Finding of No Significant Impact
Lower B500 Road Removal Project
Redwood National Park
Humboldt County, California

This Finding of No Significant Impact (FONSI) should be attached to the *Lower B500 Road Removal Environmental Assessment* (EA) dated May 2019. This FONSI together with the EA constitutes a complete record of the conservation planning and environmental impact analysis process for this proposal. In addition, the park manager has separately documented that the selected action will reduce the existing impairment to Redwood National Park forests and watersheds, predating park establishment, and that no impairment to other park resources will result.

Redwood National Park was established by Congress in 1968 to "preserve significant examples of the coastal redwood ...forests and the streams and seashores with which they are associated for purposes of public inspiration, enjoyment, and scientific study." (Public Law 90-545) In 1978, Congress expanded the national park to encompass 50,000 acres in the lower one-third of the Redwood Creek watershed that had been privately owned timber lands, in part "to provide a land base sufficient to insure preservation of significant examples of the coastal redwood in accordance with the original intent of Congress, and to establish a more meaningful Redwood National Park for the use and enjoyment of visitors." (Public Law 95-250)

The 1978 expansion area included approximately 38,000 acres that had been logged between 1950 and 1978. The common logging practice in the region at that time was clearcut tractor logging in which almost all old-growth trees and associated vegetation were cleared off a site. The 1978 legislation directed the NPS to develop and implement "a program for the rehabilitation of areas within and upstream from the park" affected by past logging disturbances to protect existing irreplaceable park resources.

It is NPS policy to strive to restore the integrity of park resources that have been damaged or compromised in the past (NPS 2006 1.4.7.2). *Management Policies 2006* allows NPS intervention in natural biological and physical processes to restore natural ecosystem functioning that has been disrupted by past or ongoing human activities (NPS 2006 4.1).

Purpose and Need for Road Removal

The purpose of the project is to protect park resources by removing 0.8 mile of a failing logging road to reduce erosion and sediment delivery into Larry Damm Creek (Figure 1). This road has no administrative purpose, i.e. firefighting access, was privately constructed before park establishment, and was never designed or used for public access. The removal of this road will reduce the potential for erosion of sediment from the road into the stream, improve fish habitat conditions by restoring drainage patterns affected by the placement of the road adjacent to the stream, and improve watershed function by restoring hydrologic patterns altered by the road.

Selected Action
The selected action is Alternative 1: Remove Lower B500 Road which is identified in the EA as the proposed action. There are no changes in actions, mitigations, or other key elements of the selected action from Alternative 1 presented in the EA.

Alternatives Considered in the Environmental Assessment
The May 2019 EA described two alternatives:

- Alternative 1: Remove Lower 500 Road (Proposed Action and Environmentally Preferable Alternative).
- Alternative 2: No Action

Under Alternative 1 (the Selected Action), the NPS will remove the last 0.8 mile segment of the Lower B500 road, relocate a temporary Bailey bridge, fully remove a log stringer bridge and associated wood abutments within the Larry Damm Creek watershed, and stabilize 15,000 cubic yards of fill material from stream crossing, swales, and unstable slopes.

Under Alternative 2 (No-action), the remaining 0.8 mile of the Lower B500 road would not be removed. The road is identified as the lowest tier in the park asset management plan that prioritizes funding for road maintenance. When the culverts and log stringer bridge fail, they would be removed provided that heavy equipment access is available.

Environmentally Preferable Alternative
The Council on Environmental Quality's National Environmental Policy Act (CEQ NEPA) regulations and the National Park Service NEPA guidelines require that "the alternative or alternatives which were considered to be environmentally preferable" be identified (40 CFR 1505.2). The CEQ defines "environmentally preferable" as "the alternative that will promote the national environmental policy as expressed in NEPA's Section 101. Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative that best protects, preserves, and enhances historic, cultural, and natural resources." The environmentally preferable alternative is based on an evaluation of the alternative using the criteria identified in Section 101 of NEPA stated below:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
- Assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings;
- Attain the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences;
- Preserve important historic, cultural and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity, and variety of individual choice;
- Achieve a balance between populations and resource use which will permit high standards of living and a wide sharing of life's amenities; and

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

The NPS determined that Alternative 1, the selected action, is the environmentally preferable alternative.

Decision Rationale

The selected action best meets the purpose and need for the project while minimizing impacts on park resources. The proposed action to remove a former logging road to reduce erosion and sedimentation is consistent with the direction in the 1999 Redwood National and State Parks *Final General Management Plan/General Plan, Final Environmental Impact Statement/Environmental Impact Report* (RNSP GMP/FEIS) approved through the 2000 *Record of Decision.* Under the 1999 GMP/FEIS, watershed restoration work within the park emphasizes partial landform restoration, with complete removal of all major logging roads and limited removal of minor roads that pose the greatest threat to parks resources.

Public Scoping and Involvement

Public scoping was conducted for a 15 day period from April 8 through April 22. Forty seven email notices and letters were sent to federal, tribal, state, and local agencies, elected officials, organizations, businesses, and individuals. No public meetings were held. No scoping comments were received.

The EA was available for review for a 30 day period from May 20, 2019 through June 19, 2019. Six printed copies of the EA and 50 letters announcing availability for review were sent to federal, tribal, state, and local agencies, elected officials, organizations, businesses, or individuals. Printed copies were available at park offices and four local libraries. A press release was sent to the park media list, which includes local and regional newspapers, radio, and television stations. No additional requests for copies of the document were received. All letters and the press release provided the Internet address where the EA was posted on the NPS Planning, Environment, and Public Comment (PEPC ID 52728) public site at parkplanning.nps.gov/Lower B500. There was no media interest in this specific project.

Response to Comments

Two comments were received on the EA. One comment was posted to the PEPC public site. One comment letter was received via US Mail. The posted comment on the PEPC site supported the no action alternative, while the letter received via US Mail supported the proposed action.

The commenter in favor of the no action alternative was concerned that removal of the road would reduce the ability for visitors to enjoy the land. The road being removed is not part of a visitor access trail nor does it lead to any setting maintained by the park for visitor enjoyment. The nearby Lost Man Creek trail and picnic area provides a maintained facility for the purpose of visitor enjoyment and use. The Lower B500 road is a short segment of road that terminates where the previous section of the road was removed 15 years ago. Once the proposed project is completed, the area will not be closed to the public. Visitors will be able to walk the former road alignment and explore the post-treatment site if desired.

Consultations with Agencies and Tribes

The National Marine Fisheries Service was informed of the project on May 14, 2015 during an Interagency Consultation Team meeting at Redwood National Park. Additional meetings were held with NMFS staff in early 2018. A field trip to the site occurred on March 7, 2018. The Application for Inclusion in the NMFS Restoration Center Arcata Office Programmatic Biological Opinion (WCR-2015-2400) was submitted to NMFS February 2018. On May 6, 2019, NMFS determined that the Lower B500 road removal project area fits within the scope of that program and would be covered under Section 7a2 of the Endangered Species Act using the Corps Regional General Permit 12 as the Federal nexus. The Biological Opinion covers the following activities that would be undertaken as part of the Lower B500 project: riparian habitat restoration; instream habitat structure; and upslope watershed restoration. Through the programmatic biological opinion, NMFS determined that these proposed activities are not likely to jeopardize the continued existence of SONCC coho salmon, CC Chinook, or NC steelhead, and are not likely to result in the destruction or adverse modification of designated critical habitat for these species. NMFS expects that the activities will result in incidental take of these species related to dewatering, fish relocation activities, and instream activities. The NOAA RC Biological Opinion authorizes incidental take for effects on listed fish related to these activities. The NMFS incidental take statement includes non-discretionary reasonable and prudent measures and terms and conditions that are expected to reduce the amount or extent of incidental take for SONCC coho salmon, CC Chinook salmon, and NC steelhead.

The US Fish and Wildlife Service was informed of the project on May 14, 2015 during an Interagency Consultation Team meeting at Redwood National Park. The project was determined, during this meeting, to have no effect to listed terrestrial species due to work timing restrictions and the lack of effect to listed species habitat (ICT meeting notes 0514215). As a consequence of this determination, no further consultation with the FWS was conducted.

The NPS notified the California State Historic Preservation Officer (SHPO) on May 22, 2019 that the NPS was planning an undertaking and requested concurrence that the APE had been identified, and concurrence that no historic properties were affected by the project. The SHPO concurred with the NPS determination on June 28, 2019.

NPS management policies and Executive Order 13175 require the NPS to consult with affected federally recognized Tribes on a government-to-government basis. This project is located in Yurok ancestral territory. Big Lagoon Rancheria, Resighini Rancheria, Trinidad Rancheria, and Yurok Tribe were contacted on a government to government basis via letter on April 8, 2019. The Tribes were offered an opportunity to meet face-to-face with NPS officials about the project. No face-to face-meetings were requested. In addition, the NPS consulted with the Yurok Tribe's Heritage Preservation Officer along with the Yurok Tribe's Culture Committee of elders on February 24, 2017. Letters indicating availability of the EA were sent to the Tribes on May 20, 2019. Letters seeking comment from Tribes on the project were sent on May 22, 2019. No comments or concerns were raised.

Why This Project Will Not Have a Significant Effect on the Environment
In considering the criteria for significant impact as defined by CEQ regulation 40 CFR 1508.27, the park determined that the selected action will not have a significant effect on the human environment. The "human environment," as defined in section 1508.14, includes the natural and physical environment and the relationship of people with that environment. Specifically, there are no highly uncertain or controversial impacts, unique or unknown risks, elements of precedence, or cumulatively significant effects identified. Implementation of the selected action will not result in the loss or destruction of significant natural, cultural, or historic resources. Implementation of the selected action will not violate any federal, state, or local laws.

The EA contains descriptions of adverse effects on air quality; soils and topography; hydrology and water quality; floodplains and riparian wetlands; vegetation; fish and wildlife species that are not listed as threatened or endangered; and threatened and endangered species. Potential adverse effects to these resources have been determined to be negligible or minor, and will not require extensive mitigation on the part of the NPS to avoid or reduce the effects. Minimizations measures for these affected resources are discussed below. The selected action will not affect old-growth forests, visitor services, or cultural resources.

Air Quality—Localized short-term adverse effects on air quality under the selected action will result from emissions from heavy equipment and other vehicles, gasoline-powered tools, and dust from equipment operating on unpaved access roads and restoration sites. Emissions will be minimized by using equipment and vehicles licensed to meet state air quality standards. Adverse effects on air quality from dust will be localized, temporary during operations, and overall negligible. If needed, dust will be mitigated by using water trucks to sprinkle areas of soils disturbance. Air quality will quickly return to very good to excellent when equipment operations are completed.

Cumulative effects on air quality in the parks from prescribed fires conducted in the park and on adjacent private timber lands for hazard fuel reduction could range from negligible to moderate depending on wind and atmospheric conditions. Cumulative adverse effects on air quality from smoke from wildfires could range from negligible to significant, depending on the proximity to the park, wind direction, and size of the fire.

No significant air quality related values will be affected outside the immediate area where equipment is operating. Dust and emissions will be temporary. The overall effects on air quality under the selected action will be adverse, temporary, localized, and negligible.

Effects on Greenhouse Gasses and Global Climate Change—There will be a short-term increase in greenhouse gas (GHG) emissions from heavy equipment used to remove the road. There will be no long-term effect on GHG emissions from the selected action. Cumulative effects from GHG emissions in the region are expected to increase over the long-term as the population of the region increases.

Effects on Soils, Geology, and Topography—Topography, geology, and soils within the project area are previously disturbed from the original logging and road-building. There will be no new alteration of topography under the selected action.

Under the selected action, road removal will have short-term localized adverse minor effects on soils from excavation of 15,000 cy over 8.2 ac. Disturbed soils will be mulched with vegetation salvaged from the excavation to reduce erosion. Within a few years, native vegetation will recolonize disturbed soils to further reduce surface erosion.

Long-term effects on soils and topography from removing road segments will be beneficial throughout the project area by reducing erosion and the likelihood of road failures that cause landslides, and by recovering and repositioning topsoil to speed regrowth of vegetation.

Removing 0.8 mile of road and restoring the original landform will be a significant long-term localized benefit to topography in the former road corridor. Over the long-term, beneficial effects on soils will be moderate where topsoil is recovered and repositioned on the restored landforms.

The selected action will not affect soils and topography outside the project area in other sub-basins in the Prairie Creek watershed. Topography in the other sub-basins of the larger Prairie Creek watershed will remain altered by former logging roads that have not been maintained or treated to reduce erosion. Landslides related to untreated roads will cause adverse effects to soils and will occasionally alter topography, particularly after major storms. Long-term adverse effects on soils and topography from untreated roads will range from minor to significant, depending on the degree of alteration from the roads and on the magnitude of storms that result in erosion and can cause landsliding.

Effects on Hydrology and Water Quality—Water quality will be protected through incorporating multiple mitigation measures and BMPs. Standard BMPs for road removal and upgrade work would be employed to minimize or eliminate the potential for surface erosion from the project site. Ground cover would be applied on all bare soil areas within the project area and woody debris would be placed in excavated channels after primary treatments are completed.

The selected action will have minor short-term adverse effects from surface runoff after the first several storms after restoration, and moderate long-term beneficial effects on hydrology and water quality in Larry Damm and Lost Man Creeks.

There would be immediate beneficial effects on hydrology in the project area under the selected action where the road and stream crossings are removed or upgraded to restore or improve drainage. These effects are moderate along the 0.8 mile of road and stream crossings that are completely removed.

Effects on water quality under the selected action will be adverse in the short-term after the first few storms following restoration as sediment from newly excavated slopes and stream crossings is mobilized. The short-term adverse effects will be minor, because mulching would prevent or reduce erosion of newly excavated soils adjacent to stream channels. The long-term effects on water quality under the selected action would have a minor long-term beneficial effect in Prairie Creek by reducing the threat of road failures that would deliver sediment to the streams by preventing erosion of more than 8,000 cy that would damage aquatic habitat. The removal of the Lower B500 road is fully consistent with the recommendations in the Redwood Creek TMDL to reduce sediment input into Redwood Creek and its tributaries such as Prairie Creek.

Effects on Floodplains and Wetlands—The long-term benefit to floodplains and wetlands under the selected action will be negligible because the 8000 cy of sediment prevented from entering the Prairie Creek floodplain following treatment is very small relative to the erosion potential of the untreated sediment sources in the Prairie Creek watershed.

Small isolated palustrine wetlands would be removed from excavations to improve drainage on the upgraded road segments and to restore original drainage patterns where the road is removed. The primary function of these isolated wetlands is amphibian breeding habitat. The adverse effect from loss of these wetlands from restoring the original drainage pattern is negligible compared to the potential adverse effect of road and stream crossing failures that would release sediment downstream and downslope, resulting in loss of stream function, aquatic habitat, and more extensive loss of riparian wetlands.

The long-term effect on riverine wetlands in the project area from the road removal would be a moderate benefit from restoring the original hydrology and drainage pattern. The greatest benefit to riverine and riparian wetlands relies on the effectiveness of watershed restoration at preventing erosion that would lead to landslides that could bury riverine wetlands in stream channels and adjacent palustrine riparian areas with sediment.

Effects on Vegetation— Approximately 8.2 acres would be affected from road removal some of which is road surface that is not heavily vegetated. Along the 0.8 mile of the Lower B500 road that would be completely removed, the vegetation would regrow on about 8.2 acres of the restored landform in several years (understory) or a few decades (trees). Alders would be first tree species to recolonize the restored area, followed by conifers.

Removal of vegetation under the proposed action would be a short-term localized adverse effect. All vegetation affected is common in the park and the region. No old growth trees would be removed. Trees to be removed have regrown after logging and road construction ceased in the 1960s and '70s. The short-term adverse effects on vegetation are negligible. Vegetation would regrow on about 8.2 acres where the Lower B500 road is removed; this would be a minor benefit over the long-term.

Effects on Non-Sensitive Fish and Wildlife— Under the proposed action, there would be short-term localized adverse effects on some aquatic species where stream crossings are excavated; excavations would occur during periods of low flow or when the intermittent streams are dry. There would be short-term adverse effects on wildlife from noise and vegetation removal in construction areas. Some individuals of aquatic species and small wildlife that are common in the area would be killed by heavy equipment. Wildlife would move back into the area following road removal. The effects on wildlife are negligible over the long-term.

Effects on Rare, Sensitive, Threatened, and Endangered Species— The National Marine Fisheries Service was informed of the project during an Interagency Consultation Team meeting at Redwood National Park. The park applied to have this project covered under the NMFS Restoration Center Arcata Office Programmatic Biological Opinion (WCR-2015-2400). On May 6, 2019, NMFS determined that the Lower B500 restoration project fits within the scope of that program and would be covered under Section 7a2 of the Endangered Species Act using the Corps Regional General Permit 12 as the Federal nexus. Through the programmatic biological opinion, NMFS determined that these proposed activities are not likely to jeopardize the continued existence of SONCC coho salmon, CC Chinook, or NC steelhead, and are not likely to result in the destruction or adverse modification of designated critical habitat for these species. NMFS expects that the activities will result in incidental take of these species related to dewatering, fish relocation activities, and instream activities. The NOAA RC Biological Opinion authorizes incidental take for effects on listed fish related to these activities. The NMFS incidental take statement includes non-discretionary reasonable and prudent measures and terms and conditions that are expected to reduce the amount or extent of incidental take for SONCC coho salmon, CC Chinook salmon, and NC steelhead.

Accordingly there will be short term, adverse effects on fish during project implementation, particularly during dewatering of Larry Damm Creek to remove the bridge infrastructure. Project BMPs, i.e. timing of work and use of fish relocation protocols during removal of the bridge, will be followed to minimize impact to fish and habitat. The likelihood of sediment entering the stream network is during or after project implementation is low, the amount of sediment will be small, and the likelihood of small amounts of petroleum products entering the stream network is low, based on the mitigation measures and the BMPs.

The US Fish and Wildlife Service was informed of the project during an Interagency Consultation Team meeting at Redwood National Park. The project was determined, during this meeting, to have no effect to listed terrestrial species due to work timing restrictions and the lack of effect to listed species habitat. As a consequence of this determination, no further consultation with the FWS was conducted.

Effects on Cultural Resources—The California SHPO concurred with the NPS determination that no properties of cultural or historic significance will be affected by the selected action. The project is in Yurok ancestral territory and the NPS initiated consultation with federally recognized American Indian Tribes of the Big Lagoon Rancheria, Resighini Rancheria, Trinidad Rancheria, and Yurok Tribe. In addition, the NPS consulted with the Yurok Tribal Heritage Preservation Office and the Yurok Tribe's Culture Committee of elders. No comments or concerns have been noted.

Conclusions—As summarized above, the effects of the selected action have been considered and determined to be less than significant. These effects have also been considered under the criteria for significance listed in the Council on Environmental Quality regulations (40 CFR 1508.27) and found to be less than significant. Actions for which mitigation can be prescribed, the prescribed mitigation, and the responsible party are summarized in the following table. An NPS geologist will provide project oversight and supervision of project activities.

Summary of Adverse Effects on Resources and Mitigations
Lower B500 Road Removal

Resource	Effect	Mitigation/Responsible Party
Air Quality	Minor temporary localized dust and vehicle emissions.	Water sprinkling to reduce dust. Vehicle emissions regulated to state standards (cooperator)
Soils	15,000 cy excavated over 16 acres and placed in stable locations not subject to erosion into stream preventing erosion of more than 8,000 cy.	Multiple minimization measures to reduce erosion include timing of work, mulching, BMPs, and winterization (NPS Geologist and cooperator)
Topography	Original landform restored along where Lower B500 road removed.	
Hydrology & Water Quality	Moderate benefit to hydrology in project area where road is removed; minor benefit where drainage improved on existing road. Short-term likelihood of water quality impacts from increased turbidity; minor long-term benefit	Spill prevention plan prepared and implemented (cooperator). Implement multiple minimization measures and BMPs to reduce erosion and short-term adverse effects (NPS Geologist and cooperator).

Resource	Effect	Mitigation/Responsible Party
	to Larry Damm Creek and negligible long-term benefit to Prairie Creek water quality from preventing erosion of 8,000 cy of soils.	
Floodplains and Wetlands	Negligible benefit to Prairie Creek floodplain from preventing erosion of 8,000 cy of into Larry Damm Creek; 8 acres of riparian vegetation (riparian wetland) affected; moderate benefit to riverine and riparian wetlands where hydrology is restored from road removal.	BMPs implemented and drainage structures repaired or replaced (NPS Geologist and cooperator).
Vegetation	Negligible adverse effect from removal or disturbance of 8.2 acres second-growth forest in road corridor and slopes for road removal. Long-term minor benefit from natural revegetation along 0.8 mile of road removed.	Vegetation removed stockpiled and used as mulch on exposed soils; natural revegetation allowed (cooperator).
Wildlife	Some individual small sedentary animals killed during heavy equipment use. Negligible adverse effects on park populations of affected wildlife species.	
Threatened Species	Short-term adverse effects on listed fish from de-watering activities during bridge abutment removal.	Work timing restrictions to protect fish & BMPs for de-watering and fish relocation protect fish (contractor and NPS Biologist).

Basis for Decision

Based on the environmental assessment, analyses of issues and alternatives, together with consideration of minimal public interest expressed; the relation between public interest and laws, statutes, and regulations for managing National Park Service units; and the ability of the mitigation measures to minimize adverse impacts, the NPS will implement as its selected action the project described as Alternative 1 in the Lower B500 Road Removal Environmental Assessment.

It is the determination of the National Park Service that the selected action to remove this logging road to reduce erosion threats, does not constitute a major federal action significantly affecting the quality of the human environment, nor is this project without precedent or similar to ones that normally require an environmental impact statement. The selected action will further the goals for watershed restoration described in the 1999 GMP/FEIS and 2000 Record of Decision. Therefore, in compliance with the National Environmental Policy Act, the National Park Service will not prepare an environmental impact statement, and will proceed with implementation of the project as soon as practicable.

Recommended:

7/8/2019

for Steve Mietz
Superintendent
Redwood National Park

Date

Approved:

7/26/19

Stan Austin
Regional Director
Pacific West Region

Date