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*A PDF text file of the project's approved environmental compliance package containing the letter of compliance completion, categorical exclusion form, environmental screening form, and any other associated environmental clearance forms, as applicable (e.g., Wilderness Minimum Requirement Analysis, Wild and Scenic River Section 7 Analysis). The signed originals of the package are on file in the Environmental Planning and Compliance Office at Yosemite National Park.*

## **Letter of Compliance Completion**

**To:** Garrett Dickman, Project Manager, Yosemite National Park

**From:** Cicely Muldoon, Superintendent, Yosemite National Park

**Subject:** NEPA and NHPA Clearance: 2021-066 Biomass removal and thinning to protect sequoias, wildlife habitat and communities-Wawona Road to Merced Grove (PEPC: 99551)

The Superintendent and park interdisciplinary team have reviewed the proposed project and completed an impact analysis and documentation, and have determined the following:

- The project is not likely to adversely affect threatened, endangered, or rare species and/or their critical habitat.
- There will be no adverse effect to historic properties.
- There will not be serious or long-term undesirable environmental or visual effects.

The subject proposed project, therefore, is now cleared for all NEPA and NHPA compliance requirements as presented above. Project plans and specifications are approved and construction and/or project implementation can commence.

**Required Mitigations** - For the proposed project actions to be within compliance requirements during construction and/or project implementation, the following mitigations must be adhered to:

### **General**

- Only work described in PEPC 99551 is approved for implementation. Any changes to the scope of work will require additional review by the Environmental Planning and Compliance Branch.
- Coordinate and consult with Park resources staff (wildlife, archeology, vegetation etc.), concessioners, facilities, hazard tree crews, and other affected stakeholders at least 1 week ahead of pile burning or thinning operations to identify sensitive areas, allow for operational planning, and ensure the implementation of applicable mitigation measures.
- The project will adhere to the standard erosion control, prevention, and rehabilitation measures outlined in the Yosemite Fire Management Plan ROD.

## Vegetation

- For project areas that have not been previously surveyed for special status or invasive plants, provide surveys at a time of year when plants are flowering. Consult with Plant Ecologist (Kimiora Ward (209) 379-3293) at least 2 weeks prior to project implementation to perform surveys. Flag special status and invasive plant populations for avoidance, or otherwise provide for avoidance.
- Do not use wheeled or tracked equipment in soft meadow soils with abundant herbaceous vegetation. If meadows are the only access, use track mats to spread vehicle weight and prevent damage to meadow soils and vegetation.
- Avoid damage to black oak and sugar pine trees during project activities.
- Rehabilitation: If vehicle tracks or bare soils are created by tree removal activity, rehabilitate the site by raking soils to blend with surrounding area and covering with branch slash, native forest duff, or wood chips no more than 1 inch deep.
- Consult with Forester or pathologist on best practice of treating cut fir stumps with Borax/Sporax within 24 hours to prevent Heterobasidion root disease, especially to protect giant sequoias within Merced Grove.
- Measures shall be taken to prevent the introduction of exotic species in the project area and staging areas. All earth moving equipment must enter the Park free of dirt, dust, mud, seeds, or other potential contaminant. Examples of equipment that require inspection are excavators, skid steers, or boring equipment. Passenger vehicles do not need inspection but should be clean prior to entry in the park. Equipment exhibiting any dirt or other material attached to frame, tires, wheels, or other parts shall be thoroughly cleaned by the Contractor before entering the Park. Areas inspected shall include, but not be limited to, tracks, track guard/housings, belly pans/under covers, buckets, rippers, and other attachments. Equipment that does not pass inspection will be turned around to the nearest cleaning facility outside the park. The Contractor shall notify the Construction manager at least two work days (not including weekends) prior to bringing any equipment into the Park. Equipment found to have entered the Park with potential contaminants will be removed from the Park at the direction of the Contracting Officer at Contractor's sole expense. All staff working on site shall be informed of and follow best management practices for preventing the introduction and spread of non-native, invasive species as described in Division 1 Specifications, Section 1335.

## Wildlife- Fisher

- Timing- The project will adhere to the following Limited Operating Periods to protect the Fisher:
  - March 1 to May 31: Prohibit tree-cutting, thinning, or other vegetation management activities (including mastication) that produce noise above the ambient level within potential denning habitat\*
    - \*This time period may be waived if modeled potential den habitat is no longer considered den habitat due to on the ground information (e.g. habitat evaluation or current fisher locations) and/or more fine-tuned habitat models with approval from the Service.
  - March 1 to June 30: Prohibit tree-cutting, thinning, or other vegetation management activities (including mastication and pile burning) within known den clusters. Prohibit herbicide application within known den clusters.
  - March 15 to May 1: Prohibit pile-burning in potential denning habitat.
- Habitat Structure- The project will adhere to the following measures to conserve Fisher habitat:
  - Ensure that within a 60-acre cluster of potential denning habitat, at least an average of greater than one suitable den tree per acre and two suitable rest trees per acre would remain. Prioritize large trees with deformities, broken tops, large branches, and cavities for retention. A Park Wildlife Biologist will perform pre-work habitat surveys and mark high value habitat trees for retention.
  - While the project will remove trees and vegetation by design, large diameter trees (over 20-inch diameter at breast height) and California black oaks will be retained and protected.

- The project manager will consult with Park wildlife staff during planning to avoid and/or enhance suitable habitat and corridors. A Park Wildlife Biologist will coordinate to ensure habitat elements are retained and ensure that corridors are avoided.
- Protections During Work- The project will adhere to the following measures to protect Fishers during work:
  - Any temporary fencing will allow for the safe passage of fishers.
  - All food and garbage will be stored at all times in wildlife-proof containers.
  - Any pipes, watertanks, or trenches will be capped, screened, or fitted with escape ramps if they cannot be closed each night to avoid entrapment of wildlife.
  - Project staff will follow posted speed limits and reduce their speed by an additional five mph during dusk and dawn.
  - The Park Wildlife Biologist will teach work crews how to identify fisher, den trees, and other important habitat components that should be retained.
  - If a fisher is observed at a work site, work in that area will be immediately stopped and a wildlife biologist will be immediately notified. Work may resume when the fisher is observed leaving the area and a Park Wildlife Biologist confirms that the fisher won't be adversely affected.
  - Any future alterations to the project (i.e. additional thinning locations) will be reviewed by a Park Wildlife Biologist to determine if the changes are consistent with the existing consultation or if additional consultation with the Service is needed.

### **Wildlife- Great Grey Owl**

- If active Great Grey Owl nesting sites are identified, no work will occur within 400 m of active nest sites during the Limited Operating Period of March 1st - August 15th. Location of the nest site will be identified by the park Wildlife Branch by June 1st. No work should occur within 400 m of Wawona Meadow or Crane Flat Meadow Complex March 1st - June 1st. Additional measures to protect Great Grey Owls include:
  - No project activity between 30 minutes before dusk and 30 minutes after dawn
  - Avoid activity in occupied meadows during the nesting period if possible
  - Retain large snags (>24 in DBH) if possible

### **Cultural Resources**

- Integrate archeologist into project implementation and identify archeological site boundaries prior to implementation and identify priority sites for fuel reduction efforts. Archeologist will monitor work within sensitive archeological sites. Removal of fuels within site boundaries for resources that have the potential to be disturbed by these actions (e.g, lithic scatters, historical refuse, rock walls, bedrock milling features, tree blazes) will involve methods that minimize or do not include ground disturbance. Associated site protection actions include moving slash outside of site boundaries, identifying locations within site boundaries that do not contain cultural materials that can be treated with heavy equipment, chipping and hauling slash instead of piling, and removing fuels from on top of and adjacent to features and concentrations of artifacts. These methods are implemented on a site by site basis to ensure no adverse effect to archeological sites.

### **Water Quality**

- For the stream gage installation, project staff should comply with all applicable general conditions contained in the U.S. Army Corps of Engineers Nationwide Permit #5 (Scientific Measurement Devices) for the protection of the stream.

**Superintendent Signature:** David Miyako for Cicely  
Muldoon

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**Date:** August 17, 2021

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*The signed original of this document is on file  
at the Environmental Planning and Compliance  
Office in Yosemite National Park.*



## Categorical Exclusion Documentation Form (CE Form)

**Project:** Biomass removal and thinning to protect sequoias, wildlife habitat and communities-Wawona Road to Merced Grove

**PEPC Project Number:** 99551

**Description of Action (Project Description):**

This project reduces post-drought and post-fire fuels to protect the Merced and Tuolumne groves of giant sequoias, Yosemite Valley, the communities of Yosemite West, Wawona, El Portal, Foresta, Yosemite Village, significant Pacific fisher and great grey owl habitat, prehistoric and historic archeological sites, and improves safety for the public and first responders. Immediate actions are needed to protect these areas from high severity fire. The goals are reached by thinning conifers <20" diameter, standing dead trees, and removing dead and down trees that died after the 2012-2016 drought. Biomass are either removed and hauled offsite or piled and burned. This project incorporates and expands PEPC 41967 Merced Grove Special Management Area Burn Preparation and Fire Fuels Thinning Project-Phase I into Phase II. It follows the 2004 Fire Management Plan EIS (FMP) with several additions. Actions are described for those that adhere directly to the FMP and the Forestry Programmatic CE (PEPC 79616) and then those actions that tier off the FMP. Tiered actions are specifically called out with an explanation how it differs from FMP.

### Description of Actions

- Cut down hazard trees following criteria of the Forestry CE.
- Cut down <20" diameter ponderosa pine, incense cedar, white fir, and douglas-fir. Flush cut stumps. Post removal tree density should be left at 24-130 trees/acre to mimic pre-settlement tree density.
- Remove biomass including recently dropped hazard trees. Haul biomass to the nearest mill, co-gen plant, or other biomass processing plant. Remove biomass with rubber balloon tires, skidding, winching, or with tracked equipment (\*FMP does not specify if tracked equipment is permitted along road corridors). Equipment will go off road but will not enter Wilderness. Any value from biomass removal will offset project costs and will not support park operations.
- Chip, lop and scatter, or pile and burn limbs as appropriate.

### Location of Action and Extent

The work extent of each segment is 200 feet from centerline on both sides of the road unless otherwise noted. No work will occur in Wilderness. Work may not occur in areas because the area is too steep, work area is unsafe, or there is sensitive species or cultural resource concerns. Work will only occur in sensitive sites with appropriate mitigations and/or monitoring from subject matter experts. Actions are described as road segments, road segments that expand the FMP, Merced Grove treatments, and well and stream gage installation.

### Road Segments

- Wawona Road-Alder Creek to South Side Drive: 16.68 miles, 810.77 acres
- Henness Ridge Road-Wawona Road to park boundary: 0.79 miles, 41.15 acres
- South side drive-Wawona Road to Big Oak Flat Road: 1.86 miles, 92.72 acres (\*FMP does not specify roadside thinning on south side drive)
- Big Oak Flat Road-El Portal Road to Merced Grove parking lot: 13.22 miles, 643.3 acres

- Tioga Road-Big Oak Flat Road to Gin Flat: 3.76 miles, 184.44 acres
- Merced Grove Trail: 1.21 miles, 64.6 acres
- Merced Grove Truck trail north-Merced Grove parking lot to Y: 1.21 miles, 61.33 acres

### Expanded Road Segments

The following two road segments expand what is prescribed in the FMP. These segments extend the area from beyond the road corridor uphill to the ridgeline where there is a pre-existing dozer line. Removing fuels in this area decrease the risk of losing a prescribed fire from a mid-slope holding line. Merced Grove Truck Trail is divided in two segments as the north segment was burned during the Ferguson fire. Merced Grove Truck trail south also protects the boundary area as specified in the FMP.

- Merced Grove Truck trail south-Y to park boundary: 68.25 acres, 2.57 miles
- South Landing Road-Big Oak Flat Road to park boundary-63.35 acres, 2.12 miles

Merced Grove Merced Grove is split into two areas. The treatment is the same, but the rationale for the treatment differs and is specified below.

- Merced Grove of sequoias (~60 acres). Heavy equipment may not operate off-road to avoid damaging sequoia seedlings or sequoia roots. (\* FMP calls for removal of conifers <12" diameter in sequoia groves. It has been 17 years since the FMP was written. Tree density far surpasses the on the ground conditions and removal of 12" diameter trees is insufficient to protect the sequoias.)
- Downhill of sequoias (~60 acres). FMP specifies removal of <20" conifers in boundary areas such as this one. Thinning conifers also reduces the threat of fire entering the grove from below.

### Well and Stream Gage Installation

This project also includes monitoring to evaluate ground and surface water pre- and post-treatment. Installations would consist of three soil moisture/snow depth nodes and one stream gage. The soil moisture/snow depth nodes would consist of a 10 foot long 2-inch diameter aluminum pole anchored with a post pounded into the soil. A snow depth sensor would be mounted to the end of a three foot cross piece mounted to the top of each pole. Each pole would also contain a 10 x 10 inch solar panel, a 10x10x5 inch datalogger box, a 7x7x6 inch white solar shield housing for temperature and humidity sensors, and associated conduit for wiring along the pole. Soil moisture probes would be located to a depth of one meter. Two of the nodes would be co-located with fire effects plots in the grove, which would sample the northeast facing slope of the Grove on the west side of Moss Creek. The 3rd node would be located in the valley bottom at a lower gradient site on the west side of Moss Creek.

The stream gage design would be consistent with other low-visibility and low-impact sites in Yosemite. The gage would consist of an electronic pressure transducer encased in a pvc pipe section approximately 1-2 ft long. The PVC pipe would be secured with hose clamps to 3-5 pieces of rebar pounded into the stream bed. The stream gage would be located near the road crossing of Moss Creek. A small barologger approximately 6 inches long and 1.5 inches in diameter would be screwed onto a nearby tree to measure barometric pressure.

### **Mitigation(s):**

See Letter of Compliance Completion for Mitigations

**CE Citation:** B.1 Changes or amendments to an approved plan, when such changes would cause no or only minimal environmental impact.

### **CE Justification:**

Actions are generally covered by the 2017 Fire Management Plan amendment (PEPC 41967), 2004 Fire Management Plan, and/or Forestry Programmatic CE (PEPC 24425). New impacts not covered by these comprehensive plans are addressed in the Mitigations and Other Compliance/Consultations section.

**Decision: I find that the action fits within the categorical exclusion above. Therefore, I am categorically excluding the described project from further NEPA analysis. No extraordinary circumstances apply.**

**Superintendent Signature:** David Miyako for Cicely Muldoon      **Date:** August 17, 2021

**Extraordinary Circumstances:**

If implemented, would the proposal...	Yes/No	Notes
<b>A.</b> Have significant impacts on public health or safety?	No	No
<b>B.</b> Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation, or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order 11990); floodplains (Executive Order 11988); national monuments; migratory birds; and other ecologically significant or critical areas?	No	No
<b>C.</b> Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources (NEPA section 102(2)(E))?	No	No
<b>D.</b> Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks?	No	No
<b>E.</b> Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects?	No	No
<b>F.</b> [Repealed per DOI] Have a direct relationship to other actions with individually insignificant, but cumulatively significant, environmental effects?	N/A	No longer applicable per the updated 2020 CEQ NEPA regulations and DOI direction.
<b>G.</b> Have significant impacts on properties listed or eligible for listing on the National Register of Historic Places, as determined by either the bureau or office?	No	No
<b>H.</b> Have significant impacts on species listed or proposed to be listed on the List of Endangered or Threatened Species, or have significant impacts on designated Critical Habitat for these species?	No	A Biological Analysis for the federally-listed Fisher has been prepared for this action.
<b>I.</b> Violate a federal, state, local or tribal law or requirement imposed for the protection of the environment?	No	No
<b>J.</b> Have a disproportionately high and adverse effect on low income or minority populations (EO 12898)?	No	No
<b>K.</b> Limit access to and ceremonial use of Indian sacred sites on federal lands by Indian religious practitioners or adversely affect the physical integrity of such sacred sites (EO 13007)?	No	No
<b>L.</b> Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and Executive Order 13112)?	No	No





# ENVIRONMENTAL SCREENING FORM (ESF)

Updated Sept 2015 per NPS NEPA Handbook

## A. PROJECT INFORMATION

**Project Title:** Biomass removal and thinning to protect sequoias, wildlife habitat and communities-  
Wawona Road to Merced Grove

**PEPC Project Number:** 99551

**Project Type:** Fire - Mechanical Fuel Reduction (MFR)

**Project Location:** **County, State:** Mariposa, California

**Project Leader:** Garrett Dickman

## B. PROJECT DESCRIPTION

See Categorical Exclusion Form

## C. RESOURCE IMPACTS TO CONSIDER:

Resource	Potential for Impact	Potential Issues & Impacts
<b>Air</b> Air Quality	Potential	Issue: Pile burning is anticipated to generate smoke and localized air quality impacts.  Impact: Air quality impacts are anticipated to be minor and highly localized. Project manager will refer to procedures noted in the 2004 Final Yosemite Fire Management Plan EIS for mitigation of potential air quality impacts.
<b>Biological</b> Nonnative or Exotic Species <i>Introduction and spread of noxious plants</i>	Potential	Issue: Fire trucks, bulldozers, or other heavy equipment may act as vectors that could introduce or spread non-native plants.  Impact: Follow resource protections outlined with regard to heavy equipment cleaning, inspection, and park expert consultation.
<b>Biological</b> Species of Special Concern or Their Habitat <i>Fisher, Great Grey Owls</i>	Potential	Issue: Special status species, including the Pacific Fisher and Great Grey Owls, may be present in the project area.  Impact: Follow resource protections with regard to special status species. Impacts from this action are expected to be minor and much smaller than those posed by catastrophic fire, which could result from not taking action.

<b>Resource</b>	<b>Potential for Impact</b>	<b>Potential Issues &amp; Impacts</b>
<b>Biological</b> Vegetation	Potential	Issue: The forests and associated vegetation in the project locations are more dense than they were historically due to over a century of fire suppression.  Impact: Impacts from this action are expected to be beneficial to forest health and intended to thwart the potential negative, extensive impacts from large, catastrophic fire, which could result from not taking action.
<b>Biological</b> Wildlife and/or Wildlife Habitat including terrestrial and aquatic species	Potential	Issue: Thinning vegetation, pile burning, and associated noise and disturbance may have impacts to wildlife communities and habitat; wildlife behavior is impacted by human-caused food conditioning.  Impact: Impacts from this action are expected to be beneficial to forest habitat health and intended to thwart the potential negative, extensive impacts from large, catastrophic fire, which could result from not taking action. Workers will follow resource protections with regard to food/trash storage outlined to prevent food conditioning in wildlife.
<b>Cultural</b> Archeological Resources	Potential	Issue: Various archeological sites are in proposed work [REDACTED] [REDACTED] [REDACTED]  Impact: Archeologist will work closely with project managers to identify site boundaries and provide buffers for avoidance and site treatment measures to avoid adverse impacts.
<b>Cultural</b> Cultural Landscapes <i>Yosemite Valley Historic District, Merced Grove Historic District</i>	Potential	Issue: The project takes place within and adjacent to several historic districts, including the Yosemite Valley Historic District and Merced Grove Historic District.  Impact: This project will return road corridors and sequoia groves to a historically more natural, open forest condition by removing encroaching small vegetation and trees.
<b>Cultural</b> Ethnographic Resources	None	None
<b>Cultural</b> Museum Collections	None	None
<b>Cultural</b> Prehistoric/historic structures <i>Big Oak Flat Road, Wawona Road</i>	Potential	Issue: The project will take place along several historic road corridors, including the Big Oak Flat Road and Wawona Road.  Impact: No impacts to the roads are expected as a result of this project.
<b>Geological</b> Geologic Features	None	None
<b>Geological</b> Geologic Processes	None	None

<b>Resource</b>	<b>Potential for Impact</b>	<b>Potential Issues &amp; Impacts</b>
<b>Lightscares</b> Lightscares	None	None
<b>Other</b> Human Health and Safety	Potential	Issue: Fire operations and heavy equipment operations pose inherent risks to human health and safety. Large, catastrophic fires (which could result from not taking action) also pose risks to human health and safety.  Impact: Follow NPS and Park protocols to safely carry out pile burning and thinning activities and have contingency plans in place. Overall impacts to human health and safety are improved by decreasing the risk of large, catastrophic fire that could result from not taking action.
<b>Other</b> Operational Roads	Potential	Issue: Some NPS operations, particularly along road corridors associated with proposed thinning and pile burning locations, may be impacted by this project.  Impact: Communicate and coordinate project actions well ahead of projected implementation, refer to the 2004 Final Yosemite Fire Management Plan EIS for mitigations and procedures regarding communication and coordination.
<b>Other</b> Other	None	None
<b>Socioeconomic</b> Land Use	None	None
<b>Socioeconomic</b> Minority and low-income populations, size, migration patterns, etc.	None	None
<b>Socioeconomic</b> Socioeconomic	None	None
<b>Soundscapes</b> Soundscapes <i>Tools and equipment</i>	Potential	Issue: Heavy equipment, chainsaws, and other tools used in thinning operations produce noise.  Impact: Noise from hand tools and other equipment may disturb wildlife, but is expected to be highly localized and temporary in duration.
<b>Viewsheds</b> Viewsheds <i>Forest Structure</i>	Potential	Issue: The project will clear excessive growth and vegetation from the project area. Burn piles will produce smoke when ignited.  Impact: Smoke impacts from burn piles is expected to be localized and temporary in duration. In the long term, the project is expected to positively impact the forest views in these locations by creating a more open, park-like forest structure.

<b>Resource</b>	<b>Potential for Impact</b>	<b>Potential Issues &amp; Impacts</b>
<b>Visitor Use and Experience</b> Recreation Resources <i>Roads, Merced Grove</i>	Potential	Issue: Areas in and adjacent to planned thinning and pile burning activities, including the Merced Grove, may be temporarily closed to visitation to protect visitor safety or may experience smoke impacts. Delays or reduced traffic speeds are possible along roads adjacent to the project area.  Impact: Minor, temporary negative impact to recreational resources. Pile burning and thinning will likely take place in the low-visitation season. Refer to mitigations in the 2004 Final Yosemite Fire Management Plan EIS to reduce potential visitor impacts.
<b>Visitor Use and Experience</b> Visitor Use and Experience	None	None
<b>Water</b> Floodplains	None	None
<b>Water</b> Marine or Estuarine Resources	None	None
<b>Water</b> Water Quality or Quantity <i>Moss Creek Stream Gauge</i>	Potential	Issue: The effect of thinning treatments in the Merced Grove will be monitored through the installation of soil moisture probes and a stream gauge along Moss Creek.  Impact: It's expected that the implementation of the project will result in more water availability in Moss Creek and the Merced Grove of Giant Sequoias.
<b>Water</b> Wetlands	None	None
<b>Water</b> Wild and Scenic River	None	None
<b>Wilderness</b> Wilderness	None	None



# ASSESSMENT OF ACTIONS HAVING AN EFFECT ON HISTORIC PROPERTIES

## A. DESCRIPTION OF UNDERTAKING

1. **Park:** Yosemite National Park

### 2. **Project Description:**

**Project Name:** Biomass removal and thinning to protect sequoias, wildlife habitat and communities-Wawona Road to Merced Grove

**Prepared by:** Daniel Sharon    **Date Prepared:** 03/11/2021    **Telephone:** (209) 379-1038

**PEPC Project Number:** 99551

**Locations:**

**County, State:** Mariposa, CA

**Describe project:**

See Categorical Exclusion Form.

**Area of potential effects (as defined in 36 CFR 800.16[d])**

The APE is limited to the area within 200 feet of the centerline of the road segments described (approximately 1,900 acres total) and approximately 120 acres within and south of the Merced Grove of Giant Sequoias. Conifers will be flush cut. Ground disturbance may be caused by impact from falling trees, equipment working in and removing timber from project areas, and burning slash piles affecting surface and near-surface soils.

Ground disturbance associated with stream gage and soil moisture probe installations will be limited to the rebar/t-posts used to anchor the instruments to the ground. Rebar/t-posts will be pounded into the ground with no digging necessary. Gage design will be consistent with other low-visibility and low-impact gages in Yosemite.

3. **Has the area of potential effects been surveyed to identify historic properties?** Yes

### 4. **Potentially Affected Resource(s):**

**Archeological Resources Present:** Yes

**Archeological Resources Notes:** Various archeological sites are in proposed work [REDACTED]

**Historical Structures/Resources Present:** Yes

**Historical Structures/Resources Notes:** The bulk of fuels thinning work will occur within road corridors across the southwestern portion of the park. Several of these road segments, including the New Big Oak Flat Road and

the Old Coulterville Road and Trail, have been determined eligible for listing in the NRHP. Other historic structures within the APE include the Merced Grove Ranger Cabin.

**Cultural Landscapes Present:** Yes

**Property Name:** Merced Grove Historic District **LCS:**

**Property Name:** Yosemite Valley Historic District **LCS:**

**Cultural Landscapes Notes:** The areas of clearance are within or adjacent to several historic districts, including the Merced Grove Historic District and the Yosemite Valley Historic District.

**Ethnographic Resources Present:** No

**Ethnographic Resources Notes:** Project details were included in the March 2021 Tribal Spreadsheet. No comments, concerns, or resources were identified by tribes.

**5. The proposed action will: (check as many as apply)**

Yes/No	The proposed action will:
No	Destroy, remove, or alter features/elements from a historic structure
No	Replace historic features/elements in kind
No	Add non-historic features/elements to a historic structure
No	Alter or remove features/elements of a historic setting or environment (inc. terrain)
No	Add non-historic features/elements (inc. visual, audible, or atmospheric) to a historic setting or cultural landscape
No	Disturb, destroy, or make archeological resources inaccessible
No	Disturb, destroy, or make ethnographic resources inaccessible>
Yes	Potentially affect presently unidentified cultural resources
No	Begin or contribute to deterioration of historic features, terrain, setting, landscape elements, or archeological or ethnographic resources
No	Involve a real property transaction (exchange, sale, or lease of land or structures)
No	Other (please specify):

**6. Supporting Study Data:**

(Attach if feasible; if action is in a plan, EA or EIS, give name and project or page number.)

**B. REVIEWS BY CULTURAL RESOURCE SPECIALISTS**

The park 106 coordinator requested review by the park's cultural resource specialist/advisors as indicated by check-off boxes or as follows:

[ X ] **106 Advisor**

**Name:** Hope Schear

**Date:** 04/21/2021

**Comments:** Compliance streamlined review complete under YOSE PA section 5d. No comments or concerns received from tribes.

**Check if project does not involve ground disturbance** [  ]

**Assessment of Effect:**  No Potential to Cause Effect  No Historic Properties Affected  No Adverse Effect  Adverse Effect  Streamlined Review

**Recommendations for conditions or stipulations:** Please see specialists recommendations.

**Doc Method:** Park Specific or Other Programmatic Agreement

**[ X ] Anthropologist**

**Name:** Liz Williams

**Date:** 04/13/2021

**Comments:** Project submitted for tribal consultation in March 2021 Tribal Spreadsheet emailed to tribes for 30 day review on March.11.21.

No tribal comments received within 30 day review period.

please refer to archeologist comments

**Check if project does not involve ground disturbance** [  ]

**Assessment of Effect:**  No Potential to Cause Effect  No Historic Properties Affected  No Adverse Effect  Adverse Effect  Streamlined Review

**Recommendations for conditions or stipulations:**

**Doc Method:** Park Specific or Other Programmatic Agreement

**[ X ] Archeologist**

**Name:** Wesley Wills

**Date:** 04/13/2021

**Comments:** Various archeological survey projects have occurred in these proposed work areas, particularly road corridor and sequoia grove surveys in 1984, 1985, 1992, early 2000s, and 2011. Multiple archeological sites are in proposed work [REDACTED]

[REDACTED] As with this project and others related to fuel management, such as hazard tree removal and prescribed burns, the Branch of Anthropology has been in close coordination with project managers to identify site boundaries and provide buffers for avoidance. Site locations are conveyed through face-to-face interaction, monthly meetings, and shared spatial data on secured mobile devices. In other instances, archeologists have teamed with crews to identify locations within site boundaries that would benefit from fuel reduction actions, particularly removing fallen trees on the site surface. These fuels, when burned, increase the intensity and duration of fire on the site surface, which increases potential damage to cultural materials. To reduce this risk, archeologists identify treatment areas and specify methods for reducing ground disturbance.

**Check if project does not involve ground disturbance** [  ]

**Assessment of Effect:**  No Potential to Cause Effect  No Historic Properties Affected  No Adverse Effect  Adverse Effect  Streamlined Review

**Recommendations for conditions or stipulations:** Integrate archeologist into project implementation and identify archeological site boundaries prior to implementation and identify priority sites for fuel reduction efforts. Archeologist will monitor work within sensitive archeological sites. Removal of fuels within site boundaries for resources that have the potential to be disturbed by these actions [REDACTED]

[REDACTED] will involve methods that minimize or do not include ground disturbance. Associated site protection actions include moving slash outside of site boundaries, identifying locations within site boundaries that do not contain cultural materials that can be treated with heavy equipment, chipping and hauling slash instead of piling, and removing fuels from on top of and adjacent to features and concentrations of artifacts. These methods are implemented on a site by site basis to ensure no adverse effect to archeological sites.

**Doc Method:** Park Specific or Other Programmatic Agreement

**[ X ] Historical Architect**

**Name:** Donald Faxon

**Date:** 04/16/2021

**Comments:** While involving various viewsheds and adjacent to some built resources including historic roads,

tunnels, and related landscape features, this project has minimum impact and substantial benefits for historic resources.

*Check if project does not involve ground disturbance* [  ]

**Assessment of Effect:**  No Potential to Cause Effect  No Historic Properties Affected  No Adverse Effect  Adverse Effect  Streamlined Review

**Recommendations for conditions or stipulations:**

**Doc Method:** Park Specific or Other Programmatic Agreement

[ X ] **Historical Landscape Architect**

**Name:** Vida Germano

**Date:** 04/20/2021

**Comments:** This project will have no adverse effect on the cultural landscapes within the APE. Removal of dead and downed vegetation is part of routine grounds maintenance within a cultural landscape and is necessary to protect the cultural and natural resources that contribute to the cultural landscape. The well and stream gauge monitors will have no adverse effect on the cultural landscape because of the small size and location.

*Check if project does not involve ground disturbance* [  ]

**Assessment of Effect:**  No Potential to Cause Effect  No Historic Properties Affected  No Adverse Effect  Adverse Effect  Streamlined Review

**Recommendations for conditions or stipulations:**

**Doc Method:** Park Specific or Other Programmatic Agreement

**No Reviews From:** Curator, Historian, Other Advisor

### C. PARK SECTION 106 COORDINATOR'S REVIEW AND RECOMMENDATIONS

#### 1. Assessment of Effect:

Select with X	Assessment of Effect
Not selected	No Potential to Cause Effects
Not selected	No Historic Properties Affected
X	No Adverse Effect
Not selected	Adverse Effect

#### 2. Documentation Method:

[  ] **A. Standard 36 CFR Part 800 Consultation**

Further consultation under 36 CFR Part 800 is needed.

[  ] **B. Streamlined Review Under the 2008 Servicewide Programmatic Agreement (PA)**

The above action meets all conditions for a streamlined review under section III of the 2008 Servicewide PA for Section 106 compliance.

#### Applicable Streamlined Review Criteria

(Specify 1-16 of the list of streamlined review criteria.)

[  ] **C. Undertaking Related to Park Specific or Another Agreement**

The proposed undertaking is covered for Section 106 purposes under another document such as a park, region or statewide agreement established in accord with 36 CFR 800.7 or 36 CFR 800.14.



[ ] **D. Combined NEPA/NHPA Process**

Process and documentation required for the preparation of an EA/FONSI or an EIS/ROD to comply with Section 106 is in accord with 36 CFR 800.8.c.

[ ] **E. Memo to Project File**

**3. Consultation Information**

**SHPO Required:** No

**SHPO Sent:**

**SHPO Received:**

**THPO Required:** Yes

**THPO Sent:** March 11, 2021

**THPO Received:** No tribal response after 30 days

**SHPO/THPO Notes:**

**Advisory Council Participating:** No

**Advisory Council Notes:**

**Additional Consulting Parties:** No

**4. Stipulations and Conditions:** Following are listed any stipulations or conditions necessary to ensure that the assessment of effect above is consistent with 36 CFR Part 800 criteria of effect or to avoid or reduce potential adverse effects.

**5. Mitigations/Treatment Measures:** Measures to prevent or minimize loss or impairment of historic/prehistoric properties: (Remember that setting, location, and use may be relevant.)

**Required Mitigations** - For the proposed project actions to be within compliance requirements during construction and/or project implementation, the following mitigations must be adhered to:

- Integrate archeologist into project implementation and identify archeological site boundaries prior to implementation and identify priority sites for fuel reduction efforts. Archeologist will monitor work within sensitive archeological sites. Removal of fuels within site boundaries for resources that have the potential to be disturbed by these actions [REDACTED] will involve methods that minimize or do not include ground disturbance. Associated site protection actions include moving slash outside of site boundaries, identifying locations within site boundaries that do not contain cultural materials that can be treated with heavy equipment, chipping and hauling slash instead of piling, and removing fuels from on top of and adjacent to features and concentrations of artifacts. These methods are implemented on a site by site basis to ensure no adverse effect to archeological sites.
- Coordinate and consult with Park resources staff (wildlife, archeology, vegetation etc.), concessioners, facilities, hazard tree crews, and other affected stakeholders at least 1 week ahead of pile burning or thinning operations to identify sensitive areas, allow for operational planning, and ensure the implementation of applicable mitigation measures.

**6. Assessment of Effect Notes:**

This work falls within the scope of the 2020 Yosemite Programmatic Agreement, categories 5d and 7.

**D. RECOMMENDED BY PARK SECTION 106 COORDINATOR:**

**Section 106 Coordinator** Erin Davenport for Hope Schear **Date:** August 5, 2021  
**Signature:** \_\_\_\_\_

**E. SUPERINTENDENT'S APPROVAL**

The proposed work conforms to the NPS *Management Policies* and *Cultural Resource Management Guideline*, and I have reviewed and approve the recommendations, stipulations, or conditions noted in Section C of this form.

**Superintendent Signature:** David Miyako for Cicely Muldoon **Date:** August 17, 2021  
\_\_\_\_\_



## Other Compliance/Consultations Form

**Park Name:** Yosemite National Park

**PEPC Project Number:** 99551

**Project Title:** Biomass removal and thinning to protect sequoias, wildlife habitat and communities-Wawona Road to Merced Grove

**Project Type:** Fire - Mechanical Fuel Reduction

**Project Location: County, State:** Mariposa, CA

**Project Leader:** Garrett Dickman

### ESA

**Any Federal Species in the project Area? Yes**

**If species in area:** Not Likely to Adversely Affect

**Was Biological Assessment prepared? Yes**

**Sent to FWS:** Jun 8, 2021

**FWS Response:** Aug 3, 2021

**Sent to NMFS:**

**NMFS Response:**

**If Biological Assessment prepared, concurred? Yes**

**Formal Consultation required? Yes**

**Formal Consultation Notes:**

USFWS consultation initiated 6/8/2021 for the Pacific Fisher. Concurrence letter received 8/3/2021. Follow conservation measures to avoid adversely affecting the Fisher.

**Formal Consultation Concluded:** Aug 3, 2021

**Any State listed Species in the Project Area? Yes**

**Consultation Information:** Great Grey Owl nesting sites may be present in the project area. Follow protection measures to avoid disturbing nesting sites.

**General Notes:**

**Data Entered By:** Daniel Sharon

**Date:** Aug 3, 2021

### ESA Mitigations

Mitigation ID	Text
111868	For project areas that have not been previously surveyed for special status or invasive plants, provide surveys at a time of year when plants are flowering. Consult with Plant Ecologist (Kimiora Ward (209) 379-3293) at least 2 weeks prior to project implementation to perform surveys. Flag special status and invasive plant populations for avoidance, or otherwise provide for avoidance.

### Floodplains/Wetlands/§404 Permits

Question	Yes/No	Details
A.1. Is project in 100- or 500-year floodplain or flash flood hazard area?	Yes	Determined to be exempt from compliance with Director's Order #77-2 and no Floodplain Statement of Findings required.
A.2. Is Project in wetlands as defined by NPS/DOI?	No	Not in wetland as defined by NPS/DOI.
B. COE Section 404 permit needed?	No	No placement of fill in waters of the United States.
C. State 401 certification?	No	No
D. State Section 401 Permit?	No	<b>Issue Date:</b> <b>Expiration Date:</b>
E. Tribal Water Quality Permit?	No	No
F. CZM Consistency determination needed?	N/A	N/A
G. Erosion & Sediment Control Plan Required?	No	No
H. Any other permits required?	No	<b>Permit Information:</b>
<b>Other Information:</b>	Yes	Some road segments are located within the 1% chance of annual flooding zone, however no construction within or modification of the floodplain is proposed. The proposed stream gage location is not within a mapped floodplain. Park staff have determined that the stream gage installation is covered by the U.S. Army Corps of Engineers Nationwide 404 Permit #5.

**Data Entered By:** Daniel Sharon

**Date:** Mar 11, 2021

### Floodplains & Wetlands Mitigations

Mitigation ID	Text
115157	Do not use wheeled or tracked equipment in soft meadow soils with abundant herbaceous vegetation. If meadows are the only access, use track mats to spread vehicle weight and prevent damage to meadow soils and vegetation.

**Wilderness**

Question	Yes/No	Details
<b>A. Does this project occur in or adjacent to Designated, Recommended, Proposed, Study, Eligible, or Potential Wilderness?</b>	No	None
<b>B. Is the only place to conduct this project in wilderness?</b>	No	None
<b>C. Is the project necessary for the administration of the area as wilderness?</b>	No	None
<b>D. Would the project or any of its alternatives adversely affect (directly or indirectly) Designated, Recommended, Proposed, Study, Eligible, or Potential Wilderness? (If Yes, Minimum Requirements Analysis required)</b>	No	None
<b>E. Does the project or any of its alternatives involve the use of any of the Wilderness Act Section 4(c) prohibited uses: commercial enterprise, permanent road, temporary road, motor vehicles, motorized equipment, motorboats, landing of aircraft, mechanical transport, structure, or installation? (If Yes, Minimum Requirements Analysis required)</b>	No	None
<b>If the answer to D or E above is "Yes" then a Minimum Requirements Analysis is required. Describe the status of this analysis in the column to the right.</b>	N/A	<b>Initiation Date:</b> <b>Completed Date:</b> <b>Approved Date:</b>
<b>Other Information:</b>	No	None

**Data Entered By:** Daniel Sharon

**Date:** Mar 11, 2021

**Other Permits/Laws** *Questions A & B are no longer used.*

Question	Yes/No
<b>C. Wild and scenic river concerns exist?</b>	No
<b>D. National Trails concerns exist?</b>	No
<b>E. Air Quality consult with State needed?</b>	No
<b>F. Consistent with Architectural Barriers, Rehabilitation, and Americans with Disabilities Acts or not Applicable? (If N/A check Yes)</b>	Yes
<b>G. Other:</b>	No

**Other Information:**

**Data Entered By:** Daniel Sharon

**Date:** Mar 11, 2021