident email list” and clarify “Stehekin passenger ferries” (from “boat”) to the following Mitigation Measure under Visitor and Resident Experience:
 - “Distributing press releases to the Stehekin resident email list, local media, locating signs in the recreation area, and providing information on the Stehekin passenger ferries to inform visitors about road conditions in the Lower Stehekin Valley during the project.”
- EA, p. 22: Minor changes to the Inadvertent Discovery Plan to reflect FHWA contracting requirements related to communication:
 - Second paragraph:
 - Change “A representative of the construction company” to “The FHWA representative”.
 - Change “contacting the NOCA Archaeologist in the event of an inadvertent discovery.” to “contacting the NOCA Point of Contact in the event of an inadvertent discovery.”
 - Fourth paragraph and bullet point:
 - Change “If potential cultural resources are encountered during construction excavation, the construction company representative shall ensure that the

following procedures are followed:“ to “If potential cultural resources are encountered during construction excavation, the construction company will immediately stop work, contact the FHWA representative who shall ensure that the following procedures are followed:”

- Change “Contact the NOCA Archaeologist to report the discovery;” to “Contact the NOCA Point of Contact who will contact the NOCA Archaeologist to report the discovery;”
- Sixth paragraph:
 - Change “If human remains are encountered during any phase of the project, a representative of the construction company will immediately notify the NOCA Archaeologist.” to “If human remains are encountered during any phase of the project, the FHWA representative will immediately notify the NOCA Point of Contact who will notify the NOCA Archaeologist.”

RATIONALE FOR SELECTION

The NPS selected Alternative I: Proposed Action because it will allow the NPS to sustainably maintain safe and reliable vehicle access on the Stehekin Valley Road. Moving the road away from the river and channel migration zone in this vicinity avoids the ongoing cycle of damage from riverbank erosion, bank stabilization, further damage to the same or nearby banks and road, further bank stabilization, and so on. For decades the NPS has addressed and continues to address similar bank erosion problems next to roads at other locations in the Park Complex.

The Stehekin Valley Road is essential for local transportation needs and ensuring the health and safety of the local populace, NPS employees, and visitors. Approximately 39,000 people annually visit Stehekin and there are approximately 30 private landowners of developed and undeveloped land between MP 5.5 and MP 9 on the Stehekin Valley Road. Visitors and residents alike are supported by NPS and volunteer EMTs for emergency medical services in the valley as well as wildfire and structural fire response. All these responses in the lower valley front-country are commonly road based and rely on rapid first response via Stehekin Valley Road and Company Creek Road. If the No Action Alternative was selected, and the road collapsed, residents and visitors could be left without these essential road-based services. This is an unacceptable solution and does not align with NPS safety and sustainability policies.

In addition to the road being essential for providing emergency services, the Stehekin Valley Road also provides the primary means of access for public and private transportation within the Stehekin Valley and serves much of the recreational activity and access to local businesses. If the No Action Alternative was selected and the road were to become impassable due to river bank erosion at MP 5.5, the loss of easy vehicle access would severely disrupt daily resident transportation needs, local businesses and recreational opportunities in the upper valley including hiking, backpacking, camping, horseback riding, bicycling, whitewater paddling, guided shuttle touring, snowshoeing, cross-country skiing, sightseeing, picnicking, nature trails, and Pacific Crest National Scenic Trail hiker access to services below MP 5.5. The duration of such a disruption is unknown, but the impact is anticipated to be high.

Because the need for maintaining the Stehekin Valley Road above MP 5.5 is essential to ensuring the health and safety of the local populace, NPS employees, and visitors and because the adverse impacts associated with construction are minor, the NPS chose Alternative I.

WHY THE SELECTED ALTERNATIVE WILL NOT HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT

Using the criteria defined in the Council on Environmental Quality's NEPA regulations (Section 1501.3(b)), the NPS has determined the Selected Alternative will not have significant adverse effects on the human environment. No major adverse impacts were identified for the Selected Alternative that will require analysis in an EIS. This section summarizes effects on resources in the context of the project area and the Park Complex as a whole, and documents that none of these effects are significant. The Selected Alternative neither establishes a precedent for future actions with significant effects, nor represents a decision in principle about a future consideration.

Several issues were dismissed from detailed analysis in the EA (p. 8-9). Environmental Justice and Indian Trust Resources was dismissed because no potential impacts related to tribal trust resources or communities identified as low-income or minority populations as identified in Executive Order 12898 were identified during internal or external scoping for this project. Cultural Resources was dismissed because the NHPA Section 106 process resulted in a finding of No Historic Properties Affected. The Colville Confederated Tribes (CCT), and the State Historic Preservation Office (SHPO) concurred with this finding; Yakama Nation has not commented. The three remaining issues were dismissed (Northern Spotted Owl, Western Gray Squirrel, migratory land birds) because the scheduled work of the Proposed Action does not take place during the nesting season. Therefore, impacts to nesting animals will be negated.

Most impact topics will have long-term beneficial effects with some adverse impacts that range from insignificant to minor. Many of the adverse impacts are construction related and will, therefore, be temporary and unnoticeable after completion of the project and once new vegetation becomes established. Longer term adverse impacts to vegetation and wildlife will be minor because they are small, localized effects. Adverse impacts to visitor use and experience, public health and safety, and socioeconomics range from minor adverse to moderate beneficial, with local businesses receiving more customers due to an increased workforce presence. These effects are not considered significant. A detailed analysis of effects can be found in the EA (p. 9-15)

Regarding construction impacts on visitor and resident experience, these impacts will be minimized by complying with existing laws and Mitigation Measures and Best Management Practices. Upon implementation of these minimization measures, impacts to valley businesses, visitors, and residents may lead to annoyance during construction, but will otherwise be minor for visitor and resident experience.

Effects on Human Health and Safety

Constructing the road reroute will ensure disruption does not occur to essential services such as NPS firefighting, EMS response, and search and rescue operations. This will have beneficial health and safety effects. The Selected Alternative introduces only a minor risk to human health and safety by constructing the new road reroute. Dust, noise, construction delays, and increased traffic will have only temporary and minor effects on public health and safety. These effects will be partly mitigated by requiring the implementation of Mitigation Measures in construction activities.

Effects that would violate federal, state, tribal, or local law protecting the environment

Implementing the Selected Alternative will not cause effects that would violate federal, state, or local environmental protection laws.

Cumulative Effects of Reasonably Foreseeable Planned Actions

To determine significance, this project's impacts were analyzed in conjunction with two other reasonably foreseeable planned actions identified in the Stehekin River Corridor Implementation Plan (NPS 2013). These actions were determined to be unconnected. These projects were considered as part of the affected environment and have the potential for effects to overlap with the Selected Action, they are:

1. The Stehekin River Corridor Implementation Plan (NPS 2013) identifies the construction of an 11-mile long trail. This Stehekin Valley Trail has not been constructed yet, but it will parallel the Stehekin Valley Road and be in the same vicinity as the proposed road relocation. In the event of its eventual construction, the Stehekin Valley Trail could be accommodated in the same area and would be unaffected by the road relocation and have minor impacts to visitor use and experience (EA, p. 8-10).
2. The construction of a new fire dorm, cache, and housing near the Stehekin Airstrip in 2021 and 2022. This project may overlap in the needs for access to Company Creek Pit, traffic control, and contractor housing resulting in mixed minor short-term adverse and beneficial effects. Additive effects of this project and the Selected Action will be beneficial in the long-term from the new facilities described above as well as future construction of new maintenance facilities adjacent to the Stehekin Airstrip, which includes a maintenance building and warehouse, solid waste facility, equipment storage, and hazardous material and fueling areas (EA, p. 10-15).

PUBLIC INVOLVEMENT AND AGENCY CONSULTATION

Public Scoping

The formal public scoping period for this EA was announced by news release and began on December 1, 2020 and ended on January 14, 2021. The scoping document was made available at <https://parkplanning.nps.gov/StehekinRoadReloScoping2020>. Five comments were received from individuals and one was received from a local nonprofit, North Cascades Conservation Council. All commenters were essentially in favor of rerouting the road. Two commenters provided several substantive comments. Additionally, a public meeting via conference call was conducted on December 10, 2020, from 5-7 pm. Five members of the public attended this meeting, with questions from two of the attendees.

EA Public Review

The public review period for the EA was announced by news release. The EA was posted online at <https://parkplanning.nps.gov/StehekinRoadReloEA2021>. Public comment was available from March 15, 2021, to April 13, 2021, via the NPS PEPC page. Four non-substantive comments were received and all of them were in support of the Proposed Action.

Agency/Tribal Consultation

Endangered Species Act Consultation

The Endangered Species Act of 1973, as amended (16 USC 1531 et seq.) requires all federal agencies to consult with the USFWS to ensure that any action authorized, funded, or carried out by the agency does not jeopardize the continued existence of listed species or critical habitat. The NPS consulted about a road reroute at McGregor Meadows, in the same vicinity as this project as part of the larger Proposed Action during NEPA review of the [Stehekin River Corridor Implementation Plan](#) (NPS 2013). The NPS

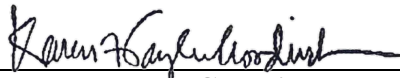
corresponded with USFWS in May 2020 for this project, and it was determined that the Biological Opinion for the implementation plan EIS is still valid (USFWS Reference #13260-2010-F-0036). Therefore, no additional consultation was required.

Section 106 of the National Historic Preservation Act Consultation

The NPS initiated Section 106 consultation with the Confederated Tribes of the Coleville Nation (CCT) and the Yakama Tribe, and the Washington State Historic Preservation Officer (SHPO) on February 14, 2020. The final report and National Historic Preservation Act Section 106 determination of No Historic Properties Affected was sent to the tribes and SHPO for comment on July 24, 2020. The CCT concurred with this finding July 26, 2020, and the SHPO concurred in their letter dated August 3, 2020, while the Yakama Nation has not commented.

CONCLUSION

Based on the environmental impact analysis contained in the EA, the mitigation measures designed to avoid, reduce, or eliminate potential impacts, and the results of public review and agency coordination, the NPS has determined the Selected Alternative does not constitute a major federal action that would significantly affect the quality of the human environment. The Selected Alternative is not without precedent, nor is it similar to an action which normally requires an EIS. No connected actions with potential significant impacts were identified. Therefore, in accordance with the National Environmental Policy Act (1969) and regulations of the Council on Environmental Quality, requirements have been satisfied and preparation of an EIS is not required.

Recommended:  5/11/2021
Karen F. Taylor-Goodrich, Superintendent Date
North Cascades National Park Service Complex

Approved: _____ Date
Cindy Orlando, Acting Regional Director
National Park Service, Interior Regions 8, 9, 10 & 12

Determination of Non-Impairment

Relocation of the Stehekin Valley Road at Milepost 5.5
North Cascades National Park Service Complex
Lake Chelan National Recreation Area

May 2021

THE PROHIBITION OF IMPAIRMENT OF PARK RESOURCES AND VALUES

NPS Management Policies 2006, 1.4.4, explains the prohibition on impairment of park resources and values:

While Congress has given the National Park Service (NPS) management discretion to allow impacts within units of the national park system, that discretion is limited by the statutory requirement (generally enforceable by the federal courts) that the NPS must leave park resources and values unimpaired unless a particular law directly and specifically provides otherwise. This, the cornerstone of the 1916 Organic Act, established the primary responsibility of the NPS. It ensures that park resources and values will continue to exist in a condition that will allow the American people to have present and future opportunities for enjoyment of them.

NPS Management Policies 2006, 1.4.5, *What Constitutes Impairment of Park Resources and Values*, and §1.4.6, *What Constitutes Park Resources and Values*, provide an explanation of impairment. Impairment is an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values. 1.4.5 states:

An impact to any park resource or value may, but does not necessarily, constitute impairment. An impact is more likely to constitute impairment to the extent that it affects a resource or value whose conservation is:

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

An impact would be less likely to constitute impairment if it is an unavoidable result of an action necessary to preserve or restore the integrity of park resources or values and it cannot be further mitigated.

Per I.4.6 of Management Policies 2006, park resources and values at risk for being impaired include:

- the park's scenery, natural and historic objects, and wildlife, and the processes and condition that sustain them, including, to the extent present in the park: the ecological, biological, and physical processes that created the park and continue to act upon it; scenic features; natural visibility, both in daytime and at night; natural landscapes; natural soundscapes and smells; water and air resources; soils; geological resources; paleontological resources; archeological resources; cultural landscapes;

ethnographic resources; historic and prehistoric sites, structure, and objects; museum collections; and native plants and animals;

- appropriate opportunities to experience enjoyment of the above resources, to the extent that can be done without impairing them;
- the park's role in contributing to the national dignity, the high public value and integrity, and the superlative environmental quality of the national park system, and the benefit and inspiration provided to the American people by the national park system; and
- any additional attributes encompassed by the specific values and purposes for which the park was established.

Impairment may result from visitor activities; NPS administrative activities; or activities undertaken by concessioners, contractors, and others operating in the park. Impairment may also result from sources or activities outside the park. The description of the Lake Chelan National Recreation Area (NRA) purpose and significance is found below and is subject to the no-impairment standard.

PURPOSE AND SIGNIFICANCE OF LAKE CHELAN NATIONAL RECREATION AREA

The purpose of the NRA is to "... complement North Cascades National Park and conserve the scenic, natural and cultural values of the Lower Stehekin Valley, Lake Chelan and surrounding wilderness, while respecting the remote Stehekin community, for outdoor recreation and education." Today, the NRA functions as a gateway to more than two million acres of roadless wilderness.

The following statements from the North Cascades NPS Complex Foundation Document are those that apply specifically to the NRA.

- Within the NRA, Stehekin is a private community that provides visitors with an opportunity to see and experience life in a remote setting that is not accessible by roads and is surrounded by wilderness.
- Set in a glacier-carved trough between steep valley walls, Lake Chelan is the nation's third deepest lake. Fed by glacial melt and the Stehekin River, it is known for its exceptionally cold and clear water.
- The NRA provides a spectrum of recreational opportunities that transition from highly mechanized to primitive as one moves from the lake, up the Stehekin Valley, and into the wilderness.

IMPAIRMENT DETERMINATION FOR SELECTED ALTERNATIVE

This determination of non-impairment has been prepared for the action detailed in the Finding of No Significant Impact (FONSI) as the Selected Alternative. An impairment determination is not provided for the following topics analyzed in the Relocation of the Stehekin Valley Road at Milepost 5.5 (EA): visitor use and experience, socioeconomics, and human health and safety. This is because impairment findings relate back to park resources and values. These impact areas are not generally considered to be park resources or values according to the 1916 Organic Act and cannot be impaired the same way that an action can impair park resources and values. Cultural resource topics were dismissed from further analysis in the EA (*see* section 3.1.2). Therefore, the impairment analysis focuses only on natural resource topics.

Stehekin River CMZ and Floodplain

The lower Stehekin River and its associated floodplain and channel migration zone (CMZ) is a key natural resource within the NRA. This river segment is a flat, braided system characterized by a network of smaller channels adjacent to the main channel. During flood events, the river over tops its channel and flows at shallow depths through the floodplain. Large floods, sediment movement, and the presence of semi-stable large woody debris make the channel and floodplain ever-changing. The CMZ, the boundary of where the river can reasonably move, is defined by natural features such as topography created by older glacial activity and more recent alluvial fans, and the presence of woody debris and vegetation. The Stehekin River Floodplain is determined by hydraulic modeling based on estimates of 100-year peak flows. Both the CMZ and the floodplain represent upper limits for the dynamic activity of the Stehekin River and define the boundaries of this riparian resource.

The Selected Alternative will reroute the road away from the vulnerable area near the Stehekin River and out of private property to an upland location through NPS-managed forested lands. This will allow the river to perform its natural processes unhindered. This action provides a long-term benefit to the CMZ and the floodplain by improving the function and values of the Stehekin River. This action also serves to preserve essential road access above MP 5.5. Because the Selected Alternative benefits both the CMZ and floodplain, there will be no impairment to these resources from this action.

Water Quality

The Stehekin River is a Category I waterway under the Water Quality Standards for Surface Waters of the State of Washington (WAC 173-20 IA). Category I waterways meet testing standards for clean water and are given maximum protection under state water quality regulations. Excellent water quality is a key element to the Stehekin River natural resource.

The Selected Alternative reroutes the road away from the vulnerable area near the Stehekin River and out of private property to an upland location through NPS-managed forested lands. This action will minimize the risk of stabilizing materials such as boulders from entering the waterway. Because the Selected Alternative provides long-term water quality benefits, there will be no impairment to this resource from this action.

Vegetation

The vegetation community in the proposed project area is comprised of a mixed coniferous cover type dominated by a moderately closed canopy of Douglas Fir (*Pseudotsuga menziesii*), Grand Fir (*Abies grandis*), Big Leaf Maple (*Acer macrophyllum*), and Alder species (*Acer rubra*). Shrub cover is sparse to dense and dominated by Snowberry (*Symphoricarpos albus*), Dwarf Rose (*Rosa gymnocarpa*), Pacific Dogwood (*Cornus nuttallii*), Vine Maple (*Acer circinatum*), Thimbleberry (*Rubus parviflorum*), Serviceberry (*Amelanchier alnifolia*), Dwarf Oregon Grape (*Mahonia nervosa*), Trailing Blackberry (*R. ursinus*), Blue Elderberry (*Sambucus cerulea*), and others. Ground cover consists primarily of Wild Ginger (*Asarum caudatum*), Bracken Fern (*Pteridium aquilinum*), Little Prince's Pine (*Chimaphila menziesii*), False Solomon's Seal (*Maianthemum racemosum*), Claspleaf Twistedstalk (*Streptopus amplexifolius*), Orange Honeysuckle (*Lonicera ciliosa*), White Spirea (*Spiraea betulifolia*), Pioneer Violet (*Viola glabella*), Sedge species (*Carex spp.*), Blue Wildrye (*Elymus glaucus*), and other native grass species mixed with leaf litter and mosses in places. (Rickus and Pratt 2021).

The Selected Action will have minor adverse impacts resulting from the removal of approximately 1.4 acres of native vegetation including approximately 44 trees that are 18-inches or greater in diameter at breast height. Removed tree species will include Douglas fir, big leaf maple, and possibly grand fir. A small, yet undetermined portion of the abandoned road will be revegetated.

The 1.4 acres of impact is less than one tenth of one percent of the approximately 2,000 acres of upland mixed conifer forest mapped in the Stehekin Valley. This impact will be partially offset by revegetating a small portion of the abandoned road.

Vegetation resources are necessary to fulfill the purposes for which the park was established, are identified in park planning documents as significant, and are key to the natural integrity and enjoyment of the park. Although the Selected Alternative has minor impacts to vegetation, the impact is unavoidable because the reroute is necessary to sustainably maintain safe and reliable vehicle access on the Stehekin Valley Road. Therefore, this action does not constitute an impairment.

Wetlands

No wetlands are present within the footprint of the rerouted road's path. Because there are no impacts to wetlands by the Selected Alternative, there will be no impairment to wetland resources from this action.

Wildlife

Wildlife species inhabiting the Stehekin Valley include approximately 40 species of mammals, over 100 bird species, seven reptile species, and five species of amphibians. From summer 1988 through late winter 1992, as part of the Stehekin Valley vertebrate inventory, the following numbers of species were detected: 5 amphibians, 8 reptiles, 25 mammals, and 104 birds (Kuntz and Glesne 1993). In general, habitat in the Stehekin Valley is comprised of a combination of upland mixed conifer forest and riparian forest adjacent to the Stehekin River and its side channels. Therefore, wildlife species found in the valley tend to be species associated with those habitats. Unique habitats important to wildlife in the valley include talus slopes, mudflats, wetlands, snag-rich areas, and streams.

Suitable spotted owl habitat in the lower Stehekin Valley exists across the landscape in a linear fashion paralleling the Stehekin River on both sides of the valley bottom. Suitable habitat quickly diminishes as elevation increases along the steep valley walls. Additionally, in the Stehekin Valley, Douglas-fir trees that have mistletoe platforms are often used as nesting platforms by Western Gray Squirrel (WGS). They may also build or use nests made of sticks and leaves or in some cases, cavities are used. Trees larger than 16" dbh, and in clumps, serve the greatest potential for nesting and foraging.

Washington State law (RCW 77.16.120) protects nest trees used by Western Gray Squirrel (WGS). Removal of the approximately 43 trees and one snag in the project area diminishes opportunity for WGS nesting. Soil compaction and shrub disturbance also reduces underground fungi production, a major food source for WGS. Conducting the project work outside of the nesting season (March 1-August 31) will minimize disturbance to WGSs that may be nesting within the project area.

Additionally, the size class of the trees being removed are typically used for spotted owl nesting. The removal of habitat within the project area reduces canopy cover, connectivity, and corridors that connect other spotted owl nesting, foraging and dispersal habitat and increases their susceptibility to predation and competition from invasive barred owls. The project area includes habitat that has historically been used by a reproductive pair of spotted owls. Removal of habitat in proximity to a nest tree or activity center can increase the probability of site abandonment, reduced fecundity, and compromise other normal behaviors.

Tree removal also diminishes denning habitat for fishers, which have recently been reintroduced into the ecosystem. Currently all fishers in the area are tracked using radiotelemetry, and no females are known to be currently using the project area.

In addition to the effects on spotted owls and WGS, removing habitat disrupts the natural corridor for wildlife movement in the valley, including fishers, elk, deer, moose, black bear, wolves, and other carnivores (based on sighting data from remote cameras). This is especially true in the valley where canopy cover and movement are limited along the steep valley walls, forcing animals to use the valley bottom.

Wildlife and the associated supporting habitat are necessary to fulfill the purposes for which the park was established, are identified in park planning documents as significant, and are key to the natural integrity and enjoyment of the park. Although the Selected Alternative has minor impacts to wildlife, these impacts have been assessed to have negligible to minimal impact, therefore, this action does not constitute an impairment.

Special Status Species

Federally Threatened Northern Spotted Owl and Washington State Threatened Western Gray Squirrel

The project area and surrounding forest provides high-quality habitat for Northern Spotted Owls (NSO). In the past NSO individuals and nesting pairs of birds have been sighted in close enough proximity to warrant concern that clearing, and construction activities could adversely impact their reproductive success. The last documented NSO nesting activity occurred in 2017, in an area less than 300m from the current Stehekin Valley Road. A single NSO was detected roughly ¼ mile upslope from that historic nest site in 2019. The scheduled work of the Selected Action occurs after the nesting season and is timed such that impacts to NSO nesting will be negated. Additionally, the Selected Alternative will remove less than one-tenth of one percent of suitable NSO habitat in the Stehekin Valley.

The project area and surrounding forest provides high-quality habitat for the Western Gray Squirrel (WGS), a species listed as Threatened by the State of Washington. High quality WGS habitat persists throughout much of the lower Stehekin Valley, with apparent expansion of squirrel activity to the north in 2020. Removal of the approximately 43 trees and one snag in the project area diminishes opportunity for WGS nesting. Soil compaction and shrub disturbance also reduces underground fungi production, a major food source for WGS. Conducting the project work outside of the nesting season (March 1-August 31) will minimize disturbance to WGSs that may be nesting within the project area. Removal of approximately 1.4 acres of mixed conifer forest will have minor adverse impacts to Western Gray Squirrel habitat. Based on available research, the amount of suitable habitat present in the Stehekin Valley far exceeds the extant squirrel population.

Migratory Land Birds

The project area and surrounding forest provides high-quality nesting habitat for various species of nesting migratory land birds. However, the scheduled work of the Selected Action occurs after the nesting season and is timed such that impacts to nesting animals will be negated.

SUMMARY

The impacts documented in the EA, and summarized above, will not affect resources or values key to the natural or cultural integrity of the NRA. Nor will the impacts alter opportunities for public enjoyment of the NRA. Therefore, the Selected Alternative will not result in the impairment of park resources.