Initial Study & Appendix "G" Environmental Questionnaire
California Environmental Quality Act
for the
Athithuuf: Slater Fire Restoration Project
Siskiyou County California



Prepared by:

Shasta Valley Resource Conservation District
215 Executive Court, Suite A
Yreka, CA 9097

and

BBW & Associates PO Box 702 Arcata, CA. 95518

Prepared for:
Shasta Valley Resource Conservation District

List of Appendixes:
Appendix A- Best Management Practices
Appendix B- Biological Resources Report
Appendix C- Maps

This Initial Study-Environmental Checklist has been prepared to evaluate potential environmental effects of the proposed Shasta Valley RCD Slater Fire recovery project located near the community of Happy Camp, California. This document has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations [CCR] Section 15000 et seq.).
Project Location Specific:

The project is located ½ mile north of Happy Camp, CA Siskiyou County California at an elevation of approximately 1,500'. Location data is as follows: Happy Camp & Deadman Point USGS 7.5-minute Quadrangle(s), Section 2, T16N, R7E and Section 9, T17N, R7E, HB&M.
Project Location – ¼ mile due north of Happy Camp, CA and north of Highway 96. Calwatershed 1105.320405 (Cade Creek), and 5 miles north of Happy Camp off Indian Creek Road, Calwatershed Baker Gulch 110.5320104

Description of Nature, Purpose, and Beneficiaries of Project: The Shasta Valley Resource Conservation Distirct is serving as lead agency for a project that includes lands owned by the Karuk Tribe. Slater fire burned 157,270 acres. It started in the Klamath National Forest Sept. 8, 2020 near Happy Camp in Siskiyou County, in the area of the Slater Butte Lookout.
The overall project objectives is to restore burned timberlands and return forests and wildland habitat to a more natural, fire resilient condition and to ensure that the exposure of human assets and communities to wildfire risk has been reduced.

Description of Nature, Purpose, and Beneficiaries of Project: -- The project is located on 37 acres of Karuk fee land located near Happy Camp, CA, and is within the 2020 Slater Fire footprint. Treatments include fuel reduction, invasive plant removal, oak woodland restoration, pile burning and prescribed fire. Mechanical and hand crews that will focus on the removal of hazardous dead vegetation. Standing dead and dying hardwoods and conifers will be removed except for trees that show wildlife use of provide other cultural use value. Mechanical operations will include the use of a masticator and chipping equipment and manual treatments will include chainsaws, loppers or pruners, piling and burning. Removal of hazardous trees and fuels reduction will have a direct benefit to the life and safety of residents and travelling motorists in the area. Trees that have firewood value will be put into decks for tribal members and staff to access, and later processed to be put into firewood banks for the tribal elders and community use. Those trees that are of the right size and specs to be used for tribal fisheries restorations projects will be harvested with root-wad attached for large woody debris stream loading and saved for that purpose. All the rest of the trees, and activity fuels will be put into burn piles that will be burned by tribal

fire/fuels staff in the correct burn window following their construction. There is no selling, bartering, or trading planned as a part of this project. The value of the fuel treatments, both in terms of reduced fire behavior/intensity and in terms of impacts will produce long-term benefits. Live trees that do not pose a threat to people or property will be retained.

The overall project objective is to utilize low intensity prescribed fire to maintain and enhance previous vegetative fuel reduction efforts in an oak woodland forest type. The goal is to reduce wildfire risk and to enhance fire resilient conditions and to ensure that the exposure of human assets and communities to wildfire risk has been reduced. The proposed Project will provide follow up treatments to previous thinning of white oak (*Quercus garryana*) and black oak (*Quercus kelloggii)* to continue efforts to modify forest conditions to maintain oak/woodland forest habitat and reduce fuel loads and prepare forests for long-term stewardship through practices such as prescribed fire.

Mechanical operations will include the use of a masticator and chipping equipment and manual treatment's will include chainsaws, loppers or pruners, piling and burning. Removal of hazardous trees and fuel reduction will have a direct benefit to the life and safety of residents and travelling motorists in the area. The value of the fuel treatments, both in terms of reduced fire behavior/intensity and in terms of impacts will produce long-term benefits. Live trees that do not pose a threat to people or property will be retained. Similar work was conducted on a portion of the project are under CAL FIRE Exemption 2-23EX-00095-SIS and on adjacent tribal trust lands under a BIA issued a categorical Exclusion.TR-4900 P5 J52 Athithuuf Project on 08/29/2024.

Mastication: Masticators are typically low ground pressure tracked vehicles, such as a skid steer with a forward mounted drum-like attachment with external masticating teeth, used to cut and shred woody material and live vegetation. Excavators may also be employed, utilizing a smaller masticating head (drum or rotary), which attaches to the boom. Limited mastication within some treatment units would occur on slopes less than ~50 percent and where previous salvage logging has occurred. Cutting brush and small trees within road prisms cut and fill slopes greater than 35 percent may be accomplished by an excavator masticator (while positioned in the road) in lieu of cutting and chipping. Dead standing vegetation generally less than 12-inch dbh may be masticated to reduce ladder fuel and achieve desired tree spacing. Similarly, mastication may be applied to treat re-sprouting brush, regrowth and fallen debris to maintain desired conditions.

Chipping: Roadside mechanical cutting and shredding of existing surface fuels and slash created from tree felling and yarding. Existing surface fuels, thinning and pruning residue, and cut brush would be pulled to forest roads and chipped into small pieces using a chipper. Chipping residue would be distributed back into the treatment unit, utilized for biomass, or utilized as a cover to reduce the risk of invasive plant establishment at landings and roads.

Hand pile: Down fuel accumulations and concentrations are physically broken up (with chainsaws and hand labor) and manually piled in concentrations of 3 to 7 feet in diameter. Excessive existing forest debris, along with woody debris (slash) from dead tree felling and shrub cutting, would be manually gathered into small piles.

Pile Burning: Hand and machine/tractor/grapple piles are typically covered with plastic or paper to allow woody debris to remain dry prior to ignition, promoting rapid consumption of debris to meet resource objectives and minimize smoke production. Piles are usually burned after the area has received sufficient rainfall so that fire does not spread independently beyond the heat influence of individual piles. Pile burning operations occur when site conditions including, onsite fuel moisture levels, current and forecasted weather elements, meet specific prescription parameters set forth in an appropriate agency approved burn plan and smoke management plan. Burning would only be conducted on days approved by the Siskiyou County Air Quality Control District in compliance with the Clean Air Act.

Prescribed fire: and cultural fire treatments include applying fire to the landscape to reduce fuel loads, create heterogeneous and diverse vegetated landscape, maintain cultural practices of indigenous communities, and/or promote healthy ecosystem processes, such as water storage and pest control. Distinguished from prescribed fire, cultural fire is the intentional application of fire to the land by an Indigenous person or cultural group (e.g., family unit, Tribe, clan/moiety, or society) to achieve cultural goals or objectives based on Tribal or Traditional Indigenous law.

Prescribed burning will be strategically implemented across the most vulnerable stands to diminish surface and ladder fuels while enhancing the resilience of individual stems and the broader ecosystem. This process will be governed by detailed burn plans, including a Smoke Management Plan coordinated with the Siskiyou County Air Quality Control District and local CAL FIRE unit permits. Burn units will be delineated by natural landscape features such as roads and watercourses, optimizing control efforts and managing smoke dispersion based on daily conditions

Fuel reduction treatments will be accomplished according to following guidelines:

All slash produced (branches, limbs, and treatment debris less than four inches in diameter) will be treated using one of the following methods:

- Chip or masticate adjacent to roads, landings, building pads and other accessible portions of the treatment areas. Equipment includes power chippers whereby material would be hand fed and chips would be blown onto the ground. Chippers have little or no potential to impact cultural resources. Mastication involves reducing the size of residual down and dead material by grinding shredding or chopping material and leaving it on-site as mulch.
- Pile and burn: slash piles for burning should be located away from residual trees and structures. Pile and burn operations would occur where vehicle access is available along existing public and private roads and seasonal logging roads. Roads utilizing existing openings and compacted ground as feasible. Piles will be created using hand crews.
- Lop and scatter: lopping is the severing and spreading of slash so that no part of it remains more than 18 inches above the ground. Lop and scatter will be implemented by hand crews on steeper slopes and areas with limited access where chipping, mastication, and burning piles is not feasible..
- The project is within an area that the Board of Forestry and Fire Protection has declared a Zone of Infestation or Infection for sudden oak death (SOD) pursuant to Public Resources Code § 4716. SOD host material (Douglas-fir *(Pseudotsuga menziesii*), bay laurel (*Umbellaria*

californica), huckleberry (*Vaccinium ovatum*), big leaf maple (*Acer macrocphylum*)), will not be removed from the regulated area unless appropriate state and federal permits are obtained.

Hand Piling and Burning Specifications

Piling is placing, laying, heaping or stacking of slash into piles for later burning during appropriate wet season conditions. This is a high use recreation area, all piles need to stay out of paths, trails, road ways, camp sites, and any other place that may hinder visitor use of recreation areas.

All piles need to stay within the boundaries of the treatment units and out of roadways (including the edge of the road) to avoid disruption to travelers.

- Slash to be piled generally constitutes material from 1” diameter up to and including 10" in diameter.
- All piles must be kept outside the drip line of desired leave trees unless unavoidable.
- No piles will be placed within 15 feet of control areas.
- No piles will be placed within 15 feet of standing snags.
- No piles will be placed within 15 feet of downed logs greater than 20 inches in diameter.
- No piles will be placed within 15 feet of the private property boundaries.
- No piles will be placed underneath or within 20 feet of power lines.
- No piles will be constructed in stream exclusion zones.
- Cover at least 3/4 of each pile with District provided plastic tarps. Tarps will be placed on top of the pile and readily visible. Plastic tarps must be sufficiently anchored with some slash or brush so that it will not blow off in high winds.
- All piles shall be built and compacted by laying limbs, stems, cut boles, and other slash so there are minimal air spaces.
- All material will be contained within the general contour of the pile and any material protruding out 2 feet or more will be sawed off and placed back on the pile.
- The minimum distance between piles will be one and a half times the pile height.
- The plastic tarps shall cover a minimum of 1/3 of the pile surface area. Covering with tarps will be done at the time of piling.
- Power/Phone Lines: Power or phone lines may exist within or adjacent to units. Avoid cutting any trees that may pose a risk to contacting any phone or power lines.

The environmental analysis for this project focused primarily on physical changes in the environment including but not limited to:

- Cutting dead trees, brush, limbs.
- Using heavy equipment off-road.
- Creating dust, smoke or noise.
- Exposing mineral soil.
- Pile burning and hand fire line construction.
- Disturbing species or reducing habitat.
- Changing aesthetics.
- Nuisance smoke.

The physical actions analyzed in this CEQA Initial Study consists of:

a) Post- wildfire dead tree removal.
b) Invasive plant removal and tarping using hand crews.
c) Oak tree restoration treatments
d) Follow up prescribed fire and cultural burning and pile burning.

The ground disturbance associated with these activities includes mastication of dead and downed material, reuse of existing roads, landings, logging trails (skid roads), fuel breaks and forest thinned areas. Fire lines will have water bars installed at the appropriate spacing, dependent on slope steepness, to prevent erosion and subsequent sedimentation during the rainy season.

Other effects of the physical actions include creation of smoke, intermittent equipment noise, intermittent traffic increases, public interest/concern of burning operations, and risk of fire escape. The project Best Management Practices (refer to Appendix A for applicable BMPs for this project) have been developed to address these potential concerns to a less than significant level of effect.

A portion of the project areas was evaluated under a CEQA equivalent process for timber harvest operations under a Drought Mortality Exemption (2-23EX-00095- SIS) and Cal Fire Emergency Notice 2-21-EM-00194-SIS) including logging, skidding, fuel break construction and slash disposal in 2023 and no significant changes have occurred to the landscape since that analysis was completed.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:
The environmental factors checked below would be potentially affected by this project

☒	Aesthetics	☒	Agriculture and Forestry	☒	Air Quality
☒	Biological Resources	☒	Cultural Resources	☐	Energy
☒	Geology/Soils	☒	Greenhouse Gas Emissions	☒	Hazards and Hazardous Materials
☒	Hydrology/Water Quality	☐	Land Use/Planning	☐	Mineral Resources
☒	Noise	☐	Population/Housing	☐	Public Services
☒	Recreation	☐	Transportation/Traffic	☒	Tribal Cultural Resources
☐	Utilities/Service Systems	☒	Wildfire	☒	Mandatory Findings of Significance

DETERMINATION
On the basis of this initial evaluation:

☒	I find that the proposed project COULD NOT have a significant effect on the environment, and is exempt from environmental review pursuant to statutory and categorical exemptions.
☐	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
☐	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
☐	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
☐	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required

Signature: *Dan Blessing*	**Date:** June 26 2025
Printed Name: Dan Blessing	**For:** Shasta Valley RCD

APPENDIX "A"

BEST MANAGEMENT PRACTICES CHECKSHEET - Athithuuf: Slater Fire Restoration Project

Project Name: Athithuuf: Slater Fire Restoration Project		**Preparer Name: Mark Andre RPF 2391 Date: 4-12-2025**
Fuels Reduction Treatments	**YES/N/A**	**Discussion**
1. Saplings/seedlings should be removed adjacent to co-dominant and dominant trees, to allow for additional growing space and reduced fire intensity to residual trees.	**Yes**	
2. Trees with the most desirable phenotypes will be retained, i.e. full crowns, fast growing, and disease free.	**yes**	
3. Trees preferred for removal will be those exhibiting signs of poor growth or containing disease.	**yes**	
4. On Site II and III conifer lands retain at least 75 square feet per acre of basal area and at least 15ft2 basal area per acre of seed trees 18 inches dbh or greater- where they currently exists;	**yes**	
5. Dense shrub cover will be broken up for purposes of removing fuel continuity.	**yes**	

6. In open areas, residual trees will be left for stocking, with a preference for retaining oak species.	**yes**	
7. Prune residual trees by lopping low branches up to a minimum height of 8' (above the level of slash on the uphill side of the tree) or heights necessary to retain 30% or more live crown.	**yes**	
8. All slash produced (branches, limbs, and treatment debris less than four inches in diameter) will be treated using one of the following methods: pile burn, lop and scatter, mastication.	**yes**	
a) Chip or masticate adjacent to roads and other accessible portions of the treatment areas.	**yes**	
b) Pile and burn: slash piles for burning should be located away from residual trees and structures.	**yes**	
c) Lop and scatter: lopping is the severing and spreading of slash so that no part of it remains more than 30 inches above the ground. Lop and scatter would be implemented on steeper slopes and areas with limited access where chipping, mastication, and burning piles is difficult.	**yes**	
d) Prescribe burn (pile burn or broadcast or cultural burn) of generated slash in conjunction with all other burn objectives.	**yes**	
Prescribed Fire and Pest Management		
1.Application of prescribed fire will help to reduce stand density and restore ecological processes, help to increase native plant biodiversity, reduce fuel loads, and enhance cultural botanical and wildlife species. Active management will also create a significant firebreak that will assist CAL FIRE, Forest Service, local fire departments, and local landowners in managing threatening wildfires.	**yes**	
2. Burning will take place in the fall to early winter and or spring months depending on fuel moisture levels and weather conditions. The burn plan will also be coordinated with the Siskiyou Air Quality Management District. SPBA and Project Cooperators will coordinate with the District to identify a permissible burn day.	**yes**	
3. Resource objectives for the prescribed fire as described in the plan are to: remove excessive fuel, promote desirable understory plants.	**yes**	
a. Reduce fuel loading to reduce risk of high intensity fires in the next decade	**yes**	

b. Burn Prescription: The prescribed fire burn prescription will be designed to initiate a surface fire of sufficient intensity that will only consume surface and ladder fuels while protecting soil resources from direct soil heating impacts. Burn periods will consider predicted wind speeds and direction for the 7 days following completion of burning. Example of sources for predicted winds include https://gacc.nifc.gov/oncc/predictive/weather/index.htm and https://www.wunderground.com/forecast/us/ca/weed/96094	**yes**	
4. Ignition will occur outside of the WLPZ buffer areas	**yes**	
5. Where feasible, existing roads, trails, and natural fuel breaks will be utilized for fire lines.	**yes**	
6. Air Quality: Prescribed fire will comply with all local, state, and federal air quality regulations and ordinances. The local Air Pollution Control District or Air Quality Management District will be contacted to determine local requirements.	**yes**	
7. Standard Public Notifications: Prior to the commencement of prescribed burning operations, the project coordinator will:		
a. Post signs along the closest major road way to the area describing the activity and timing;	**yes**	
b. Publish a public interest notification in a local newspapers or other widely distributed media source describing the activity, and timing	**yes**	**List websites: Facebook,Next Door, RCD, etc.**
c. Develop a list of smoke sensitive persons within 0.5 miles and contact them prior to burning.	**Yes**	**There are homes, and business within 0.5 mile radius of project**
8. Burn Plan Communications: Prior to the start of operations, CAL FIRE personnel should meet with the project coordinator onsite to discuss resource protection measures. Additionally, the project coordinator should specify the resource protection measures and details of the burn plan in the incident action plan and should attend the pre-operation briefing to provide further information	**yes**	**The project proponent will create a burn plan using the CAL FIRE burn plan template for all prescribed burns. The project proponent will prepare a smoke management plan and submit it to the Siskiyou County Air Pollution Control District (SCAPCD), following requirements from SCAPCD before implementing any prescribed burning treatment.**
Upland Habitat Protection		
1) To avoid impacting listed wildlife as well as nesting birds and raptors:	**yes**	
a) A Limited Operating Period of February1-September 15 shall be established unless surveying for nesting, roosting, denning is completed and CDFW or USFWS approves an alternative LOP period for the year surveying was completed.	**yes**	

b) All temporary flagging, fencing, trash, debris, and/or barriers will be removed from the project site upon completion of project activities;	**yes**	
c) Habitat elements (nest trees) that provide valuable habitat will be identified by a qualified person and retained where no immediate risk to infrastructure exists;	**yes**	
d) Where practical and feasible other habitat elements (downed large logs, snags with cavities and tree hollows, and other suitable snags) will be identified by a qualified person and retained where no immediate risk to infrastructure exists.	**yes**	
e) Where habitat elements are identified, a minimum 4' wide fire line will be cut around the habitat element and ladder fuels within 10' will be thinned.	**yes**	
Watercourse/Aquatic Habitat/Water Quality/Sediment Protection:	**yes**	
1) No mechanical fire line, brushing or ground disturbing operations are proposed for this project;		**Mechanical line may be constructed on edge of meadow in the "Comer" Unit APN 009-340-210**
2) No manual line construction will occur within the 75' core zone of Class I stream, 50' of a Class II stream and within 30' of the channel of Class III streams, except where necessary to cross directly into and out of the core zones;	**yes**	
3) Prescribed fire will not be applied on the ground within 75' of a Class I stream, 50' of a Class II stream, or 30' of a Class III stream. Fire may back into these stream buffer zones;	**yes**	
4) Stream buffers of at least 100' core zone of Class I stream, 75' of a Class II stream and 30' for Class III streams shall be established where the following BMP's shall apply:	**yes**	
a) Manual treatments (thinning and pruning), and oak sprout thinning will be implemented within select stream buffers but may not require much treatment. Where thinning of small-diameter ladder fuels is needed to ensure positive prescribed burning effects adjacent to stream courses, thinning would be limited to vegetation less than 8-inch dbh (diameter at breast height).	**yes**	
b) Placement of piles will not occur within stream buffer zones, as well as adjacent large downed woody debris;	**Yes**	**Buffers to be flagged**
c) Burning of hand piles will not occur in stream buffer zones.. Place burn piles away from existing coarse woody debris;	**Yes**	**Buffers to be flagged**
d) Utilize stream courses for prescribed fire control features;	**No**	

5) Construct hand lines within 100' of Class I or Class II streams and 50' of Class III streams only where necessary to minimize undesired fire effects;	**Yes**	**No watercourses in Comer Unit project area**
6) Water drafting should not occur in occupied anadromous salmonid streams segments;	**no**	**Water filling will occur from fire hydrants. No drafting log or 1600 permit required.**
7) Water drafting should be designed to minimize impacts to aquatic resources including use of appropriate fish screens and where feasible use of slow fill (trickle fill) of off stream storage areas (e.g. fold-a-tanks) to minimize sudden draw down of stream flows;	**no**	**Water filling will occur from fire hydrants. No drafting log or 1600 permit required.**
8) Petroleum products would be stored at roads or landings outside of watercourse protection zones wherever possible and a minimum 200' or greater distance from streams, ponds, and wet areas such that fuels and other harmful materials would not reach any waterbody. Appropriate spill containment measures would be on site and would be employed as needed (for example, absorbent pads, drip pans and containment trays). Containers of fuel and oil are removed daily off-site.	**yes**	
9) All roads and landings used by vehicles (other than 4x4 motorcycles quad cycles, or other low ground pressure vehicles) for prescribed fire and mop up operations shall have adequate drainage upon completion of use for the year or by October 15, whichever is earlier. An exception is that drainage facilities and drainage structures do not need to be constructed on roads and landings in use during the extended wet weather period provided that all such drainage facilities and drainage structures are installed prior to the start of rain that generates overland flow;	**yes**	
10) No vehicle operations (other than 4x4 motorcycles quad cycles, or other low ground pressure vehicles) shall occur during saturated soil conditions;	**yes**	
11) Vehicle use (other than 4x4 motorcycles quad cycles, or other low ground pressure vehicles) use shall be limited to dry, rainless periods where saturated soil conditions are not present or to roads and landings where a stable operating surface exists;	**yes**	
12) Logging roads and landings use by vehicles shall not be used during any time of the year when operations may result in significant sediment discharge to watercourse or lakes, except in emergencies to protect the road, to reduce erosion, to protect water quality, or in response to public safety needs.	**yes**	

13) During the extended wet weather period (October 15-May 1) vehicle uses (other than 4x4 motorcycles quad cycles, or other low ground pressure vehicles) shall be limited to roads and landings that exhibit a stable operating surface. Routine use of roads and landings shall not occur when equipment cannot operate under its own power;	**yes**	
14) Roads and landings used by vehicles (other than 4x4 motorcycles quad cycles, or other low ground pressure vehicles) during the winter period shall occur on a stable operating surface and, where necessary, be surfaced with rock to a depth and quantity sufficient to maintain such a surface. Use is prohibited on roads that are not hydrologically disconnected and exhibit saturated soil conditions.	**yes**	
Cultural Protection		
1) No burn piles should be placed within 10' of known ground stones, historic can features and similar features	**yes**	**A cultural Survey of the Project Area was completed Recorded sites will be protected.**
2) Work should be halted within a reasonable buffer if cultural materials are found during implementation. Examples would include ground stone, flaked or chipped stone, historic debris, building foundations, or non-human bone.	**yes**	
3) A qualified archaeologist should be consulted to assess the discovery. Appropriate avoidance or mitigation measures should be reached in consultation with the Tribes that claim an interest in this site, as set out at 36 CFR 800.	**Yes**	**Karuk THPO Alex Watts-Tobin will be contacted.**
4) Should inadvertent effects to or unanticipated discoveries of human remains be made, the County Coroner [California Health and Safety Code 7050.5(b)] shall be notified immediately. If the remains are determined to be Native American, or if Native American (Indian) funerary objects, or items of cultural patrimony subject to NAGPRA are uncovered, the provisions of NAGPRA Section 3 [25 U.S.C. 3002 a-e] may apply, and its regulations at 43 CFR 10 and the provisions of ARPA at 43 CFR 7 shall be followed.	**yes**	

- **See additional BMP discussion at Appendix B attachment.**

APPENDIX G
CEQA Initial Study

i. Aesthetics

I. Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
AESTHETICS: Would the project:				
a) Have a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			X	
c) In non-urbanized areas,substantially degrade the existing visual character or quality of public views the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point).			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				X

a)-d). The project is located in areas defined by forest and mountain vistas where wildland fire, fire suppression, and timber production has defined the landscape for most of the past 100 years and Native

American cultural burning for centuries prior to that. Proposed mechanical and manual treatments are designed to appear natural by retaining variable forest structure and complex mosaic patterns. The project will mimic healthy forest conditions that would not be visually evident and would remain visually subordinate to the overall landscape.

The project proponents have over the past several years worked with the communities to discuss the effects of fire and fire safe communities[1]. There is a general awareness of the need for stand management and prescribed fire and acceptance of the proposed actions. To some extent the community has lived with the visual effects of prescribed and wildland fire for centuries and to some community members prescribed fire is a part of cultural heritage. The contrast in viewsheds resulting from the project are consistent with the changes in the viewsheds that occur as a result of natural and human caused fire and forest management activities. The project restoration treatment areas will have limited and short duration visibility from Indian Creek Road and Itroop Drive which are paved public roads. The project will not affect a scenic highway or scenic vista . No mitigations are necessary.

II. AGRICULTURE AND FORESTRY RESOURCES

II. **Issues and Supporting Information**	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
AGRICULTURE AND FOREST RESOURCES: Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g), timberland (as defined by PRC section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forestland to non-forest use?				X

[1] Community engagement included: (1) public workshops, (2) Tribal staff and governance meetings and engagement (3) RCD Board meetings

a)-e)- The project will not adversely impact agricultural resources, timber or result in changes in forest lands to non-forest uses. Because the project activities are allowable uses within the zoned area and do not involve a change to the land use or zoning designation, it will not conflict with the existing zoning for agricultural use. Stand replacing fires could adversely impact agricultural and forestry management by converting stands, displacing people and disrupting harvest schedules. The implementation of the plan may enhance agricultural and forestry resources by reducing the potential for stand replacing fires originating at these private parcels or pass through them. No mitigations for agriculture or forestry are necessary.

References:

CAL FIRE Drought Mortality and Unmerchantable Sawlog v2019 No: 2-23EX-00095-SIS

CALTREES Timber Harvest Records Search and Review - https://caltreesplans.resources.ca.gov/caltrees/Default.aspx

BIA Categorical Exclusion TR-4900 P5 J52 Athithuuf Project issued on 08/29/2024.

III. AIR QUALITY

III. Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct Implementation of the applicable air quality plan?			X	
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.			X	
c) Expose sensitive receptors to substantial pollutant concentrations?				X
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

a)-e)- Although smoke production from prescribed fires is very temporary in nature and light in duration compared to wildfire smoke (lasting a period of hours or days), it still can be a nuisance to those in close proximity. Prior to and during the implementation of burning, it is anticipated that smoke management

techniques would be utilized in order to minimize emissions as much as possible. These techniques may include only burning concentrations of fuels in an area as an initial action, isolating fuels that may smolder for long periods, and using mosaic burning in areas of non-continuous fuels.

Smoke production can become a limiting factor to achieve project accomplishment as air quality regulations exist which limit the amount of smoke that can be produced daily, however this may be more of a factor when multiple projects are going on simultaneously throughout the air basin. Long-term success for the project may lie in the ability to scale up during times of implementation and following initial entries.

Smoke disturbance may impact nearby residents and visitors by lowering visibility and from the burning smell in the short-term. While these impacts are unavoidable the Project Description incorporates the requirements of the Siskiyou County Air Pollution Control District (herein referred to as AQDs) to prepare Smoke Management Plans (SMPs) to minimize impacts to adjacent populations. AQDs burn day restrictions will minimize burning during inversion conditions and manage for wind directions and limits on smoke production. The following summarizes elements of the SMPs:

- *Prior to the implementation of burning activities, adjacent landowners will be notified;*
- *Obtain a current Smoke Transport and Stability Forecast from the Redding Fire Weather Center;*
- *Smoke monitoring is required on all projects over 250 acres/day and on those projects that would continue burning or producing smoke overnight or as required by the Air District;*
- *Smoke dispersal surveillance and monitoring will be accomplished by*
    - *Visual Monitoring*
        - *Smoke will be monitored from a location where column is visible*
        - *Smoke will be monitored upon ignition and every hour until the projects are complete*
    - *Weather Forecast*
    - *Belt Weather Kit;*
- *A test burn shall be conducted on a small portion of the project area prior to project implementation;*
- *All weather and surveillance records shall be filed in the project folder and be available for Air District Review upon request;*
- *A minimum of 1 day prior to anticipated ignition, all burners shall forward to the [Northeast Air Alliance] NEAA e-mail list the following information: (This will be done ASAP when a Wildfire managed for resource benefits is expected to exceed 10 acres in size.)*
    - *Name of project*
    - *Agency conducting burn with contact info*
    - *Legal location, county, and landmark of burn*
    - *Type of burn*
    - *Total acreage / estimated acres per day*
    - *When the burn is planned*
    - *Duration of ignition given in days*
    - *Estimated direction of smoke travel*
    - *Communities or Smoke Sensitive Areas that could be impacted (if any). Smoke Sensitive Areas are defined in Section VI of the SMP- [None Identified].*
- *Flyers will be posted in Happy Camp in order to advise the public and known sensitive receptors that prescribed burning will be conducted in their vicinity and to assure the public that measures will be taken to minimize the smoke impacts;*

- *The following actions shall be taken if smoke adversely impacts smoke sensitive areas. Adequate resources or assets will be provided for the items checked below.*
    - *A. Halt ignitions, except as needed to maintain control of fire*
    - *B. Allow fire to burn to contingency control lines*
    - *C. Suppress fire*
    - *D. Begin immediate mop up*

The project must comply with the AQDs permit burn conditions, implements best management practices during burning to minimize smoldering (e.g. extinguishing significant smoke sources), restricts burning operations during inversion conditions, and set standards to minimize other smoke nuisances (e.g. drying of fuels for 30 days minimum before burning occurs).
No Mitigation is required for smoke management.

BIOLOGICAL RESOURCES

IV. **Issues and Supporting Information**	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
BIOLOGICAL RESOURCES: Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				X
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				X
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?			X	
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation				X

Plan, or other approved local, regional, or state habitat conservation plan?				

a & b)). The Athíthuuf Project focuses restoration activities within the Slater Fire which burned at high severity within the Project area in September 2020. At both the Comer property on Indian Creek as well as the Itrôop property just north and up the hill from the town of Happy Camp, high severity effect and therefore high intensity disturbance was observed, with greater than 90% tree mortality and above ground plant consumption. At the time of the survey, overstory components were described with dead standing tree snags and an invigorated understory shrub component inclusive of hardwood resprouts. The majority of the project area was surveyed for special status plants. **Prior to ground disturbing activities, all treatment areas will be surveyed for special status plants by a RPF or qualified biologist.**

The CNDDB and CNPS queries found no known plant populations of special status in the precise Project area, although 15 rare plant species were found in the larger Slater and Happy Camp quads (Table 1). One population of *Thermopsis robusta* was identified, which appeared along the paved road after fire suppression-related dozer activity (personal communication with Greg DeNevers, Botanist, Klamath National Forest). In summer of 2022, about 250 plant individuals were found along the paved Itrôop Road on the ridge.

Rare plants not previously identified, but potentially found in the Project area and their threat rank, to which special attention was focused during field assessments. A California Rare Plank Rank (CRPR)[2] 1A = presumed extirpated/extinct; 1B = rare throughout range, many endemic; 2A = extirpated in CA; 2B = same as 1B, except not common beyond CA; 3 = lacking information to assign rank or reject from CRPR; 4 = limited distribution or infrequent throughout CA. Additional threat code extensions: 0.1 = seriously endangered in CA; 0.2 = fairly endangered in CA; 0.3 = not very endangered in CA.

Latin Name	Common Name	Rank
Cypripedium californicum	California ladys-slipper	4.2
Cypripedium fasciculatum	clustered ladys-slipper	4.2
Lewisia cotyledon var. heckneri	Heckners lewisia	1B.2
Sedum laxum ssp. heckneri	Heckners stonecrop	4.3
Lewisia cotyledon var. howellii	Howells lewisia	3.2
Eriogonum hirtellum	Klamath Mountain buckwheat	1B.3
Cypripedium montanum	mountain ladys-slipper	4.2
Galium oreganum	Oregon bedstraw	3
Dicentra formosa ssp. oregana	Oregon bleeding heart	4.2
Ptilidium californicum	Pacific fuzzwort	4.3
Thermopsis robusta	robust false lupine	1B.2
Arnica cernua	serpentine arnica	4.3
Eriogonum ternatum	ternate buckwheat	4.3
Iris thompsonii	Thompsons iris	4.3

[2] https://www.cnps.org/rare-plants/california-rare-plant-ranks

Lilium pardalinum ssp. wigginsii	Wiggins lily	4.3

Invasive Plants Survey Results

The Comer property understory was largely dominated by invasive Himalayan blackberry in the riparian areas, and ceanothus and hazel in the drier upslope areas. The Itroop parcel wet meadow has a significant infestation of meadow knapweed (area?), as well as scotchbroom, and Himalayan blackberry above the earthen dam. Starthistle and meadow knapweed are also present in landings. Scotchbroom is additionally thick along the two lower roadsites closest to Highway 96 and Indian Creek Rd.

Proposed Treatments and Potential Impacts to Native and Invasive Plants

Project Design Features

The following project design features will be adopted to mitigate any negative impact to sensitive native or invasive plant species.

Project Design Feature	Description
BIO-1	In order to reduce impact to rare but disturbance-loving plant *Thermopsis robusta*, the beginning and end of the linear road-side population will be flagged and should be given a 30' buffer during the vegetative period.
INV-1	Inspection: in order to reduce the spread of invasive plant propagules, heavy equipment entering site will be visually inspected for soil, seeds, and other plant material prior to entry to the restoration site.
INV-2	Weed wash: a pressure washer site will be identified in order to clean vehicles before and after treatment to remove mud, seeds, and other plant material.
INV-3	Progression of work: heavy equipment work on more trafficked and paved roads near housing should occur before moving into the interior dirt roads
INV-4	Seeding prevention in landings: in order to prevent spread of starthistle, meadow knapweed, and scotchbroom, landings should be weed whacked prior to setting seed before work commences if manual removal is not possible.
INV-5	Treatment timing: removal of invasive plant material via manual fuels reduction occurring early- to mid-summer before plants have gone to seed should have an inhibitory effect on the underground reserves of perrenial scotchbroom, meadow knapweed, Himalayan blackberry and an inhibitory effect on the seed production of annual starthistle, rose clover, etc. Reduce movement of seeds during the late summer and fall.
INV-6	Pre- and post- treatment plant monitoring by the Karuk Tribe in order to look out for plants that become visible, and to monitor treatment effectiveness on invasive plant reduction and native plant enhancement.

Proposed Treatments

Proposed actions	Native rare and sensitive plant impact	Invasive plant impact	Project Design Feature (PDF)
No action	*Thermopsis robusta* may continue to persist along Itrôop Rd, and will eventually decline without additionally disturbance. No impact to other sensitive plant species.	Negative impact to invasive plant populations, such as scotch broom, meadow knapweed, starthistle, and Himalayan blackberry will continue to propagate from seed and other propagules.	none
Manual fuels treatments	Removal of heavy ground fuels may benefit *Thermopsis robusta,* which loves disturbance and exposed seedbeds. Other native plants should also benefit from fuels reduction. No impact to other sensitive plant species.	Less than significant impact, and possible benefit with above-ground removal, with a stimulating effect to roots and rhizomes and invasive plant species seedbed.	INV-3, INV-4, INV-5, INV-6
Mechanical hazard tree abatement	Less than significant impact *Thermopsis robusta*, although it is more likely to stimulate its growth. No impact to other sensitive plant species.	Less than significant invasive plant stimulation and spread via equipment movement.	BIO-1, INV-3, INV-4, INV-5, INV-6
Roadside excavation	Less than significant impact *Thermopsis robusta*, although it is more likely to stimulate its growth. No impact to other sensitive plant species.	Less than significant invasive plant stimulation and spread via disturbance and equipment movement.	BIO-1, INV-3, INV-4, INV-5, INV-6
Manual invasive plant removal	No impact	Positive impact	INV-6
Invasive plant tarping	No impact	Positive impact	INV-6
Hardwood coppicing	No impact	Positive impact	INV-6
Native plant seeding	No impact	Positive impact	INV-6

The project description also incorporates the following Best Management Practices to protect biological resources:

6) Establishes Limited Operating Periods (LOP) to avoid impacts to sensitive wildlife, botanical, cultural resources and to maintain and protect water quality:

a) No prescribed fire shall be done between February 1- September 15 for areas that contain critical habitat for Candidate, Listed, Threatened or Endangered Species unless protocol surveys determine no activity. The restricted project operations time period may be lifted for the year in consultation with the USFWS and/or CDFW.

Provisions important to the [Prescribed Burn Treatments]:

(1) If a listed or sensitive species is present at the time of burning, than all operations shall cease, a protection buffer of 50' shall be applied, and CDFW shall be contacted to develop site specific protection measures

No mitigation measures are required.

c) There are no planned activities within a federally protected wetland(s) as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.). There are no planned activities that would affect wetlands through direct removal, filling, hydrological interruption, or other means. The project will enhance meadow habitat by removing invasive conifers. No mitigations are necessary

d) The project will not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. The project does not include any road or other construction that could interfere with fish or wildlife migration. The project could enhance deer browse in some locations. No mitigations are necessary

e) There are no local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance in the project area. No mitigations are necessary

f) The county has not adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan for the project area. No mitigations are necessary

Animals
Occupied Nest Site Protection

In review of CDFW range maps, and existing habitat within the project area, the following Board of Forestry Sensitive Species have the potential to occur within the project area. Bald Eagle, Northern Goshawk, Osprey, and Peregrine Falcon. In the instance an active or occupied nest site is documented within 0.25 mile of the project area or if any occupied nest sites of a listed bird species are detected during the preparation or implementation of the project, the Department of Fish & Wildlife and per California Fish and Game Code (Section 3503), and appropriate protection will be provided. This requirement applies to active nests (breeding effort within the last 2-5 years, depending on the species), and not just "occupied nests".

Cooper's Hawk (*Accipiter cooperii*)
Listing Status: California Department of Fish and Wildlife 'Watch List'
Reported in Project area: No

Habitat: Cismontane woodland, riparian forest, riparian woodland & upper montane coniferous

forest. Woodland, chiefly of open, interrupted or marginal type.
The Cooper's hawk is an uncommon resident, breeding sparingly throughout the region. No nests were located during fieldwork and no Cooper's hawks were observed. If a Cooper's hawk nest is identified, operations shall be suspended within 100 feet of the nest tree and the contractors/operators shall immediately notify the California Department of Fish and Wildlife to determine species-specific protection measures. Significant impacts to Cooper's hawk are not expected as a result of this project.

Golden Eagle *(Aquila chrysaetos)*
Listing Status: California Department of Fish and Wildlife 'Fully Protected' & 'Watch List'
Reported in Project area: No
Habitat: Broadleaved upland forest, cismontane woodland, coastal prairie, Great Basin grassland & scrub, upper & lower montane coniferous forest, pinon & juniper woodlands, and valley & foothill grassland habitats. General habitat includes rolling foothills, mountain areas, sage-juniper flats and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.
The golden eagle is a large bird (30" to 41" tall) that lives primarily in mountain forest and open grasslands. The golden eagle preys mainly on medium-sized birds and mammals but will also feed on carrion. Nests are built on rock ledges or in tall trees. Golden eagles require large openings and large trees in open areas as habitat. Since the project does not involve any significant alterations to habitat no significant impacts to eagles are expected as a result of this project. This species is typically afforded a ¼ mile radius buffer.

Peregrine Falcon (Falco *peregrinus anatum***)**
Listing Status: State Delisted & 'Fully Protected', Federal Delisted in 1999.
Reported on CNDDB in the project: No
Range: Most of the state except a portion of southeastern California.

Habitat: Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures.
Uncommon, breeds mostly in wooded, forest, and coastal habitats. Decline associated with DDT contamination. Swoops from flight into flying prey, chases in flight, and rarely hunts from perches. Preys on a number of birds occasionally taking mammals, insects and fish. Requires protected cliffs and ledges for cover. Nests in a scarp on a depression or ledge in an open site. Will nest on human-made structures, and occasionally uses tree or snag cavities or old nests of other raptors. The plan amendment area is within the range of the peregrine falcon. No sightings have been reported to the CNDDB for the project. No nests were observed within the project area. This project will not have a significant negative impact on peregrine falcons.

Northern Goshawk (*Accipiter gentilis)*
Goshawks appear to select habitat by forest structure rather than by tree species (Greenwald et al. 2005). Goshawks prefer mature and old-growth forests that are at middle to high elevations, have relatively dense canopy closures (>40%), have usually little understory vegetation, are in close proximity to riparian corridors, and have flat or moderately sloping terrain (Crocker-Bedford and Chaney 1988; Moore and Henny 1983; Saunders 1982; Zeiner et al. 1990). Adequate canopy cover appears to be critical for occupancy and productivity of nest sites. Canopy cover is likely used to protect chicks from predation and for thermoregulation. Goshawks are known to use mature forest habitats for nesting and foraging. Nesting stands are typically in dense pockets of large trees, often on north-facing, bench slopes

near water. Foraging habitats are often more open to allow for the aerial ambush foraging strategy of the goshawk.

Osprey (*Pandion haliaetus)*
Listing Status: CDFW 'Watch List'
Reported on CNDDB in project area: yes
Range: Breeds in northern California from Cascade Ranges south to Lake Tahoe and along the coast south to Marin County.
Habitat: Riparian Forest habitats. General habitats include ocean shores, bays, fresh-water lakes and larger streams.
Breeding takes place along major rivers, lakes, and estuaries. Breeding population estimated in 1975 at 350 - 400 pairs in northern California, numbers apparently increasing in recent years. Associated strictly with large fish bearing waters. Preys mostly on fish. Ospreys require open and clear waters for foraging. Swoops from flight, hovers or perches to catch fish near surface of the water. Uses large trees, snags, and dead-topped trees in open forest habitat for cover and nesting, within 15 miles of a good fish-producing body of water. Also uses large platform nests on cliffs or human-made structures such as power poles. Nests as high as 250 feet above the ground. Needs tall open branched perch trees for landing before approaching nest and for flight practice for young.

There are several osprey nests along the Klamath River. Known nest trees will be avoided and noise generation will be avoided within 375' of an osprey nest tree during the breeding and rearing period. Retention of over-story conifers and snags will provide future nesting habitat for ospreys. Significant impacts to ospreys are not expected as a result of this project implementation.

Additional Wildlife Scoping

California Condor (*Gymnogyps californianus)*
Reported on NDDB in area: No

The California Condor is listed as endangered under the federal Endangered Species Act and the California Endangered Species Act, as well as a California Board of Forestry Sensitive Species and Fully Protected under the California Fish and Game Code.

Historically, the range of California Condor ran from British Columbia to Baja California. Their main population rings the southern mountain boundary of the Central Valley, from the Los Padres National Forest to Sequoia National Forest. A stable population has been established in the Ventana Wilderness and Pinnacles National Park.
Nesting habitat is generally characterized by steep, rugged terrain with nests in rock crevices with overhanging ledges or broken-topped large trees, like sequoia or coast redwood. They are known to roost on rocky outcrops, tall trees, or snags near foraging, nesting, and water. Condors need large areas to allow for take-off and landing, where winds provide thermals for flight. Foraging habitat needs to have high productivity for obligate scavenging. Sparse vegetation provides higher visibility of carrion and thermals keep them in the air long enough to find carrion, without expending large amounts of energy. Condors can cover large distances in the course of a day as they forage; sometimes flying up to 150 miles for food.

Language in the state listing final rule states that take of condor is allowed, provided the "take is not intentional …. or due to negligent conduct." Additionally, the Final rule states "Habitat alteration (e.g.,

removing trees, . . . altering the nest structure or perches near the nest) or significant visual or noise disturbance (e.g., chippers, chainsaws, within 656-ft (200 m) of an occupied nest are prohibited. Excluded from this prohibition are emergency fuels treatment activities by Federal, State, and local agencies and Tribes to reduce the risk of catastrophic wildfire and emergency response services. Activities such as ranching and use of existing roads and trails within the 656-ft (200 m) buffer area around an occupied nest would not be considered a significant visual or noise disturbance. For the purposes of this rule, an occupied California condor nest is defined as a nest that is: (1) attended by a breeding pair of condors, (2) occupied by a condor egg, or (3) occupied or attended by a <1-year-old condor . To minimize the potential of take in the instance an active or occupied California Condor nest site is discovered within 200 meters of the property, no noise, smoke or habitat altering operations will be conducted within the 200 meter zone. If a nest site is discovered during active project operations, operations will cease within 200 meters and CDFW will be consulted to provide guidance for protection of this species.

Sonoma Red Tree Vole (*Arborimus pomo*)
Listing Status: California Department of Fish and Wildlife 'Species of Special Concern'
Reported on CNDDB in project area: No
Range: Sonoma County north to Humboldt and western Trinity counties to the South Fork of the Smith River, Del Norte County.
Habitat: North Coast coniferous forest, old-growth and redwood habitats

The Sonoma red tree vole primarily inhabits coniferous forests dominated by Douglas-fir, but they also live where Douglas-fir co-occurs with other species. The species is most abundant in mature stands though can also inhabit pole and young stands (Thompson & Diller 2002). Arboreal voles that exhibit some terrestrial activity, nests are 2-65 m above the ground, in trees of any size, often in Douglas-fir, generally in the largest available trees. They feed almost exclusively on Douglas-fir needles, though will occasionally take needles of grand fir, hemlock or spruce. Commonly in the lower third of the live crown; several nests may be built in large; whorls of branches provide support for nests in young trees; large branches of old-growth trees can support large maternal nests or nurseries; nests are sometimes built in cavities and hollows in trees or under the moss covering large branches of old trees. There is likely red tree vole habitat within the project area but they were not observed during the biological field review. Any Sonoma red tree vole eating platforms or resin ducts observed during project activities will be recorded. Since no green trees are proposed for removal under this project, it should not cause a significant negative impact to this species.

Pacific Tailed Frog *(Ascaphus truei*)
Listing Status: California Department of Fish and Wildlife 'Species of Special Concern'
Reported on CNDDB in project area: No
Range: The range in California extends from Del Norte County south to central Sonoma County and eastward to Shasta and Tehama Counties.

Habitat: Occur in aquatic, Klamath and north coast flowing waters, lower montane coniferous forest, north coast coniferous forest, redwood and riparian forest habitats. The general habitats of this species are flowing waters in montane hardwood-conifer, redwood, Douglas-fir and ponderosa pine forests. They are restricted to perennial montane streams. In California, the range of this species is from sea level to approximately 6,500' above sea level. A rocky streambed is important in providing hiding places for larvae, sites for attaching eggs and cover for adults. Tadpoles require water below 15 °C. This species is mostly aquatic, though the adult is known to forage on land during cool and wet conditions. Stream

characteristics seem to be a better predictor of *A. truei* abundance than landscape characteristics (Bull and Carter 1996). This suggests the possibility that other factors of habitat suitability, such as water temperature, may be more important than forest age and observations of this species in suitable habitat in young growth stands corroborates this. This species has also been found in suitable habitat in the Turwar Creek drainage (tributary of the Klamath River) following intense fires which removed essentially all stream side vegetation and woody instream cover. It was also able to quickly reestablish itself on the treeless terrain created by the Mt. St. Helen eruption (Hawkins *et al.* 1988).
Presence of this species will be assumed in aquatic habitats within the project area. Tailed frogs are presumed to exist in the larger watercourses having substrates of consolidated parent material. Considering protection provided to watercourses and the project area in its entirety, it is reasonable to conclude that this project will not create a significant adverse impact to tailed frog populations.

Northern Spotted Owl (*Strix occidentalis caurina*)
Listing Status: State & Federally Threatened, California Department of Fish and Wildlife 'Species of Special Concern'
Reported on CNDDB in project area: Yes

Range: Northern California, Oregon, Washington and southern British Columbia.
Habitat: North Coast coniferous forest, old-growth and redwood habitats. Habitat: The northern spotted owl (NSO) is a medium to large raptor, which primarily preys on small mammals. Usually found in stands of larger multi-storied timber, they nest in large trees, snags and cliffs, and they often use abandoned raptor nests.
Requiring mature forest patches with permanent water and suitable nesting trees and snags (Zeiner 1990a), this species was initially believed to be old growth obligate. Post listing it became evident that NSOs that were common in younger forest types of northern California. In their seminal work, "Climate, habitat quality, and fitness in northern spotted owl populations in northwestern California" (2000), Franklin, Anderson, Burnham and Gutierrez suggested that a mosaic of older forest types interspersed with other vegetation types promoted the highest NSO fitness.

NSO habitat exists within and out to a 0.7-mile NSO radius surrounding the project area. CNDDB was run in preparation for this project area and out to a 0.7-mile radius.). There are no historic activity centers within 0.25 miles of project treatment areas. Based upon air photo review, most of the ACs burned during the Slater wildfire.
No NSO habitat will be degraded as a result of operations. There will be no reduction or nest/roost habitat from project activities. Pile burning operations will occur after the breeding season (post Aug. 1st). This project should not have a significant negative impact on nor result in take of northern spotted owls.

Pacific Fisher (*Pekania pennanti*) (Northern California Evolutionarily Significant Unit)
Listing Status: Federally Proposed Threatened, California Department of Fish and Wildlife 'Species of Special Concern'
Reported on CNDDB in project area: No
Range: The West Coast Distinct Population Segment includes the states of Washington, Oregon, and California. Fishers were reintroduced into the Olympic Peninsula of Washington in January & March of 2008.

Habitat: North Coast coniferous forest, old-growth and riparian forest habitats.
Fishers use large areas of primarily coniferous forest with fairly dense canopies and large trees, snags and down logs. The fisher dens in rotting logs, hollow trees, and rocky crevices of old growth forests.

They are specialized animals that frequently travel along waterways and rest in or on live trees, snags, or downed logs with cavities. These characteristics are usually only found in large tracts of old forests. Although fishers use a variety of protected cavities, brush piles, logs, or upturned trees, hollow logs, trees and snags are especially important (Zeiner *et al.* 1990b). Douglas-fir is the most common species used for resting in northern California, whereas the general oak species, white fir, and red fir are commonly used in the Sierra. The diameter of trees used by fishers for resting and denning is consistently large. Rest sites are widely distributed throughout fisher habitat. The average home range of fishers vary between coastal and Sierra populations. In addition, the home range for males is greater than females. In a Zielinski *et al.* (2004) study, home range size for the coastal population was estimated at 3,702 acres for females and 14,334 acres for males. The Sierra population home ranges were smaller with females at 1,286 acres and 7,408 acres for males. This study also found that there were no obvious differences between the sexes with respect to proportion of different size classes of trees within the home ranges. Average stand sizes of 11-24" in dbh with canopy closures 61-100% occupied the highest proportion of home ranges. For the coastal population, Douglas-fir and true fir were the most prevalent species. Sierra mixed conifer and ponderosa pine were the most prevalent species types for the Sierra Nevada study area. Resting structures were among the largest diameter trees available and resting site locations had high levels of canopy cover. Additionally, the Sierra Nevada study area resting sites were more frequently noted within 100 meters of water and with a hardwood component (Zielinski *et al.* 2004, Purcell *et al.* 2009, Zhao *et al.* 2012). Structural elements used by the fisher include; live tree cavities, broken tops, mistletoe platforms, large down logs, stumps and ground cavities. Other stand characteristics selected by fisher include high levels of canopy cover (>60%) and relative greater height and average diameter of the stand in relation to the surrounding areas (Zhao *et al.* 2012). Reportedly extirpated from 48% of its historical range, the California Department of Fish and Wildlife considers potential threats to the fisher to include timber harvest that excessively reduces late seral forest and/or does not retain late seral elements (California Department of Fish and Wildlife 2010). Rather than the range map provided by California Department of Fish and Wildlife this analysis utilizes CEQA appropriate fisher range map offered by CAL FIRE that more closely corresponds to expert opinion (Zielinski *et. al.* 2004). Fisher habitat exists within and adjacent to the project boundary, though no resting or denning structures were identified during the preparatory stages of this project. No large stature trees are to be removed for this project. This project should not have a significant negative impact on or result in take of Pacific fishers.

Pacific Marten (*Martes caurina***)** The subspecies of American marten that occurs on the Forest is the Humboldt marten (*Martes c. humboldtensis*). Humboldt martens utilize old growth Douglas fir stands on non-serpentine soils and late seral stage mixed-conifer (Douglas fir, sugar pine, western white pine and lodgepole pine) on serpentine soils (Slauson et al. 2007). Martens require a dense shrub layer (>60%) in both habitat types for foraging and concealment from predators. Dominant shrub layer species include: salal (Gaultheria shallon), evergreen huckleberry (*Vaccinium ovatum*), Pacific rhododendron (*Rhododendron macrophyllum*), huckleberry oak (*Quercus vaccinifolia*), and bush tanoak (*Lithocarpus densiflorus* var. *echinoides*) (Slauson and Zielinski, 2009). The current known distribution of the Pacific marten includes KNF.

Townsend's Big-eared Bat (*Corynorhinus townsendii***)** The Townsend's big-eared bat occurs in a variety of habitats, and is strongly correlated with the availability of caves or cave-like roosting habitat. It has been found from sea level to 8700 ft. elevation (Humphrey and Kunz 1976, Kunz and Martin 1982, Pierson and Rainey 1994) and occurs in xeric to mesic habitats; although throughout much of its range it occurs in mesic habitats characterized by deciduous and coniferous forests (Kunz and Martin 1982). The species tends to avoid open grassland when foraging and flying to and from roost sites. In coastal California, they prefer riparian habitats near streams and small tributaries, foraging along the edge of the

forest (Fellers and Pierson, 2002). The Townsend's big-eared bat occurs in a variety of habitats, and is strongly correlated with the availability of caves or cave-like roosting habitat. It has been found from sea level to 8700 ft. elevation and occurs in xeric to mesic habitats; although throughout much of its range it occurs in mesic habitats characterized by deciduous and coniferous forests. Because of this, it is difficult to define measurable habitat variables. The most limiting factor appears to be availability of suitable roost sites. Little is known on the species abundance and distribution, although potentially suitable roost sites exist within the project area. This species is known to roost in caves, mine shafts and abandoned buildings. There are no detections of this species in the project area. The project does not occur in suitable habitat for this species.

Pallid bat (*Antrozous pallidus***)** Pallid bats are most common in open, dry habitats near water that contain rocky areas for roosting. Occasional forays may be made in winter for food and water (Philpott 1997). Pallid bats are unusual in that most of their food consists of large insects captured on the ground (Verts and Carraway 1998). Open areas such as forest roads and canyon mouths are used for foraging. Day and night roosts include crevices in rocky outcrops and cliffs, caves, mines, trees (e.g., basal hollows of coast redwoods and giant sequoias, bole cavities of oaks, exfoliating Ponderosa pine and valley oak bark, deciduous trees in riparian areas, and fruit trees in orchards), and various human structures such as bridges (especially wooden and concrete girder designs), barns, porches, bat boxes, and human-occupied as well as vacant buildings (Sherwin & Rambaldini, 2005). Cavities in broken branches of black oak are very important and there is a strong association with black oak for roosting (Klamath National Forest 2002). Roosting sites are usually selected near the entrance to the roost in twilight rather than total darkness. The site must protect bats from high temperatures, as this species is intolerant of roosts in excess of 104 degrees Fahrenheit. Pallid bats are also very sensitive to roost site disturbance (Zeiner et al. 1990; Philpott 1997). Night roosts are usually more open sites and may include trees or snags, open buildings, porches, mines, caves, and under bridges (Philpott 1997; Klamath National Forest 2002; Pierson 1996). There are no detections of this species in the project area.

Western bumblebee (*Bombus occidentalis***)** The western bumblebee is a generalist forager and does not depend on any one flower type. Bombus occidentalis visits a wide variety of wildflowers. Since bumble bee colonies obtain all their nutrition from pollen and nectar, they need a constant supply of flowers in bloom. It performs “buzz pollination” and has been used as a commercial pollinator for greenhouse tomatoes, field berry crops, alfalfa, avocado, apples, cherries and almonds (Evans et al 2008). The Western bumble bee requires habitats with rich supplies of floral resources with continuous blooming from spring to autumn. Landscape level habitat quality has been shown to influence bumble bee species richness and abundance, indicating that isolated patches of habitat are not sufficient to fully support bumble bee populations (Hatfield and LeBuhn 2007; Öckinger and Smith 2007). Western bumble bees require open meadows with rich supplies of floral resources with continuous blooming from spring to autumn. Western bumble bees have been observed taking nectar from a variety of flowering plants. There is little information regarding the western bumblebee on the Forest. Until recently, the nearest confirmed detections were of two workers in 1997 in the Marbled Mountain Wilderness on Klamath National Forest. In September 2014, one, possibly 2, western bumble bees were detected on Route 1 near Horse Mountain on the Lower Trinity Ranger District. There are no known detections of this species in the project area.

Gray Wolf (*Canis lupus***)**
Listing Status: & State Endangered, federally delisted Jan. 4, 2021. Federally re-listed as endangered on 2-10-22.
Reported on CNDDB in Project area: No

Range: Historically throughout most of North America except southeastern U.S. Current range includes Canada, Alaska, the Great Lakes, northern Rockies and the Pacific Northwest.

Habitat: Habitat generalists, historically occupying diverse habitats including tundra, forests, grasslands and deserts. Primary habitat requirements are the presence of adequate ungulate prey, water and low human contact.

The gray wolf was listed as endangered under the California Endangered Species Act (CESA) by the California Fish and Game Commission on June 4, 2014. This species is also listed as a Species of Greatest Conservation Need in the State Wildlife Action Plan. The "take" of a gray wolf in the state is prohibited, including to hunt, pursue, catch, capture, or kill. This recovering species is in the early stages of establishing itself in California. Although historical abundance and distribution of gray wolves in California is poorly understood and reliable records are rare, wolves are considered to have occurred in the Sierra Nevada, southern Cascades, Modoc Plateau, and Klamath Mountains. Gray wolves are large (usually >100 lbs., about 5 ft. long, and 2.5 ft. at shoulder height) and highly mobile (movements of up to 30 miles/day) habitat generalists and are most likely to occur in areas with a significant prey base (ungulates) and low densities of humans. Given that gray wolves have been reestablished in southern Oregon and northern California, public and private timberlands and ranchlands in northern California are the most likely areas in which wolves may begin to become reestablished in California. On November 3, 2020, the United States Fish & Wildlife Service ("Service") published a final rule removing the gray wolf (*Canis lupus*) from the federal list of Endangered and Threatened Species in the lower 48 United States and Mexico. The rule took effect on January 4, 2021. Gray wolves were re-listed as federally endangered again on February 10, 2022.

Gray wolves have not been observed in or near the project area but habitat and prey base does potentially exist. If a gray wolf, or den/rendezvous site, is observed in the project area the protection measures include a protection buffer to 0.25 mile.

Western Pond Turtle (*Emys marmorata*)
Listing Status: California Department of Fish and Wildlife 'Species of Special Concern'
Reported on NDDB in project area: No
Habitat: Aquatic, artificial flowing water, Klamath and north coast flowing and standing water, marsh & swamp, Sacramento and San Joaquin flowing and standing waters, south coast flowing and standing waters, and wetland habitats. This species needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg laying.
The western pond turtle is a diurnal and aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6,000' elevation. This turtle is often seen basking above the water but will quickly slide into the water when it feels threatened. Active from around February to November; may be active during warm periods in winter. It hibernates underwater, often in the muddy bottom of a pool. The western pond turtle is in decline in 75 – 80% of its range (Stebbins 2003

Silver-haired bat- (*Lasionycteris noctivagans)*
Listing Status: California Department of Fish and Wildlife 'Species of Special Concern'
Reported on NDDB in project area: No, but in the quadrangles.

roosts in hollow trees, beneath exfoliating bark, abandoned woodpecker holes, and rarely under rocks. needs drinking water.

Yes near Happy Camp

Hooded lancetooth- (*Ancotrema voyanum)*
Listing Status: California Department of Fish and Wildlife 'Species of Special Concern'
Reported on NDDB in project area: No, but in the project quadrangles. All known occurrences are near streams or in draws(intermittent stream channel). needs permanent dampness. late successional conditions provide suitable habitat conditions.

Western ridged mussel- (Gonidea angulata)
Listing Status: California Department of Fish and Wildlife : no
Federal: no
Yes Indian Creek and tributaries.

Klamath River lamprey- *(Entosphenus similis)*
Listing Status: California Department of Fish and Wildlife : none'
Reported on NDDB in project area: Yes lower Indian Creek

Del Norte salamander- (*Plethodon elongatus)*
Listing Status: California Department of Fish and Wildlife 'Species of Special Concern'
Reported on NDDB in project area: No
Terrestrial, strongly associated with moist talus in humid shaded and closed-canopy coastal forests of mixed hardwoods and conifers, but also found in rock rubble of old riverbeds, and under bark and logs on forest floor, usually in rocky areas. Especially attracted to older forests.

Siskiyou Mountains salamander-*(Plethodon stormi)*
Listing Status: Federal: Threatened California Department of Fish and Wildlife 'Threatened'
Reported on NDDB in project area: Yes E. Fork Indian Creek 41.93699 / -123.41098

Wolverine- (*Gulo gulo)*
Listing Status: Federal: Threatened. California Department of Fish and Wildlife 'Threatened"'
Reported on NDDB in project area: No, but yes in the Deadman Point quadrangle. Needs water source. uses caves, logs, burrows for cover and den area. hunts in more open areas. can travel long distances. Detected in 1971 Deadman Point quadrangle on the KNF.

BMP Bio -1

Invasive plants removed shall be deposited on the edge of treated areas, out of the way of operations to avoid retrieval on equipment. Pile treated plants and burn where treated or if plant numbers are few, incorporate plant material into a nearby burn pile. Where operations cannot avoid yellow star-thistle infested areas, either manual treatment would be implemented prior to use, or as part of slash/fuels reduction operations, equipment would be used to blade plants away from work sites and cover with soil and 6 inches of weed free mulch.

BMP Bio-2
If any federal or state listed threatened or endangered plant species are detected in the project area that may be impacted by the project work, then all project related activities will immediately stop within that

area which will be flagged with a 50' "No Treatment Zone". All sightings will be documented using the California Natural Diversity DataBase (CNDDB) field survey form a copy of which will be submitted to the CNDDB. 50' avoidance buffers will be flagged for any observations of listed plant species.

BMP Bio-3

To avoid impacting nesting birds and/or raptors: All temporary flagging, fencing, trash, debris, and/or barriers will be removed from the project site upon completion of project activities.

BMP Bio-4

Habitat elements (nest trees, downed logs and woody debris, cavities and tree hollows, snags, large dead branches, etc.) that provide valuable habitat will be identified by an RPF or qualified biologist and retained.

BMP Bio-5

In order to protect any species covered by the Migratory Bird Treaty Act (MBTA), no fuels treatment work will occur between March 1st to August 31st , unless the following is implemented: 1. A survey is conducted by a biologist or a person with knowledge of, and ability to recognize, species protected by the MBTA and it is determined that there are no occupied nests within the proposed activity area. 2. If an occupied nest is found, then a biologist or a person with knowledge of, and ability to recognize, species protected by the MBTA will determine if the birds present are those protected by the MBTA. 3.

BMP Bio-8

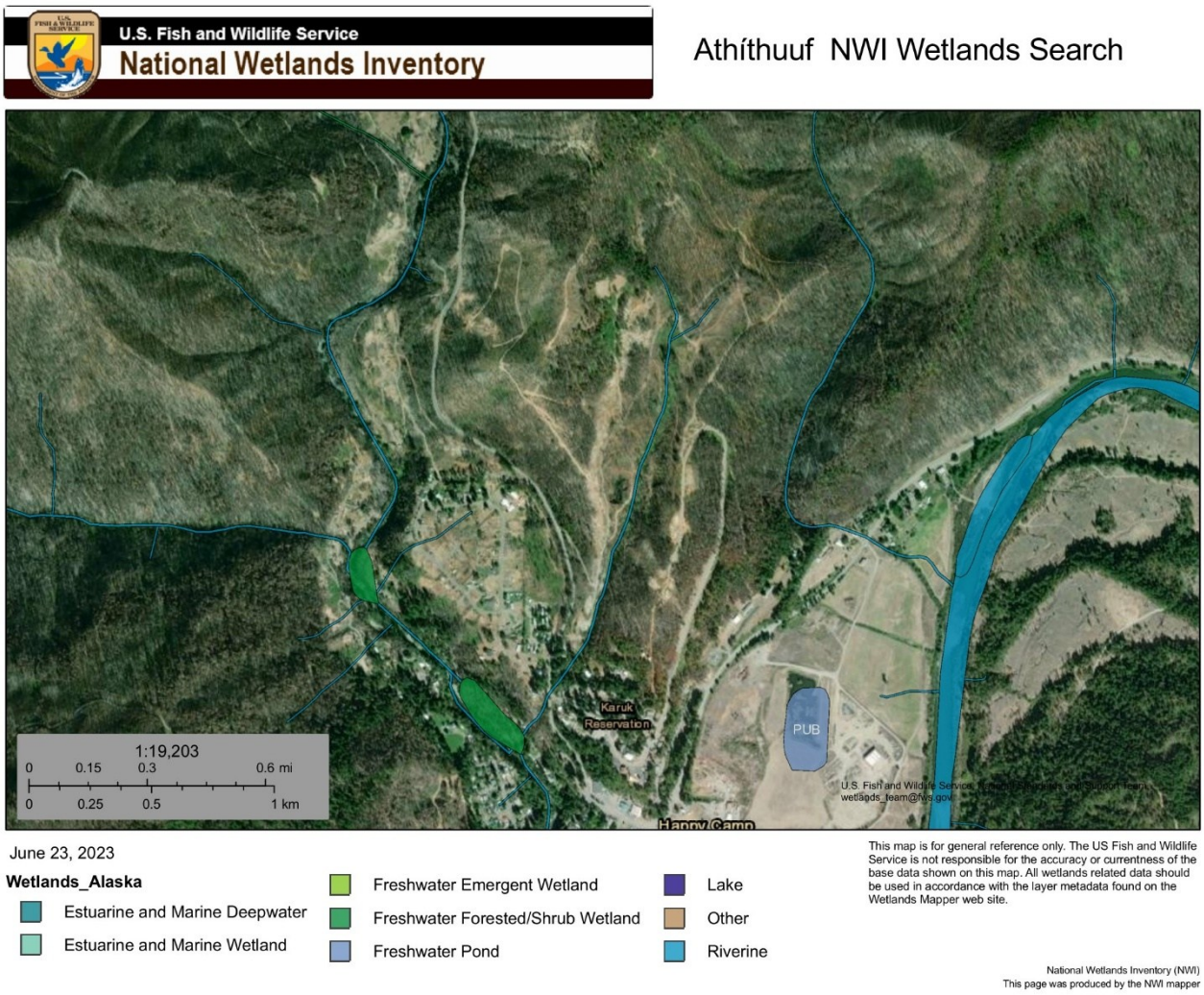
To avoid impacting nesting birds and/or raptors: All temporary flagging, fencing, trash, debris, and/or barriers will be removed from the project site upon completion of project activities.

BMP Bio-9

Habitat elements (nest trees, downed logs and woody debris, cavities and tree hollows, snags, large dead branches, etc.) that provide valuable habitat will be identified by an RPF or qualified biologist and retained.

BMP Bio-10

In order to protect any species covered by the Migratory Bird Treaty Act (MBTA), no fuels treatment work will occur between March 1st to August 31st , unless the following is implemented: 1. A survey is conducted by a biologist or a person with knowledge of, and ability to recognize, species protected by the MBTA and it is determined that there are no occupied nests within the proposed activity area. 2. If an occupied nest is found, then a biologist or a person with knowledge of, and ability to recognize, species protected by the MBTA will determine if the birds present are those protected by the MBTA. 3.



References:

California Department of Fish and Wildlife, Natural Diversity Database (CNDDB). 2024. *Rarefind 5* including the Northern Spotted Owl Observations Database accessed June 9, 2024 and January 14, 2025. https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data.

California Native Plant Society. 2025. Inventory of Rare and Endangered Plants of California (online edition, v9-01 1.5). Available: http://www.rareplants.cnps.org. Retrieved February 8, 2025.

USFWS Wetlands Mapper accessed 1-14-25

V. CULTURAL RESOURCES

V. Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
CULTURAL RESOURCES: Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5			X	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?				X
c) Disturb any human remains, including those interred outside of formal cemeteries?				X

Consistent with AB52, an updated Native American contact list was obtained from the Native American Heritage Commission (NAHC). On May 6, 2025, letters inviting the tribes to consult were emailed and mailed to the 7 tribal representatives indicated by NAHC. No responses have been received as of June 8, 2025. A May 6, 2025 search of NAHC's sacred lands database returned negative results.

The majority of the project area has been surveyed by the Karuk THPO Alex Tobin-Watts and sensitive sites have been located and mapped. Prior to any ground disturbing treatments, all areas will by surveyed by a qualified archeologist and sensitive sites will be buffered from forest health treatments..

- Work will be halted within a reasonable buffer if cultural materials are found during implementation. Examples would include ground stone, flaked or chipped stone, historic debris, building foundations, or non-human bone. A qualified archaeologist should be consulted to assess the discovery. Appropriate avoidance or mitigation measures should be reached in consultation with the Tribes that claim an interest in this site, as set out at 36 CFR 800.

- Should inadvertent effects to or unanticipated discoveries of human remains be made, the County Coroner [California Health and Safety Code 7050.5(b)] shall be notified immediately. If the remains are determined to be Native American, or if Native American (Indian) funerary objects, or items of cultural patrimony subject to NAGPRA are uncovered, the provisions of NAGPRA Section 3 [25 U.S.C. 3002 a-e] may apply, and its regulations at 43 CFR 10 and the provisions of ARPA at 43 CFR 7 shall be followed. No mitigations are necessary

BMP Cultural-1

All new and previously recorded archeological sites identified during field surveys completed in connection with the preparation of this IS and documented in the archeological report for the project shall be protected through following the protective measures contained in the project Archaeological Survey Report. Flagged 50' buffers shall be established around each artifacts or sites by the project manager prior to implementation of any project work. Within areas of ground or vegetation disturbing activities, if project

work appears to expose any previously unknown archeological, prehistoric, historic or paleontological resource sites within 100 feet beyond the project boundary, the site shall be avoided. Work may continue elsewhere within the overall project area. Exposed cultural or paleontological resources shall be appropriately flagged in order to immediately establish an exclusion buffer of at least 100-feet. In general, slash piles will be placed at least 50 feet from any archaeological features or artifacts.

BMP Cultural-2

Should human remains be inadvertently discovered during ground-disturbing activities, work at the discovery locale shall be halted immediately, CAL FIRE, the project manager, Siskiyou County Coroner, Native American Heritage Commission (NAHC), and the relevant Native American representative(s) shall be notified immediately, and the remains shall be treated in accordance with NAHC treatment and disposition requirements and relevant state law.

BMP Cultural-3

Prior to ground disturbing projects, project managers shall receive training on the location of cultural resources and measures necessary to protect them. Upon completion of project activities, markings designating the location of cultural resources shall be removed.

References:

2023 Cultural Resources report by Karuk THPO Alex Tobin-Watts
2008 Evans Archeological Survey Report Karuk Tribal Housing Authority

VI. Energy

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐

a) ***No Impact.*** Implementation of project activities would not result in the development or ongoing use of electricity or natural gas utility services. Therefore, project-level activities would result in no environmental impact due to wasteful, inefficient, or unnecessary consumption of electricity and natural gas resources. Forest resilience projects would require the use power equipment and would therefore result in the consumption of petroleum-based fuels. Additionally, project-level prescribed fire activities in the project area would require the use of small amounts of petroleum-based fuels for ignition, as well as for vehicles and support equipment.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

b) ***No Impact.*** Project-level activities proposed project would not increase the use of electricity or natural gas utilities and would result in only a minor increase in the consumption of petroleum-based fuels for vehicles and equipment. These activities would not conflict with or obstruct any renewable energy or energy efficiency plan. There would be no impact.

VII. GEOLOGY AND SOILS

VII. Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
GEOLOGY AND SOILS: Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				X
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				X
ii) Strong seismic ground shaking?				X
iii) Seismic-related ground failure, including liquefaction?				X
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?				X
c) Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?				X
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?				X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X

Site soil description:

Happy Camp Unit:

139—Holland-Aiken families association, 2 to 15 percent slopes.
Description of Holland Family
Setting

- Landform: Terraces
- Landform position (two-dimensional): Toeslope
- Landform position (three-dimensional): Tread
- Down-slope shape: Linear
- Across-slope shape: Concave
- Parent material: Residuum weathered from igneous and metamorphic rock

Typical profile

- H1 - 0 to 8 inches: gravelly loam
- H2 - 8 to 60 inches: gravelly clay loam

114—Clallam, deep-Goldridge, gravelly families association, 30 to 90 percent slopes.

Map Unit Composition
Clallam family, deep, and similar soils: 60 percent

- Goldridge family, gravelly, and similar soils: 20 percent
- Minor components: 20 percent

Description of Clallam Family, Deep

Typical profile

- H1 - 0 to 7 inches: very gravelly loam
- H2 - 7 to 30 inches: very gravelly clay loam
- H3 - 30 to 42 inches: very gravelly clay loam
- H4 - 42 to 46 inches: unweathered bedrock

Comer Unit:
De115—Clallam family, very deep-Riverwash association, 0 to 15 percent slopes.
Description of Riverwash

- Parent material: Residuum weathered from metamorphic rock

Setting

- Landform: Alluvial flats
- Landform position (two-dimensional): Toeslope
- Landform position (three-dimensional): Flat
- Down-slope shape: Concave
- Across-slope shape: Concave
- Parent material: Sandy and gravelly alluvium

Typical profile
H1 - 0 to 60 inches

a) i-iii There are no known earthquake faults as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist.

a) iv; b); c)- The CEQA project portion does not include any road construction, mechanical treatments or significant ground disturbance.

d) Based on site review the project will not impact expansive soil, as defined in Table 18-1-B of the Uniform Building Code.

e) The project site is not designated for use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

No mitigations are necessary

RCD
SHASTA VALLEY
RESOURCE CONSERVATION DISTRICT

ESTIMATED SURFACE SOIL EROSION HAZARD

I. SOIL FACTORS	FACTOR RATING BY AREA

	Shallow	Moderate	Deep			
	1”-19”	20”-39”	40”-60”(+)			
Rating	15-9	8-4	3-1	6	8	

C. PERCENT SURFACE COARSE FRAGMENTS GREATER THAN 2MM IN SIZE INCLUDING ROCKS OR STONES

	Low	Moderate	High				FACTOR RATING BY AREA		
	(-) 10-39%	40-70%	71-100%						
Rating	10-6	5-3	2-1	4	4		Comer	Happy Camp	
					SUBTOTAL		12	12	

II. SLOPE FACTOR

Slope	5-15%	16-30%	31-40%	41-50%	51-70%	71-80%(+)			
Rating	1-3	4-6	7-10	11-15	16-25	26-35	2	6	

III. PROTECTIVE VEGETATIVE COVER REMAINING AFTER DISTURBANCE

	Low	Moderate	High			
	0-40%	41-80%	81-100%			
Rating	15-8	7-4	3-1	7	7	

IV. TWO YEAR, ONE-HOUR RAINFALL INTENSITY (Hundredths Inch)

	Low	Moderate	High	Extreme			
	(-) 30-39	40-59	60-69	70-80 (+)			
Rating	1-3	4-7	8-11	12-15	10	10	
				TOTAL SUM OF FACTORS	31	35	

EROSION HAZARD RATING

	<50	50-65	66-75	>75			
	LOW (L)	MODERATE	HIGH (H)	EXTREME (E)			
				THE DETERMINATION IS	L	L	

BMP Geo-1

For the fuel treatment work adjacent to the existing road network, any newly-exposed soil of over 100 square feet in area will be mulched to minimize the potential for erosion. Hand water bars will be installed to divert water onto stable vegetation and away from watercourses, as needed. Verification of proper installation and sufficiency of both mulching and waterbars will be made by the project manager prior to and following the season's first precipitation event and recorded in the project file.

References:

NRCS Web Soil Survey Soil Survey Area: Siskiyou County, California, Central Part
Survey Area Data: Version 13, May 2025.

VIII. GREENHOUSE GAS EMISSIONS

VIII. Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	
GREENHOUSE GAS EMISSIONS: Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

a)- The project will not change land uses, create attractive uses to the area, or result in changes that could increase traffic, land use or other long term increases in greenhouse gas (GHG) sources.

The proposed project could result in short term increases of GHG emissions compared to a no action baseline condition. However, the no action baseline condition presumes no increase in GHG emissions and is not accurate as landowners are constantly burning, pruning or treating vegetation in the project area. Landowner mulching, burning, chipping or decomposition of post-fire burned material is impossible to calculate but it is assumed that it is less than the annual growth occurring in the project area conifer and oak woodland timber stands. The accumulation of fuels over time increases the risk of wildfire and associated GHG emissions from a future wild fire.

The short term increase in GHG release is not considered significant and if it contributes to high intensity fires or larger fires, it can significantly reduce GHG releases compared to high intensity fire in the same locations. The Project Description includes coordination and compliance with Air Board regulations for

timing of burns (refer to III. Air Quality above). The burn prescriptions will establish fuel moisture target ranges that will both avoid excessively wet or dry fuel moisture conditions. No mitigation is required for GHG emissions.

b)- Project activities would be temporary and minor, and therefore have minimal effects on AB 32 greenhouse gas emission reduction goals. As mentioned above, the proposed project would likely reduce long-term greenhouse gases region-wide from uncharacteristic large wildfire and therefore would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing reduce long-term greenhouse gases. The California Air Resources Board adopted a Climate Change Scoping Plan Update in 2017, which contains strategies for reducing GHGs. The scoping plan recognizes the role of California's natural and working lands in meeting California's reduction goals. One of the key sectors is forestry, where the emphasis is on preparing for increased wildfire hazards, including treatment of hazardous fuels, and improving forest management approaches in a changing climate (CNRA 2017). The scoping plan recognizes that some actions taken to address ecosystem health may result in temporary, short-term reduction in sequestration or emissions, but are necessary for forest resilience for reducing larger carbon losses due to wildfire. Additionally, the proposed project is consistent with the California Forest Carbon Plan (2018).

Siskiyou County and the Siskiyou County Air Pollution Control District currently do not have local plans, policies or regulations adopted to reduce GHG emissions. As a result, it is anticipated that the limited amount of greenhouse gas emissions generated through the development of this project will be sequestered along with those generated offsite by area traffic and other activities. Based upon a negligible contribution to overall emissions, consistency with adopted air quality regulations for vehicle emissions and the positive impacts the reduction of wild land fuels will have on forest sequestration of greenhouse gas emissions, it is anticipated that this project will have a **less than significant impact** on greenhouse gas emissions.

References:

Air Resources Board, Forest Restoration and Management Benefits Calculator Tool 2019

California Forest Carbon Plan, May 2018

Norgaard K.M., K. Vinyeta, L. Hillman, B. Tripp, and F. Lake. 2016. Karuk Tribe climate vulnerability assessment: assessing vulnerabilities from the increased frequency of high severity fire. Karuk Tribe Department of Natural Resources, Orleans, CA.

RCD
SHASTA VALLEY
RESOURCE CONSERVATION DISTRICT

IX. HAZARDS AND HAZARDOUS MATERIALS

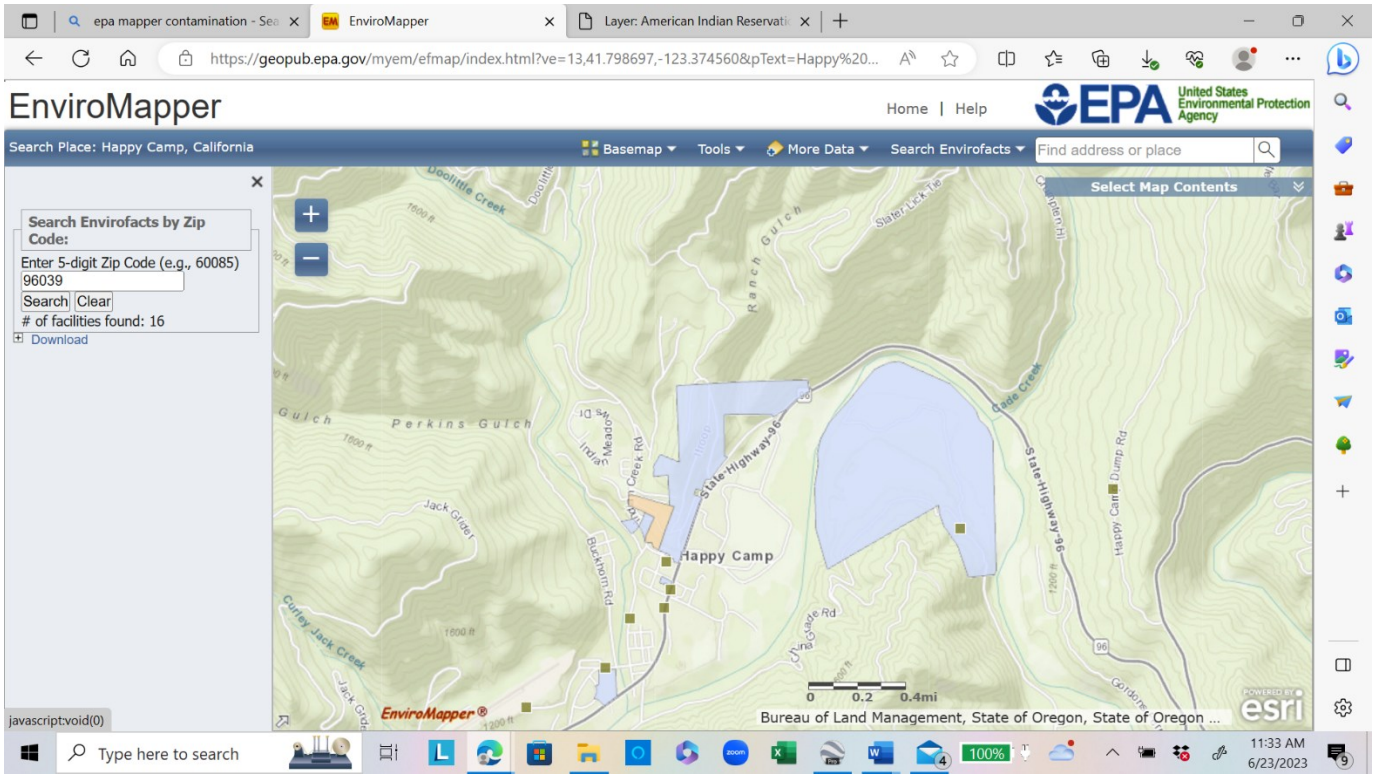
IX. Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
HAZARDS AND HAZARDOUS MATERIALS: Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				X
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				X
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
g) Expose people or structures, either directly or indirectly to a significant risk of loss, injury or death involving wildland fires.				x

a) &b)_- The project will not alter land uses or generate uses that would result in the routine transport or disposal of hazardous materials.
c) and e)- The project is not within a quarter mile radius of an existing or planned school nor within two miles of an airport or private airstrip. The project air quality requirements and permitted burn day restrictions will preclude burning during inversion periods or when winds will direct smoke towards the community of Weed. Other than wildland smoke, the project will not pose a safety hazard or emit hazardous emissions or hazardous materials, substances, or waste within a quarter mile of a school.

d)- The project site is not on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Searches for hazardous materials were performed utilizing the Department of Toxic

Substances Control (DTSC) Cortese List, as well as DTSC EnviroStor web search. Based upon records searches, there are no known hazardous waste sites identified within the proposed project area
g)- The project will not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

h)- The project specifically is designed to reduce the risk to people and structures from a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. Prescribed burning reduces fuel loading and wildfire risks in order to protect communities, homes and lives. With proper planning, in the right conditions during a safe burn window at strategic locations, prescribed burns are an effective tool.
No mitigations are necessary.



References:

CalEPA Regulated Site Portal- searched 2-25-2025
EnviroStor- Department of Toxic Substances Control's data management system- Searched: April 6, 2025

California Environmental Protection Agency. 2025. Cortese List Database. Available: https://calepa.ca.gov/wp-content/uploads/sites/6/2016/10/SiteCleanup-CorteseList-CurrentList.pdf. Accessed August 8, 2024.

RCD
SHASTA VALLEY
RESOURCE CONSERVATION DISTRICT

X. HYDROLOGY AND WATER QUALITY

X. Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
HYDROLOGY AND WATER QUALITY: Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?				X
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.				X
c) Substantially alter the existing drainage pattern of the site or area, including through stream or river or through the addition of impervious surfaces in a manner which would:				X
i) result in substantial erosion or siltation onsite or offsite?				
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;				X
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or				X
iv) impede or redirect flood flows?				X
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				X

a) ***Less than Significant Impact.*** The project proponent will comply with all applicable water quality requirements adopted by the appropriate Regional Water Quality Control Board and approved by the SWRCB (i.e., Basin Plan). In general, GWDR and waivers of waste discharge requirements for fuel reduction and forest health activities require that wastes, including but not limited to petroleum products, soil, silt, sand, clay, rock, felled trees, slash, sawdust, bark, ash, and pesticides must not be discharged to surface waters or placed where it may be carried into surface waters; and that water board staff must be allowed reasonable access to the property in order to determine compliance with the waiver conditions.

Through the implementation of the project as described, project BMPs, and permit requirements from the Regional Water Quality Control Board that require that no significant sediment discharge occur from project activities and because the project will not generate or discharge wastewater or industrial flows to

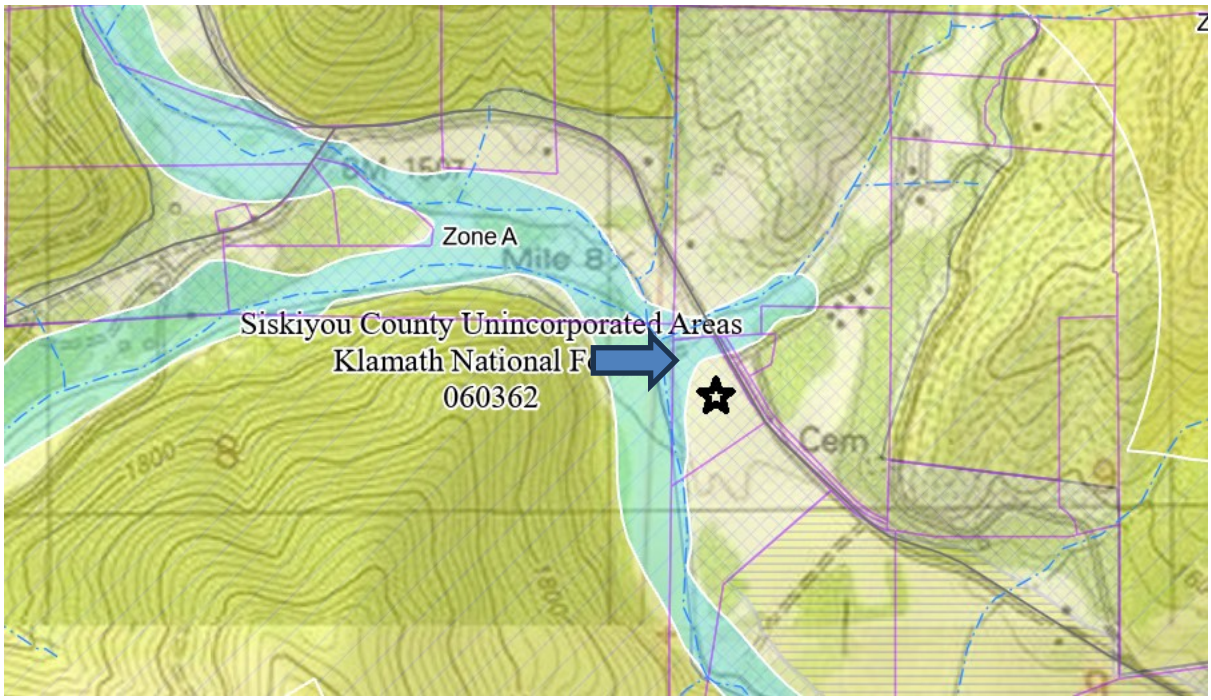
wetlands, creeks or waters of the US, the project will not violate any water quality standards or waste discharge requirements and therefore impacts will be less than significant to surface or groundwater quality.

a), c)-f)- The hydrologic function most vulnerable to the Proposed Action is quality of streamflow. Proximity of ground disturbance to stream buffers in an important factor controlling sediment delivery. There are no streams within the project area.

Elevated water temperatures are common water quality concerns in the Shasta and Klamath River basins. Solar radiation is the most important source of radiant energy affecting stream temperatures. Shading from overstory vegetation along the stream channel has a significant effect on temperature. A study conducted in western Oregon (comparable vegetation types and geology as in the project area) of thinning treatments and the effects on stream temperature showed that thinning in primary shade zones (area adjacent to stream channels that provides stream shade during periods of greatest solar loading) along 6 miles of stream led to a 4 degree (F) increase in temperature (NWFP Temperature TMDL Implementation Strategy 2010). In dense riparian areas such as in the project area, optimum shade can be provided by the primary shade zone alone (ibid). Near-stream vegetation and topographic features often shade the entire channel in such settings (Janische et al. 2012). Water temperatures in headwater streams are also strongly influenced by in-channel substrate (ibid). Neither of these factors would be affected managing vegetation within stream buffers.
b- Proposed fire killed biomass removal have limited impact on canopy closure and do not create significant ground disturbance near stream buffers that could lead to off-site sedimentation

The project will not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of preexisting nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).

g)-j)- The Happy Camp Unit is not within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map. The Comer Unit has a small portion that is mapped by FEMA as within the 100 year flood zone A. This small area included the access road. No site grading, fill or drainage alterations will occur with the proposed vegetation treatments. The project will not increase the risk to people or structures from loss, injury or death involving flooding. The project sites are not within mapped seiche, tsunami or mudflow zones. No mitigations are necessary



Comer Unit has small area mapped as FEMA Flood Zone A near the confluence of the E. Fork of Indian Creek and the mainstem Indian Creek..

BMP Hydro-1

- Tractor or heavy equipment (masticators) operation will not be conducted on known slides or unstable areas.
- Heavy equipment will not be used within the standard watercourse and lake protection zones (14 CCR 916.9).
- Equipment maintenance and refueling will occur outside the standard watercourse and lake protection zones (14 CCR 914.5).
- Heavy equipment operations will not be conducted on slopes greater than 50%.
- Ignition will occur outside of the standard Forest Practice Rule defined Watercourse and Lake Protection Zone (14 CCR 916.9).

BMP Hydro-2

The project manager will select refueling and maintenance areas for heavy equipment, chainsaws and other combustion-powered hand tools on flat sites that are away from dry or wet waterways as well as areas that could potentially flow into a stream in the event of an accidental spill. Fuel containment equipment (i.e., absorbent sheets and waddles) will be made available and used at refueling and maintenance areas. Fuel spillage will be minimized by conducting these operations in flat areas. Equipment will be stored and maintained within properly cleared areas. The project manager will inspect refueling areas to assure compliance with this BMP. These inspections will also verify the sites' adequacy in protecting riparian and terrestrial resources as well as the use and availability of containment equipment.

BMP Hydro-3

Hand piles should be placed in a checkerboard pattern whenever possible (not piled directly above one another), located outside of areas that may receive runoff from nearby roads and existing landings.

XI. LAND USE AND PLANNING

XI. Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
LAND USE AND PLANNING: Would the project:				
a) Physically divide an established community?				X
b) Cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				X

a)-c)- The project does not change circulation patterns or divide a community. The county does not have a habitat conservation plan or natural community conservation plan.

XII. MINERAL RESOURCES

XII. Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
MINERAL RESOURCES: Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

a & b) ***No Impact.*** There are no known valuable or locally-important mineral resources on the site. The Division of Mines and Geology has noted that the 'Classification and Designation of Mineral Lands' per Surface Mining and Reclamation Act Section 2790. 'Minerals of Regional Significance' and associated mapping has not occurred for Siskiyou County and other than in-stream gravel resources and rock quarries, have not identified any mineral resources needing protection from incompatible land uses.

Therefore the project will not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. Based on the project description and its location, the proposed project will not result in any mineral resource-related impacts.

a)-b)- The project will not impact mineral resource that would be of value to the region and the residents of the state or result in the loss of availability of locally-important mineral resource sites delineated in the General Plan, Specific Plan or other adopted land use plan.

XIII. NOISE

XIII. Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
NOISE: Would the project:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				X
b) Generation of excessive ground borne noise levels?				X
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X

a)-f)- **.** The project area(s) are located in remote forested areas with low background or ambient noise levels. The project site is not located near any noise (including ground borne vibration) receptors (homes, schools, airports, etc.) and short time frame of the operation and use of vehicles, fire engines, chainsaws and firefighting equipment is consistent with firewood cutting, mowing, logging, forestry and agricultural equipment used in the area. The project will not alter the ambient noise. The project is a short duration time frame and will not result in permanent increases in ambient noise levels.

XIII. POPULATION AND HOUSING

XIV. Issues and Supporting Information	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
POPULATION AND HOUSING: Would the project:				

a) Induce substantial population growth in the area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

a)-c)- The project will not affect residential or other community growth activities. The not change the road width, capacity or reduce traveling time. It will not induce population growth in an area, either directly or indirectly.

XV. PUBLIC SERVICES

XV. Issues and Supporting Information	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
PUBLIC SERVICES: Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a) Fire protection?				X
b) Police protection?				X
c) Schools?				X
d) Parks?				X
e) Other public facilities?				X

a-e) ***No Impact.*** The primary purpose of the proposed project is to reduce fire hazards and improve terrestrial habitat. It will not result in an increase in population that requires an increase in service ratios, response times or other performance objectives for any of the public services. Therefore, it will not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts. Service ratios, response times and other public service performance objectives will not change due to the implementation of this project.

XVI. RECREATION

XVI. Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

a-b) ***No Impact.*** The primary purpose of the proposed project is to restore forest habitat and reduce fire hazards. The proposed project will not induce population growth or result in any demographic changes in the community. The project will not increase the use of existing neighborhood and regional parks or other recreational facilities, therefore there would be no impact on recreation. The project does not require the construction or expansion of existing recreational facilities. The proposed project does not include the construction of recreational facilities. The project area is not a recreational attraction and it will not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

XVII. TRANSPORTATION/TRAFFIC

XVII. Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
TRANSPORTATION: Would the project:				
a) Conflict with a program , ordinance or policy addressing the circulation system including transit, roadway, bicycle and pedestrian facilities?.			X	
b) Would the project conflict of be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)? Criteria for Analyzing Transportation Impacts				X
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
d) Result in inadequate emergency access?				X

a) ***No Impact.*** As the project is of short-term duration, the project will not cause a long-term increase in vehicle trips or cause a significant long term increase in traffic, or conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system. The project will not conflict with any policies, plans or programs regarding public transit, bicycle or pedestrian facilities, as it only involves forest fuel treatment and habitat enhancement. The project will not

result in substantial adverse physical impacts or require expansion of police protection, schools, parks, fire or other public facilities. The project should reduce wildfire potential over the long run, reducing impacts to local fire departments. The project does not affect the road capacity, air traffic patterns, or increase hazards due to a design feature. The project will not change the road surface widths or grades and will not alter existing public transit, bicycle, or pedestrian facilities or decrease the performance or safety of such facilities

b) **No Impact**-The project is of relative short duration and will not cause a permanent transportation impact in terms of vehicle miles travelled compared to the baseline situation.
Therefore impacts to transportation and traffic are expected to be less than significant. There are no impacted roads with limited levels of service or problematic travel demand measures.
c) **No Impact** Hazards will not be increased due to design features or incompatible uses because no new development is proposed.

*d) **No Impact.*** The contractors and crews are required to keep access roads open at all times for emergency access. No impacts to emergency access will result.

XVIII. UTILITIES AND SERVICE SYSTEMS

XVIII. **Issues and Supporting Information**	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
UTILITIES AND SERVICE SYSTEMS: Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities the construction or relocation of which could cause significant environmental effects?				X
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?				X
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?				X
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				X

a) ***No Impact.*** rd. The project will not require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas or telecommunications facilities the construction or relocation of which could cause significant environmental effects.

b) ***No Impact.*** The project involves habitat restoration and enhancement The project has sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years Therefore no impact is expected.

c.) ***No Impact.*** A habitat restoration and enhancement project would not create an increased demand for wastewater treatment capacity; therefore, no new construction of wastewater treatment facilities would be required.

d-e.) ***No impact*** - The project will not affect wastewater, stormwater, water treatment, or solid waste facilities or change demand for such services.

XIX. TRIBAL CULTURAL RESOURCES

XIX. **Issues and Supporting Information**	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
TRIBAL CULTURAL RESOURCES				
Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or				X
b). A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.				X

a) ***No Impact.*** There are no known tribal cultural resources located on the project site that are either listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resource Code section 5020.1(k). Therefore, there will be no impact. In the event that any Native American archaeological remains are discovered during implementation of management activities, local tribes will be contacted and consulted who have traditional and cultural affiliation with the Project area. If the tribe(s) considers the resource to be a tribal resource, appropriate mitigation measures will be developed in accordance with Public Resources Code 21080.3.2.

BMP Tribal-1

In the event that any Native American archaeological remains are discovered during implementation of management activities, local tribes will be contacted and consulted who have traditional and cultural affiliation with the Project area. If the tribe(s) considers the resource to be a tribal resource, appropriate mitigation measures will be developed in accordance with Public Resources Code 21080.3.2.

References:

2023 Cultural Resources report by Karuk THPO Alex Tobin-Watts
Evans Environmental -Archeological Report 2008 -Karuk Tribal Housing Authority

XX. WILDFIRE

a)	If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?	Potentially Significant Impact ☐	Less Than Significant with Mitigation Incorporated ☐	Less Than Significant Impact ☐	No Impact ☒
b)	If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	Potentially Significant Impact ☐	Less Than Significant with Mitigation Incorporated ☐	Less Than Significant Impact ☐	No Impact ☒
c)	If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	Potentially Significant Impact ☐	Less Than Significant with Mitigation Incorporated ☐	Less Than Significant Impact ☐	No Impact ☒

d)	If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	Potentially Significant Impact ☐	Less Than Significant with Mitigation Incorporated ☐	Less Than Significant Impact ☐	No Impact ☒

The project is located in the State Responsibility Area and is rated as having high fire hazard severity. Policy documents and plans for addressing wildfire risks in Siskiyou County include the Siskiyou County Hazard Mitigation Plan, the Siskiyou County Community Wildfire Protection Plan (2019), and Strategic Fire Plan for the Siskiyou Unit (CAL FIRE 2010). The site's setting amid mature trees and forest understory provides a setting conducive to the ignition and spread of a wildland fire if appropriate measures are not taken during work. Chapter 26 of the California Fire Code (California Code of Regulations, Title 24, Part 9) establishes provisions for safety and care during construction activities defined as hot work. In brief, the code requires that specific measures be taken during construction to minimize the potential ignition of a wildland fire in areas susceptible to such events, which include the project site and surrounding lands. Personnel carrying out the prescribed burns will be highly trained with prescribed burning and wildland firefighting and will take all safety precautions necessary to avoid an escaped fire. Site watering and adherence to the California Fire Code will ensure that the proposed project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.
Personnel carrying out prescribed burns will be highly trained with prescribed burning and wildland firefighting and will take all safety precautions necessary to avoid an escaped fire. Site watering and adherence to the California Fire Code will ensure that the proposed project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

a) ***No Impact.*** The proposed project would not require the closure of public roadways or otherwise interfere with emergency evacuation plans for the surrounding area. Treatment activities could result in temporary road closures within the project boundaries but would not impact roadways outside of the project area. Prescribed burning could lead to increased smoke on nearby roadways and temporarily decreased visibility. However, smoke would be carefully managed in accordance with an approved smoke management plan and measures such as public notification of burn days and smoke warning signage would be implemented. These activities could cause a slight increase in vehicle use during project activities and potential short-term reduced visibility from prescribed fire but would not impair emergency response plans or evacuation plans. Therefore, there would be no impact on emergency response or evacuation plans.

b) **No Impact**. The project is designed to reduce fire hazard severity and impacts associated with wildfire. Therefore the project is not likely to exacerbate wildfire risks, and expose people to pollutant concentrations from a wildfire. No new housing units or business will be constructed under this project. Therefore, no impact should result of implementation of the proposed project. The proposed project would not require the closure of public roadways or otherwise interfere with emergency evacuation plans for the surrounding area. Fuel break work and prescribed fire treatment activities would not impact roadways outside of the project area. Prescribed burning could lead to increased smoke on nearby roadways and temporarily decreased visibility. However, smoke would be carefully managed in accordance with an approved smoke management plan and measures such as public notification of burn

days and smoke warning signage would be implemented. These activities could cause a slight increase in vehicle use during construction activities and potential short-term reduced visibility from prescribed fire but would not impair emergency response plans or evacuation plans. Therefore, there would be no impact on emergency response or evacuation plans.

c) ***No Impact.*** The project will not require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities that may exacerbate fire risk. Therefore no impact should result of implementation of the proposed project.

d) ***No Impact.*** The project is designed to in part, reduce fire hazard severity and impacts associated with wildfire. No immediate downslope or downstream structures or infrastructure exists for the project area and no downslope or downstream flooding or landslides should result from project activities.

References:
CAL FIRE FRAP Fire Severity Hazard Maps
2019 Siskiyou Community Wildfire protection Plan
2010 CAL FIRE Siskiyou Unit Strategic Fire Plan

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

XXI. **Issues and Supporting Information**	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
MANDATORY FINDINGS OF SIGNIFICANCE:				
a) Does the project have the potential to substantially 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, substantially 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?				X
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 probable future projects)?				X

XXI. Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

Certain mandatory findings of significance must be made to comply with CEQA Guidelines §15065. The proposed project has been analyzed, and it has been determined that with implementation of the project and adherence to the project description , BMP's and any required agency permits, the project would not:

- Substantially degrade environmental quality.
- Substantially reduce fish or wildlife habitat.
- Cause a fish or wildlife population to fall below self-sustaining levels.
- Threaten to eliminate a plant or animal community.
- Reduce the numbers or range of a rare, threatened, or endangered species.
- Eliminate important examples of the major periods of California history or pre-history.
- Achieve short term goals to the disadvantage of long term goals.
- Have environmental effects that will directly or indirectly cause substantial adverse effects on human beings.
- Have possible environmental effects that are individually limited but cumulatively considerable when viewed in connection with past, current, and reasonably anticipated future projects.

a) ***Less than Significant Impact.*** The project is a forest health and habitat improvement project designed to benefit upland forest resilience. It will result in a long-term benefit to terrestrial carbon storage and forest upland species by improving habitat. Through the implementation of the project as described and using applicable Best Management Practices BMP's), the project will have a less than significant impact. Through avoidance, minimization and BMP's, the project will not 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, or eliminate important examples of the major periods of California history or prehistory.

b) ***Less than Significant Impact.*** The incremental effects of a project are cumulatively considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. Implementation of forest health treatments under the proposed action will lead to an improvement in the health of the forest landscape in the general vicinity of the project area. Forest health treatments and fuels reduction activities will result in reduced wildfire activity which will reduce the risk of fire across the landscape. No Impact: The project will not have impacts that are individually limited, but cumulatively considerable.

The project will not incrementally contribute to future population growth and development in the area as it does not result in a change in land use or zoning or involve development of any habitable structures or initiation of new uses. Many of the items reviewed as part of this initial study would result in no impact or were considered to have less than significant impacts, and where appropriate, findings were made with reference made to prevent cumulative impacts resulting from individual projects.

c) ***Less than Significant Impact***. The proposed project would not displace existing residents or employees, generate substantial pollution, or generate a substantial demand for public services or utilities. With implementation of BMPs, the project activities proposed in this remote area project do not have the potential to, either directly or indirectly, cause a substantial adverse effect on human beings. The project area is very remote and given the low intensity nature of project work, no direct or indirect impacts to human beings are anticipated.

(a) Does the project have the potential to substantially 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, substantially 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?

The project is a restoration and habitat improvement project designed to benefit aquatic habitat and upland forest resilience. It will result in a long term benefit to terrestrial carbon storage, fish, amphibians, and forest upland species by improving habitat. Through avoidance, minimization and BMPs, the project will not 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, 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 probable future projects)?
The incremental effects of a project are cumulatively considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. Implementation of forest health treatments under the proposed action will lead to an improvement in the health of the forest landscape in the general vicinity of the project area. Forest health treatments and fuels reduction activities, combined with similar efforts being planned and implemented on adjacent private lands, will result in reduced wildfire activity which will reduce the risk of fire across the landscape. No Impact: The project will not have impacts that are individually limited, but cumulatively considerable.

Preparers:

Karuk Tribe
Annalisa Tripp-Deputy Director Natural Resources
Alex Watt-Tobin- Karuk Tribal Historic Preservation Officer & Archologist
Heather Rickard- Biologist
William Bruce- GIS

BBW & Associates
Mark Andre, RPF #2391
Mark Lancaster, RPF # 2462

Shasta Valley Resource Conservation District

Dan Blessing -Forester

Appendix B. Field Survey Plant lists

. Native plants at Comer Property in woodland unit

Stratum	Latin Name	Common Name	% cover
Tree	*Thuja plicata*	Western red cedar (snag)	<1
Tree	*Arbutus menziesii*	Pacific madrone (snag)	1-5
Tree	*Quercus alba*	White oak (snag)	1-5
Tree	*Quercus kellogii*	CA Black oak (snag)	1-5
Tree	*Pinus ponderosa*	Ponderosa pine (snag)	<1
Tree	*Pseudotsuga menzeisii*	Douglas fir (snag)	1-5
Tree	*Acer macrophyllum*	Big leaf maple	1-5
Tree	*Cornus nuttallii*	Dogwood	<1
Tree	*Notholithocarpus densiflorus*	Tanoak	<1
Tree	*Chrysolepis chrysophylla*	Giant chinquapin	<1
Shrub	*Prunus subcordata*	Klamath plum	<1
Shrub	*Toxicodendron pubescens*	Poison oak	5-15
Shrub	*Corylus cornuta*	Hazel	25-50
Shrub	*Ceanothus spp.*	Ceanothus	50-75
Shrub	*Ribes spp.*	Gooseberry	<1
Shrub	*Arctostaphylos spp.*	White leaf manzanita	1-5
Shrub	*Rubus ursinus*	Trailing blackberry	1-5
Shrub	*Mahonia aquifolium*	Oregon grape	5-15
Herb	*Anaphalis margaritacea*	Pearly everlasting	1-5
Herb	*Chamaenerion angustifolium*	Fireweed	50-75
Herb	*Pteridium aquilinum*	Bracken fern	<1
Herb	*Whipplea modesta*	Whipplea	<1
Herb	*Juncus (soft rush = effuses?)*	Rush	5-15

Table 1. Invasive plants in meadow portion of Comer property. Cal-IPC rating meanings: high = severe ecological impacts on physical processes, plant and animal communities, and vegetation structure; moderate = substantial and apparent ecological impacts, but not severe; limited = invasive but ecological impacts are minor on a statewide level or not enough information to justify higher score[3].

Latin Name	Common Name	% Cover	Noxious plant rank
Hypericum perforatum	St. John's Wort	1-5	Watch
Isatis tinctoria	Dyer's woad	1-5	Moderate
Rubus armeniacus	Himalayan Blackberry	25-50	High

[3] https://www.cal-ipc.org/plants/inventory/about-the-inventory/#:~:text=The%20California%20Invasive%20Plant%20Inventory,plant%20experts%20in%20the%20state.

Trifolium hirtum	Rose clover	50-75	Limited
Lathyrus latifolius	Perennial sweet pea	25-50	Watch
Senecio vulgaris	Groundsel	5-15	N/A
Cirsium vulgare	Bull thistle	1-5	Moderate
Avena fatua	Wild oats	50-75	Moderate
Rumex acetosella	Sheep sorrel	5-15	Moderate

Native plants found at the Itrôop Parcel in the wet meadow

Stratum	**Latin Name**	**Common Name**	**% cover**
Tree	*Quercus kellogii*	Black oak (snag)	<1
Tree	*Pseudotsuga menzeisii*	Douglas fir (snag)	<1
Sapling	*Quercus alba*	White oak	1-5
Sapling	*Arbutus menzeisii*	Madrone	<1
Seedling	*Manzanita canescens*	Manzanita	<1
Shrub	*Salix laevigata*	Red willow	25-50
Shrub	*Corylus cornuta*	Hazel	1-5
Shrub	*Ceanothus intergerrimus*	Ceanothus/deer brush	5-15
Shrub	*Rosa californica*	CA rose	<1
Shrub	*Rubus ursinus*	CA blackberry	1-5
Shrub	*Lonicera hispidula*	Honeysuckle	<1
Herb	*Juncus (soft rush = effuses?)*	Rush	5-15
Herb	*Typha latifolia*	Broadleaf cattail	1-5
Herb	*Pteridium aquilinum*	Western brackenfern	5-15
Herb	*Anaphalis margaritacea*	Pearly everlasting	<1
Herb	*Iris tenax (spp. Klamathensis)*	Iris	1-5
Herb	*Artemisia douglasiana*	Mugwort	1-5
Herb	*Achillea millefolium*	Common Yarrow	<1
Herb	*Bromus carinatus*	CA brome	<1
Herb	*Chamerion angustifolium*	Fireweed	5-15

Invasive plant species at the Itrôop parcel.

Latin Name	**Common Name**	**% Cover**	**Cal-IPC Rating**
Cytisus scoparius	Scotch broom	15-25	High
Trifolium hirtum	Rose clover	5-15	Limited
Rubus armeniacus	Himalayan Blackberry	15-25	High
Cichorium intybus	Chicory	1-5	N/A
Hypericum perforatum	St John's wort	1-5	Watch
Senecio vulgaris	Groundsel	1-5	N/A

Centaurea jacea spp. prantensis	Meadow knapweed	15-25	Moderate
Lathyrus latifolius	Perennial sweet pea	1-5	Watch
Verbascum thapsus	Woolly mullein	<1	Limited
Avena fatua	Wild oats	1-5	Moderate
Daucus carota	Queen Anne's lace	5-15	N/A
Cirsium vulgare	Bull thistle	5-15	Moderate
Centaurea solstitialis	Starthistle	1-5	High

SHASTA VALLEY RESOURCE CONSERVATION DISTRICT
Athithuuf: Slater Fire Restoration Project

CEQA INITIAL STUDY

Best Management Practices for Prescribed Fire Appendix A Continued

Athithuuf: Slater Fire Restoration Project
PROJECT DESCRIPTION

The project encompasses approximately _37__ acres of treatments on Tribal fee lands (within a mix of public and private lands in Siskiyou County. The project site is located in northcentral Siskiyou County.

The 37 acre Athithuuf: Slater Fire Restoration Project (referred to as "Project") area consists of: 4 acres of open grassy meadow and 33 acres of upland burned over mixed conifer 4M[4] stands. The project site is located in the S½ of the SE¼ of Section 24, T41N, R5W, MDB&M and is approximately 2 miles south of Happy Camp, Siskiyou County, California and ~ ¼ mile north of Highway 96 and adjacent to Indian Creek Road. The Happy Camp Unit is accessed Highway 96. The "Comer" unit is accessed from Indian Creek Road.

The project is located in [Klamath Mixed Conifer-KMC habitat type]. The project treatments analyzed in the CEQA Initial Study for this project consists of the following fuels reduction treatments:

The following definitions of prescribe fire terms and actions are specific to Prescribed Burn Activities. While the same practices and techniques are used in wildland fire suppression and prescribe fire burning, the pace and scale of measures can be significantly different. The ability to determine the point of origin, timing

[4] (CDFW WHR, 1980)

and pace and scale of prescribe fire means that impacts of line construction, extent of vegetation clearing, snag removal and many other factors can be controlled. Pre-fire planning can allow for identification of resources at risk and application of best management practices to protect and prevent impacts to resources: Conversely, wildland fire often requires greater width of control lines, more water applications, greater snag management and less protection of resources.

Manual Fireline are approximately 2-footwide scrapes down to mineral soil. Manual fire line is the actual ground disturbance, but this scrape is supported with a 4-10-foot-wide brush cut. The cut brush is typically moved to the green (non-burn) side of the line. Fire lines are more of a temporary feature designed and located to support planned ignitions. Manual fire lines may include waterbars to deflect water out of the scrape depending on the slope steepness.

Mechanical Fireline are approximately 6'-10' wide in prescribed burn areas and are machine scrapes to mineral soil for the width of the scrape. Prescribed fire lines are pre-planned and are site reviewed for environmental and cultural resources prior to construction. Where critical resources are at risk fire lines can be relocated to protect them. Mechanical fire lines in prescribed burns can be very narrow compared to a mechanical fire line installed during a wildland fire. A prescribed fire line can be narrower because the timing, intensity, and location of the fire are coordinated with periods of lower burn intensity compared to wildland fire burning. A prescribed fire uses the fireline as a starting point for ignition so flame length and intensity are greatly reduced compared to a wildland fireline. Which is intended to be sufficiently sized to end the ignition and often under intense burn conditions.

Mechanical firelines have waterbars installed at the appropriate spacing, dependent on slope steepness, to prevent erosion and subsequent sedimentation during the rainy season.

Fuelbreaks are modified forest and shrub stands, typically 50'-600'+ wide. Treatments within fuelbreaks consist of pruning/thinning of ladder fuels and opening forest canopies. Fuelbreaks break up the continuity of shrubs, trees, understory vegetation and woody debris to slow or stop a fire or to change the characteristics of a fire. Typically, a fuelbreak will slow a fire that is running and torching and allow it to drop to the ground and form an understory burn.

A fuelbreak, in combination with a fire line and/or suppression tactics, forms the point of control for both managed and wildland fires. However, managed fires often have reduced intensity and flame lengths, enhancing a fuelbreak's effectiveness. Fuelbreaks typically retain less than 100 ft2 basal area and often as low as 50 ft2 of overstory boles and create separated tree canopies. They break up continuous mid story and understory vegetation and eliminate ladder fuel conditions. All of these treatments are intended to move fire from a burning in the canopy and drop it to the ground. Often fuelbreaks lack snags greater than 20' tall and retain minimal large down wood.

Water Drafting (WD): Drafting of water from an open source such as a creek, lake, pond, bog or other standing water is a common practice in both prescribed fire and wildland fire suppression. During prescribed burns holding and mop up techniques often rely on water from fire engines, hose lays, sprinklers or water tenders. Often the water source for nearby suitable open water locations. Proper rates of drafting to prevent adverse impacts to flow rates, water quality and sedimentation are necessary when drafting. Proper fish screens must be used in fish bearing waters. Access roads must be treated if necessary to prevent rutting or sedimentation. Best management practices are used to protect riparian and aquatic resources.

Non-Native Invasive Plants (NNIP)- Non-native invasives are plant species that are not natural to an area and can rapidly colonize bare soils or disturbed areas. Common means of spread during wildland or prescribed fires are vehicles, heavy equipment, tools or clothes and boots. The USDA, USFS and others maintain lists for most areas that identify species that are deemed to be of concern. Under prescribed fire

planning a number of best management practices can be done to minimize spread of NNIP species including: weed washing of vehicles and equipment, prior identification of locations of invasive populations and buffers to avoid them, and/or control of existing populations. Exiting knapweed will be tarped to kill plants and removed or pile burned in place.

Snag Management (SM)- Snags are dead trees that are still standing. Snags are a critical element for wildlife providing nesting, roosting and sheltering of birds, mammals, amphibians and reptiles. Snags present several challenges to fire management including risk to fire personnel, broadcast of embers, extension of burning periods and complicated mop up. Snags are evaluated for felling or construction of manual fire line around them. In some rare instance's snags can be pre-treated to reduce chance of ignition. Snags are typically felled based on a simple formula: snag height is more than 90% of distance to the control line= removal. For example, a 20' tall snag 8' from the line is closer than 18' (90% of the snag height distance from line) would be felled. Conversely a 100' tall snag 95' from the fire line is greater than 90% of the distance from the line and would be retained. A wide variability in formulas for specific locations and conditions can be applied to snag management, especially on steep slopes. While snags are often reduced during prescribed burns, new snags are often recruited after burns by the fire causing direct or indirect mortality on some trees.

Prescribe Fire (PF)- Prescribed fire is the application of fire on the ground based on a series of specific favorable weather, topography, and fuel conditions. The prescriptions define the desired maximum flame lengths and fire spread rates based on the fuel types, weather, slopes, aspect, staffing levels and containment lines and strategies set out in a burn plan. Interior portions of prescribed fires may exceed the prescribed flame lengths planned at the control lines, but the overall prescription is designed to safely contain the fire within the planned fire perimeter.

Burn Plan (BP)- A written burn plan is a site specific plan based on inventories of fuels, vegetation types, topography, weather patterns and staffing/equipment levels for a specific burn area. The burn plan evaluates the environmental and resource factors, establishes the weather prescription for ignition, develops strategies and best management practices to minimize adverse impacts of burning and suppression activities and develops contingency plans for fire escape or medical emergencies.

The burn plan is typically done weeks to years in advance of the actual prescribed fire implementation and is coordinated with an environmental initial study and determination. Burn plans are coordinated with air quality burn permits or waivers, which are obtained prior to ignition.

Burn Permit- A burn permit is required for project done during the fire season. The fire permit is typically based on the information contained in the burn plan. The fire season, and end of fire season, is determined by the jurisdictional fire agency who sets permit requirements and associated fire season restrictions. This can also be based upon specific and current weather conditions and patterns. Most prescribed fire activities occur outside of the fire season, but occasionally fall within the designated season. Prescribe fires are often coordinated with CalFire, USFS and local fire agencies, even outside of the official fire season.

Air Quality Management District Permits and Waivers (AQMD)- An AQMD burn permit or waiver must be obtained for all prescribed burns greater than 10 acres, even if the burn occurs when a state fire permit is not required. AQMD permitted burn periods sometimes conflict with the Burn Plan prescription conditions, however variances can be issued by the AQMD. The balance between AQMD and Burn Plan goals is often a critical factor in determined if prescribed fires can be implemented. the project proponent will prepare a smoke management plan and submit it to the Siskiyou County Air Pollution Control District (SCAPCD), following requirements from SCAPCD before implementing any prescribed burning treatment.

California Environmental Quality Act (CEQA)- California Environmental Quality Act sets out the requirements to complete an Initial Study of the proposed action and environmental effects. Based on the assessment of environmental effects the CEQA determination may require additional mitigation. If the proposed project has no effect or less than significant effect (without mitigation) the project may be Categorical Exempt from further analysis. If there are effects that are considered significant but can be mitigated a Mitigated Negative Declaration can be prepared. If the project cannot be mitigated, additional analysis including development of alternative actions could be prepared under an Environmental Impact Report.

Some activities are statutorily or categorically exempt from CEQA (e.g. AQMD air permits) have programmatic Environmental Impact Reports (e.g. PTEIRs, CA Vegetation Management Plan) or fall under functional equivalent analysis (timber harvest permitting).

APPENDIX A Additional

BEST MANAGEMENT PRACTICES

Fuels Reduction Treatments

Fuel reduction treatments will be accomplished according to following guidelines:

1. Saplings/seedlings should be removed adjacent to co-dominant and dominant trees, to allow for additional growing space and reduced fire intensity to residual trees.
2. Trees with the most desirable phenotypes will be retained, i.e. full crowns, fast growing, and disease free.
3. Trees preferred for removal will be those exhibiting signs of poor growth, stress, poor form or declining from a disease or pest agent..
4. On site VI-V timberlands, a minimum of 50 square feet of group “A” species per acre of basal area will be retained of which at least 15 ft2 basal area consisted of seed trees 18 inches dbh or greater. Dense shrub cover will be broken up for purposes of removing fuel continuity.
5. In dry and wet meadow systems and historically open areas now invaded by juniper and shrub, conifers may be removed to meet ecological restoration objectives. ,

1) Prune residual trees by lopping low branches up to a minimum height of 8’ (above the level of slash on the uphill side of the tree) or heights necessary to retain 30% or more live crown.
2) All slash produced (branches, limbs, and treatment debris less than four inches in diameter) will be treated using one of the following methods:
    a) Chip or masticate adjacent to roads and other accessible portions of the treatment areas.
    b) Pile and burn: slash piles for burning should be located away from residual trees and structures.
    c) Lop and scatter: lopping is the severing and spreading of slash so that no part of it remains more than 30 inches above the ground. Lop and scatter would be implemented on steeper slopes and areas with limited access where chipping, mastication, and burning piles is difficult.
    d) Prescribe burn (pile burn or broadcast burn) of generated slash in conjunction with all other burn objectives.
    e) Pile and burn operations would occur where vehicle access is available along existing ranch roads utilizing existing openings and compacted ground as feasible. Piles may be created by mechanized equipment such as crawler tractors equipped with a brush rake, or excavators equipped with a grapple. Piles will also be created by hand.

f) Limit ground-based equipment (except masticators) to less than 35% slopes and masticators to 45% slopes unless a soil scientist evaluates soil conditions and disturbance patterns to determine operability on steeper slopes.

Prescribed Fire and Pest Management
SVRCD and the Karuk Tribe will work with CalFire, US Forest Service, local fire resources, TREX program, and/or other partners to conduct broadcast burns on private lands. Lands within Siskiyou County have become overstocked with conifers due to fire suppression and changes in land use policies. Application of prescribed fire will help to reduce stand density and restore ecological processes, help to increase native plant biodiversity, reduce fuel loads, and enhance cultural, botanical, and wildlife species. Active management will also create a significant firebreak that will assist CalFire, Forest Service, local fire departments, and local landowners in managing threatening wildfires.

Burning will likely take place in the fall to early winter depending on fuel moisture levels and weather conditions, except where resource issues can be avoided. The burn plan will also be coordinated with the Siskiyou Air Quality Management District. SVRCD and Project Cooperators will coordinate with the District to identify a permissible burn day.

Resource objectives and public notification for the prescribed fire as described in the plan are to:

- Reduce fuel loading to reduce risk of high intensity fires in the next decade
- Burn Prescription: The prescribed fire burn prescription will be designed to initiate a surface fire of sufficient intensity that will only consume surface and ladder fuels while protecting soil resources from direct soil heating impacts. Burn periods will consider predicted wind speeds and direction for the 7 days following completion of burning. Example of sources for predicted winds include https://gacc.nifc.gov/oncc/predictive/weather/index.htm and https://www.wunderground.com/forecast/us/ca/weed/96094
- Ignition will occur outside of the WLPZ buffer areas
- Where feasible, existing roads, trails, and natural fuel breaks will be utilized for fire lines.
- Air Quality: Prescribed fire should comply with all local, state, and federal air quality regulations and ordinances. The local Air Pollution Control District or Air Quality Management District will be contacted to determine local requirements.
- Standard Public Notifications: Prior to the commencement of prescribed burning operations, the project coordinator will develop a site specific notification plan.

Burn Plan Communications: Prior to the start of operations, CAL FIRE personnel should meet with the project coordinator onsite to discuss resource protection measures, if feasible. Additionally, the project coordinator should specify the resource protection measures and details of the burn plan in the incident action plan if one is prepared and should attend the pre-operation briefing to provide further information.

Biological
A search of the CNDDB will be conducted of the project area to determine if there have been documented special status species located.

Upland Habitat Protection

- To avoid impacting nesting birds and/or raptors through habitat modification:
- A Limited Operating Period of February1-September 15 depending upon target species shall be

established unless surveying for nesting, roosting, and/or denning is completed and CDFW or USFWS approves an alternative LOP period for the year surveying was completed if feasible.

- In order to protect any species covered by the Migratory Bird Treaty Act (MBTA), no fuels treatment work will occur between March 1st to August 31, unless the following is implemented: 1. A survey is conducted by a biologist or a person with knowledge of, and ability to recognize, species protected by the MBTA and it is determined that there are no occupied nests within the proposed activity area. 2. If an occupied nest is found, then a biologist or a person with knowledge of, and ability to recognize, species protected by the MBTA will determine if the birds present are those protected by the MBTA. 3. If an MBTA species is located then no activities will occur within 100 feet of the nest during the breeding season (March 1st-August 31st.
- All temporary flagging, fencing, trash, debris, and/or barriers will be removed from the project site upon completion of project activities;
- Habitat elements (nest trees) that provide valuable habitat will be identified by a qualified person and retained where no immediate risk to infrastructure exists;
- Where practical and feasible other habitat elements (downed large logs, snags with cavities and tree hollows, and other suitable snags) will be identified by a qualified person and retained where no immediate risk to infrastructure exists.
- Where habitat elements are identified, a minimum 2' wide fire line will be cut around the habitat element and ladder fuels within 10' will be thinned.
- If any federal or state listed threatened or endangered species are detected in the project area that may be impacted by the project work, then all project related activities will immediately stop within that area which will be flagged with a 50' "No Treatment Zone". All sightings will be documented using the California Natural Diversely Data Base (CNDDB) field survey form a copy of which will be submitted to the CNDDB.
- No fire ignition (nor use of associated accelerants) will occur within the special-status plant buffer.

Watercourse/Aquatic Habitat/Water Quality/Sediment Protection:
Depending upon the resource situation, the following BMPs may be used on a project site specific basis:

- Fire lines, brushing or ground disturbing operations not be placed in sensitive hydrologic areas unless need to protect the resources from impacts of the burning;
- No manual line construction will occur within the 75' slope distance core zone of Class I watercourse , 50' slope distance of a Class II watercourse and within 30' slope distance ' of the channel of Class III watercourse, except where necessary at designated equipment crossings;
- Prescribed fire will not be applied directly on the ground within 75' slope distance of a Class I watercourse 50' slope distance of a Class II watercourse, or 30' slope distance of a Class III watercourse.
- No fire ignition (nor use of associated accelerants) will occur within a watercourse buffer zone, however low intensity backing fires may be allowed to enter or spread into WLPZs
- Watercourse buffers of at least 75' slope distance core zone of Class I stream, 50' of a Class II stream and 30' slope distance for Class III streams shall be established where the following BMP's shall apply
    - Manual treatments (thinning and pruning) will be implemented within select stream buffers but may not require much treatment. Where thinning of small-diameter ladder fuels is needed to ensure positive prescribed burning effects adjacent to stream courses, thinning would be limited to vegetation less than 6-inch dbh (diameter at breast height).

  - Placement of piles would be minimized within stream buffer zones, as well as adjacent large downed woody debris;
  - Minimize burning of hand piles in stream buffer zones and seek a balance between number and distribution of piles to reduce sedimentation. Place burn piles away from existing coarse woody debris;
  - Utilize stream courses for prescribed fire control features;
- Construct hand lines within 75' slope distance of Class I or Class II watercourses and 30' slope distance of Class III watercourses only where necessary to minimize undesired fire effects;
- Water drafting in occupied anadromous salmonid streams segments shall be designed to meet permit requirements and criteria established by the State to prevent impact to the species;
- Water drafting should be designed to minimize impacts to aquatic resources including use of appropriate fish screens and where feasible use of slow fill (trickle fill) of off stream storage areas (e.g. fold-a-tanks) to minimize sudden draw down of stream flows;
- Petroleum products would be stored at roads or landings outside of watercourse protection zones wherever possible and a minimum 200' horizontal distance or greater distance from streams, ponds, and wet areas such that fuels and other harmful materials would not reach any waterbody. Appropriate spill containment measures would be on site and would be employed as needed (for example, absorbent pads, drip pans and containment trays). Containers of fuel and oil are removed daily off-site.
- All roads and landings used by vehicles (other than 4x4 motorcycles quad cycles, or other low ground pressure vehicles) for prescribed fire and mop up operations shall have adequate drainage upon completion of use for the year or by October 15, whichever is earlier. An exception is that drainage facilities and drainage structures do not need to be constructed on roads and landings in use during the extended wet weather period provided that all such drainage facilities and drainage structures are installed prior to the start of rain that generates overland flow;
- No vehicle operations (other than 4x4 motorcycles quad cycles, or other low ground pressure vehicles) shall occur during saturated soil conditions(. Saturated soil means that soil and/or surface material pore spaces are filled with water to such an extent that runoff is likely to occur).;
- Vehicle use (other than 4x4 motorcycles quad cycles, or other low ground pressure vehicles) use shall be limited to dry, rainless periods where saturated soil conditions are not present or to roads and landings where a stable operating surface exists;
- Logging roads and landings use by vehicles shall not be used during any time of the year when operations may result in significant sediment discharge to watercourse or lakes, except in emergencies to protect the road, to reduce erosion, to protect water quality, or in response to public safety needs.
- During the extended wet weather period (October 15-May 1) vehicle uses (other than 4x4 motorcycles quad cycles, or other low ground pressure vehicles) shall be limited to roads and landings that exhibit a stable operating surface. Routine use of roads and landings shall not occur when equipment cannot operate under its own power;
- Roads and landings used by vehicles (other than 4x4 motorcycles quad cycles, or other low ground pressure vehicles) during the winter period shall occur on a stable operating surface. Use is prohibited on roads that are not hydrologically disconnected and exhibit saturated soil conditions.
- In the event that equipment will need to cross a live stream outside the road rights-of-way, the California Department of Fish and Wildlife 1600 Stream Alteration Agreement LSAA# 19-0527 conditions for this activity must be adhered to. In such instances, equipment crossings of

waterways, streambeds and their associated approaches shall be located and flagged by the project manager prior to the occurrence

Cultural Protection

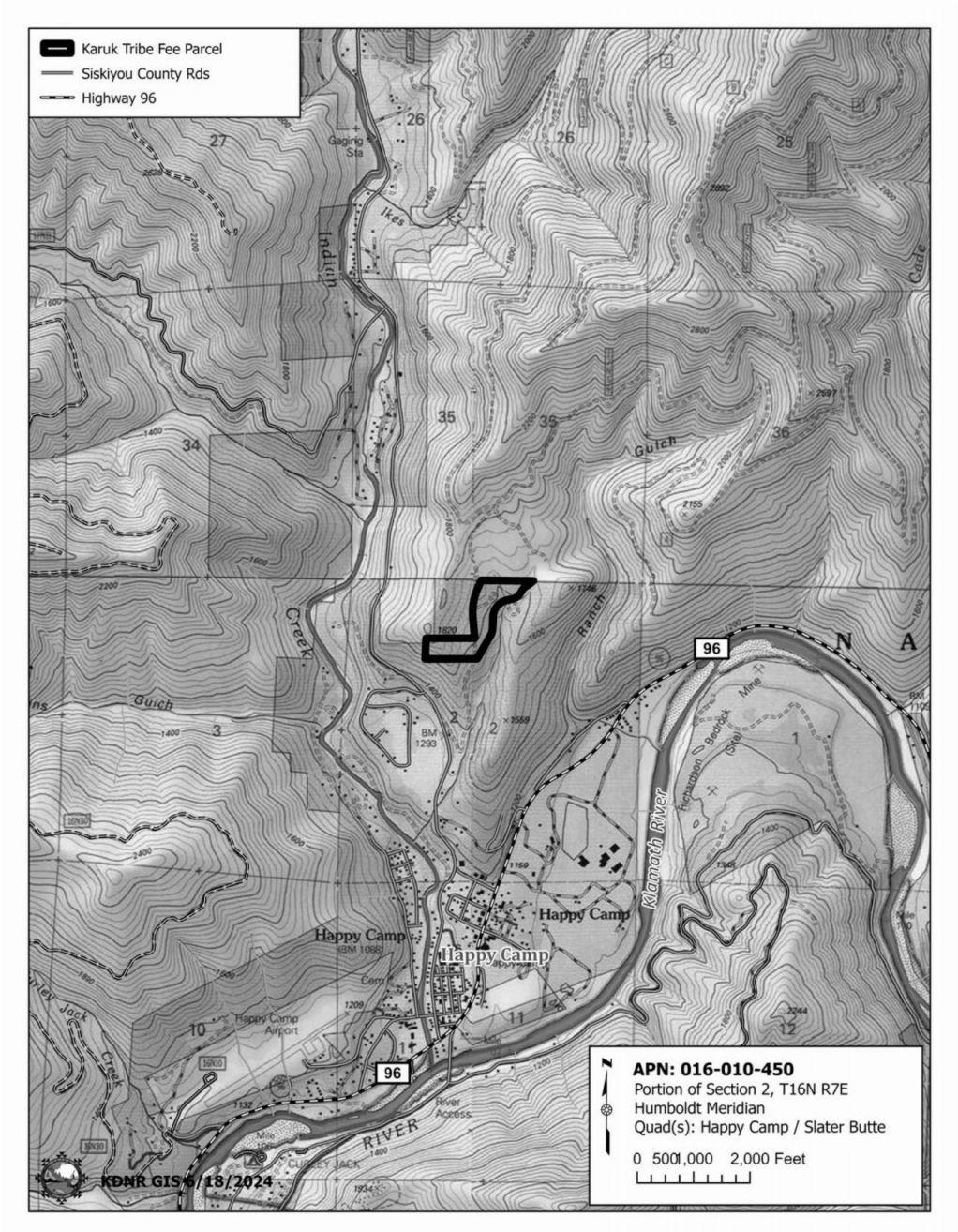
- The project proponent will train all crew members and contractors implementing treatment activities on the protection of sensitive archaeological, historical, or tribal cultural resources. Workers will be trained to halt work if archaeological resources are encountered on a treatment site and the treatment method consists of physical disturbance of land surfaces (e.g., soil disturbance). This BMP applies to all treatment activities and treatment types.
- No burn piles should be placed within 10' of known ground stones, historical features and similar features
- Work should be halted within a reasonable buffer if cultural materials are found during implementation. Examples would include ground stone, flaked or chipped stone, historic debris, building foundations, or non-human bone.
- A qualified archaeologist should be consulted to assess the discovery. Appropriate avoidance or mitigation measures should be reached in consultation with the Tribes that claim an interest in this site, as set out at 36 CFR 800.
- Should inadvertent effects to or unanticipated discoveries of human remains be made, the County Coroner [California Health and Safety Code 7050.5(b)] shall be notified immediately. If the remains are determined to be Native American, or if Native American (Indian) funerary objects, or items of cultural patrimony subject to NAGPRA are uncovered, the provisions of NAGPRA Section 3 [25 U.S.C. 3002 a-e] may apply, and its regulations at 43 CFR 10 and the provisions of ARPA at 43 CFR 7 shall be followed.

Air Resources:

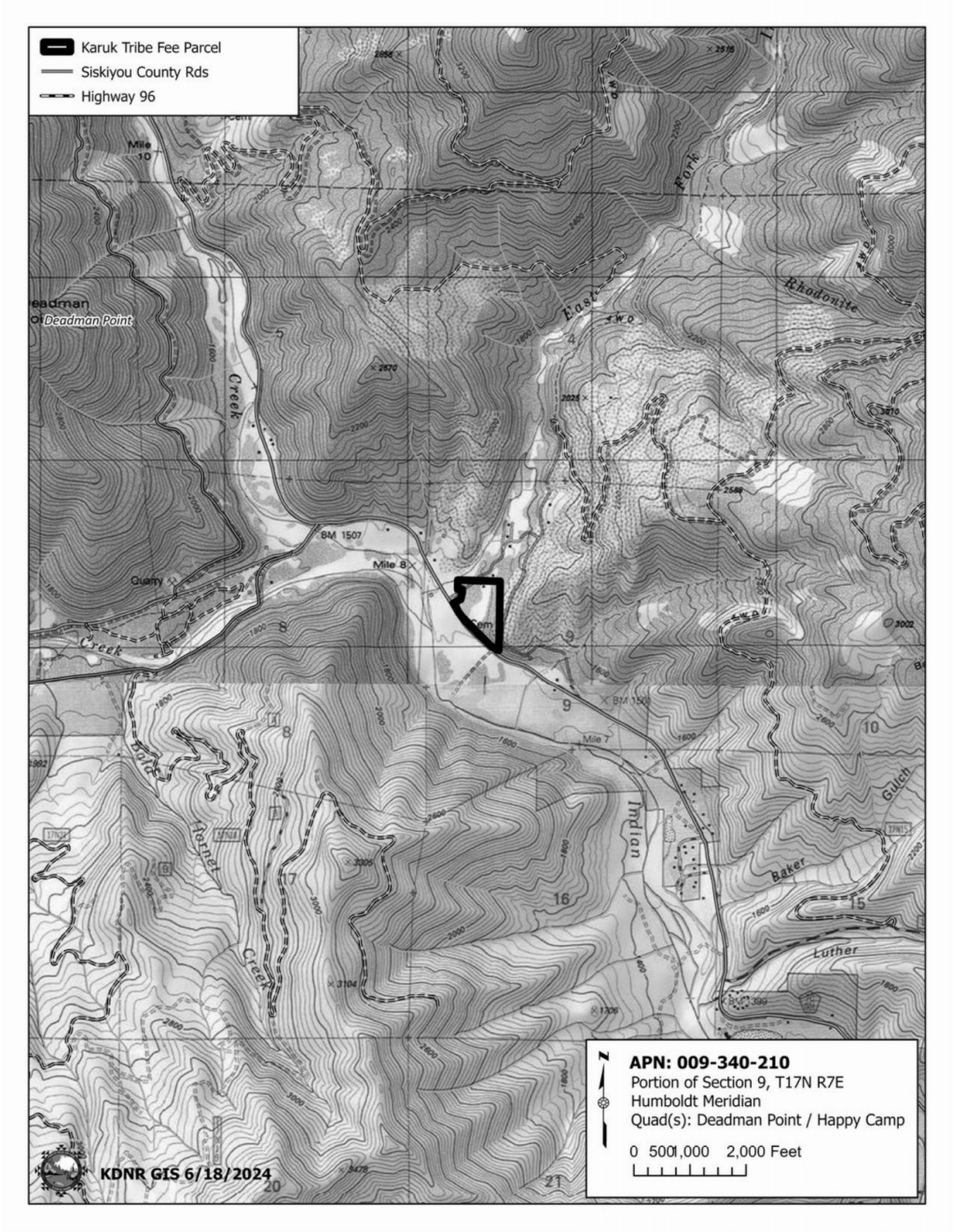
Dust- To minimize dust during treatment activities, the project proponent will implement the following
1. Limit the speed of vehicles and equipment traveling on unpaved areas to 15 miles per hour to reduce fugitive dust emissions, in accordance with the California Air Resources Board (CARB) Fugitive Dust protocol. If road use creates excessive dust, the project proponent will wet appurtenant, unpaved, dirt roads using water trucks or treat roads with a non-toxic chemical dust suppressant (e.g., emulsion polymers, organic material) during dry, dusty conditions. Any dust suppressant product used will be environmentally benign (i.e., non-toxic to plants and will not negatively impact water quality) and its use will not be prohibited by ARB, EPA, or the State Water Resources Control Board (SWRCB). The project proponent will not over-water exposed areas such that the water results in runoff

APPENDIX “C”
Project Maps

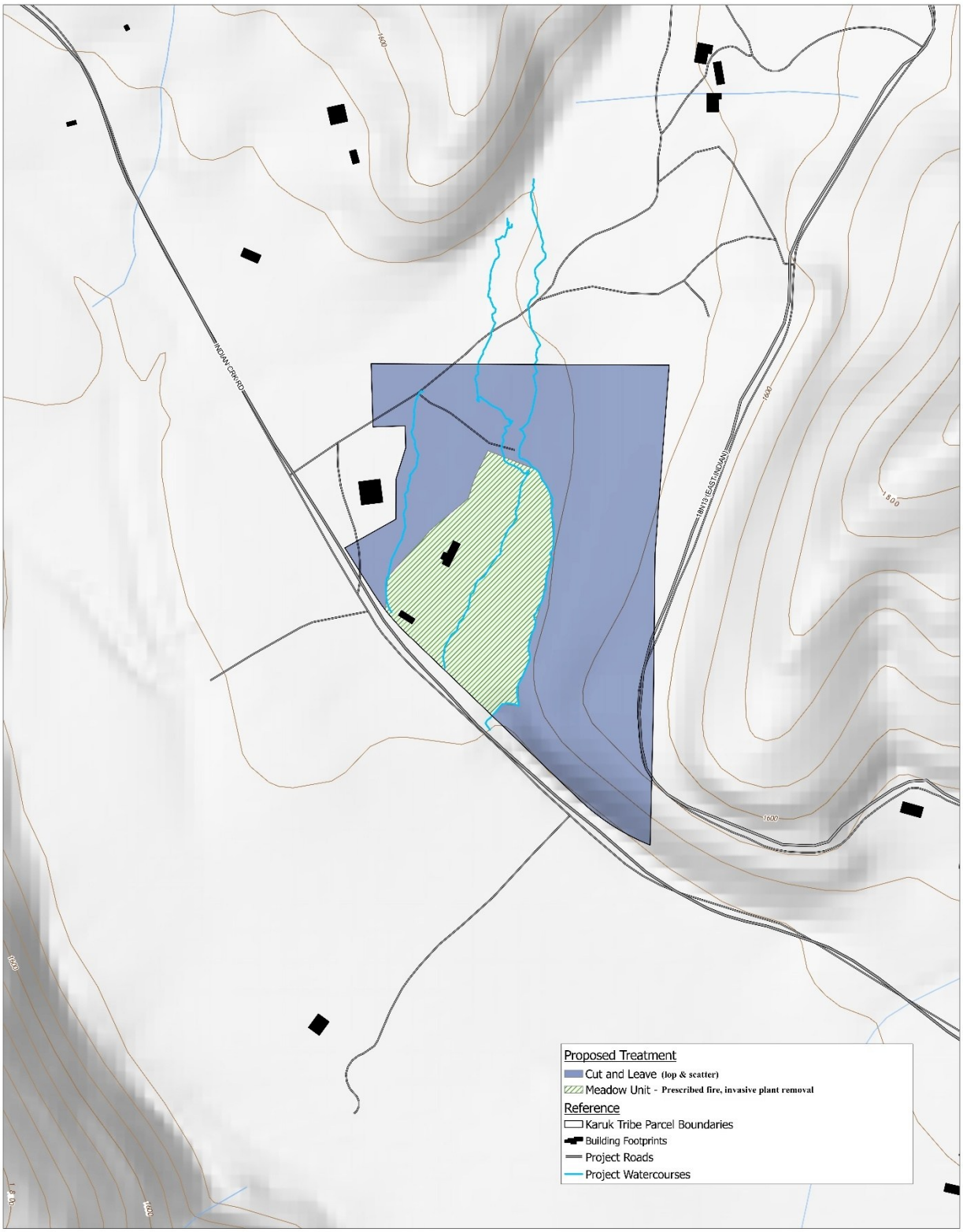
RCD
SHASTA VALLEY
RESOURCE CONSERVATION DISTRICT



RCD
SHASTA VALLEY
RESOURCE CONSERVATION DISTRICT



RCD
SHASTA VALLEY
RESOURCE CONSERVATION DISTRICT

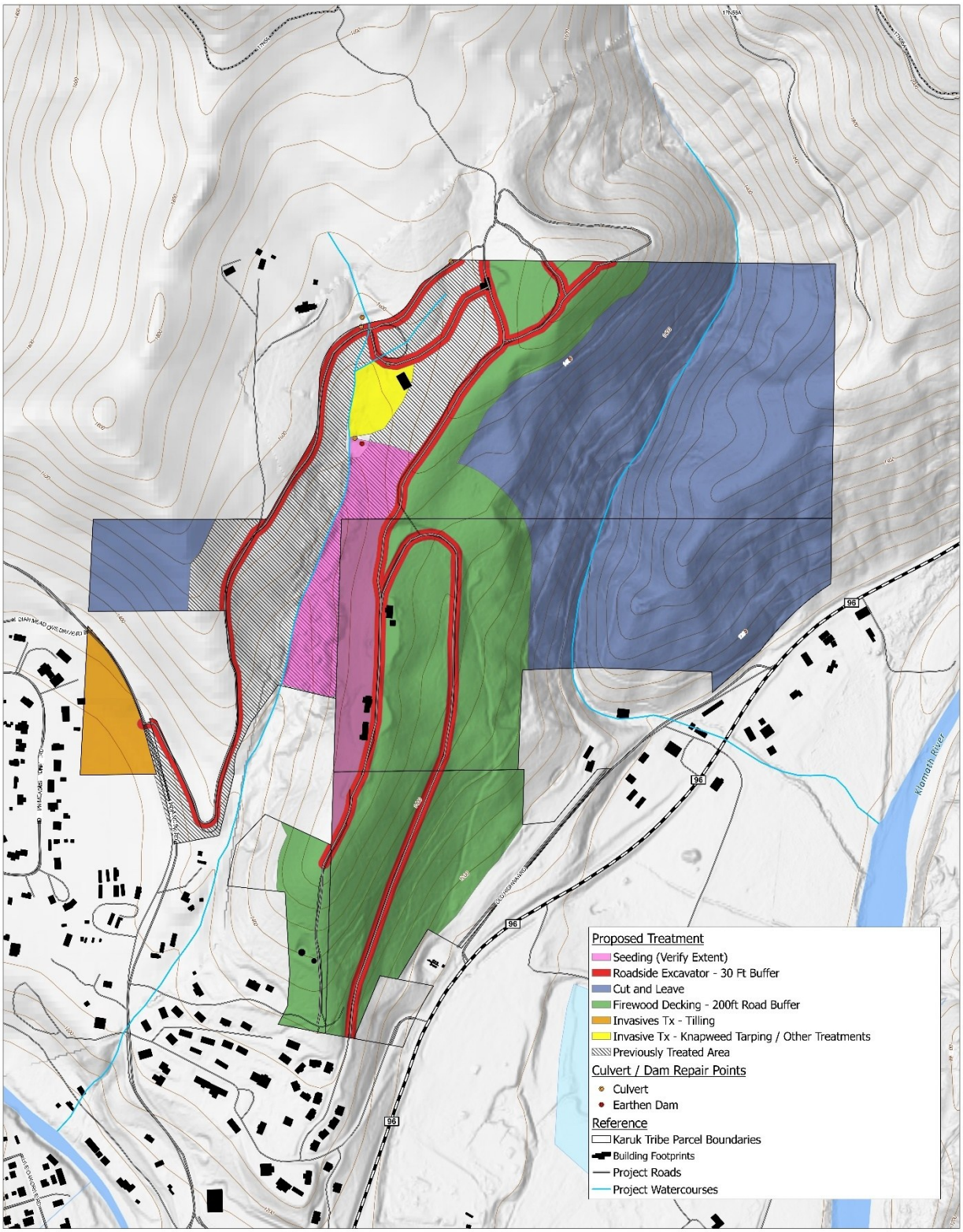


Athíthuuf: Slater Fire Restoration Projects

Comer Parcel

0 0.06 0.11 0.17 0.22 0.28 Miles

RCD
SHASTA VALLEY
RESOURCE CONSERVATION DISTRICT

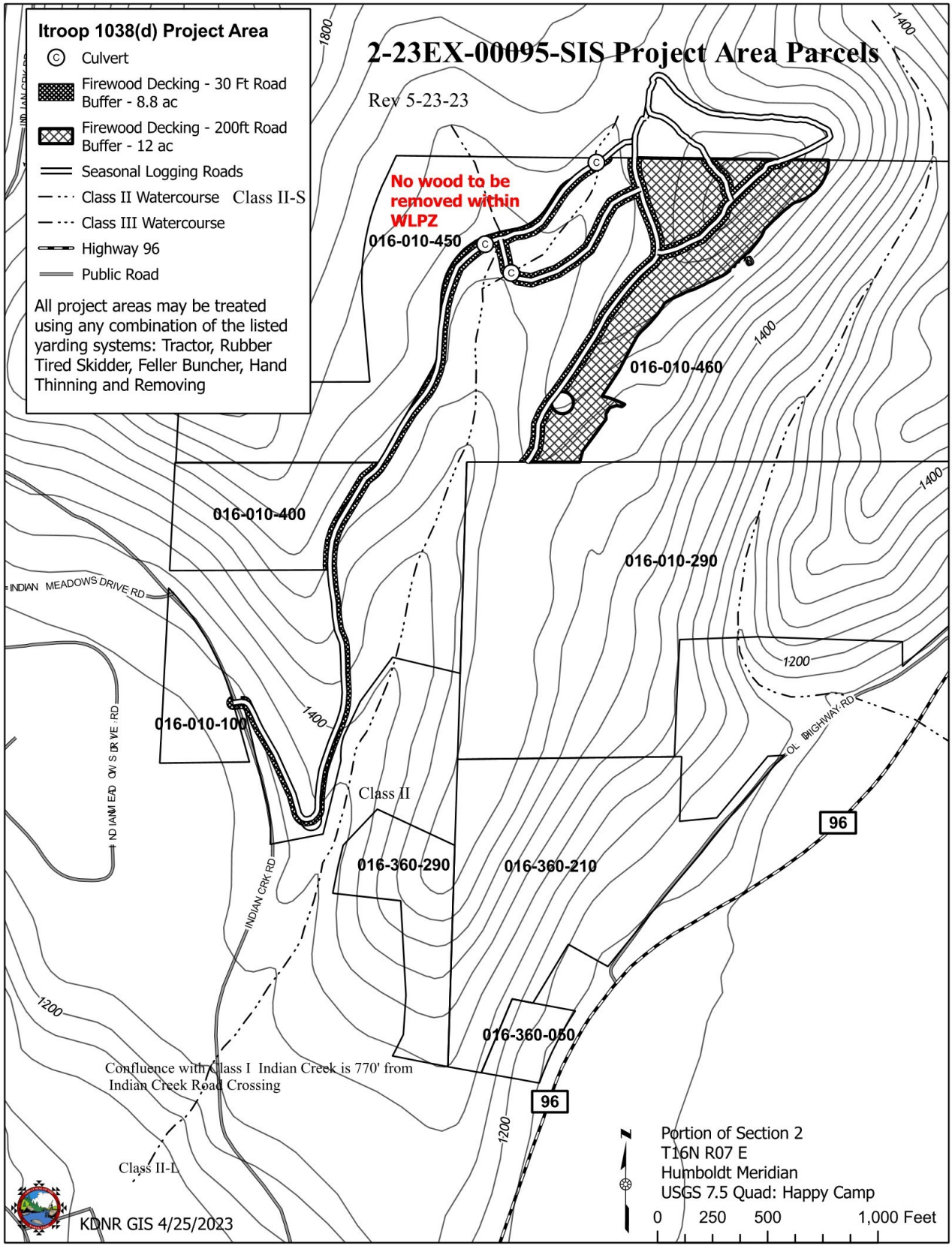


Athíthuuf: Slater Fire Restoration Projects

Itroop Parcels

0 0.1 0.2 0.3 0.4 0.5 Miles

RCD
SHASTA VALLEY
RESOURCE CONSERVATION DISTRICT



RCD
SHASTA VALLEY
RESOURCE CONSERVATION DISTRICT

Element_Type	Scientific_Name	Common_Name	Element_Code	Federal_Status	State_Status	CDFW_Status	CA_Rare_Plant_Rank	Quad_C
Animals - Amphibians	Ascaphus truei	Pacific tailed frog	AAABA01010	None	None	SSC	-	4112384
Animals - Amphibians	Plethodon elongatus	Del Norte salamander	AAAAD12050	None	None	WL	-	4112384
Animals - Amphibians	Plethodon stormi	Siskiyou Mountains salamander	AAAAD12180	None	Threatened	-	-	4112384
Animals - Birds	Strix occidentalis caurina	Northern Spotted Owl	ABNSB12011	Threatened	Threatened	-	-	4112384
Animals - Fish	Entosphenus similis	Klamath River lamprey	AFBAA02140	None	None	SSC	-	4112384
Animals - Fish	Oncorhynchus kisutch pop. 2	coho salmon - southern Oregon / northern California ESU	AFCHA02032	Threatened	Threatened	-	-	4112384
Animals - Fish	Oncorhynchus mykiss irideus pop. 1	steelhead - Klamath Mountains Province DPS	AFCHA0209D	None	None	SSC	-	4112384
Animals - Mammals	Gulo gulo	wolverine	AMAJF03010	Threatened	Threatened	FP	-	4112384
Animals - Mammals	Corynorhinus townsendii	Townsends big-eared bat	AMACC08010	None	None	SSC	-	4112384
Animals - Mollusks	Prophysaon sp. 1	Klamath taildropper	IMGAS62100	None	None	-	-	4112384
Animals - Mollusks	Monadenia fidelis leonina	A terrestrial snail	IMGASC7037	None	None	-	-	4112384
Plants - Bryophytes	Ptilidium californicum	Pacific fuzzwort	NBHEP2U010	None	None	-	4.3	4112384
Plants - Vascular	Erigeron bloomeri var. nudatus	Waldo daisy	PDAST3M0M2	None	None	-	2B.3	4112384
Plants - Vascular	Thermopsis robusta	robust false lupine	PDFAB3Z0D0	None	None	-	1B.2	4112384
Plants - Vascular	Dicentra formosa ssp. oregana	Oregon bleeding heart	PDFUM04052	None	None	-	4.2	4112384
Plants - Vascular	Lilium pardalinum ssp. wigginsii	Wiggins lily	PMLIL1A0S0	None	None	-	4.3	4112384
Plants - Vascular	Monotropa uniflora	ghost-pipe	PDMON03030	None	None	-	2B.2	4112384

Plants - Vascular	Lewisia cotyledon var. howellii	Howells lewisia	PDPOR04053	None	None	-	3.2	4112384
Plants - Vascular	Cypripedium californicum	California ladys-slipper	PMORC0Q040	None	None	-	4.2	4112384
Plants - Vascular	Cypripedium fasciculatum	clustered ladys-slipper	PMORC0Q060	None	None	-	4.2	4112384
Plants - Vascular	Cypripedium montanum	mountain ladys-slipper	PMORC0Q080	None	None	-	4.2	4112384
Plants - Vascular	Pedicularis howellii	Howells lousewort	PDSCR1K0J0	None	None	-	4.3	4112384
Plants - Vascular	Eriogonum congdonii	Congdons buckwheat	PDPGN081A0	None	None	-	4.3	4112384
Plants - Vascular	Eriogonum hirtellum	Klamath Mountain buckwheat	PDPGN082T0	None	None	-	1B.3	4112384



“Comer” proeprty APN 009-340-210



Resprouting oaks to be thinned

RCD
SHASTA VALLEY
RESOURCE CONSERVATION DISTRICT





APN 016-010-450 Section 2, T16N, R 7E, HB&M