NOTICE OF EXEMPTION

2019058110

State of California
The Natural Resources Agency
California Department of Forestry and Fire Protection (CAL FIRE)

PROJECT TITLE	Hubert Eaton Scout Reservation Fuel Reduction Project		
PROJECT LOCATION	Lake Arrowhead, CA, T02N, R02W, Section 19, 30 SBBM; T02N, R03W, Section 23, 24, SBBM	**COUNTY**	San Bernardino County
LEAD AGENCY	California Department of Forestry and Fire Protection (CAL FIRE)		
CONTACT	Henry Herrera, Unit Forester		
ADDRESS	3800 N. Sierra Way San Bernardino, CA 92405	**PHONE**	(909)881-6955

PROJECT DESCRIPTION

This project is located in a mixed conifer-oak woodland forest and chaparral community in the San Bernardino mountains. Ponderosa Pine, white fir, incense cedar, and black oak are the main tree species. Shrub species include a variety of ceanothus, manzanita, and other shrub species. The project is approximately 2,431 acres and is located on the Hubert Eaton Scout Reservation property near Lake Arrowhead at an elevation of about 5,500 feet. This project will reduce wildfire risk by reducing the hazardous fuels.

Fuelbreak construction along the camp's main roads is currently taking place at the camp under a previous CEQA document (Forest Lawn Scout Reservation Project) and does not include the use of mastication and tracked chipping. Fuel reduction treatments will consist of thinning trees under 12 inches in diameter at breast height to an average spacing of 20 feet between tree trunks. Residual trees will be pruned to a height of eight feet or ½ the tree height, whichever is less. All vegetation within the drip-line of residual trees will be removed using chainsaws or a masticator. Dead or dying trees within the fuelbreak will be felled. Bark beetle infested wood will either be chipped or covered with six mil clear plastic. Within chaparral dominated areas, up to 85% of brush ground cover will be masticated or cut using chainsaws and chipped onsite or piled and burned in order to create a mosaic of islands of vegetation. Minimum distance between edges of shrub groups will be at least two times the brush height on 0-20 percent slopes, at least four times the brush height on 20-40 percent slopes, and at least six times the height on slopes greater than 40%. Vegetation that is cut using chainsaws will either chipped onsite or piled and burned. Piles will be approximately 10 feet in diameter and six feet in height. Chip depth will not exceed four inches or cover more than 75% of the ground. Chips will be kept at least three feet away from the base of residual trees.

No new roads will be constructed. Work will be accomplished using CAL FIRE crews or contractors. Funding for this project will be using California Climate Investment funds allocated to the Unit. This project is anticipated to begin in the spring or winter of 2020. The project will be ongoing until all areas are treated.

EXEMPTION STATUS

- [x] Categorical Exemption Type/Section: Class 4 §15304 Minor Alterations to Land
- [ ] Statutory Exemption (state code section):
- [ ] Ministerial (§21080(b)(1); 15268)
- [ ] Declared Emergency (§21080(b)(3); 15269(a))
- [ ] Emergency Project (§21080(b)(4); 15269(b)(c))

REASONS PROJECT IS EXEMPT

This project meets the requirements of Class 4 Categorical Exemption (Minor Alterations to Land), 15304. Class 4 consists of minor public or private alterations in the condition of land, water, and/or vegetation which do not involve removal of healthy, mature, scenic trees except for forestry and agricultural purposes. This project as proposed, consists of mastication, tracked chipping, crew work and piling and burning of vegetation and does not remove healthy, mature, or scenic trees. These activities are best described as minor in scope.

Field review by CAL FIRE staff confirmed that no exceptions apply which would preclude the use of a "Notice of Exemption" for this project. The Department has concluded that no significant environmental impacts would occur to aesthetics, agriculture and forestland/timberland, air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use planning, mineral resources, noise, populations and housing, public services, recreation, transportation/traffic, or to utilities and service systems. Documentation of the environmental review is kept on file at CAL FIRE's BDU Headquarters in San Bernardino.

DATE RECEIVED FOR FILING

Governor's Office of Planning & Research

MAY 07 2019

STATE CLEARINGHOUSE

5/7/19

Mathew Reischman, Assistant Deputy Director Date
California Department of Forestry and Fire Protection

2019058110

California Department of Forestry and Fire Protection
Environmental Review Report for an Exempt Project

Note: This report form is intended for use by California Department of Forestry and Fire Protection (CAL FIRE) staff to document a limited environmental impact analysis supporting the filing of a Notice of Exemption (NOE) document for a proposed CAL FIRE project. Although the project appears to fit within the descriptions for allowable Categorical Exemptions, this report presents CAL FIRE's review for possible "Exceptions" that would preclude finding the project to be categorically exempt as discussed in CEQA Guidelines Section 15300.2. This report will be filed with the CEQA administrative record for this project to document the environmental impact analysis conducted by the Department.

Author:	Henry Herrera
Title:	Forester I
Address:	3800 N. Sierra Way, San Bernardino, CA 92405
Phone:	(909) 475-8091
Email:	henry.herrera@fire.ca.gov

Project Name:	Hubert Eaton Scout Reservation Fuel Reduction Project
Project Number:	N/A
Program Type:	Fuel reduction
CAL FIRE Unit:	San Bernardino
County:	San Bernardino
Acres:	Approximately 2431
Legal Location:	T02N, R02W, Section 19, 30, SBBM; T02N, R03W, Section 23, 24, SBBM
Name of USGS 7.5'Quad Map(s):	Lake Arrowhead, Harrison Mountain, Butler Peak, Keller Peak

☒Project Vicinity Map Attached ☒Project Location Map Attached ☒Photos Attached

Other Public Agency Review/Permit Required:

Would the project result in:	YES	NO
alterations to a watercourse (DFG - Lake and Stream Alteration Agreement)	☐	☒
conversion of timberland (CAL FIRE - Conversion Permit or Exemption)	☐	☒
demolition (Local Air District - Demolition Permit)	☐	☒
soil disturbance over 1 acre (RWQCB - SWPPP)	☐	☒
fill of possible wetlands (404 Permit - USACE)	☐	☒
other:	☐	☒

Discuss any above-listed topic item checked Yes and consultation with agencies:

Project Description and Environmental Setting (Describe the project activities, project site and its surroundings, its location, and the environmental setting):

This project is located in a mixed conifer-oak woodland forest and chaparral community in the San Bernardino mountains. Ponderosa Pine, Coulter pine, white fir, incense cedar, sugar pine, black oak, and canyon live oak are the main tree species. There are some giant sequoias found throughout the property. Shrub species include a variety of ceanothus, manzanita, and other shrub species. The project is located on the Hubert Eaton Scout Reservation property near Lake Arrowhead at an elevation of about 5,500 feet. This project will help reduce wildfire risk by reducing the hazardous fuels.

Fuelbreak construction along the camp's main roads is currently taking place at the camp under a previous CEQA document (Forest Lawn Scout Reservation Project) and did not include the use of mastication and tracked chipping. This project will encompass the entire property. Fuel reduction treatments will consist of thinning trees under 12 inches in diameter at breast height to an average spacing of 20 feet between tree trunks. Residual trees will be pruned to a height of eight feet or ½ the tree height, whichever is less. All vegetation within the drip-line of residual trees will be removed using chainsaws or a masticator. Dead or dying trees within the fuelbreak will be felled. Bark beetle infested wood will either be chipped or covered with six mil clear plastic. Within chaparral dominated areas, up to 85% of brush ground cover will be masticated or cut using chainsaws and chipped onsite or piled and burned in order to create a mosaic of islands of vegetation of various natural appearing shapes and sizes. Minimum distance between edges of shrub groups will be at least two times the brush height on 0-20 percent slopes, at least four times the brush height on 20-40 percent slopes, and at least six times the height on slopes greater than 40%. Vegetation that is cut using chainsaws will either chipped onsite or piled and burned. Piles will be approximately 10 feet in diameter and six feet in height. Hoselines will be extended to the project site to support the firing operations. The fire will be ignited using drip torches and fusees. Burning will occur during winter or spring depending on the burn window. Chip depth will not exceed four inches or cover more than 75% of the ground. Chips will be kept at least three

feet away from the base of residual trees.

No new roads will be constructed. Work will be accomplished using CAL FIRE crews or contractors. This project is anticipated to begin in the spring of 2020. Best management practices, including erosion control measures, and project design features have been incorporated into the project and significant adverse impacts to resources will be non-existent. The project will be ongoing until all areas are treated and will include maintenance entries. This project will be funded using various funding sources (i.e. California Climate Investment/fire prevention).

Environmental Impact Analysis

Aesthetics

☐ This topic does not apply to this project and was not evaluated further.
☒ This topic could apply to this project, and results of the assessment are provided below:

The project site will result in a more natural open forest-like setting with a reduced fire risk and overall improved forest health. The forest appearance will change from a stand of mid and upper canopy trees populated by an unnaturally dense understory to a stand of mid and upper canopy trees populated by a much more reduced number of understory trees and ladder fuels. Shrub communities will change from communities with continuous horizontal fuels to communities with islands of vegetation of various shapes and sizes resulting in much less horizontal fuel continuity. Dead and dying trees will be removed to help control the spread of bark beetles. The project area is not visible from any major highway corridors and it is within private property not accessible by the public. The loss of the project area to an uncontrolled fire would result in a severe change in the aesthetics, as experienced in previous recent fires on the property. It is therefore desirable to have a limited short term visual change rather than a severe long term impact to the area as a result of an uncontrolled wildfire. The appearance is generally favored by most people. As a result, the effects to aesthetics will be improved.

Agriculture and Forest Resources

☐ This topic does not apply to this project and was not evaluated further.
☒ Yes ☐ No Would any trees be felled? If yes, discuss protection of nesting birds and compliance with FPRs.
☐ Yes ☒ No Would the project convert any prime or unique farmland?
☐ Yes ☒ No Would the project result in the conversion of forest land/timberland to non-forest use?

☒ This topic could apply to this project, and results of the assessment are provided below:

Understory trees will be thinned and dead/dying trees will be felled except to meet wildlife habitat needs. Understory trees are in the lower canopy which is generally not associated with nesting birds specifically addressed in the Forest Practice Rules (FPRs). The project will not be implemented between March 15-September 15 when birds are nesting unless it is determined that nesting birds are not present within the project area. Therefore, the effects of this project on nesting birds as a result of felling trees will be less than significant. No conversion of prime or unique farmland and/or timberland will occur. It is CAL FIRE's determination that impacts to agriculture and forest resources will be less than significant.

Air Quality

☐ This topic does not apply to this project and was not evaluated further.
☒ Yes ☐ No The local Air Quality Management District guidelines for dust abatement and other air quality concerns were reviewed for this project.
☒ This topic could apply to this project, and results of the assessment are provided below:

Travel to and from the project site will slightly increase vehicular traffic, which will create a short term increase of combustible engine emissions into the atmosphere. The number of vehicles will be limited to only those required to transport materials or crews. All vehicles and equipment meet current Air Quality Management District standards for emissions.

Pile burning will take place under this project. Smoke management considerations will be reviewed by the South Coast Air Quality Management District (AQMD). An approved smoke management plan (SMP) will be submitted to the AQMD. Prescribed burning will only occur on days permitted by the Air Resources Board (ARB) in accordance with Section 41855 of the California Health and Safety Code, and request for approval for ignition from the District will occur on the day prior to burning. All signage, notification, communication and smoke behavior observation procedures described in the smoke management plan will be followed. All contingency actions and smoke mitigation strategies described in the smoke management plan will be followed. Ignitions will be suspended if smoke impacts smoke-sensitive locations. The District will be notified of any complaints from the public about the smoke within 24 hours of receipt. Burned acres will be reported.

The project design which only removes some vegetation to meet project objectives and the way in which it will occur make project activities consistent with the South Coast Air Quality Management District Rule 403, which states "The purpose of this Rule is to reduce the amount of particular matter entrained in the ambient air as a result of anthropogenic (man- made) fugitive dust sources by requiring actions to prevent or reduce dust emissions." This should ensure impacts to air quality will be less than significant.

Biological Resources

☐ This topic does not apply to this project and was not evaluated further.
☐ Yes ☒ No Will the project potentially affect biological resources?
☒ Yes ☐ No Was a current NDDB review completed? Results discussed below:
☐ Yes ☒ No Was a biological survey of the project area completed? Results discussed below:
☒ This topic could apply to this project, and results of the assessment are provided below:

A query of the California Natural Diversity Data Base (CNDDB) was conducted to identify State and Federally listed species that might be present in the project area. The query was based on a nine-quad search centered on the Harrison quad. The query was also filtered by elevation ranging from 2,500 feet to 8,000 feet. The query was further filtered to rule out species that don't have a listing such as threatened, endangered, proposed, candidate or a California Rare Plant Rank of 3.2 or less, or a CDFW species of special concern (SSC) or fully protected (FP) listing. The search yielded 103 species. Of the 103 species identified, four may be present in the project area. The project is designed to minimize or eliminate possible adverse impacts to these species. Species that may be found in the project area are discussed below.

Bald eagle (*Haliaeetus leucocephalus*)

Preferred habitat is along lake margins and near rivers for both nesting and wintering. Species is found in large, old-growth, or dominant live trees with open branches, especially in ponderosa pines. Most nests are generally located within one mile of water. Presence of the species is possible within the northwest portion of the project area due to its proximity to Lake Arrowhead. Because the project is located in an urbanized area with regular vehicle and other motorized activity, the project work is not expected to contribute significantly to additional effects on any potential eagles in the area.

Parish's checkerbloom (*Sidalcea hickmanii ssp. parishii*)

Species is found in chaparral and cismontane woodlands and lower montane coniferous forests and is often found in disturbed burned or cleared areas on dry rocky slopes in fuel breaks and fire roads along mountain summits. Habitat located in the project area marginally meets the described habitat for this species. All known occurrences of the species are located northeast of the project area. Due to the minimal ground, any impact to a plant that might be in the project area will be minimal and not result in permanent damage.

Southern mountain yellow-legged frog (*Rana muscosa*)

Preferred habitat is found in rocky streams, in narrow canyons and in the chaparral belt. This habitat may be found in the project area. Occurrences of this species have not been recorded within the project area.

Southern rubber boa (*Charina umbratica*)

Preferred habitat is in the vicinity of streams or wet meadows. It requires loose, moist soil for burrowing and seeks cover in rotting logs, rock outcrops, and under surface liter. The project habitat marginally meets the described habitat for this species.

Of the above species whose habitat is found in the project area, none were observed in the vicinity of the project area. As a result of the above assessment, it is CAL FIRE's determination that the effects of this project on biological resources will be less than significant.

Cultural Resources

☐ This topic does not apply to this project and was not evaluated further.
☒ Yes ☐ No Was a current archaeological records check completed? Results discussed below:

A previous Do-It-Yourself Records Check completed by CAL FIRE Archaeologist Stephanie Velasquez on December 17, 2014, was used for this project. The records check was a property wide update. It indicated eight previously recorded cultural resources within the HESR property; in addition to the records check results, survey completed for a CAL FIRE project in 2015 documented another three archaeological resources. In addition to the previously recorded sites, the project area has been the subject of five previous surveys, including a property-wide inventory completed in 2004.

☒ Yes ☐ No Was a CAL FIRE Staff or Contract Archaeologist consulted? Results discussed below:

Senior State Archaeologists Steph Velasquez and Mike McGuirt were consulted for the project. The archaeologists advised a full review be prepared for the project

☒ Yes ☐ No Was an archaeological survey of the project area completed? Results discussed below:
The project area was surveyed by a combination of Archaeologically Trained Surveyors and CAL FIRE Archaeologist Stephanie Velasquez. The survey resulted in the identification of a previously undocumented historic era isolated artifact, a monument, and the relocation of one prehistoric site not relocated during the 2004 property wide survey. A survey report and archaeological resource documentation was prepared under the supervision of CAL FIRE Archaeologist Velasquez.

☐ Yes ☒ No Will the project affect any historic buildings or archaeological site?

All identified cultural resources will be avoided by all ground disturbing activities. The project, as proposed, is not expected to affect cultural resources

☒ This topic could apply to this project, and results of the assessment are provided below:

Should project activities reveal cultural or archaeological resources, CAL FIRE's standard post-review discovery procedures shall be enacted: work shall cease within 100 feet of the discovery and the CAL FIRE archaeologist will be contacted; work will not resume until further contact from the archaeologist. Per California Health and Safety Code (HSC 7050.5(b)), in the event human remains or burials are encountered, all work shall cease and the County Coroner's office and the CAL FIRE archaeologist shall be contacted; work will not resume until clearance is granted. Because of the project design, the CAL FIRE archaeologist has determined that impacts of this project on cultural resources will not occur.

Geology and Soils
☐ This topic does not apply to this project and was not evaluated further.
☒ This topic could apply to this project, and results of the assessment are provided below:

A Soils Report (5/16/2018) was completed through the Natural Resource Conservation Service's Web Soil Survey website. Three soil classifications were identified: Wapi-Pacifico families-Rock outcrop complex 50-75 percent slopes (DaG), Morical-Wind River families complex 15-30 percent slopes (MbE) and Morical-Wind River families complex 30-50 percent slopes (MbF). The soil types consist of well-drained, moderately deep loam to sandy loams that formed in residuum weathered from granodiorite. Surface runoff ranges from medium to rapid/very rapid. The erosion hazard rating ranges from moderate to high/very high. The suitability for forest management ranges from fair to good. Significant soil cover with vegetation will remain within the project site. Soil disturbance will be minimal. No significantly unstable land features were noted in the project area. Therefore, CAL FIRE has determined that impacts to soils or geology will be less than significant.

Greenhouse Gas Emissions
☐ This topic does not apply to this project and was not evaluated further.
☐ Yes ☒ No Would the project generate significant greenhouse gas (GHG) emissions?
☐ Yes ☒ No Would these GHG emissions result in a significant impact on the environment? Discuss below:
☐ Yes ☒ No Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? Discuss below:

Estimates for GHG emissions were done based on total fuel consumption per day for planned motor vehicle operations to facilitate this project. The common conversion factors were obtained from the California Climate Action Registry (CCAR) General Reporting Protocol U.S. EPA. The results are listed below:

- Two CAL FIRE emergency crew transports (ECT) will be traveling on average 50 miles round trip for 20 days per year, using a total of 12 gallons of diesel per day (6 gallons each). One chipper will be used for 20 days and use 14 gallons of diesel per day. One masticator will be used for 20 days per year and use a total of 14 gallons of diesel per day. Three fire engines will be traveling on average 30 miles round trip for 20 days using a total of 15 gallons of diesel per day. An estimated two pick-up trucks will be needed to do project inspections traveling on average 50 miles round trip for 5 days, using a total of 6 gallons of gasoline per day.

Estimation of GHG emissions are based on total fuel consumption per year. The results are listed below:

- Net Diesel Fuel (ECTs) = 12 gallons: 12 gallons *10.15(conversion factor) = (121.8 KG/1000)20 days= 2.436 metric tons CO_2 emissions per year.
- Net Diesel Fuel (chipper) =14 gallons: 14 gallons *10.15(conversion factor) = (142.1 KG/1000)20 days=2.842 metric

tons CO_2 emissions per year.

- Net Diesel Fuel (masticator) =14 gallons: 14 gallons *10.15(conversion factor) = (142.1 KG/1000)20 days=2.842 metric tons CO_2 emissions per year.
- Net Diesel Fuel (engines) = 15 gallons: 15 gal*10.15(conversion factor) = (152.25 KG/1000)20 days= 3.045 metric tons CO_2 emissions per year
- Net Gasoline Fuel (vehicles) = 6 gallons: 6 gal* 8.18 (conversion factor) = (49.08 KG/1000)5 days=.2454 metric tons CO_2 emissions per year

Total=**11.4104** metric tons CO_2 emissions per year.

All vehicles and chainsaws will comply with current Air Quality Management District standards. This project will temporarily increase traffic in the area due to construction equipment. As a result, an insignificant increase in emissions will occur.

The project is estimated to occur over five years. Emission from the decomposition of treated material is expected to be re-sequestered by the remaining vegetation in future years as the project site revegetates. The project is intended to reduce the risk of uncontrolled wildfire which would result in a rapid release of carbon and other greenhouse gasses at a higher rate. Because of the relatively low level of estimated carbon dioxide emissions over the years, it is CAL FIRE's determination that impacts to greenhouse gas emissions will be less than significant.

Hazards and Hazardous Materials

☐ This topic does not apply to this project and was not evaluated further.
☒ This topic could apply to this project, and results of the assessment are provided below:

Hazardous materials that will be used on this project include the fuel for vehicles and drip torches. Fueling will be conducted with appropriate fueling devises in controlled areas to prevent any possible spills of hazardous materials. Fuel will be transported using appropriate containers and no other exercise activity or operational conditions will expose people to impacts with regard to hazards or hazardous materials. The project area is not located on a hazardous materials site. It is CAL FIRE's determination that this project will not have impacts to hazardous materials.

Hydrology and Water Quality

☐ This topic does not apply to this project and was not evaluated further.
☒ Yes ☐ No Will the project potentially affect any watercourse or body of water?
☒ This topic could apply to this project, and results of the assessment are provided below:

There are five main watercourses in the project area classified as Class II watercourses that have the potential for aquatic life. All other well-defined channels are Class III, seasonal watercourses, which show evidence of being capable of sediment transport to downstream watercourses. There is one man-made pond on the property that is classified as a Class I watercourse. No piling or burning will occur within watercourse and lake protection zones. The project will not violate any water quality standards or waste discharge requirements, or substantially deplete groundwater supplies, alter existing drainage patters, or contribute to runoff that would exceed storm water drainage systems. It is CAL FIRE's determination that adverse impacts to hydrology and water quality will not occur.

Land Use and Planning

☒ This topic does not apply to this project and was not evaluated further.
☐ This topic could apply to this project, and results of the assessment are provided below:

This project consists of fuel reduction. It is CAL FIRE's determination that this project will not have an impact to land use and planning resources.

Mineral Resources

☒ This topic does not apply to this project and was not evaluated further.
☐ This topic could apply to this project, and results of the assessment are provided below:

It is CAL FIRE's determination that this project will not have an impact to mineral resources.

Noise

☐ This topic does not apply to this project and was not evaluated further.
☒ This topic could apply to this project, and results of the assessment are provided below:

The project will include the operation of ground based equipment and firefighting equipment which will produce noise beyond what is normally experienced in the area. The additional noise will be limited to the duration of the project implementation. Equipment operation is only scheduled during normal work hours (8:30 AM – 4:30 PM). Due to the remote location and short project duration, it is CAL FIRE's determination that impacts to noise will be less than significant.

Population and Housing
☐ This topic does not apply to this project and was not evaluated further.
☒ This topic could apply to this project, and results of the assessment are provided below:

This project will decrease the fire risk to the human population and housing. It is CAL FIRE's determination that this project will not have an adverse impact to population and housing.

Public Services
☐ This topic does not apply to this project and was not evaluated further.
☒ This topic could apply to this project, and results of the assessment are provided below:

This project is intended to reduce the risk of a wildfire to the public. It is CAL FIRE's determination that this project will not have an adverse impact to public services.

Recreation
☐ This topic does not apply to this project and was not evaluated further.
☒ This topic could apply to this project, and results of the assessment are provided below:

The use of recreational hiking trails, wildlife viewing, and other outdoor activities take place at the camp. Project implementation will not occur when recreational activities are scheduled. Due to the limited nature of the activity and project design, impacts to recreation will not occur.

Transportation/Traffic
☐ This topic does not apply to this project and was not evaluated further.
☒ This topic could apply to this project, and results of the assessment are provided below:

No work will occur on or along public roads. CAL FIRE staff vehicles, crew buses, and fire equipment will be present during the project. Road systems in the area are more than adequate to accommodate this slight increase in traffic. As a result of the limited nature of the activity, it is CAL FIRE's determination that significant impacts to transportation/traffic will not occur.

Utilities and Service Systems
☒ This topic does not apply to this project and was not evaluated further.
☐ This topic could apply to this project, and results of the assessment are provided below:

This project will not interfere with utilities or service systems. It is CAL FIRE's determination that this project will not have an impact to utilities and service systems.

Changes Made to Avoid Environmental Impacts:
N/A

Mandatory Findings of Significance:	**YES**	**NO**
(a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒
(b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probably future projects)	☐	☒

(c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? ☐ ☒

Justification for Use of a Categorical Exemption (discuss why the project is exempt, cite exemption number(s), and describe how the project fits the class):

This project meets the requirements of Class Four Categorical Exemption (Minor Alterations to Land), 15304. Class Four consists of minor public or private alterations in the condition of land, water, and/or vegetation which do not involve removal of healthy, mature, scenic trees except for forestry and agricultural purposes. This project as proposed, consists of mastication, tracked chipping, thinning, crew work and piling and burning of vegetation and does not remove healthy, mature, or scenic trees. These activities are best described as minor in scope.

Field review by CAL FIRE staff confirmed that no exceptions apply which would preclude the use of a "Notice of Exemption" for this project. The Department has concluded that no significant environmental impacts would occur to aesthetics, agriculture and forestland/timberland, air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use planning, mineral resources, noise, populations and housing, public services, recreation, transportation/traffic, or to utilities and service systems.

Conclusion:

☒ After assessing potential environmental impacts and evaluating the description for the various classes of Categorical Exemptions to CEQA, CAL FIRE has determined that the project fits within one or more of the exemption classes and no exceptions exist at the project site which would preclude the use of this exemption. The Department considered the possibility of (a) sensitive location, (b) cumulative impacts, (c) significant impact due to unusual circumstances, (d) impacts to scenic highways, (e) activities within a hazardous waste site, and (f) significant adverse change to the significance of a historical resource. A Notice of Exemption will be filed at the State Clearinghouse.

☐ After assessing potential environmental impacts and evaluating the description for the various classes of Categorical Exemptions to CEQA, CAL FIRE has determined that the project does not fit within the description for the various exemption classes or has found that exceptions exist at the project site which precludes the use of a Categorical Exemption for this project. Additional environmental review will be conducted and the appropriate CEQA document used may be a Negative Declaration or a Mitigated Negative Declaration.

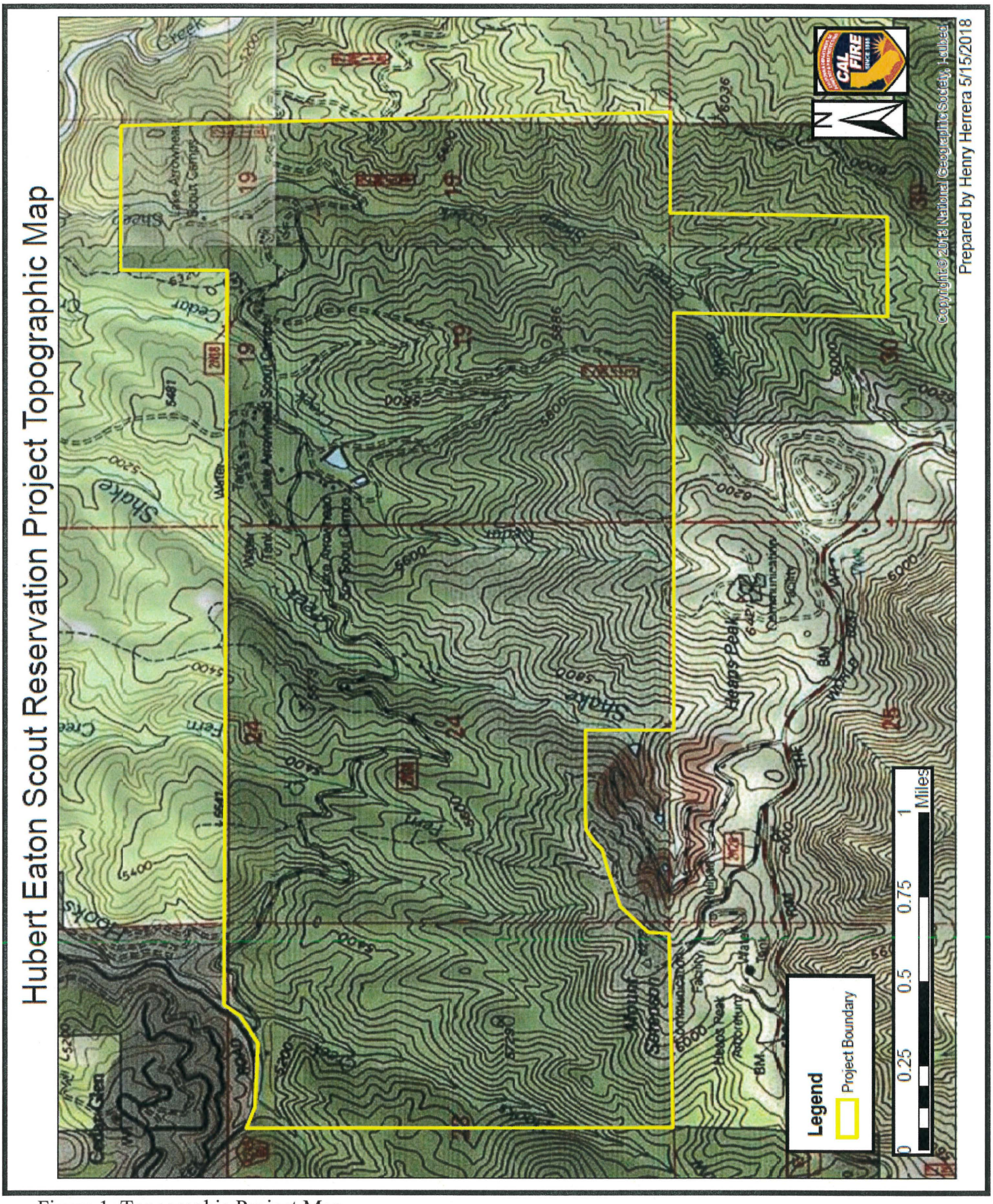

Figure 1. Topographic Project Map

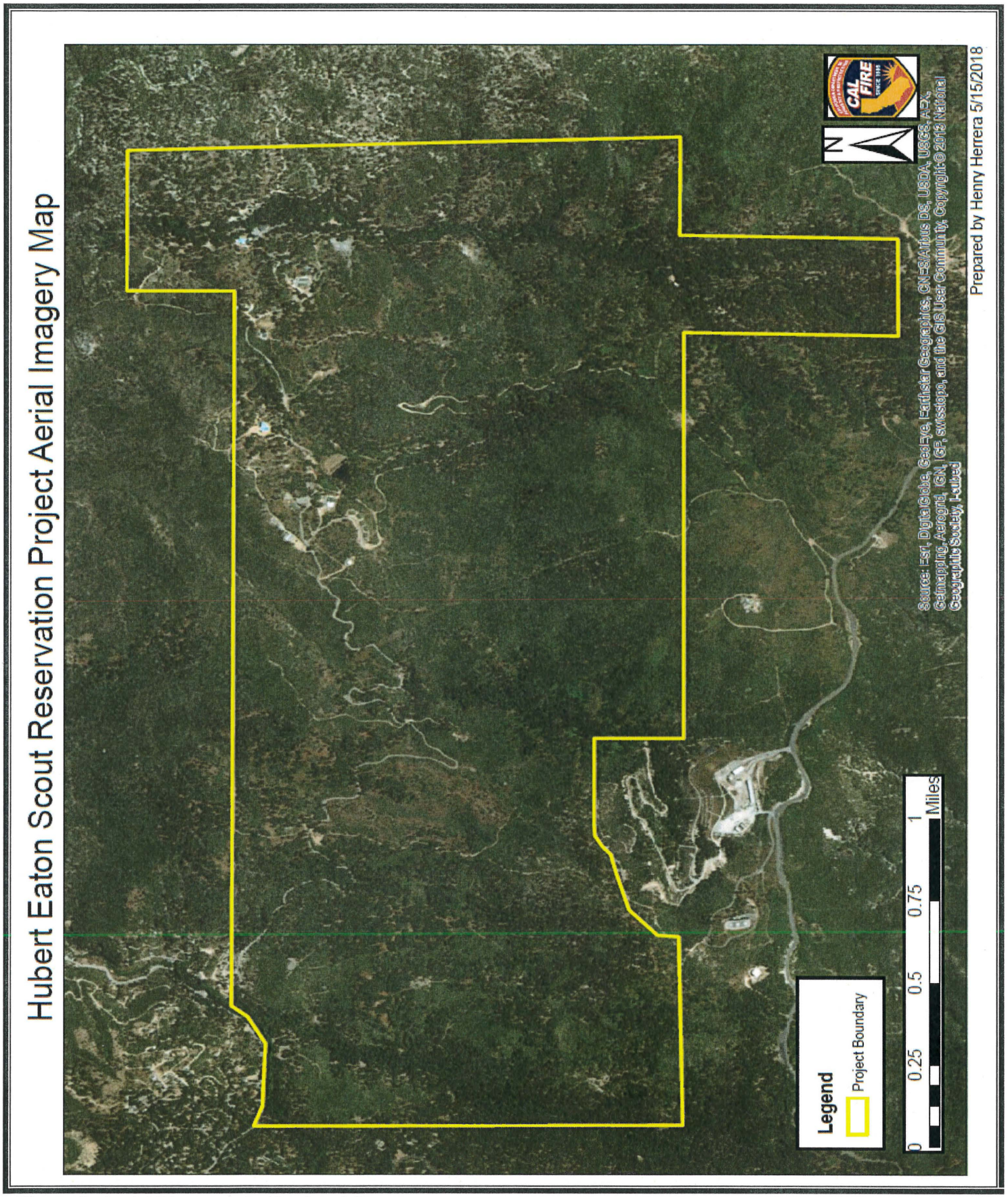

Figure 2. Aerial Photography Project Map

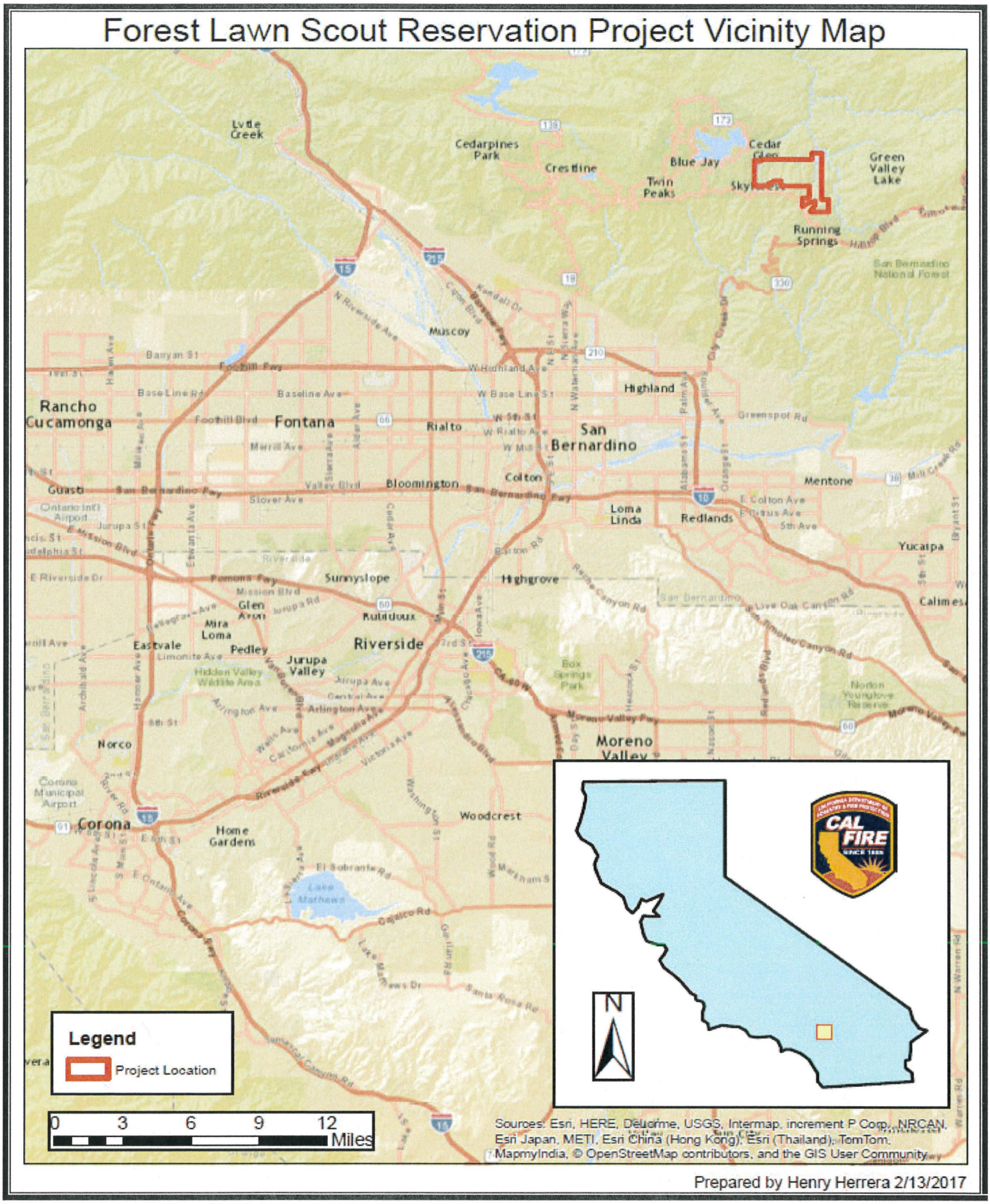

Figure 3. Vicinity Project Map

Figure 4. View of project site.

Figure 5. View of vegetation type that will be piled and burned.

Figure 6. View of brush type that will be piled and burned.

Figure 7. View of project area along the main camp road.

An Archaeological Survey Report for the Hubert Eaton Scout Reservation Fuel Reduction Project San Bernardino, California

by:

Henry Herrera
Forester I, CAL FIRE San Bernardino Unit
3800 N. Sierra Way, San Bernardino, CA 92405
(909)253-6632

And
Ian McBride
Forestry Assistant II, CAL FIRE San Bernardino Unit
3800 N. Sierra Way, San Bernardino, CA 92405
(909)475-8091

April 17, 2019

Part 1: Project Information

Project Number: CRP 18-002
Name of CAL FIRE Project Manager: Henry Herrera-Forester I, CAL FIRE San Bernardino Unit
Project Size (acres): Approximately 2,000 acres
Name of 7.5' USGS Quad Map: Harrison Mountain, Keller Peak, Butler Peak, Lake Arrowhead
Name of Landowner: Los Angeles Area Council-Boy Scouts of America
Legal Location: Township 2 North, Range 3 West, Sections 23, 24; Township 2 North, Range 2 West, Sections 19, 30, SBBM.
Funding Information: Fire Prevention (California Climate Investment)
Project Description:

This project is located in a mixed conifer-oak woodland forest and chaparral community in the San Bernardino mountains. Ponderosa Pine, Coulter pine, white fir, incense cedar, sugar pine, black oak, and canyon live oak are the main tree species. There are some giant sequoias found throughout the property. Shrub species include a variety of ceanothus, manzanita, and other shrub species. The project is located on the Hubert Eaton Scout Reservation (HESR) property near Lake Arrowhead at an elevation of about 5,500 feet. Topography is comprised of relatively gentle slopes in some areas and steep ground in others. Soils are derived from residuum weathered from granodiorite. Soil types include Wapi-Pacifico families-Rock outcrop complex 50-75 percent slopes (DaG), Morical-Wind River families complex 15-30 percent slopes (MbE) and Morical-Wind River families complex 30-50 percent slopes (MbF) (Web Soil Survey 2018). The project goal is to reduce wildfire risk to the Camp property and nearby homes on State Responsibility Area (SRA) by reducing vertical and horizontal fuel continuity and improve emergency vehicle access during wildfires by maintaining the fuelbreak along the Camp's main road. Since portions of the project area were previously treated for fuel reduction this will be a maintenance re-entry for some areas.

Fuelbreak construction along the Camp's main roads is currently taking place at the camp under a previous CEQA document (Forest Lawn Scout Reservation Project) and did not include the use of mastication and tracked chipping. This project will encompass the entire property. Fuel reduction treatments will consist of thinning trees under 12 inches in diameter at breast height to an average spacing of 20 feet between tree trunks. Residual trees will be pruned to a height of eight feet or ½ the tree height, whichever is less. All vegetation within the drip-line of residual trees will be removed using chainsaws or a masticator. Dead or dying trees within the fuelbreak will be felled. Bark beetle infested wood will either be chipped or covered with six mil clear plastic. Within chaparral dominated areas, up to 85% of brush ground cover will be masticated or cut using chainsaws and chipped onsite or piled and burned in order to create a mosaic of islands of vegetation of various natural appearing shapes and sizes. Minimum distance between edges of shrub groups will be at least 2 times the brush height on 0-20 percent slopes, at least 4 times the brush height on 20-40 percent slopes, and at least 6 times the height on slopes greater than 40%. Vegetation that is cut using chainsaws will either chipped onsite or piled and burned. Piles will be approximately 10 feet in diameter and 6 feet in height. Hoselines will be extended to the project site to support the firing operations. The fire will be ignited using drip torches and fusees. Burning will occur during winter or spring depending on the burn window. Chip depth will not exceed four inches or cover more than 75% of the ground. Chips will be kept at least three feet away from the base of residual trees.

No new roads will be constructed. Work will be accomplished using CAL FIRE crews, California Conservation Crews or contractors. Funding for this project will be using fire

prevention/California Climate Investment funds or other funding sources allocated to the Unit. This project is anticipated to begin in the fall or winter of 2018. The project will be ongoing until all areas are treated and maintenance re-entries may occur.

Part 2: Archaeological Records Check Information

Date of Records Check Conducted by Information Center: 12/17/2014
Information Center File Number: 14-12-17-03
Summary of Records Check Results: A previous Do-It-Yourself Records Check completed by Stephanie Velasquez, CAL FIRE Senior Archaeologist, on December 17, 2014 was used for this project. The records check was a property wide update. It indicated that eight previously recorded cultural resources are located within the HESR property. In addition to the records checks results, survey completed for a CAL FIRE project in 2015 documented another three archaeological resources (Table 1).

Table 1. Previously recorded cultural resources within the Hubert Eaton Scout Reserve.

Site Number	*Site Type*	*Affiliated Report*	*Affiliated Survey*	*Recording Year*
CA-RIV-465	Prehistoric Milling Station	N/A	N/A	1969
36-12752	Isolated BRM feature	RI 1064952	Mirro, Michael	2004
36-12753	Isolated Mano Fragment	RI 1064952	Mirro, Michael	2004
36-12754	Camp Big Horn	RI 1064952	Mirro, Michael	2004
36-12755	Pitches Camp	RI 1064952	Mirro, Michael	2004
36-12756	Northop Cabins	RI 1064952	Mirro, Michael	2004
36-27163	Historic trough	RI 1067684	Velasquez, Steph	2012
36-27164	Historic Road Segment	RI 1067684	Velasquez, Steph	2012
14-007-S1	Pollack Sawmill	N/A	Velasquez, Steph	2015
14-007-S2	Camp Pepperdine	N/A	Velasquez, Steph	2015
14-007-S3	Historic Telephone Line	N/A	Velasquez, Steph	2015

The property has been surveyed numerous times for previous projects. In 2004, Applied Earthworks (AE) conducted a property wide survey of the Hubert Eaton Scout Preserve and the adjacent Camp Pali for a natural Resources Conservation Service (NRCS) project (RI 1064952 / Mirro, 2004). The survey resulted in the identification of six newly discovered sites (36-12752, 36-12753, 36-12754, 36-12755, 36-12756, 36-12757), including five associated with historic camp facilities, a prehistoric milling station and an isolated prehistoric mano; site 36-12757 is located on the adjacent Camp Pali property. The 2004 AE survey effort was unable to relocated site CA-SBR-465.

Four CAL FIRE project surveys were conducted between 2008-2015 (RI-1066467, RI-1066662, RI-1067684, Velasquez, 2015). In 2008, CAL FIRE surveyed approximately 55 acres of the property involved in a mastication project (RI 1066467); no previously unrecorded sites were found. In 2009, CAL FIRE surveyed approximately 100 acres of the property for a fuel reduction/mastication project (RI 1066662); no previously unrecorded sites were identified. In 2012, CAL FIRE surveyed approximately 310 acres of mastication and herbicide treatment areas (RI 1067684); two historic era resources (36-27163, 36-27164) were identified. In 2015, CAL FIRE surveyed approximately 300 acres of a fuelbreak along the main Camp road (Velasquez, 2015); three historic era resources (14-007-S1, 14-007-S2, 14-007-S3) were identified.

Historic General Land Office (GLO) records from 1884 and 1885 indicate several old roads, a logging road and "Poole's House" were present on the property. Allison Ranch Road is visible on a 1953 topographic map. This road is likely the Brookings Lumber Company's narrow gauge rail line which connected to the Pepperdine Camp and Camp Pollock locations.

(X) Records Check Request, Map, and results are attached (Appendix B)
( ) Records Check Not Attached
Justification:

Part 3: Native American Consultation Information

(X) Example of a notification letter(s) (including maps) is attached
List of Native American individuals or groups that were provided written notification:

Gayle Totton Native American Heritage Commission 1550 Harbor BLVD Room 100 West Sacramento, CA 95691	Co-Chairs Bernie Acuna and Linda Candelaria Gabrielino-Tongva Tribe 1999 Ave of the Stars Suite 1100 Los Angeles, CA 90067-4618	Robert and Mercedes Dorame Gabrielino-Tongva Indians of California Tribal Council PO Box 490 Bellflower, CA 90707
THPO Robert Robinson Kern Valley Indian Council P.O. Box 401 Weldon, CA 93283	Chairperson Thomas Rodriguez La Jolla Band of Mission Indians 22000 Highway 76 Pauma Valley, CA 92061	Chairperson Robert Martin Morongo Band of Mission Indians 12700 Pumarra Rd. Banning, CA 92220
Cultural Resources Specialist Alicia Benally Morongo Band of Mission Indians 12700 Pumarra Rd. Banning, CA 92220	THPO Shasta Gaughen Pala Band of Mission Indians P.O. Box 50 35008 Pala Temecula Road Pala, CA 92059	Cultural Resource Center Paul Macarro Pechanga Band of Mission Indians P.O. Box 177 Temecula, CA 92593
Chair Carmen Machado San Luis Rey Band of Mission Indians 1889 Sunset Drive Vista, CA 92081	Director Cultural Resources Dept. Lee Clauss San Manuel Band of Mission Indians 26569 Community Center Drive Highland, CA 92346	Cultural Resources Representative Goldie Walker Serrano Nation of Indians P.O. Box 343 Patton, CA 92369
Cultural Resources Director Joseph Ontiveros Soboba Band of Luiseño Indians P.O. Box 487 San Jacinto, CA 92581	Cindi Alvitre Ti' At Society 3094 Mace Ave Apt. B Costa Mesa, CA 92626-2545	Pauma Band of Mission Indians Temet Aguilar, Chair Valerie Linton, Tribal Admin. Bennae Calac, Cultural Committee Juanita Dixon, Environmental Coordinator P.O. Box 369 Pauma Valley, CA 92061
Rincon Band of Luiseno Indians Bo Mazzetti, Chairperson Marian Jones, Tribal Admin. Vincent Whipple, Cultural Res. Cultural Committee Chair Ed Hadfield, Fire Chief Robert Clark, public safety 1 W. Tribal Road Valley Center, CA 92082		

Date of the CAL FIRE Native American Contact List that was used: 6/20/18-San Bernardino-West
Date notification was sent: Originals letters sent on 6/20/18.
Results of Information Request:
( ) No reply received as of (date):

(**X**)Written reply received (copy attached): Pauma Band of Luiseño Indians (Devers), San Manuel Band of Mission Indians (Mauck)
( )Verbal reply received (summarize reply below):

( )Native American archaeological or cultural sites were not identified within the project area
(X) Native American archaeological or cultural sites have been identified within the project area
Date Notification Letters were sent to Native Americans (if applicable): 1/30/2019
Date copies of notification letters sent to the Director: 1/30/2019
Results of Notification to Native Americans:
( ) No reply received as of (date):
(X) Written reply received (copy attached): San Manuel Band (Mauck)
( ) Verbal reply received (summarize reply below):

Part 4: Pre-Field Research

Literature Reviewed:
Arnold, Jeanne E., and Michael R. Walsh. "*California's Ancient Past*". SAA, 2010.
Beattie, George William., and Helen Pruitt Beattie. "*Heritage of the Valley: San Bernardino's First Century*". Biobooks.1939.
BLM Government Land Office Records @ http://www.glorecords.blm.gov/ and http ://www.blm. gov/calforms/mtp/search.php?meridian=27 (accessed 11/28/2012).
Bellamy, Stan, et al. "*Arrowhead!: The Story of Lake Arrowhead, Running Springs, Green Valley and Neighboring Communities*". Little Bear Historical.2005.
Chartkoff, Joesph L.; Chartkoff, Kerry K. "The Archaeology of California". Stanford University Press. 1984.
Grenda, Donn, et al. "*Between the Coast and the Desert: Archaeological Data Recovery at the Yukaipa't Site, CA-SBR-1000, Yucaipa, California*". Technical Series 70. Statistical Research, Inc., Tucson Arizona. 1998.
Jones, Terry L, and Kathryn A Klar. "*California Prehistory: Colonization, Culture and Complexity*". 2007.
Lowell, John B, and Charles R. Smith. "Serrano". *Handbook of North American Indians,* vol. 8, Smithsonian Insitution. 1978.
Moratto, Micheal J., and David A. Fredrickson. "*California Archaeology*". Coyote Press, 2004.
Warren, C. N. and R. H. Crabtree. "*Prehistory of the Southwestern Area. In Great Basin, Handbook of North American Indians, Volume 11*". Smithsonian Institution, Washington, DC. 1986.

Persons Contacted: Stephanie Velasquez, Senior Archaeologist, CAL FIRE
Summary of Results of Pre-Field Research:

<u>Early/ Western Pluvial Lakes Tradition 10,000-6000</u> <u>B.C.</u>
The first evidence of inhabitants to the Southern California coast and inland deserts of the region were small bands of nomadic hunter-gathers during the Pleistocene era 10,000 B.C. (Jones and Klar 2007:217 ; Moratto 2004:76). In what is now desert, late Pleistocene regional climate was

characterized by higher amounts of precipitation and cooler temperatures leading to the creation of pluvial ancient lakes and marshes (Moratto 2004:34). Many of the late Pleistocene artifacts found have been located at or near these ancient lakes and include large and heavy darts associated with throwing sticks often used in the hunting of larger game including mammoth and bison (Wallace 1978:25). By the year 11,000 BC many of the large game species had become extinct due to environmental changes, resulting in a change to smaller animal species being hunted (Chartkoff 1984: 99-104). At this time, many parts of the high desert were blanketed in Pinyon Pine and Juniper trees supplying ample forage for deer, big horn sheep and small mammals (Bellamy et al 2005: 3). Common artifacts found from this time include Silver Lake and Mojave points, large flake and core scrappers, coarse percussion flaked knives and tools, drills and gravers, choppers and ovate bifaces. (Moratto 2004:93). Around 7000-8000 years ago, the weather became dryer and more arid leading to the evaporation of the pluvial lakes and an end to the Western Pluvial Lake Tradition.

Middle Holocene 5,000-2,000 B.C.

The Middle Holocene is marked by warmer and drier climates resulting in increased seasonal mobility between the valleys, deserts and mountains (Chartkoff 1984: 121). The San Bernardino mountains once covered in snow year round, became habitable during the summers (Bellamy et al 2005: 3). A change in the hunting of large game to medium and smaller size game animals can be observed by a shift from larger points to the smaller Pinto arrowheads (Jones and Klar 2007: 219). A shift in diet towards the consumption of vegetation, predominately hard seeds, pinon nuts, Chia seeds and acorns, began to occur (Moratto 2004: 97); the Chia plant was regularly burned in order to increase yields (Bean and Smith 1978: 571). This assumption can be drawn from the smaller numbers of projectiles found and an increase of occurrence of milling stone basins, grinding tools, flaked cobble tools and cogged stones found from this period (Jones and Klar 2007:238) (Moratto 2004: 148).

Middle/ Intermediate 2000-400 B.C.

The middle/ intermediate time is characterized by an increase in populations and a shift towards more advanced food collection and processing methods (Arnold and Walsh 2010: 32-35). Main characteristics of this time include the presence of large numbers of projectile points and mortar and pestles used in the processing of acorns. Atlatl points, including the large stemmed Gypsum Cave points and Elko notched/ Eared points, are common (Warren and Crabtree 1986: 187). Later during this period, the development and increased use of the bow and arrow is shown by increased findings of the small Rose Spring arrowhead (Warren and Crabtree 1986: 187). Processing, consumption and reliance on seeds and acorns are believed to have increased during this period, as shown by an increase in the number and complexity of mortars and pestles found (Moratto 2004: 154-159). The practice of cremation began, and is believed to have been introduced by the Shoshoni tribe on their route from the desert out towards the coast (Moratto 2004: 154).

Late Period 400 B.C.-1st contact

Inter-tribal relations, trade and village size increased during the late period (Grenda 1998:16). Increased influence from the desert tribes can be seen by the introduction of brown ware ceramic pottery and the desert series of Cottonwood Triangular and the Desert side Notched points (Jones and Klar 2007: 242; Moratto 2004: 154). Common artifacts include an increase in the number of tools made from bone, small arrowheads associated with increased use of bow and arrows and circular fish hooks made from sea shells (Morratto 2004: 159)

Ethnography of the region

The Serrano were the largest ethnographic population living in and around the study site. The

Serrano's historic Tribal territory extends from north of Victorville, west to the Cajon Pass, south to Yucaipa Valley and east to Twenty-nine palms (Bean and Smith 1978: 570). Buildings in Serrano villages included large ceremonials buildings, semi-subterranean sweathouses, granaries and living quarters framed with willows and Tule thatching. Data related to the Serrano must be analyzed on a broad scale due to the group's political organization, isolated local lineages and adaptation of traditions from neighboring tribes (Bean and Smith 1978:570). Artifacts associated with the Serrano include mortars, paddle and anvil pottery, flaked and bone tools, shell bead currency and intricate baskets woven with plant fibers and decorated with wood, bones, shells and stones (Bean and Smith 1978:571).

Spanish/ Mission Period 1772-1833 A.D

The Mission Period spans roughly 1772-1833 A.D, when Spanish missionaries explored Southern California and the San Bernardino valley seeking to build additional missions and spread Christianity. Much of the history during this period has been well documented due to frequency of diary entries made the Spaniards (Beattie 1939:2). The first European to travel into the San Bernardino valley was in 1772 by Spanish army Comandante Pedro Fages (Robinson 1989: 7). Following in 1776, Father Francisco Hermenegildo Garces was the first to traverse the San Bernardino mountain range along the Mojave trail on his way from the Santa Barbara Mission to the San Gabriel Mission (Bellamy et al 2005: 7). Around 1806, a series of inland forts and missions were sought to stop Indian raids on coastal missions' livestock, and to further the spread of Christianity (Robinson 189: 7). However, no outposts were established until years later due to instability in the region caused by continued raids made by the Mojave Indians (Beatie 1939: 8). Mission records say the valley received its name on May 10,1810 (feast day of Saint Bernardino) when a chapila (chapel) was erected at the Guchama rancheria (Robinson 1989: 9). By the 1820s several mission ranchos had been established throughout the valley; Jumuba, Yucaipa, San Gorgonio and Agua Caliente (Robinson 1989: 9). On April 11, 1822, California became part of Mexico and the Mission's influence over the land began to dissipate.

In 1826 and 1827, Jedidiah Smith famously made the first overland journey from Salt Lake City to San Bernardino on a trapping expedition (Robinson 1989: 9-10). Between 1833-1843, following Mexico's Secularization Act of 1833, Mission land ownership changed from Mission padres to prominent ranching families in the area with the issuance of roughly 700 private land grants (Robinson 1989 :10-11). In 1939, Mexico's Governor granted the area's first logging rights to Juan Bandini of the Rancho Jurupa; the granted area extended from Devils Canyon to Sawpit Canyon, resulting in the origin of Sawpit Canyon's name (Robinson 1989:11). Mormon Battalion soldiers came to the valley in 1947 to defend the Cajon pass and surrounding area against Indian attacks (Bellamy et al 2005: 11). Upon their arrival, they sent letters back home to Utah expressing interest in having their fellow saints resettle to San Bernardino. By May of 1851, 437 Mormons left Salt Lake City for San Bernardino, creating the first colonization of the valley (Bellamy et al 2005: 9-11). San Bernardino later became a resting point for Mormons traveling from San Diego to Utah.

Mormon Period 1851-1857 A.D.

By the 1850s there had become a large demand for lumber in Los Angeles and the San Bernardino valley (Robinson 1989: 25). Many of the mills on the mountain were owned and operated by Mormons. In 1852, Mormons constructed the Mormon road in less than three weeks; the road cut up through Waterman Canyon, extending to modern day Crestline, providing access to the mountain top (Robinson 1989: 20). While the road was extremely steep and used minimal switch backs, it allowed access to timber on top of the mountain and was one of the few public roads of the time. Baseline Road was later built by Mormons in 1856 and was used to expedite the movement of lumber from the base of the mountain to the ever-growing Los Angeles. In 1857, Brigham Young summoned all of the Californian Mormon settlers back to Utah, ending the Mormon Era in the valley (Robinson

1989: 22). Most Mormons uprooted their lives, selling their sawmills and businesses well below market value.

American Period 1854 A.D.-Present

The logging industry continued to boom along the mountain top until 1912. The most sought after lumber in the San Bernardino Mountains was big cone Douglass fir, sugar pine and incense cedar. At the beginning of the industry, log processing was powered by stream fed paddlewheel sawmills which cut logs using mulay saws. This was a slow process considering many creeks had low flow or would run dry during the summer, froze during the winter, and logs needed to be manually manipulated in-between cuts. Advancements in technology, starting with the steam engine and the circular saw and later the more powerful steam donkeys powering multiple circular saws and band saws, sharply increased production rates (Robinson 1989: 25-26). By 1854 there were six sawmills across the mountain top (Robinson 1989: 20). The mountain top was a buzz with sawmills, felling of trees and amenities to support the loggers (Robinson 1989: 22). In addition, gold was being mined in the area in the 1850s-1870s. The largest logging companies on the mountain were the Brookings Lumber company in Running Springs and Talmadge Mill in Little Big Bear Valley. Brookings Lumber company operated a railroad with three Shaw engines and twenty flat cars along the Rim of the World Highway to deliver cut logs to the mill (Bellamy et al 2005: 51)

Hubert Eaton Scout Reservation Property

The Scout Reservation acquired its first property in 1949. The Big Horn Camp was opened in 1950. Other camp complexes were developed over the years, including Cedar Camp (Pitches/Pollack Pines Camp) around 1952. Northrop and Pepperdine Camps were constructed around 1960. Camp Pollack Pines contains a historic sawmill feature (Velasquez, 2015). The sawmill feature, choker cables and various old abandoned roads throughout the property indicate that logging occurred on the property at least prior to 1919.

Part 5: Training and Experience of Archaeological Surveyors

Name of current Archaeological Surveyor(s): Henry Herrera, Stephanie Velasquez

(X) Archaeological Survey conducted by Professional Archaeologist: Velasquez, Stephanie

(**X**) Archaeological Survey conducted by person with current CAL FIRE Archaeological Training
CAL FIRE Archaeological Training Course # Herrera -154
Date Training Course was completed: Herrera-11/18/2016

(**X**) Archaeological Survey for previous project within site survey area previously conducted by (provide name):
1) *2004 Mirro, Michael; Applied Earthworks for NRCS*
2) *2008 Velasquez, Stephanie, CAL FIRE*
3) *2009 Velasquez, Stephanie, CAL FIRE*
4) *2012 Velasquez, Stephanie, CAL FIRE*
5) *2015 Velasquez, Stephanie, CAL FIRE*

Part 6: Survey Methods and Procedures

Survey strategy: The project area was completely surveyed by Applied Earthworks in 2004, the year after the Old Fire which burned most of the property, and portions of the project area have since been surveyed by CAL FIRE in 2008, the year after the Slide Fire, 2009, 2012 and 2015. Since it has been more than 11 years since the last major fire, the project area is heavily overgrown with 6-8 foot, interlocking shrub. As a result, there is very poor ground visibility and

accessibility. Due to the presence of known archaeological sites, the survey strategy focused on inspecting accessible areas, those areas with higher site potential (water sources, rock outcrops, knolls, benches, ridgetops, etc.), and high probability areas which have not been recently re-surveyed. All previously recorded sites were revisited. Due to vegetation cover and lower site sensitivity, steep slopes were not walked. Accessible ridges, rock outcrops, and dirt road trails above Hook's Creek, Fern Creek Sheep's Creek and Along "Allison Ranch Road" were surveyed.

"Allison's Road" identified on a 1953 topographic map was converted in 1913 from the original Brooking's Narrow Gauge rail extending from Fredalba into the property. The Allison Road is utilized and maintained by HESR, and is subject to grading, erosion control, and has been widened in areas. The rail line no longer maintains any of the characteristics of its original line, with the exception of its original route; it is only discernable as a historic rail line through literature review and is not, therefore, considered a historic property. The road was surveyed in 2015 for associated features and historic era elements; no such resources were identified. The Deep Creek Camp road and spurs present on 1885 GLO maps were also inspected for associated cultural materials in 2015; the road is likely associated with local logging operations and is currently the paved road connecting the HESR entrance to Camp Big Horn. Similarly, no evidence of the "Poole's House" identified on the 1884 GLO was been located during the 2011 survey effort.

Time spent conducting archaeological field survey: 9 days
Date or Dates the survey was conducted: 7/26/2017, 7/29/2017, 8/14/2018-8/16/2018, 9/4/2018, 9/5/2018, 9/18/2018, 9/20/2018
Survey coverage intensity: Reconnaissance-Complete survey was conducted in accessible areas with an attempt to inspect higher probability areas (ridgelines, water confluences, rock outcrops). Ridgelines were walked to the point where vegetation impeded passage.
Ground visibility/other limitations: Ground visibility was fair in conifer and oak covered areas with a thick layer of duff. It was poor in chaparral areas where thick tall shrubs exist.
Other relevant information: The project area burned during the 2003 Old Fire and during the 2007 Slide Fire. Since then, mastication, chipping, and hazardous tree removal projects have taken place throughout the property. The property has steep (>50%) slopes on the southern end with ridges descending from Heaps Peak and Mount Sorenson. The northern end of the property is flatter and more accessible.

Part 7: Survey Results

List a description of all sites found:

( ) No sites found within the site survey area.
(X) The following sites have been recorded and completed records are attached:

18-Site 1: This site is comprised of an object. The resource is a 9'1" monument made of polished granite slabs, a cement foundation and a metal plaque. The object is located at the top of Mt. Sorenson next to a trail.

18-Site 2: This site is comprised of an isolate. The resource is a choker cable. Both end of the cable are buried. The exposed portion of the ½" cable is about 4'2". The isolate is located on the ridge that drops down from Mt. Sorenson towards the main camp. It is across a trail and near a dirt road.

(X) The following sites were previously recorded, updates not prepared (attach copy(ies)):

Site Number	Era	Size	Description	Condition
36-12752	Prehistoric Isolate	<5 meters diameter	Bedrock mortar	Good
36-12753	Prehistoric Isolate	N/A	Isolate-Mano	Not relocated.
36-12754	Historic Site	1,500'x700'	Big Horn Camp facilities	Good-some modernization
36-12755	Historic Site	75'x75'	"Pitches" Camp	Site removed sometime after 2009. Location is now a swimming pool and parking area.
36-12756	Historic Site	20'x14'	"Northrop" Camp	Good
36-27163	Historic Feature	150'x70'	Trough and plumbing	Poor-burned over in wildfire
36-27164	Historic Feature	12'x350'	Road segment	Poor-road has not been maintained.
14-007-S1	Historic Feature	10'x4'x3'	Sawmill feature at "Pollack" camp	Poor-possibly damaged during construction or parking lot/buildings.
14-007-S2	Historic Site	9 acres	"Pepperdine" camp	Poor-appears abandoned
14-007-S3	Historic Artifact	4 Individual trees	Electrical/phone wires and insulator remnants	Poor-remnants

(X) The following sites were previously recorded, updates prepared (attach copy(ies)):

Site Number	Era	Size	Description	Condition
CA-RIV-0465	Prehistoric	50'x50'	Resource processing and lithic reduction location	Poor-mostly destroyed

( ) The following sites will not be recorded, justification provided below:

Part 8: Evaluation of Significance

Preliminary determination of significance of listed sites (if required): N/A

Proposed project activities will not have damaging effects to recorded cultural resources.

Part 9: Protection Measures

Specific enforceable protection measures:

36-12752: This single bedrock milling feature containing two grinding slicks shall be flagged with a 50' buffer. All trees felled within one length of the recorded site boundary shall be directionally felled away from the site; no trees shall be felled within the site boundary. Hand thinning and pruning of brush and trees within the site shall be permitted. All cut material shall be carried off site for disposal; no pile burning shall occur within site boundaries. Mechanized equipment and vehicles may pass through the site on the existing road and utilize existing

developed infrastructure nearby; all roads and infrastructure within site boundaries shall be utilized in current condition. Vehicles and equipment shall not leave the road prism and developed infrastructure within site boundary.

36-12753: This mano fragment's recorded location shall be flagged; pile burning or use of ground based equipment shall not occur within the mano's recorded location.

36-12754: The Big Horn camp complex shall be flagged prior to the starting of the project. Trees felled within one tree length of the boundary shall be directionally felled away from the site; no trees shall be felled within site boundary. Hand thinning and pruning of brush and trees within the site shall be permitted. Burn piles shall not be located within site boundaries; slash shall be hauled off site for disposal, or chipped back on site. Mechanized equipment and vehicles shall utilize existing roads and developed infrastructure (e.g., parking areas) within site boundary; vehicles and equipment shall not leave existing roads and infrastructure.

36-12756: The "Northrop" camp boundary shall be flagged prior to project activities. Trees felled within one tree length of the site shall be directionally felled away from the site; no trees shall be felled within site boundary. Hand thinning and pruning of brush and trees within the site shall be permitted. Burn piles shall not be located within site boundaries; slash shall be hauled off site for disposal, or chipped back on site. Mechanized equipment and vehicles shall utilize existing roads and developed infrastructure (e.g., parking areas) within site boundary; vehicles and equipment shall not leave existing roads and infrastructure.

36-27163: The area will be flagged prior to the start of the project. Trees felled within one tree length of the site shall be directionally felled away from the site. Trees that need to be felled within site boundary shall be directionally felled away from the historic resources. Hand thinning and pruning of brush and trees within the site shall be permitted. Burn piles shall not be located within site boundaries; slash shall be hauled off site for disposal, or chipped back on site. Mechanized equipment and vehicles shall not operate within the site.

36-27164: Ground based equipment shall not operate on the road segment or utilize it to access other parts of the project area. Vegetation removal from within the road cut shall be manual. Biomass will not be accumulated on the road cut.

14-007-S1: The sawmill remnant is entirely surrounded by paved access roads and parking areas. The site's boundary shall be flagged prior to project implementation. Vegetation may be hand treated on and surrounding the site. All slash shall be moved off site for disposal. No burn piles shall be created within the site. All trees felled within one tree length of the site shall be directionally felled away from the site.

14-007-S2: The "Pepperdine" camp is located adjacent to the southeastern extent of the proposed project at the southern end of Sheep Creek Road. The site boundary shall be flagged prior to project activities. Trees felled within one tree length of the site shall be directionally felled away from the site; no trees shall be felled within site boundary. Hand thinning and pruning of brush and trees within the site shall be permitted. Burn piles shall not be located within site boundaries; slash shall be hauled off site for disposal, or chipped back on site. Mechanized equipment and vehicles shall utilize existing roads and developed infrastructure (e.g., parking areas) within site boundary; vehicles and equipment shall not leave existing roads and infrastructure.

14-007-S3: Trees containing historic electrical/telephone wire remnants shall be flagged prior to

the start of the project. Trees containing the wire remnants shall not be removed. Trees may be hand pruned, providing removal does not affect or remove utility remnants.

18-Site 1: This site is comprised of an object. The resource is a 9'1" monument made of polished granite slabs, a cement foundation and a metal plaque. The object is located at the top of Mt. Sorenson next to a trail. The site will be flagged prior to project activities. Trees will be felled away from the isolate. Hand thinning and pruning of brush and trees within the site shall be permitted. Burn piles shall not be located within site boundaries; slash shall be hauled off site for disposal, or chipped back on site. Ground based equipment will not be operated occur within the flagged area.

18-Site 2: The isolate (choker cable) will be flagged prior to project activities. Trees will be felled away from the isolate. Hand thinning and pruning of brush and trees within the site shall be permitted. Burn piles shall not be located within site boundaries; slash shall be hauled off site for disposal, or chipped back on site. Ground based equipment will not be operated occur within the flagged area.

General Protection Measures:

Post Review Discovery: If archaeological resources are discovered during project implementation, work within 100 feet of the discovery will cease and the CAL FIRE archaeologist will be notified. Work will not resume until the CAL FIRE archaeologist allows permission to proceed. If project activities reveal human remains or burials, work will cease and the CAL FIRE archaeologist and the San Bernardino County Coroner's Office [(909) 387-2978] will be notified immediately. The coroner will contact the Native American Heritage Commission, if warranted, to determine the most likely descendent. Work will not resume until further notice from the CAL FIRE archaeologist.

Road Maintenance: Project equipment will not operate within the known archaeological site locations. Equipment will load/unload in areas known to not have cultural resources. Ground based equipment will utilize existing roads to access the project areas. No new road construction will occur.

Certified archaeological surveyors will regularly inspect treatment areas for previously unidentified cultural resources, and spot-survey previously inaccessible areas following project implementation.

Part 10: Implementation of Protection Measures

Discuss actions taken to carry out protection measures:

- The CAL FIRE project representative or archaeologist will flag archaeological sites prior to project implementation.
- The CAL FIRE project representative will inform implementation personnel of protection measures and site locations to be avoided by project activities.
- The CAL FIRE project representative or trained archaeological surveyor will monitor project activities to ensure compliance with protection measures.

Part 11: Other Applicable Information

Additional Information:

***References*:**

Velasquez, Steph
2015 *An Archaeological Survey Report for the Forest Lawn Fuel Reduction Project, San Bernardino County, California.* Submitted to CAL FIRE, Southern Region Operations (South Ops.) Office, Riverside, California. Copy on file at South Ops.

Velasquez, Steph
2012 *An Archaeological Survey Report for the Forest Lawn Phases III-IV-V, Mastication and Herbicide Application, Projects GT-163-BDU-215, GT-152-BDU-024 & GT-152-BDU-025, San Bernardino County, California.* Submitted to CAL FIRE, Southern Region Operations (South Ops.) Office, Riverside, California. Copy on file at South Ops.

Online Resources:

BLM Government Land Office Records- http://glorecords.blm.gov/ and http://www.blm.gov/ca/forms/mtp/search.php?meridian=27 (accessed June, 2018)

Historic Topographic Maps http://nationalmap.gov/historical/ (accessed June, 2018)

Web Soil Survey http://websoilsurvey.nrcs.usda.gov/app/ (accessed June, 2018)

Part 12: List of Attachments

( ) Archaeological Records Check Request	(X) Archaeological Coverage Map (1:1 scale of USGS 7.5' quad)
(X) Archaeological Records Check Request Map	(X) Additional Archaeological coverage map(s)
(X) Information Center Reply	(X) Project Vicinity Map
(X) Example of Notice(s) to Native Americans:	(X) Written Reply from Native Americans
( ) USFS or other Agency Correspondence:	(X) Site Records
( ) Other:	( ) Photographs

Part 13: Professional Review and Approval

Signature of CAL FIRE Archaeologist

Date Signed: 4/17/2019
Printed name: STEPHANIE VELASQUEZ
Title: Senior State Archaeologist-CAL FIRE
Location: 6105 Airport Road, Redding, CA 96002