

Finding of No Significant Impact
Emergency Action to Temporarily Relocate the Enchanted Valley
Chalet for the Protection of the East Fork Quinault River
Olympic National Park

July 2014

This Finding of No Significant Impact (FONSI) has been prepared, in accordance with the DOI 43 CFR 46.300 Subpart D and NPS Director's Order 12, for the emergency action to temporarily relocate the Enchanted Valley Chalet for the protection of the East Fork Quinault River. This FONSI together with the Emergency Action to Temporarily Relocate the Enchanted Valley Chalet EA dated July 2014 (and errata sheets prepared as a technical attachment to the EA) constitutes a complete record of the conservation planning and environmental impact analysis process completed for this project.

Background

The Enchanted Valley Chalet is located 13 miles up the East Fork Quinault River from the Graves Creek Trailhead (see Appendix A in the EA), at an approximate elevation of 2030 feet (619 meters) (see Appendix B in the EA), within the Congressionally-designated Olympic Wilderness (designated in 1988). The two and a half story, 42' x 28' structure (see Appendix C in the EA) was built in 1930-31 by the Olympic Recreation Company (see Appendix D in the EA), operated as a commercial business until the early 1940s, and was purchased by the National Park Service (NPS) in 1951. In 2007 the chalet was added to the National Register of Historic Places (NRHP) due to its local significance.

The chalet is located on the active floodplain of the East Fork Quinault River. The floodplain is comprised of unconsolidated sediment and channel migration across the floodplain is frequent and unpredictable (see Appendix E in the EA). Air photos from the 1990s show the river about 400 feet from the chalet. In 2003, river avulsion (i.e., catastrophic channel shifting) began due to massive sediment loading up valley following heavy rains. By 2005, the river was within 10 feet of the chalet. Minor channel work and vegetation manipulation was done by park staff in fall 2005, this work included moving downed logs into more strategic positions, moving gravel cobble material into banks or dispersing some material to create a more level surface, cutting of some larger downed trees in the river bed into smaller sections enabling their movement with high flows, cabling of a couple downed logs together to slow current and encourage gravel deposition, and removal of some small trees. The channel had migrated away from the chalet by 2006.

In October 2013, park staff on-site noted that the river channel was 9 feet from the northwest corner of the chalet. In early January 2014, photographs and visitor reports revealed that the East Fork Quinault River had migrated to within 18 inches of the building. Subsequent monitoring and aerial photos show that the river has undercut the chalet by approximately six to eight feet (see Appendix F in the EA) and a small portion of the foundation had fallen into the river. In winter of 2013/2014, the area experienced rainfall that was above average, storm events, and high flows that resulted in the Quinault River's main channel shifting by at least 15 feet since the initial report of river movement in October 2013. Expert analysis shows that the cause of the recent river channel movement is different than what occurred in 2005 (river incision rather than river aggradation).

Park staff hiked to the chalet in mid-March 2014 to assess and document the chalet's condition and remove equipment, supplies, hazardous materials (i.e., fuel) that were considered a threat to environmental conditions should they fall into the river. The crew also removed the building's windows to prevent glass from impacting the river and downstream natural resources and to preserve elements of the historic building in case the structure was to collapse and fall into the river.

The imminent threat of the chalet collapsing has created a situation that could harm important natural, cultural, and historic resources and that requires an urgent response. Therefore, the environmental assessment (EA) was prepared for an emergency response action pursuant to 43 CFR 46.150(c). Although there is a need to act as soon as possible to mitigate the impacts of an imminent collapse of the chalet, there was time to complete a concise, focused EA consistent with the Council on Environmental Quality guidance, *Emergencies and the Environmental Policy Act* (2010). This EA satisfies the requirements for EA contents found at 43 CFR 46.310. A no-action alternative is not included in the EA because there were no unresolved conflicts about the proposed action with respect to alternative uses of available resources, meaning there was no disagreement that the NPS should act to keep the chalet from falling into the river. The proposed action under consideration in the EA would temporarily move the chalet, in order to eliminate the emergency situation. After the chalet is moved, the NPS will embark on a separate planning process to assess options for final disposition of the chalet.

Purpose and Need for Federal Action

The purpose of this federal action is to eliminate the threat of an imminent collapse of the chalet into the river due to channel migration, and would allow time to conduct an additional planning process, to determine the final disposition of the chalet. The area of potential effect identified in the project is designated wilderness. Wilderness areas are devoted to the public purposes of recreational, scenic, scientific, educational, conservation, and historical use. The Wilderness Act of 1964 states that "each agency administering any area as designated wilderness shall be responsible for preserving the wilderness character of the area and shall so administer such area for such other purposes for which it may have been established as also to preserve its wilderness character."

In addition, section 6.3.7 of NPS Management Policies 2006 states, "The principle of nondegradation will be applied to wilderness management, and each wilderness area's condition will be measured and assessed against its own unimpaired standard. Natural processes will be allowed insofar as possible, to shape and control wilderness ecosystems. Management should seek to sustain the natural distribution, numbers, population composition, and interaction of indigenous species. Management intervention should only be undertaken to the extent necessary to correct past mistakes, the impacts of human use, and influences originating outside of wilderness boundaries." Section 4.6.6 states, "The Service will manage watersheds as complete hydrologic systems and minimize human-caused disturbance to the natural upland processes that deliver water, sediment, and woody debris to streams...The Service will protect watershed and stream features primarily by avoiding impacts on watershed and riparian vegetation and by allowing natural fluvial processes to proceed unimpeded. When conflicts between infrastructure and stream process are unavoidable, NPS managers will first consider relocating or redesigning facilities rather than manipulating streams."

The proposed action is needed to eliminate the threat of an imminent collapse of the chalet into the river due to channel migration, and to allow time to conduct an additional, more comprehensive planning process to determine the final disposition of the chalet.

Selected Action

As presented in the EA, the proposed action is to temporarily move the chalet approximately 50-100 feet from the bank of the East Fork Quinault River. The proposed action would eliminate the threat of an imminent collapse of the chalet into the river due to channel migration, and would allow time to conduct an additional planning process, to determine the final disposition of the chalet. That planning process would comply with National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA).

The proposed action would require approximately 1 week and a team of skilled professionals (such as a professional house mover, and a team of four to six skilled laborers), pack stock and type 3 helicopter support for less than a week, and sufficient personnel to provide for visitor and resource protection in the approximately 1 acre project area during the project period. The equipment required will likely include a hydraulic power pack pump driven by a small (less than 10 horsepower) motor to lift the approximately 90 ton structure using multiple hydraulic crib jacks, steel rails to support the structure, additional steel rails slide the structure using an inert lubricant, and an assortment of hand tools. A set of beams would be moved in a leap-frog manner to continue moving the structure to the 50-100 foot distance from its current location. Bunch Field, which is located outside of wilderness, would be utilized as the helicopter staging area. Helicopters would be used to transport equipment in and materials out of the project site. A minimum requirement analysis has been completed for the action of moving the structure (see Appendix I in the EA).

The NPS has selected the action as described for moving the Enchanted Valley Chalet 50-100' from the bank of the East Fork Quinault River. Motorized use is prohibited with the exception of limited administrative use as analyzed in the minimum requirement analysis. The selected action incorporates 8 modifications. As suggested during agency review, the following mitigation measure for threatened bull trout is included: no instream work would be conducted. The following changes have been made in the EA, some as suggested during public review: the foundation is historic and will not be removed; positive impacts to the natural and undeveloped qualities of wilderness character under the no action alternative within the minimum requirement analysis have been added; additional positive and negative effects have been added to the social/recreational/experiential effects section under the no action alternative within the minimum requirement analysis; an additional negative effect has been added to the social/recreational/experiential effects under the action alternative in the minimum requirement analysis; information has been added in the Consultation and Coordination section (Chapter 4 of the EA) regarding consultation with the Advisory Council on Historic Preservation; and lastly, the minimum requirement analysis in the appendix has been signed and the final tribal, federal, and state agency consultation letters have been added to the appendix. These modifications do not appreciably alter the EA determination of intensity or duration of environmental consequences.

The conceptual process for moving the chalet presented in the EA may be slightly modified during final determination of the moving process to best accommodate site-specific conditions so as to avoid or further minimize resource impacts.

Implementation of the selected action (moving the structure) will comply with laws and policies related to safety and risk management for the visiting public and to provide a safe and healthful workplace for NPS employees, volunteers, and partners. The Enchanted Valley will be temporarily closed to visitor access during implementation of the project action (moving the structure); length and extent of the

closure would depend on site conditions or other potential issues encountered during the moving of the structure. Traffic control will be required along the North Shore Road during project implementation. Further details on project elements are documented in the EA.

Preliminary Options/Alternatives Considered and Dismissed

The following alternatives have been analyzed and found to be outside the scope of the project because they do not meet the purpose and need of the project, were technically or economically infeasible, or not within law and NPS policy.

- Allow the natural processes (natural river migration and erosion) to occur and remove chalet upon failure or irreparable damage; no reconstruction of an administrative facility at Enchanted Valley
- Minimal river manipulation (including the use of downed trees, removal and use of standing trees, bio-engineering of bank, the removal or replacement of cobbles and gravel materials, instream work, use of rip rap)
- More extensive river channel manipulation/bank stabilization (the removal and use of standing trees, removal or replacement of cobbles and gravel materials, instream work, use of gabion baskets filled with large or imported rock, pilings, actions would require prohibited uses such as chainsaws and helicopters, along with hand-powered winches, small diameter cables, and wrenches)
- Permanently move the chalet to another location within Enchanted Valley
- Raze the building by controlled burning of the chalet in its current location
- Dismantle the chalet and stage it in sorted piles for removal and disposal
- Disassemble the chalet and move it to a front-country location

Mitigation Measures to Avoid or Reduce Environmental Harm

The NPS has identified mitigation measures that will be implemented as part of the selected action to avoid or minimize adverse effects to natural and cultural resources and visitor experience. These measures have been refined based on consultation with supporting agencies and public comments, and are binding and will be integrated into all contracts or work plans associated with project implementation. Unless otherwise stipulated, ONP staff will be responsible for timely and proper implementation of these safeguards, and for subsequent monitoring.

Soils and Vegetation

- Responsible staff: Chief of Resource Management; Park Botanist; Wilderness Coordinator
- Project activities will be limited to the immediate project area and other areas (such as helicopter staging) as identified within the scope of the project, unless necessary to ensure human safety in meeting the objectives of the project.
- No trees will be removed.
- Equipment will be cleaned of any debris that has the potential to transfer exotic plant species prior to entering the park.
- Stock feed will be weed seed free.
- Erosion control measures and best management practices would be implemented as necessary. Some site restoration would be performed to mitigate any erosion concerns and the establishment of non-native plant species. Erosion control measures will include site restoration as needed, such as

raking in ruts left behind by the steel beams, applying native mulch from the surrounding area on bare areas and seeding the old chalet site with seeds gathered from the immediate vicinity.

- Newly exposed soils under the current chalet location would be monitored for establishment of non-native exotic plant species and a revegetation plan would be developed.
- Native mulch (grasses, forest litter) would be gathered from the surrounding area and applied to all newly exposed soils following relocation of the chalet.

Fish and Wildlife

- Responsible staff: Chief of Resource Management; Fisheries Biologist; Wildlife Biologist; Wilderness Coordinator
- No in-stream work would be conducted.
- Bald eagles may be nesting, especially in the lower river. Impacts to all species will be mitigated by having helicopter flights stay at least 120 m above or away from habitat at all times, and greater distances when practicable.
- Enchanted Valley and Bunch Field are both frequented by black bears in the spring. Crews must follow park regulations for proper food storage.

Threatened and Endangered Species

- Responsible staff: Chief of Resource Management; Fisheries Biologist; Wildlife Biologist; Wilderness Coordinator
- No in-stream work would be conducted.
- From the effects tables (in the 2008 GMP and Biological Opinion), use of a Type III helicopter (i.e., Bell Jet Ranger), or similar sized helicopter, is *not likely to adversely affect* either of the threatened and endangered species (marbled murrelets and spotted owls), if it is >120 yards from suitable habitat. If a larger helicopter is necessary, formal consultation with the U.S. Fish and Wildlife Service, per Section 7 of the Endangered Species Act, will be required and additional NEPA review may be required.
- As stated in the 2008 Biological Opinion, the breeding season for spotted owls is divided into early and late periods. The early breeding season of northern spotted owls is March 1 through July 15; while the late breeding season is July 16 through September 30. Similar to spotted owls, the breeding season for murrelets is divided into early and late periods. The early breeding season is April 1 through August 5; while the late breeding season is August 6 through September 15.
- To mitigate impacts to murrelets, which fly to and from the sea more frequently at dawn and dusk during early nesting season (April 1 through August 5) helicopter operations would be restricted to Limited Operating Periods (LOPs) which are > 2 hours after sunrise to < 2 hours before sunset.
- **Bunch Field:** The primary grassy opening in Bunch Field is approximately 536 by 109 yards wide, and is surrounded by deciduous trees, with a few conifers that are not suitable murrelet or spotted owl habitat, with the Quinault River immediately to the south (see figure 1 in the EA). There is suitable murrelet habitat near the northern edge of the field. However, in the middle of the widest part of the meadow, the closest patch of suitable murrelet habitat is over 131 yards away. The helicopter will land and stage at the spot indicated, and gain elevation by heading south, overflying the meadow, alder stand, and the river, and therefore will be able to maintain sufficient distance to *not likely to adversely affect* either murrelets or spotted owls.
- **Enchanted Valley:** At Enchanted Valley the suitable habitat is on the valley walls, with the most substantial and closest patch on the east side of the valley. The helicopter will gain (and lose) elevation up-valley, and towards the western wall (over gravel bars and deciduous forest) which will allow sufficient room to stay > 120 yards from the habitat on the valley wall (see figure 2 in the EA).

If the helicopter needs to land, there are open areas near the river, on the gravel bars, that are > 120 yards from murrelet and spotted owl habitat.

Water Resources (Water Quality, Floodplains, and Wetlands)

- Responsible staff: Chief of Resource Management; Fisheries Biologist; Wilderness Coordinator
- No in-stream work would be conducted.
- Work within the wetlands will not occur.
- The application and use of an inert lubricant material will be monitored to ensure it is not spilled into the river.
- (Also see mitigation measures for soil and vegetation in regard to erosion.)

Soundscapes

- Responsible staff: Chief of Resource Management; Wilderness Coordinator
- Best management practices will be used to minimize noise disturbance to wildlife and visitors.

Historic Structures

- Responsible staff: Chief of Resource Management; Historic Architect; Park Archeologist; Wilderness Coordinator
- Mitigation for the temporary relocation will be documentation of the historic structure as a result of the consultation process initiated under Section 106 of the NHPA.

Archeological and Ethnographic Resources

- Responsible staff: Chief of Resource Management; Park Archeologist; Wilderness Coordinator
- The Quinault Indian Nation will be notified in advance of any project-related temporary closures that may affect traditional use and access.
- Ground disturbance associated with the proposed undertaking will be monitored by NPS archeologists as conditions allow.

Wilderness Resources

- Responsible staff: Wilderness Coordinator; Chief of Resource Management
- A minimum requirement analysis has been completed to ensure minimal impacts to wilderness character (see Appendix I).

Public Involvement and Agency Coordination

The park conducted outreach to the general public through news releases, public meetings, visitor center contacts, and a Facebook based photo and memory book. In late March and early April, park staff held six public meetings for the Wilderness Stewardship Plan. At these meetings, questions regarding the status of the Enchanted Valley Chalet were not discouraged and people were directed to the superintendent for further discussion. Ongoing outreach to the public will include news releases, web and social media communication, and distribution of other informational materials. Informational materials are intended to keep the public apprised of updates to the project, alternative selection, and agency actions.

The shifting channel of the East Fork Quinault River and its effects on the Enchanted Valley Chalet have been well-covered in the regional media of the Olympic Peninsula and western Washington. The park

issued three news releases about the chalet's status between January and April 2014. A news release was issued in May to announce release of the EA; another will be issue to announce release of the FONSI. The park's news releases are each sent to a mailing list of 165 media outlets, organizations and individuals. Regional media interest in this evolving story has been strong, and news coverage of the chalet and the EA has appeared in at least a dozen media outlets, as well as in blogs, social media platforms, and online discussion boards.

The park held a public comment period from May 21-June 5, 2014. On May 21, 2014 the park distributed a press release announcing the availability of the EA for public review and comment to the project email list that included local and regional newspapers, radios station and Seattle TV stations, as well as numerous interest groups, private individuals, government agencies, and area tribes. During the 16-day opportunity for public review respondents could mail or fax written comments, submit comments via the internet (a link was also provided to the electronic version of the document posted on the NPS Planning, Environment and Public Comment website), or drop off written comments at the park's headquarters in Port Angeles, WA. The park received 182 responses to the EA from area residents, nongovernment organizations, and federal and state agencies. All EA review comments are preserved in the project administrative record.

The comments generally centered on support of moving the structure from the riverbank, though many respondents asked why the park cannot manipulate the river channel or harden the riverbank.

Other commenters noted the action was in violation of the Wilderness Act due to the use of helicopters and not allowing natural processes to prevail and let the structure fall into the river.

Some respondents questioned the impact analysis. Their suggestions assumed either a complete removal or a long-term placement of the chalet (both items potentially to be considered in the next NEPA process to determine the final disposition of the structure), instead of on the current selected action of the temporary relocation of the chalet.

Many of the issues or concerns raised and suggestions for additional alternatives were out of the scope of the analysis for this EA and would be more appropriate to address in the next NEPA process to determine the final disposition of the chalet. Examples include suggestions on what to do with the structure, where exactly the park should put the structure, how to maintain the structure, etc.

Overall, none of the comments received provided substantially new environmental information, nor raised issues or concerns not previously considered in the development of this EA.

Tribal Consultation

The Quinault Indian Nation, one of eight federally recognized tribes on the Olympic Peninsula, is located downstream of the park boundary within the Quinault River drainage. During a recent Government to Government Consultation meeting with the Quinault Indian Nation for the Preliminary Draft Alternatives for the Wilderness Stewardship Plan, the park provided an update on the current condition of the Enchanted Valley Chalet, eroding stream bank and the need to implement emergency actions. Tribal members present at this meeting expressed concern that the chalet not fall into the river and that the park should not be taking any actions that would harden the stream bank which would lead to a loss of

critical fish habitat. The Quinault Indian Nation is concerned about fisheries and implementing ecologically appropriate restoration efforts.

Endangered Species Act Consultation

Three federally listed wildlife species occur in the area of potential effect – bull trout, marbled murrelet, and northern spotted owl. The selected action was developed with the clear intent to avoid or minimize adverse effects to listed species.

Under Section 7 of the Endangered Species Act (ESA), the park conducted informal consultation with the U.S. Fish and Wildlife Service (USFWS) about the selected action being considered under this emergency compliance specific to bull trout and its critical habitat. The selected action of temporarily relocating the chalet under this immediate action would mitigate potential impacts and is not likely to affect any listed species in the project area. Based on the information provided in the EA and mitigation measures integrated into the selected action, the USFWS concluded that effects to the federally threatened bull trout, marbled murrelet, and northern spotted owl will be insignificant or discountable.

The FWS concurred with the NPS's "not likely to adversely affect" determination for the selected action in accordance with the Endangered Species Act. This conclusion is documented by memorandum received from the U.S. Fish and Wildlife Office in Lacey, Washington dated July 18, 2014.

Cultural Resource Consultation

On January 17, 2014, when the park became aware of the imminent erosional threat to the chalet, the park notified the Cultural Resource Staff in the Pacific West Regional Office and initiated consultation with the State Historic Preservation Office (SHPO). Additional phone consultations with SHPO occurred on February 26 and March 28, 2014. Periodic updates have been provided to SHPO via email and phone, and at the biennial meeting with the State Historic Preservation Office on April 9, 2014. The alternatives that were analyzed and found to be out of scope due to either being ineffective at meeting the purpose and need, were technically and/or economically infeasible, or are infeasible within law and policy were also vetted with the SHPO. These alternatives included the following:

- Allow the natural processes (natural river migration and erosion) to occur and remove chalet upon failure or irreparable damage; no reconstruction of an administrative facility at Enchanted Valley
- Minimal river manipulation (including the use of downed trees, removal and use of standing trees, bio-engineering of bank, the removal or replacement of cobbles and gravel materials, instream work, use of rip rap)
- More extensive river channel manipulation/bank stabilization (the removal and use of standing trees, removal or replacement of cobbles and gravel materials, instream work, use of gabion baskets filled with large or imported rock, pilings, actions would require prohibited uses such as chainsaws and helicopters, along with hand-powered winches, small diameter cables, and wrenches)
- Permanently move the chalet to another location within Enchanted Valley
- Raze the building by controlled burning of the chalet in its current location
- Dismantle the chalet and stage it in sorted piles for removal and disposal
- Disassemble the chalet and move it to a front-country location

The Advisory Council on Historic Preservation (ACHP) was notified of the threat to the Chalet on March 14, 2014. The park superintendent sent a formal letter initiating consultation with the ACHP on March 24, 2014. On April 9, 2014, the ACHP sent a response acknowledging receipt of the park's notification regarding the "emergency situation threatening the Enchanted Valley Chalet that was submitted in accordance with Section 800.12(b)(2) of [their] regulations, 'Protection of Historic Properties' (36 CFR part 800)." On May 13, 2014 the park's NHPA Advisor spoke via phone with the Program Analyst in the Federal Property Management Section of the ACHP and received verbal confirmation that the ACHP would be participating in the process. The ACHP is a consulting party and signatory to the Memorandum of Agreement (MOA).

A Determination of Effect was written and is included in the environmental consequences section of the EA. The MOA finalized to fulfill the NHPA Section 106 requirements will be available for public inspection at <http://parkplanning.nps.gov/EVCEA>. The draft MOA can be found in Appendix J of the EA.

On July 1, 2014 the park received written acceptance of the complete text of the MOA from the SHPO. Final execution of the MOA by the SHPO will occur following signing by the Quinault Indian Nation. All project stipulations to achieve the agreed upon mitigation strategies are incorporated herein by reference.

Why the selected alternative will not have a significant effect

This section summarizes foreseeable environmental consequences in the local context of the project area and the larger park as a whole, and as documented in the EA, no potentially adverse or beneficial significant impacts were identified that will require analysis in an environmental impact statement. As defined by 40 CFR 1508.27, magnitude of impacts was determined by examining the following criteria:

Impacts that may be both beneficial and adverse and which on balance may be beneficial, but that may still have significant adverse impacts that require analysis in an environmental impact statement:

The selected actions would result in both beneficial and adverse impacts. Most adverse impacts are short-term in duration, and primarily site-specific in nature. Most beneficial impacts are long-term in nature and are expected to occur throughout the project area. No moderate or major adverse or beneficial impacts were identified that required analysis in an environmental impact statement.

Degree of effect on public health or safety: The selected action would provide for short- and long-term visitor safety given the current condition of the structure on the riverbank, mitigation measures would protect trail users, and selected action would not have a significant impact.

Unique characteristics of the area such as proximity to historic or cultural resources, wild and scenic rivers, ecologically critical areas, wetlands or floodplains: The potential area of effect is in designated wilderness and the selected action is the temporary relocation of a national register-listed historic structure. As described in the environmental assessment, wetlands, floodplains, and historic resources will be affected, but these impacts are not significant.

Degree to which the action may adversely affect historic properties in or eligible for listing in the National Register of Historic Places, or other significant scientific, archeological, or cultural resources: As described in the environmental assessment, a national register-listed historic structure would be affected, but the selected action does not cause the structure to lose its listing status.

Degree to which impacts are likely to be highly controversial: The selected action is controversial for wilderness advocates as well as for some historic preservationists. Though this EA is the first of a two-part NEPA process to first, protect the East Fork Quinault River and secondly, to determine the final disposition of the chalet.

Degree to which the potential impacts are highly uncertain or involve unique or unknown risks: There were highly uncertain, unique, or unknown risks identified during the preparation of the environmental assessment. The uncertainties lie in not knowing if the river will continue in its current channel or shift again, not knowing what the avalanche danger is, the current condition of the structure is questionable, and visitors continue to illegally enter the structure. There is a high level of uncertainty as to what the long-term adverse cumulative effects would be on water resources, federally threatened bull trout habitat, and wilderness character if the structure of this size were to fall into the river.

Degree to which the action may establish a precedent for future actions with significant effects, or represents a decision in principle about future considerations: The selected action does not establish a NPS precedent for future actions and does not represent a decision in principle about future considerations of historic structures in designated wilderness and allowing natural processes to prevail because it is a temporary action.

Whether the action is related to other actions with individually insignificant, but cumulatively significant, impacts: As documented in the EA, a summary of cumulative impacts was discussed under each impact topic. The environmental assessment identified and analyzed all foreseeable impacts, and cumulative impacts were determined by combining the potential impacts of the "action" alternatives with the environmental consequences of other past, present, and reasonably foreseeable future actions. There were no projected significant cumulative effects.

Whether the action threatens a violation of federal, state, or local environmental protection laws or requirements imposed for the protection of the environment: The selected action violates no federal, state, or local environmental protection laws.

Degree of effect on soils; water resources; vegetation; fish and wildlife; threatened, endangered, and species of special concern; soundscapes; wilderness character; cultural resources; visitor use and experience; and park operations: The magnitude and duration of potential effects are summarized as follows:

Geologic Resources (Soils) - Some impacts on soils would be expected as a result of this action. The short-term use of steel beams to relocate the structure to within approximately 50-100 feet of its current location, and potential long-term (potentially more than one year) placement of a portion of the steel beams (or other material) to provide a temporary structural foundation after relocation would likely result in long-term, minor to moderate, adverse impacts due to the alteration of topsoil, soil compaction, and potential for erosion. Increased human foot-traffic and stock use from implementing the selected action, would result in some soil disturbance and compaction though given the unconsolidated nature of this soil on the active floodplain, impacts would likely be short-term (two-weeks or less), negligible to minor, and adverse.

Water Resources - Some impacts on water resources would be expected as a result of this action. The short-term use of steel beams to relocate the structure to within approximately 50-100 feet of its current location, and potential long-term (more than one year) placement of a portion of the steel beams (or other material) to provide a temporary structural foundation after relocation, along with the increased human foot-traffic and stock use from implementing the selected action, would likely result in some short- and long-term, negligible to minor, and adverse impacts mainly due to some modification of the floodplain, though little to no modifications to wetlands. The use of an environmentally-safe lubricant (such as soap) would be utilized to assist in reducing friction from the structure while being pulled onto the steel beams during the relocation activities and would likely result in no effect or a short-term, negligible, adverse effect on water resources. Moving the structure from the stream bank would also likely result in a long-term, beneficial impact to water resources due to eliminating the potential for the structure to fall into the river and adversely affecting water quality, hydrology, and natural flows.

Vegetation - Some impacts on vegetation would be expected as a result of this action. The short-term use of steel beams to relocate the structure to within approximately 50-100 feet of its current location, and potential long-term (more than one year) placement of a portion of the steel beams (or other material) to provide a temporary structural foundation after relocation, along with the increased human foot-traffic and stock use from implementing the selected action, would likely result in short- and long-term, negligible to minor, adverse impacts to vegetation due to the removal and trampling of vegetation (given the resilience of vegetation resources in this location). The successful implementation of the mitigation and revegetation plan would likely result in long-term, beneficial impacts on vegetation due to the vegetation returning to natural conditions affected by natural processes.

Fish and Wildlife - Some impacts on fish and wildlife would be expected as a result of this action. The short-term use of steel beams to relocate the structure to within approximately 50-100 feet of its current location, and potential long-term (more than one year) placement of a portion of the steel beams (or other material) to provide a temporary structural foundation after relocation, along with the increased human foot-traffic and stock use from implementing the selected action, would likely result in some negligible habitat modification such as fine river bank sediments being displaced into the river. These actions would result in short-term, negligible to minor and adverse impacts due to wildlife displacement from the area due to increased presence of people and pack stock. The use of helicopters to transport equipment to and from the project site would likely result in short-term, minor, adverse impacts on wildlife due to temporary displacement from noise disturbance. Moving the structure from the stream bank would also likely result in a long-term, beneficial impact to fish species due to eliminating the potential for the structure to fall into the river and adversely affecting fish habitat. Leaving the foundation in place would result in long-term beneficial impacts on fish and wildlife due to the elimination of noise from using a jackhammer to break up the foundation for removal and may reduce the number of helicopter flights necessary to carry the material out of the area.

Threatened and Endangered Species - Some impacts on threatened and endangered species would be expected as a result of this action. The increased human foot-traffic and stock use from implementing the selected action, during the relocation of the structure may result in trampling of vegetation and some localized trampling of the bank. This work may cause some minor and temporary modifications to bull trout habitat due to minor and short-term increased delivery of sediment and resulting turbidity. However, these minor and short-term effects to habitat are not likely to substantially affect bull trout or degrade their habitat in the long term. Moving the structure from the streambank, with exception of the

foundation, would also likely result in a long-term, beneficial effect to bull trout because it will eliminate the potential for the structure to fall into the river and adversely affecting bull trout critical habitat. Leaving the foundation in place would also result in a long-term, beneficial impact to bull trout due to eliminating the noise and vibrations that would have resulted from the use of jackhammers to break up the foundation for removal. The use of helicopters to transport equipment to and from the project site is *not likely to adversely affect* marbled murrelets or spotted owls due to the distance of the nearest suitable habitat from the source of noise. Leaving the foundation in place would result in long-term beneficial impacts on marbled murrelets and spotted owls due to the elimination of noise from using a jackhammer to break up the foundation for removal and may reduce the number of helicopter flights necessary to carry the material out of the area.

Soundscapes - There would be impacts on the natural soundscapes as a result of this action. Actions involved with moving the structure, such as the use of a gas-powered motor that drives the power-pack pump, getting the steel beams into the correct positions, and loud talking necessary to ensure that commands during moving operations are heard by all necessary personnel, as well as air horns utilized in the event of an immediate safety related cease of works. These activities along with the increased human presence from implementing the selected action would likely result in increased noise disturbance in the project area. These actions would result in short-term, minor, and adverse impacts. The use of helicopters to transport equipment to and from the project site would result in short-term, moderate, adverse impacts on the natural soundscape due to increased noise disturbance from motorized use. Leaving the foundation in place would eliminate noise from using a jackhammer to break up the foundation for removal and may reduce the number of helicopter flights necessary to carry the material out of the area, resulting in a short-term beneficial effect due to reducing the potential impacts on the natural soundscape.

Wilderness Character - There would be impacts on wilderness character as a result of this action. The activities involved with the temporary relocation of the structure to within approximately 50-100 feet of its current location would result in short-term, minor, adverse impacts on visitor use and experience due to the temporary closure of the area to conduct project activities, and an increased human-presence (increased encounter rates and noise) from implementing the selected action, affecting the opportunity for solitude or a primitive and unconfined type of recreation quality of wilderness character. The use of a gas-driven motor to drive the power-pack pump, and the use of helicopters to transport equipment to and from the project site would result in a short-term, moderate, adverse effect on the opportunities for solitude and undeveloped qualities of wilderness character. A minimum requirement analysis has been completed for the selected action.

Cultural Resources (historic structures, archeological resources, and ethnographic resources) - There would be impacts on the historic structure as a result of this action. The temporary relocation of the structure to within approximately 50-100 feet of its current, original, location would result in long-term, moderate, *adverse effect* due to the change in location of the national register listed historic structure, however SHPO advised that the action would not diminish the integrity of the resource to the point NRHP listing would be lost. Without a move, the entire structure would be lost and thus delisted.

There could be impacts on archeological resources as a result of this action. Moving the structure may expose unknown archeological resources from underneath the structure, resulting in long-term, beneficial effects due to the ability to evaluate and document previously unknown archeological resources before they are washed away by the shifting river.

Some impacts on ethnographic resources, mainly in regard to traditional use and access, may be expected as a result of this action. Actions involved with relocating the structure to within approximately 50-100 feet of its current location would likely result in short-term, minor, adverse impacts on traditional use and access due to the temporary closure of the area to conduct project activities. The relocation of the historic structure from the river bank would likely result in long-term, beneficial effects on traditional use and access as the action would keep the structure from falling into the river affecting water quality and fisheries important to traditional use.

Conclusion

Based on the environmental assessment analyses of issues and selected action, together with full consideration of public concerns and comments, as well as the capability of the mitigation measures to avoid or minimize adverse impacts, and the concurrence of agencies with technical expertise and permitting authority, Olympic National Park will implement the selected action as described above. The NPS has determined that these selected actions do not constitute a major federal action significantly affecting the quality of the human environment, nor is this project without precedent or similar to projects that normally require preparation of an environmental impact statement. The selected action will protect the East Fork Quinault River and its associated natural resources from imminent environmental harm by preventing the Enchanted Valley Chalet from collapsing into the East Fork Quinault River and adversely impacting the streambed, hydrology, water quality, fisheries, other associated natural resources, and local wilderness character. As the building becomes further undercut, its stability becomes further compromised.

Therefore, in compliance with the National Environmental Policy Act, the National Park Service will not prepare an environmental impact statement, and will proceed with implementing the approved project as soon as practicable.

Recommended: 
Superintendent, Olympic National Park

Date: 7-22-14

Approved: 
Regional Director, Pacific West Region
actng

Date: 7/24/14