

Lumpkin Road Post North Complex Fire Hazard Tree & Fuels Reduction

BID PACKET -Addendum 1

April 6, 2023

This Project is funded by the Bureau of Land Management



Project Summary

This fuels reduction project would remove dead and dying trees, understory shrubs, and heavy accumulations of downed materials to reduce hazardous fuel loading and hazard trees in and around Lumpkin Road, in Butte County, CA. The project would create linear fuel breaks on up to 120 acres of BLM property alongside existing features such as roadways, property boundaries, or infrastructure.

Fuel breaks will be constructed up to 200 feet in width from roadsides and property boundaries, 100ft on each side of the road/boundary. Implementation methods will consist of hand cutting using power-saws, piling using ground personnel, chipping of cut material on-site, and burning of piles on site. **No mechanized equipment will be used in the proposed project area**, with the exception of chippers, which must remain on designated roadways at all times. The vegetation to be removed or modified will be standing or fallen dead vegetation up to 24-inch diameter at breast height (DBH), selective thinning of overstocked live shrubs and trees less than 10 inches DBH and mowing or weed eating ground fuels. Piled material will be constructed at a minimum of 6 x 6 foot and a maximum of 30 x 30 foot tall/wide, built outside of remaining canopy drip lines, free of dirt or non-organic materials, and covered using waxed craft paper or a similar non-plastic material.

Post-treatment canopy closure of young and mid-sized stands would be 40 percent or greater within 200-foot-wide treatment areas along roadsides or other identified features.

Contractor's Obligations

The Bidder must analyze and respond to all sections for this Bid Packet providing sufficient information to allow the Butte County Resource Conservation District (BCRCD) to evaluate the bids. The Contractor, by submitting its bids, agrees that any costs incurred by the Contractor in responding to this Bid Packet, are to be borne by the contractor and may not be billed to the BCRCD.

The Bidder must complete and submit all attachments, in the order listed. If the BCRCD has any confusion or difficulty in retrieving the required information from a contractor's bid, it may result in the disqualification of such bid.

Bid Submission Requirements

Submission of Bids:

Contractor should mail, hand deliver, or email their sealed bid to the address listed below by Friday, April 14th at 5 PM. Email bids to dallas@bcrd.org. Hard copies should be mailed to

Butte County Resource Conservation District
150 Chuck Yeager Way, Suite A
Oroville, CA 95965

The envelope shall be plainly marked in the upper left-hand corner with the name and address of the bidder and shall bear the words “**Lumpkin Road Post North Complex Fire Hazard Tree & Fuels Reduction.**”

Critical Dates

Pre-bid site visit

Contractors wishing to bid on this project must attend a **mandatory pre-bid meeting on Thursday, March 30th at 9:00 AM meeting at the intersection of Lumpkin Road and Craig Access Road.** The pre-bid meeting is expected to last until noon. **Please see Addendum for additional meeting dates.**

Questions Regarding the Bid Packet

Contractors may submit questions by email to dallas@bcrcd.org before Wednesday, April 12th at 5:00 PM. All pertinent questions will be answered and shared via email with all the other Contractors who attend the mandatory pre-bid site visit. The contractor understands and agrees that it has a duty to inquire about and clarify any Bid Packet questions that the Contractor does not fully understand or believes may be interpreted in more than one way. The BCRC D, however, is not required to answer questions that are not pertinent to the Bid Packet or are considered to be proprietary information.

Dallas Koller

Email: dallas@bcrcd.org

Bid Due Date

Bids shall be received by the BCRC D on or before **Friday, April 14th at 5 PM** at the BCRC D address listed above. Late submissions will not be accepted.

Contract Dates

The Contractor shall not begin operation until the Notice to Proceed is issued. All work shall be completed based on the phases outlined in the project specifications. **A minimum of 50 acres must be completed by July 31, 2023, with the remaining acres completed before December 31, 2023.**

Contractual Commitment of Bid

The contents of submitted bids will be considered obligations of the successful Contractor. No information should be submitted that is not intended to be incorporated into the bid and any contract which may result from such bid. If there is any inconsistency between the terms herein and any of the contract documents, the terms in the contract documents shall prevail.

Project Specifications

Contractor is expected to follow the project specifications, site plans, permit requirements, and all state, federal, and county laws and standards for this project. See project specifications below and also the attached NEPA document for the project (Exhibit C).

Hazardous fuels reduction and site prep for pile burning for on a total of 120 acres in Spring 2023. See technical specifications below for details.

| Task | Description | Units and Acres |
|-----------------------------------|---|-----------------|
| Task 1: Hazardous Fuels Reduction | <p>Remove dead and dying trees, understory shrubs, and heavy accumulations of downed materials to reduce hazardous fuel loading and hazard trees in and around Lumpkin Road, in Butte County, CA. The proposed action would authorize the creation and maintenance of linear fuel breaks on up to 120 acres of BLM property alongside existing features such as roadways, property boundaries, or infrastructure.</p> <p>Fuel breaks will be constructed up to 200 feet in width from roadsides and property boundaries. Implementation methods will consist of hand cutting using power-saws, piling using ground personnel, and chipping of cut material on-site. No mechanized equipment will be used in the proposed project area. The vegetation to be removed or modified will be standing or fallen dead vegetation up to 24-inch diameter at breast height (DBH), selective thinning of overstocked live shrubs and trees less than 10 inches DBH and mowing or weed eating ground fuels. Piled material will be constructed at a minimum of 6 x 6 foot and a maximum of 30 x 30 foot tall/wide, built outside of remaining canopy drip lines, free of dirt or non-organic materials, and covered using waxed craft paper or a similar non-plastic material. Post-treatment canopy closure of young and mid-sized stands would be 40 percent or greater within 200-foot-wide treatment areas along roadsides or other identified features. Building piles is the preferred treatment method and should be utilized as much as possible.</p> | 120 Acres |

Manual Site Prep Specific Specifications

Cutting Standards:

- Trees shall be thinned based on designation by description and use Avenza maps for boundary limits.
- Contractor shall make every effort to treat as much ground within the project area that is safe and feasible to work in.
- Remove standing or fallen dead vegetation up to 24-inch diameter at breast height (DBH).
 - Standing and fallen dead vegetation up to 24 inches DBH will be felled, bucked, and piled to reduce hazard tree loading, risk to adjacent features and future fire threat.
 - Snags and downed material will be retained two per acre for wildlife habitat, forage, and as large woody debris.
 - Material greater than 24 inches DBH will be retained on site.
- Reduce understory or mid-canopy vegetation and small trees up to 10 inches DBH.
 - Retain live canopy cover of 40 percent or greater.
 - Achieve post-treatment stand conditions of an average of 30-foot stem spacing of dominant canopy species, especially selecting for the retention of deciduous oak species.
- In regenerating Oak shrubs, individuals will be pruned to select for a single terminal leader to promote desired growth pattern.
- Where tree species are not present, large woody shrub specimens may be selected for retention.
- Prune retained live canopy species to 8 feet above ground level.
- Stumps shall be no more than 4'' tall on the uphill side.

Snag Retention: Retain an average of two (2) snags per acre. All snags identified for retention shall be 15 inches DBH or larger, with the largest size-classes representing the highest priority for retention. Snag retention patches shall be part of the riparian zones, edge of meadows adjacent to mature alive/green forests, rock outcrops, brush fields and irregularly distributed throughout the treatment unit. Snags shall provide perches and nesting cavities and meet soil resource standards. Snags shall be selected for longevity on the landscape for wildlife habitat.

Snags can be in clumps on the edge, around oaks or in rocky conditions where they will not cause a safety issue for workers or private property boundaries. Snags shall be retained at least 1.5 times their height away from the edge of the road or private property boundaries.

Snag retention patches or clumps are composed of dead (high and moderate severity) and live (low and very low severity) trees where possible. The snag clumps may be predetermined by paint or flagging and or by designation by description.

Snags greater than 24 inches DBH and at least 20 feet tall are the top priority for retention. Large snags in a variety of species shall be retained such as Oaks, Douglas Fir, Sugar Pine if found, and Ponderosa Pine.

Snags less than 24 inches (and greater than 15 inches) DBH may be retained if they have defects such as broken tops, unique branching, large limbs, witches brooms, forked-tops, cavities, cat-faces and swollen boles.

Prioritize snags with signs of suitable cavities such as large broken limbs, pileated woodpecker holes or bole cavities.

Other conditions and rules: Protect land survey signs and monuments, even if burned, or laying on the ground. Leaner's/Hang-ups -No slash/limbs shall be left suspended by, or lean against, a live tree; whether it is dead or alive. All thinning of brush or slash in ephemerals, drainages, or other hydrological or topographic depressions shall be cleared from the channel, and then piled or chipped. Piling and burning: Piles shall be placed away from residual live trees to avoid being scorched during burning. Piles cannot be located on or against stumps and logs. Piles should be placed 25' from a drainage when possible.

Invasive weed management: Members of the project implementation teams should watch for and be able to recognize NNIP. As time allows, pull some or all of NNIP encountered during project activities (avoiding archaeology-controlled areas). New infestations should be mapped and reported to the District Botanist, flagged and avoided, and pulled/treated as much as possible. Hand cutting of broom plants and placement of burn piles on top of NNIP infestations is encouraged.

Pile Building:

The piles shall be placed in the best opening possible for safe burning. Larger piles are desired, selecting for location of pile of quantity. Big piles that are easy to monitor and patrol are easiest to burn.

- When constructing the pile, small material shall be used to start the pile and larger material put on last.
 - The boles of conifers (greater than 4-inch diameter) shall be placed on the outside of the pile whenever possible.
- Piles will consist of cut trees and brush growing between live trees less than 10 inches DBH.
- Piles will also include cutting and piling of standing dead and downed woody material up to 24 inches DBH.
- Piled material will be constructed at a minimum of 6 feet x 6 feet and a maximum of 30 x 30 feet tall/wide, built outside of remaining canopy drip lines, free of dirt or non-organic materials, and covered using waxed craft paper or similar non-plastic material.
 - Piles will be placed in the best possible opening for safe burning in the future.
 - The size of the pile will be adjusted in relation to the size of the opening.
 - Piles will be spaced at a minimum of 10 feet from one another.
 - Piles will be spaced at least 100 horizontal feet from power lines.
 - Piles will be placed away from live trees and/or protected plants so there will be no damage when the piles are burned.
- Piles will be built outside of the riparian buffer.
 - Piles will not be built in drainages or stream channels.

- Intermittent streams require a 50-foot riparian buffer.
- Perennial streams require 100-foot riparian buffer.
- Piling by hand is allowable throughout the treatment area, and should be utilized as much as possible, while adhering to all piling specifications or exclusion areas.
- Piles shall be placed away from leave trees and/or protected plants so that there will be no damage when the piles are burned. There should be an 8-foot spacing on the downhill side of the pile and a 10-foot spacing on the uphill side.

Mechanical Site Prep Specific Specifications

Chipping Standards

- When chipping is used hand saws and personnel shall be used to cut, move, and chip the material.
- Material targeted for cutting and chipping treatment will be live and dead standing or fallen vegetation up to 10 inches in diameter.
- Standing and fallen dead vegetation will be cut and chipped up to 24 inches DBH.
- Residual slash or chip bed depth should be evenly distributed back into the unit and be no more than 4 inches depth on average and not to accumulate in drainages, ditches, or culverts.
- **Building piles is the preferred treatment method and should be utilized as much as possible before resorting to chipping.**

Prior to the use of mechanized equipment, a riparian buffer of 50-foot around these streams should be flagged on the ground. No mechanized equipment would be allowed in these riparian buffers. Hand thinning of non-riparian woody species would be permitted. Burn piles would be located outside of the riparian buffer. Perennial streams require 100-foot exclusion of equipment and pile burning. BLM California Best Management Practices (BMPs) for water quality would be implemented to mitigate impacts to riparian resources. These BMPs are listed in detail under “BMPs for Fire and Fuels Management” in Appendix B. A map of these no-go zones has been produced and is available for crews’ phones/tablets; a shapefile has also been produced. During mechanical site prep activities, protect land survey signs and monuments, even if burned, or laying on the ground. Also, protect all improvements along roadways including road surface, signs, ditches, and drainage structures. Contractors are expected to fix any incidental damage to roads.

Other conditions and rules: If machinery needs to cross a creek/drainage, then place rock on roads at stream crossings and segments within identified RCAs (i.e., riparian corridors) to reduce the impact of sediment delivery to associated stream courses. Place rock, slash, or certified NNIP free mulch at the outlets of rolling dips and/or waterbars to dissipate water where identified by road engineer and soil scientist, and/or hydrologist.

Allow mechanical operations only when soil moisture conditions are such that compaction, gulying, and/or rutting will be minimal. Conduct ground based mechanical operations when soil is dry; that is, in the spring when soil moisture in the upper 8 inches is not sufficient to allow a soil sample to be squeezed and hold its shape or will crumble when the hand is tapped. In the summer and early fall after storm event(s) when soil moisture between 2-8 inches in depth is not sufficient to allow a soil sample to be squeezed and hold its shape or will crumble when the hand is tapped. Off of designated skid trails, limit all equipment passes over the same piece of ground to reduce the potential for adverse soil compaction.

Invasive weed management Clean all off-road equipment entering the project area if it may be coming from areas infested with nonnative invasive plants (NNIP). To the greatest extent feasible keep all equipment, vehicles, and supplies out of areas of known NNIP infestations, including any NNIP infestations along access routes and new infestations that may be discovered during project implementation. NNIP infestations may sometimes be flagged with bright orange “noxious weed” flagging. Any equipment, vehicles, and supplies that do come in contact with NNIP infestations (plants or the ground close to them) during project implementation should be thoroughly cleaned of dirt, mud, and plant debris before entering any un-infested project area.

Project Design Features

Refer to Exhibit D, for project specific design features (PDFs) applicable to this project and incorporated into this project description. Botany, wildlife, and cultural resource specialists have conducted surveys as detailed below and provided relevant project specific recommendation based on the CA Hazard Removal and Vegetation Management Programmatic EA (HRVM pEA).

General Cultural Resource Protection Measures:

The project would not excavate, remove, damage, alter, or deface any archeological or paleontological remains or specimens. The project plan would control the actions of employees and subcontractors on the project to ensure that protected sites are not disturbed or damaged. *In the event of post-review discovery of, or unanticipated effects to, cultural resources during implementation the following procedures will be undertaken:*

- The (FO) Archaeologist will be given sufficient notice prior to project implementation to flag avoidance features in the project area according to site specific cultural resource protection measures outlined above, and to coordinate with the project manager prior to start of work to assure protection measures are successful.
- The FO Archaeologist, Field Manager, and BLM project manager or lead will be immediately notified by personnel responsible for project implementation. A map showing confidential resource locations will be provided separately to the Project Manager.
- All project work and activities with the potential to damage the cultural resource will cease immediately within 50 feet of the post-review discovery or where the unanticipated effects have occurred. This distance may be changed at the discretion of the FO Archaeologist in consultation with the Field Manager and BLM project manager, taking into account the circumstances of the specific project and discovery.
- The FO Archaeologist will make an assessment of the situation and, in consultation with the Field Manager, prescribe a course of action consistent with the Protocol, existing heritage laws and guidance, tribal input, and/or the Section 106 regulations at 36 CFR 800.13 pertaining to post-review discoveries and unanticipated effects.
 - The FO Archaeologist will oversee and document implementation of the agreed upon steps and will report the discovery event and the manner of its resolution. •

The Field Manager has sole discretion to authorize (through a Notice to Proceed) continuation of project work and activities within the area of the discovery or anticipated effects after the situation is fully resolved.

- Inadvertent discovery of human remains and objects subject, or potentially subject, to Native American Graves Protection Act (NAGPRA) as defined in 43 CFR 10.2 (d) will be handled by the BLM under the Archaeological Resources Protection Act (ARPA) regulation at 43 CFR 7 and NAGPRA regulations at 43 CFR 10 as well as related BLM policy, including BLM California-specific policy and procedures such as those in the Protocol. The situation will be resolved to the satisfaction of the Field Manager, working in consultation with the FO Archaeologist, before project work and activities are allowed to continue in the area of the inadvertent discovery. The Field Manager has sole discretion to authorize (through a Notice to Proceed) continuation of project work and activities in the area of the discovery.

Wildlife Resources

The project area contains suitable nesting habitat for a multitude of species protected under the Migratory Bird Treaty Act of 1918. The regional nesting season for raptors protected under the act with the potential to occur within the project area runs from January 1 through August 31; for non-raptors, nesting season in the region occurs from mid-February through August 15. Work conducted during either of these periods would require pre and concurrent wildlife surveys. Work conducted from September 1 through December 31 would not require nesting surveys.

Project activities that involve tree removal, vegetation disturbance, or other activities likely to cause disturbance to nesting birds would require the following design features if the activities were implemented during either nesting season:

Pre-project surveys:

Project activities conducted during the nesting season would require surveys to determine the presence of active nests within or adjacent to project areas, no more than 7 days prior to commencing work. Surveys would be conducted by a qualified biologist and should begin as early as possible within the nesting season, when visibility due to lack of foliage is highest.

Implementation of Avoidance Measures:

Where nests are found, a buffer of 250 feet should be established around the nest and maintained until birds have fledged or breeding activities have ceased. If it is determined that a smaller buffer would be sufficient to prevent impacts to nesting birds, buffer size may be adjusted by a qualified biologist, in coordination with United States Fish and Wildlife Service (USFWS). The buffer would be monitored by a biological observer until project work has ceased, or the nest is no longer active. Any incidental take of a migratory bird would be reported to USFWS.

Botany Resources

Botanical surveys were initiated in March of 2022 with a qualified contractor, Wild Ginger Botanical Consulting. Pre-survey desktop reviews targeted special status plant species that may occur in the project area using the California Natural Diversity Database (CNDDDB), the California Native Plant Society Rare Plant Inventory (CNPS 2019), CalFlora's "What Grows Here" search engine, and the BLM RFO species status plant list. Field surveys were completed in the spring of 2022 and timed to ensure all potential special status species could be identified to an appropriate taxonomic level during bloom. No special status plants were found during field surveys. If any special status plants are found during project implementation they will be flagged and avoided by project work.

Payment Schedule

Contractor will be paid for expenses based on the invoices submitted on a monthly basis. The BCRCDD must receive invoices no later than the 10th of each month in order to adhere to the BCRCDD's billing schedule. Payments will be made on a per-acre basis, following inspection of work. Work must be in compliance with specifications before payment will be made.

Payments to the contractors shall be paid within sixty (60) days from receipt of the funds by the BCRCDD from the funding agency, which can be as much as three months after invoice submittal for this particular grant. BCRCDD will make every effort to expedite payment to the contractor.

Bid Details

This contract will not be awarded based solely on the lowest bid. This project requires experience and references as described in the Additional Information section under the subheading References & Required Experience

The Contractor shall submit the bid for activities identified in this Bid Packet using the Bid Form Attachment. Bid may be rejected if the Bid Forms are not used or are incomplete.

Bids should reflect the following information:

Per acre bids with details by task:

- Task 1- Hazardous Fuels Reduction

Additional Information

Project Vicinity and Location:

The project area encompasses 120 acres of public lands administered by the Bureau of Land Management (BLM) Redding Field Office (RFO), within Butte County, California. The project area can be legally accessed off Lumpkin Road between Craig Access Road and Cedar Tree Lane (See Figure 1).

Legal Description: MDM, T20N, R6E sections 30 and 31.

Subcontracting

Any subcontractors must be identified along with the defined work they will perform on the bid form provided. The BCRC D will not refuse a bid based on the use of subcontractors but does retain the right to refuse the subcontractors selected. Contractor shall remain solely responsible for all subcontracted work.

References & Required Experience

This project requires that the contractor has experience in mechanical, manual, and chemical site prep as well as hazard tree felling. Contractor will provide proof of completion and references three (3) projects of similar size and scope (as determined by the BCRC D Project Manager). References should speak to the contractor's experience in the type of work identified in the Project Specifications. References should include a contact name and current phone numbers.

Bid Bonding:

Each bid must be submitted on the Bid Form and accompanied by Bid Security in the form of a certified cashier's check or a corporate bid bond, payable to the Butte County Resource Conservation District, in the amount of five percent (5%) of the bid.

Performance Bonding

The awarded Contractor will be required to provide a Performance Bond for 100% of the awarded amount.

Insurance:

The successful bidder will be required to provide BCRC D with proof of appropriate insurance.

Disputes:

Disputes regarding awarding of bids will be decided by the BCRC D Board. Written appeal must be received within 10 days of award.

Limited Operational Periods

For hazard fuel reduction and tree removal: "Allow mechanical operations only when soil moisture conditions are such that compaction, gulying, and/or rutting will be minimal. Conduct ground based mechanical operations when soil is dry; that is, when soil moisture in the upper 8 inches (spring) or the upper 2-8 inches (summer and fall after rainstorm events) is not sufficient to allow a soil sample to be squeezed and hold its shape or will crumble when the hand is tapped."

Additionally, all mechanical and manual hot saw activities will need to comply with the Plumas National Forest PALs (Project Activity Levels) system of fire danger rating (see Exhibit B, Fire Plan).

Maps and Measurements

The maps are provided as Attachments. They are intended to show only the general size, shape, and location of the areas. If the maps conflict with the field marking, the field markings shall govern. Positions of features are approximate. The units have been determined by Global Positioning Systems (GPS) and/or Geographic Information Systems (GIS). If re-measurement of

the acreage is desired by the contractor, notification shall be made upon written request. Requests for re-measurement shall be made within 10 days after work has been completed on the unit.

Rework and Re-inspection after Rework

If inspection results are below 90% and excess trees or brush constitute a part of the deficiency, payment may not be made until the problem has been corrected, unless the Project Manager determines that a reduction in pay in lieu of rework is acceptable.

Safety

When Contractor's operations are in progress adjacent to or on County or Bureau of Land Management roads, Contractor shall furnish, install, and maintain all temporary traffic controls which provide the road user with adequate warning of hazardous or potentially hazardous conditions associated with Contractor's operations. Devices shall be specified as in the "Manual on Uniform Traffic Control Devices for Street and Highway" (MUTCD). Devices shall be appropriate to current conditions and covered or removed when not needed.

Protection of Improvements and Survey Monuments

The Contractor shall avoid any damage to improvements such as, but not limited to trails, telephone lines, pipelines, structures, roads, fences, gates, utility poles, power lines, pedestals, survey markers or monuments, and survey witness trees. The contractor will be required to repair or pay fair market value to replace any damaged improvements.

CERTIFICATION OF COMPLIANCE

Contractor shall certify compliance with specific fire precautionary measures included in the attached Fire Plan. The certification shall be made prior to commencement of work and shall be updated if at any time during performance the conditions change.

Attachments

- Bid Form Attachment No. 1: Contractor Information
- Bid Form Attachment No. 2: Proposed Sub-Contractors
- Bid Form Attachment No. 3: Bid Schedule
- Bid Form Attachment No. 4: Project Questionnaire
- Bid Form Attachment No. 5: Work Plan
- Exhibit A: Project Maps
- Exhibit B: Fire Plan
- Exhibit C: NEPA document for the project
- Exhibit D: Project Design Features
- Exhibit F: BMP's applicable to this project

**Lumpkin Road Post North Complex Fire Hazard Tree & Fuels Reduction
Attachment 1- Contractor Information**



Bid Due Date: **Friday, March 31st at 5 PM**

General Information:

Company Name: _____

Company
Address: _____

Contact
Name: _____

Phone: _____ Email: _____

Federal ID or SSN#: _____ Years in Business: _____

QAL (or equivalent) and LTO Licenses: _____

References: Provide 3 references, with contact names and phone numbers for each reference.

1. Contact Name: _____ Phone: _____

Business Name/ Client: _____

2. Contact Name: _____ Phone: _____

Business Name/ Client: _____

3. Contact Name: _____ Phone: _____

Business Name/ Client: _____

Bid Validity

Please specify the length of time this bid is valid for (must be a minimum of 30 days).

Bid Information

Bidder agrees to accept as full payment the following total base bid price:

_____ dollars

(in words)

(in numerals)

In the event of a discrepancy, amount in words shall prevail.

The bidder hereby acknowledges that the total base bid price is based solely on the bidder's own estimate of costs and includes all applicable taxes, overheads, and profit.

Contractor Signature _____

Lumpkin Road Post North Complex Fire Hazard Tree & Fuels Reduction
Attachment No. 2: Proposed Sub-Contractors



The BIDDER should submit with the Bid Form a listing of names and business addresses of subcontracting firms or businesses that will be awarded subcontractors for portions of Work as described above.

The Subcontractor list shall be completed and should include the following information:

1. Subcontractors, listing each subcontractor whose subcontract amount is more than 10 percent of the Contract price with whom the bidder, if awarded the Contract, will subcontract for performance.
2. The categories of work those subcontractors will perform on the Contract.

A bid will be considered non-responsive and will be rejected if the BIDDER does not correctly complete the Subcontract List contained herein and include this Proposed Subcontractor list with the Bid Form.

A. List of Subcontractors to be used

| Subcontractor | Work | Dollar Amount | % of Total |
|---------------|------|---------------|------------|
| 1. | | | |
| 2. | | | |
| 3. | | | |

Lumpkin Road Post North Complex Fire Hazard Tree & Fuels Reduction
Attachment No. 3 Bid Form



| Task No. | Description | Qty | Unit | Unit Price | Total |
|----------|---------------------------|-----|------|------------|-------|
| 1 | Hazardous Fuels Reduction | 120 | acre | | |
| | Total Bid Cost: | | | | |

Pay Items Description:

The bid price for this item shall include all equipment, manpower, mobilization, insurance, and bonding to complete the work described in the specifications.

**Lumpkin Road Post North Complex Fire Hazard Tree & Fuels Reduction
Attachment No. 4: Project Questionnaire**



Please initial _____ if the contractor has direct previous experience fulfilling labor compliance requirements, including, but not limited to, wage determinations, submission of payroll records, etc.

If no direct previous experience, please list below who will assist in meeting this requirement. Please include contact information and experience.

List and describe three similar projects contractor has successfully completed, provide contact information for client:

1. _____

2. _____

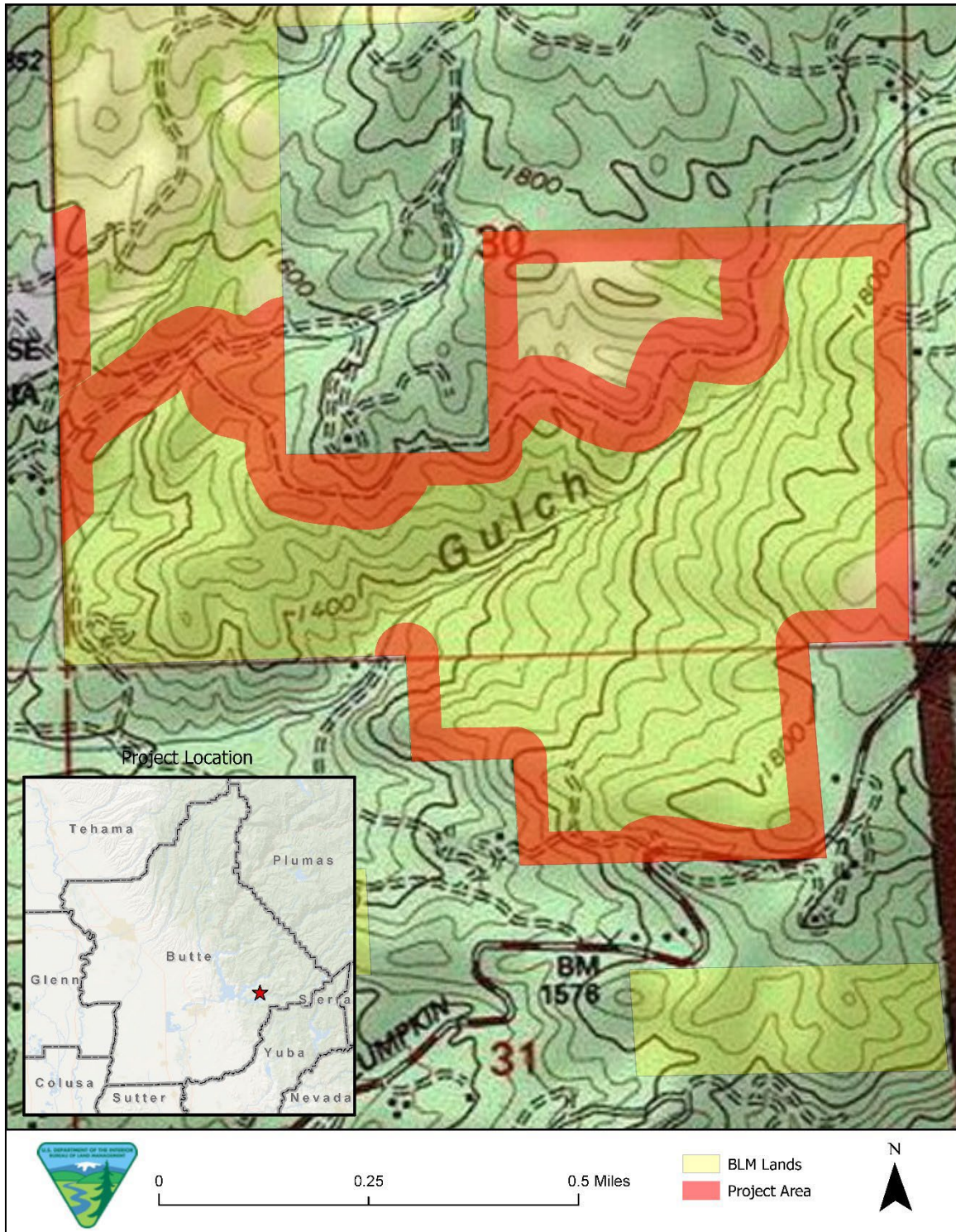
3. _____

**Lumpkin Road Post North Complex Fire Hazard Tree & Fuels Reduction
Attachment No. 5 Work Plan**



Please use the following space to describe in sufficient detail the work plan or methods you will employ to gain site access and accomplish the project according to specifications. This will include a full description of how the project will meet the site requirements and prevent damage to infrastructure. You may attach a written response to this packet if needed.

Exhibit A: Project Area Map



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Exhibit B: Fire plan for Mastication and Hot Saw Activities

Summary: The Forest Service uses a fire danger rating system called PALs. PAL stands for Project Activity Levels. There are 5 PALs and each successive level requires additional fire precautions of contractors. At the highest PALs, some activities (e.g., mastication) are only allowed during morning hours or are not allowed at all for the day.

Therefore, in addition to complying with the sections below, contractors must call 1-800-847-7766 each day to find out the next day's Project Activity Level, or PAL. The Concow Resilience Project is located on the Feather River Ranger District (FRRD), which is the West half of the Plumas NF. The applicable RAWS station is "Jarbo Gap". The Forest Service usually updates the hotline about 5 pm to give the rating for the next day, so operators can plan their day.

During fire season when there are fires on the district, in case the hotline is not updated or is unavailable for the day, the PAL reverts to whatever it was the day before.

C7.2# - SPECIFIED FIRE PRECAUTIONS. (06/2012)

Contractor or a designated Contractor's Representative shall certify compliance with specific Timber Sale Contract and California Public Resources Code (CPRC) fire precautionary measures in B7.1 Plans, C7.2# and C7.22#. Certification shall be provided prior to starting operations during Fire Precautionary Period and shall be updated as needed.

Listing of specific fire precautionary measures in the following subsections is not intended to relieve Contractor in any way from compliance with State fire laws covering fire prevention and suppression equipment applicable to Contractor's Operations.

Upon request of Forest Service, Contractor shall permit and assist in periodic testing and inspection of required fire equipment.

The following definitions shall apply to C7.2# and C7.22#:

Active Landing: A location Contractor is skidding logs into, or performing other operations such as delimiting, log manufacturing, and chipping logs. Except for EV and E days, loading logs or stockpiled chips only on a cleared landing does not constitute an Active Landing.

Hot Saw: A harvesting system that employs a high-speed (>1100 rpm) rotating felling head (i.e., full rotation lateral tilt head).

Mechanical Operations: The process of felling, skidding, chipping, shredding, piling, log processing and/or yarding which requires the use of motorized power which includes, chainsaws, chippers, motorized carriages, masticators, stroke delimiters, skidders etc.

Specific equipment requirements and fire precautionary measures are shown in the following table and in C7.22#:

| | | |
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A. Fire Tools and Equipment

Contractor shall meet applicable parts of Section 4428 of the CPRC. (See bottom of this document for text of CPRC §4428.)

Unless agreed otherwise, Fire tools kept at each Active Landing shall be sufficient to equip all employees in the felling, yarding, loading, chipping, and material processing operations associated with each landing. Fire equipment shall include two tractor headlights for each tractor dozer used in Contractor's Operations. Tractor headlights shall be attachable to each tractor and served by an adequate power source. Fire tools shall be kept in a sealed fire tool box adjacent to the Active Landing and readily accessible in event of fire.

Where cable yarding is used, Contractor shall provide a size 0 or larger shovel with an overall length of not less than 46 inches and a serviceable 5 gallon backpack pump filled with water or a fire extinguisher bearing a label showing at least a 4-A rating must be within 25 feet of each tail and corner block.

Trucks, tractors/skidlers, pickups and other similar mobile equipment shall be equipped with and carry at all times a size 0 or larger shovel with an overall length of not less than 46 inches and a 2-1/2 pound axe or larger with an overall length of not less than 28 inches.

All required fire tools shall be maintained in suitable and serviceable condition for fire fighting purposes.

B. Fire Extinguishers

Contractor shall equip each internal combustion yarder, fuel truck, and loader with a (4-A:60-B:C) fire extinguisher for oil and grease fires.

Skidders and tractors shall be equipped with a minimum 5-BC fire extinguisher.

Fire extinguishers shall be mounted, readily accessible, properly maintained and fully charged.

Contractor shall equip all mechanized harvesting machines and log processors with hydraulic systems, powered by an internal combustion engine (e.g. masticator, chipper, feller/buncher, harvester, forwarder, Hot Saw, stroke delimeter, etc), with at least two 4-A:60-B:C fire extinguishers or an acceptable CAFS substitute identified in Section K.

C. Spark Arresters and Mufflers

Except for tractors and other equipment with exhaust-operated turbochargers, Contractor shall equip each operating tractor and any other internal combustion engine with an approved spark arrester. There shall be no exhaust bypass on any system.

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Spark Arresters shall be a model tested and approved under Forest Service Standard 5100-1a as shown in the National Wildfire Coordinating Group Spark Arrester Guide, Volumes 1 and 2, and shall be properly mounted and maintained according to manufacturer's specifications.

Every motor vehicle subject to registration shall at all times be equipped with an adequate exhaust system meeting the requirements of the California Vehicle Code.

D. Power Saws Each power saw shall be equipped with a spark arrester approved and maintained in effective working order as identified in the Spark Arrester Guide in Section C. above and according to applicable parts of CPRC Section 4442 or 4443. An Underwriters Laboratories (UL) approved fire extinguisher containing a minimum 14 ounces of fire retardant shall be kept with each operating saw.

A size 0 or larger shovel with an overall length of not less than 38 inches shall be kept with each gas can, but not more than 300 feet from each power saw when used off cleared landing areas.

E. Fire Supervisor & Fire Patrolperson Contractor shall designate in the fire plan required by B7.1 and furnish on Sale Area during operating hours a fire supervisor, named in writing and authorized to act on behalf of Contractor in fire prevention and suppression matters.

Unless agreed otherwise, Contractor shall furnish and designate in writing, a Fire Patrolperson each operating day when Project Activity Level C or higher is in effect. When on duty, the Fire Patrolperson is required to patrol the operation for the prevention and detection of fires, to take suppression action where necessary and to notify Forest Service as required under Sections I. Reporting Fires and L. Communications. This Fire Patrol is required on foot, unless otherwise agreed.

By written agreement, one Fire Patrolperson may provide patrol on this and adjacent projects or sales. No Fire Patrolperson shall be required on Specified Road construction jobs except during clearing operations unless otherwise specified.

F. Seasonal Permits Contractor shall obtain written permits from Forest Service before allowing welding, warming fires or burning, subject to C7.22# - Emergency Precautions.

G. Clearing of Fuels

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| Welding equipment and stationary log loaders, yarders and other equipment listed in California State Law: | 10 feet slope radius |
| Tail or corner haulback blocks: | All running blocks on a cable yarding operation shall be located in the center of an area that is cleared to mineral soil at least 15 feet in diameter. |
| Lines near, between or above blocks: | Sufficient clearing to prevent line from rubbing on snags, down logs and other dead woody material. |

Contractor shall clear away, and keep clear, fuels and logging debris as follows:

H. Smoking

All smoking shall be confined within a car, truck, crew rig or other enclosed cab after 1:00 PM on Ev days and all hours on E days (C7.22#). At other times, any smoking shall be done while sitting in an area at least 3 feet in diameter, cleared of flammable materials. Burning tobacco and matches shall be extinguished before they are properly disposed.

I. Reporting Fires

As soon as feasible, but no later than **15 minutes** after discovery, Contractor shall notify Forest Service of any fires on Sale Area or along roads used by Contractor.

J. Tank Truck

Contractor shall provide a water tank truck or trailer on or in proximity to Sale Area during Contractor's Operations hereunder during Fire Precautionary Period unless otherwise agreed.

Tank truck or trailer shall contain at least 300 gallons of water and comply with the following requirements:

(1) Pump, which at sea level, can deliver 23 gallons per minute at 175 pounds per square inch measured at the pump outlet. Pumps shall be tested on Sale Area by Forest Service using a 5/16 inch orifice with a one inch in line test kit and shall meet or exceed the pressure values identified in the following table for nearest temperature and elevation:

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| T E M p | Sea Level | | 1000 Feet | | 2000 Feet | | 3000 Feet | | 4000 Feet | | 5000 Feet | | 6000 Feet | | 7000 Feet | | 8000 Feet | | 9000 Feet | | 10000 Feet | |
|------------------|-----------|-----|-----------|-----|-----------|-----|-----------|-----|-----------|-----|-----------|-----|-----------|-----|-----------|-----|-----------|-----|-----------|-----|------------|-----|
| | 55 | 179 | 23 | 174 | 23 | 169 | 23 | 165 | 22 | 161 | 22 | 157 | 22 | 153 | 22 | 150 | 21 | 146 | 21 | 142 | 21 | 139 |
| 70 | 175 | 23 | 171 | 23 | 166 | 22 | 162 | 22 | 158 | 22 | 154 | 22 | 150 | 21 | 147 | 21 | 143 | 21 | 139 | 21 | 136 | 20 |
| 85 | 171 | 23 | 168 | 23 | 163 | 22 | 159 | 22 | 155 | 22 | 151 | 21 | 147 | 21 | 144 | 21 | 140 | 21 | 136 | 20 | 133 | 20 |
| 100 | 168 | 23 | 164 | 23 | 159 | 22 | 155 | 22 | 152 | 22 | 148 | 21 | 144 | 21 | 141 | 21 | 137 | 20 | 133 | 20 | 131 | 20 |
| | P | G | P | G | P | G | P | G | P | G | P | G | P | G | P | G | P | G | P | G | PSI | G |
| | S | P | S | P | S | P | S | P | S | P | S | P | S | P | S | P | S | P | S | P | S | P |
| | I | M | I | M | I | M | I | M | I | M | I | M | I | M | I | M | I | M | I | M | I | M |

The pump outlet shall be equipped with 1-1/2 inch National Standard Fire Hose thread. A bypass or pressure relief valve shall be provided for other than centrifugal pumps.

(2) 300 feet of 3/4-inch inside diameter rubber-covered high-pressure hose mounted on live reel attached to pump with no segments longer than 50 feet, when measured to the extreme ends of the couplings. Hose shall have reusable compression wedge type 1-inch brass or lightweight couplings (aluminum or plastic). One end of hose shall be equipped with a coupling female section and the other end with a coupling male section. The hose shall, with the nozzle closed, be capable of withstanding 200 PSI pump pressure without leaking, distortions, slipping of couplings, or other failures.

(3) A shut-off combination nozzle that meets the following minimum performance standards when measured at 100 P.S.I. at the nozzle:

| | G.P.M. | Horizontal Range |
|-----------------|--------|------------------|
| Straight Stream | 10 | 38 feet |
| Fog Spray | 6 - 20 | N/A |

(4) Sufficient fuel to run pump at least 2 hours and necessary service accessories to facilitate efficient operation of the pump.

~~(5)~~—When Contractor is using Hot Saws or Masticators an additional 250 feet of light weight hose, approved by Forest Service, shall be immediately available for use and be capable of connecting to the 300 feet of hose and appurturances in (2) and (3) above.

~~(6)~~—This equipment and accessories shall be deliverable to a fire in the area of operations and is subject to the requirements for each specific activity level identified in

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C7.22#.

K. Compressed Air Foam System (CAFS)

A fire suppression system where compressed air is added to water and a foaming agent. By agreement, Contractor may substitute a CAFS or functional equivalent in lieu of the tank truck, trailer or fire extinguishers, provided it meets or exceeds the following specifications and requirements:

1. Variable foam expansion ratio - 10:1 to 20:1.
2. Units shall be kept fully charged with air; water and foam concentrate as recommended by the manufacturer and have the appropriate tools to service the system.
3. The unit shall contain enough energy to empty tank and clear hose prior to exhausting propellant.
4. The unit shall be capable of being completely recharged within 10 minutes.
5. When used on cable yarding landings, the unit shall be outfitted for immediate attachment to carriage and transported without damage to the unit.

Fire extinguishers required for Hot Saws, Masticators and similar equipment identified in Section B. above may be substituted with a 3 gallon CAFS.

Tank truck, trailer or equivalent may be substituted with a 30 Gallon CAFS with at least 550 feet of one inch hose and an adjustable nozzle with enough water, air and foam concentrate for at least one recharge.

This equipment and accessories shall also be deliverable to a fire in the area of operations and subject to the requirements for each specific activity level identified in C7.22#.

L. Communications

Contractor shall furnish a serviceable communications system such as a telephone, radio-telephone, radio system or satellite phone connecting each operating side within the Sale Area with Contractor's headquarters, and capable of notifying Forest Service within **15 minutes** of discovery of any fires on the Sale Area or along Contractor's haul route. When such headquarters is at a location which makes communication to it clearly impractical, Forest Service may agree to a reasonable alternative notification method.

A Citizen's Band (CB) radio is not acceptable communications.

M. Cable Yarding Tank Unit

When all or part of Included Timber will be harvested by a long span (over 1,500 feet) cable yarding operation, Contractor shall provide at each active cable yarding landing a tank truck, trailer or acceptable CAFS substitute which can be lifted and transported by the carriage.

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The unit shall meet the same requirements as specified for the tank truck, trailer or approved CAFS substitute.

N. Helicopter Yarding Fire Precautions

Contractor shall provide and maintain fire equipment as follows:

1. The fire tool box required under this provision shall be equipped for attachment to the helicopter long line so that it may be hauled to needed locations. Such attachment device shall not interfere with access to fire tools. Unless agreed otherwise, the fire tool box shall be located at the Active Landing ready for immediate dispatch.
2. An external helibucket readily attachable to the helicopter, with a capacity of at least 500 gallons, and having a remote control door mechanism adequate for rapid dropping of water. The helibucket shall be located at the helicopter service landing and shall be filled with water ready for immediate dispatch unless otherwise agreed.
3. All aircraft used in conjunction with Contractor's Operations shall be equipped with an operable radio system capable of meeting Region Five avionics requirements.
4. For protection of fuel servicing operations, fire extinguishers which have the following ratings based on the open hose discharge capacity, i.e., "broken hose," of the aircraft fueling system shall be readily available:
 - a. Where said capacity does not exceed 200 gallons per minute, at least one approved extinguisher having a minimum rating of 20-B;
 - b. Where said capacity is in excess of 200 gallons per minute, but not over 350 gallons per minute, one approved extinguisher having a minimum rating of 80-B;
 - c. Where said capacity is in excess of 350 gallons per minute, two approved extinguishers, each having a minimum rating of 80-B.
5. By agreement, a suitable CAFS may also be used in lieu of the above extinguishers.
6. Extinguishers of over 50 pounds gross weight shall be of wheeled type or be mounted on carts to provide mobility and ease of handling.

C7.22# - EMERGENCY PRECAUTIONS. (06/2012) Contractor's Operations shall conform to the limitations or requirements in the Project Activity Level (PAL) table below. Unless otherwise agreed in writing, Project Activity Levels applicable to this project shall be the predicted levels for the Fire Danger Rating Area(s), or fire weather station(s) stated in the Sale Area Map legend.

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Forest Service, in its sole discretion, may change the predicted activity level if the current fire suppression situation, weather and vegetation conditions warrant an adjustment. If practicable, Forest Service will determine the following day's activity level by 6:00 PM. Contractor shall obtain the predicted Project Activity Level from the appropriate Ranger District Office before starting work each day.

Forest Service may change the Project Activity Level Table to other values upon revision of the National Fire Danger Rating System. When Contractor is notified, the revised Project Activity Levels will supersede the levels in the Project Activity Level Table below.

PROJECT ACTIVITY LEVEL (PAL) - C7.22# - EMERGENCY PRECAUTIONS

PROJECT ACTIVITY LEVEL TABLE

| Level | Project Activity Minimum Requirements and Restrictions. Restrictions at each level are cumulative. |
|--------------|---|
| A | Minimum required by C7.2#. |
| B | 1. Tank truck, trailer, or approved CAFS substitute shall be on or adjacent to the Active Landing. |
| C | 1. When Hot Saws or Masticators are operating, a tank truck, trailer or approved CAFS substitute shall be within ¼ mile of these operations. Effective communications shall exist between the operator and the Active Landing. 2. Immediately after Mechanical Operations cease, Fire Patrol is required for two hours. |
| D | 1. Immediately after Hot Saw or Masticator operations cease; Fire patrol is required for three hours. 2. No Dead Tree felling after 1:00 PM, except recently dead. 3. No Welding or cutting of metal after 1:00 PM, except by special permit. |
| Ev | 1. The following activities may operate all day: a) Loading and hauling logs decked at approved landings. b) Loading and hauling chips stockpiled at approved landings. c) Servicing equipment at approved sites. d) Dust abatement, road maintenance (Chainsaw use prohibited), culvert installation within cleared area, chip sealing, paving, earth moving or rock aggregate stock pile loading and installation (does not include pit or quarry development). e) Chainsaw and log processing operations associated with loading logs or other forest products at approved landings. 2. Hot Saws or Masticators may operate until 1:00 PM; provided that: a) A tractor or other equipment with a blade capable of |

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| | <p>constructing fireline is on or adjacent to the active landing or within ¼ mile of the operating equipment. This piece of equipment shall have effective communication with the Hot Saw or Masticator.</p> <p>b) Any additional restrictions specified by the Forest.</p> <p>3. All other conventional Mechanical Operations are permitted until 1:00 PM.</p> <p>4. Some operations may be permitted after 1:00 PM, on a case-by-case basis, under the terms of a PAL Ev Variance Agreement. Activities for which a Variance may be issued are:</p> <ul style="list-style-type: none"> • Rubber Tire Skidding • Chipping on Landings • Helicopter Yarding • Fire Salvage <p>When approved by a Line Officer, a Variance Agreement can be implemented when the criteria specified in the agreement are met and mitigation measures are in place. This approval is good for ten (10) days unless cancelled sooner or extended by the Contracting Officer for an additional ten (10) days. Variance approval can be withdrawn at the sole discretion of Forest Service. Variance approval is contingent on the 7-day fire weather forecast, fuel conditions, site characteristics, current fire situation, state of Contractor's equipment for prevention and suppression readiness, type of operation and social and community considerations etc. (See attached Project Activity Level Variance Agreement).</p> |
| E | <p>The following activities may operate all day:</p> <ol style="list-style-type: none"> 1. Loading and hauling logs decked at approved landings. 2. Loading and hauling chips stockpiled at approved landings. 3. Servicing Equipment at approved sites. 4. Dust abatement, road maintenance (chainsaw use prohibited) or loading stock piles and rock aggregate installation (does not include pit or quarry development). 5. Chainsaw operation associated with loading at approved landings. <p>All other activities are prohibited.</p> |

SPECIFICATIONS PURSUANT TO C7.22# - EMERGENCY PRECAUTIONS. (10/2010)

Region 5 Project Activity Level (PAL) Ev Variance Application/Agreement

Project Name: _____
 Contract Number: _____
 Contractor/Contractor Name: _____
 Request #__, for period: _____
 Units/Subdivisions Affected: _____

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| Location of operation: | |
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| Slope | |
| Aspect | |
| Elevation | |
| Fuels on site | |
| Fuels in surrounding area | |
| 7 Day PAL Outlook | |
| Short range predictions (Red Flags) | |
| <i>Fuel Moistures</i> | |
| Response time of suppression resources | |
| Potential for ignition | |
| RAWS location | |
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| Current Fire Situation: | |
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| Draw down information | |
| National Readiness Level | |
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| Contractual considerations: | |
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| Normal Operating Season | |
| Frequency of recent contract fires in area | |
| Type of operation | |
| Contractor/Contractors past/current performance & equipment readiness | |
| Other site specific mitigation or precaution (i.e. Contractor/Contractors proposals) | |
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| Social & Community Considerations: | |
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| Proximity of high value resources | |
| Sensitivity of location | |

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| Remarks: |
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Ev Proposed Actions

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Rubber Tired Skidding

Chipping on Landings

Helicopter Yarding

Fire Salvage

Description of Mitigation Measures

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Fire Management Officer Concurrence

Date

Line Officer Approval

Date

I have considered the above request and determined the specified mitigation measures or actions must be implemented to continue operations in Project Activity Level Ev. Unless extended, the approval remains in effect for ten (10) calendar days unless cancelled sooner or extended by the Forest Service for an additional ten (10) days. At the sole discretion of the Forest Service, this variance can be modified and/or cancelled at no cost to the government.

Contracting Officer

Date

Contractor/Contractor Rep.

Date

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Text of CPRC (California Public Resources Code) §4428

No person, except any member of an emergency crew or except the driver or owner of any service vehicle owned or operated by or for, or operated under contract with, a publicly or privately owned utility, which is used in the construction, operation, removal, or repair of the property or facilities of such utility when engaged in emergency operations, shall use or operate any vehicle, machine, tool or equipment powered by an internal combustion engine operated on hydrocarbon fuels, in any industrial operation located on or near any forest, brush, or grass-covered land between April 1 and December 1 of any year, or at any other time when ground litter and vegetation will sustain combustion permitting the spread of fire, without providing and maintaining, for firefighting purposes only, suitable and serviceable tools in the amounts, manner and location prescribed in this section.

(a) On any such operation a sealed box of tools shall be located, within the operating area, at a point accessible in the event of fire. This fire toolbox shall contain: one backpack pump-type fire extinguisher filled with water, two axes, two McLeod fire tools, and a sufficient number of shovels so that each employee at the operation can be equipped to fight fire.

(b) One or more serviceable chainsaws of three and one-half or more horsepower with a cutting bar 20 inches in length or longer shall be immediately available within the operating area, or, in the alternative, a full set of timber-felling tools shall be located in the fire toolbox, including one crosscut falling saw six feet in length, one double-bit ax with a 36-inch handle, one sledge hammer or maul with a head weight of six, or more, pounds and handle length of 32 inches, or more, and not less than two falling wedges.

(c) Each rail speeder and passenger vehicle, used on such operation shall be equipped with one shovel and one ax, and any other vehicle used on the operation shall be equipped with one shovel. Each tractor used in such operation shall be equipped with one shovel.

(d) As used in this section:

(1) "Vehicle" means a device by which any person or property may be propelled, moved, or drawn over any land surface, excepting a device moved by human power or used exclusively upon stationary rails or tracks.

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(2) "Passenger vehicle" means a vehicle which is self-propelled and which is designed for carrying not more than 10 persons including the driver, and which is used or maintained for the transportation of persons, but does not include any motortruck or truck tractor.

----End CPRC § 4428----

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Exhibit C: Original NEPA Documentation

**Documentation of Land Use Plan Conformance and
Determination of NEPA Adequacy (DNA)**

U.S. Department of the Interior
Bureau of Land Management (BLM)
Redding, CA Field Office

DOI-BLM-CA-N060-2022-0024-DNA

Reference Environmental Document: DOI-BLM-CA-9000-2018-0002-

**EA Proposed Action Title: Post North Fire Hazard Tree and Fuels
Reduction**

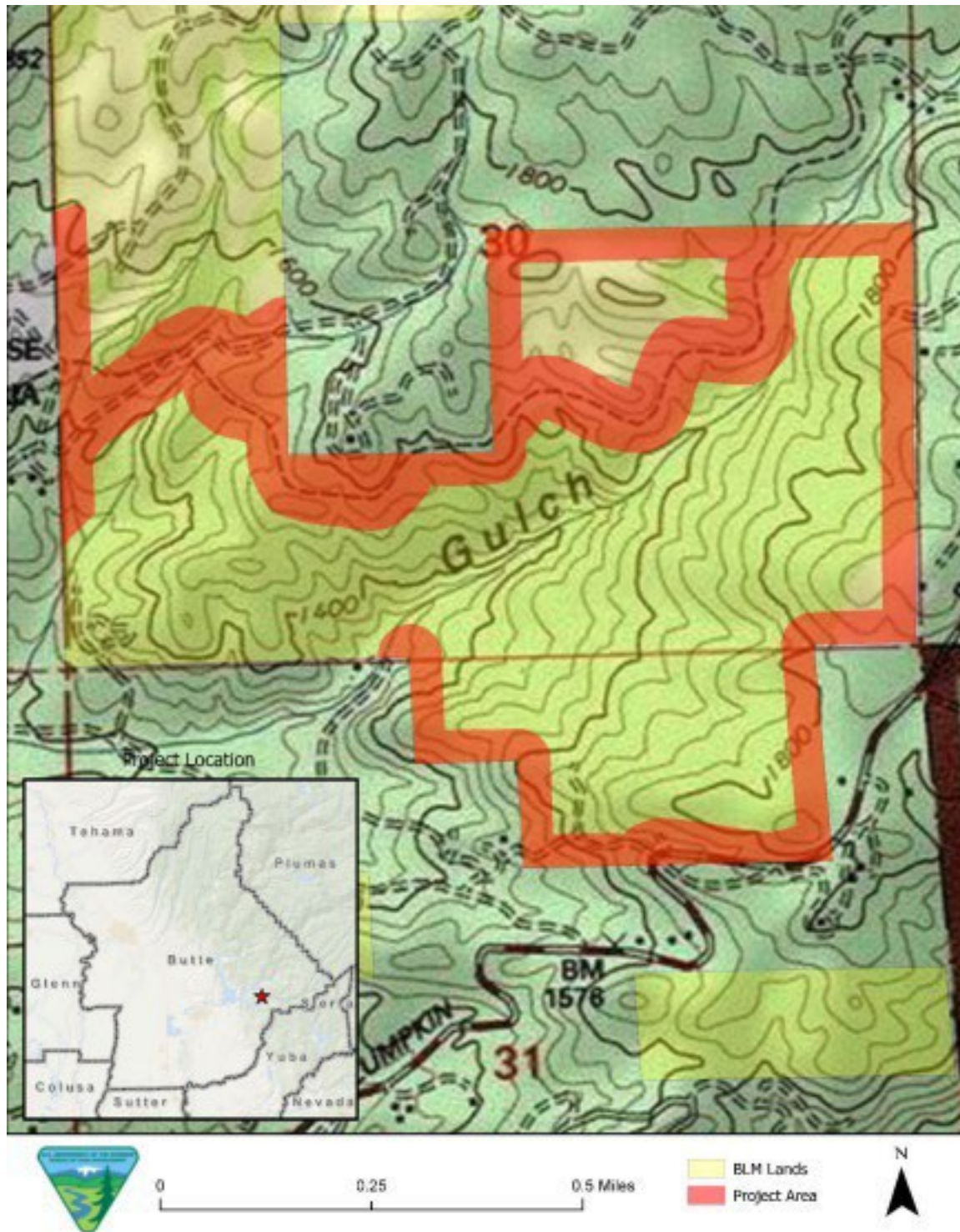
The signed CONCLUSION at the end of this worksheet is part of an interim step in the BLM's internal analysis process and does not constitute an appealable decision; however, it constitutes an administrative record to be provided as evidence in protest, appeals and legal procedures. This analysis can provide background documentation for a new decision record coupled to an existing environmental assessment, or to the existing decision record.

A. Location/Legal Description:

The project area encompasses 120 acres of public lands administered by the Bureau of Land Management (BLM) Redding Field Office (RFO), within Butte County, California. The project area can be legally accessed off of Lumpkin Road between Craig Access Road and Cedar Tree Lane (See Figure 1).

Legal Description: MDM, T20N, R6E sections 30 and 31.

[Figure 1: Project Area](#)



B. Description of the Proposed Action:

The proposed action would remove dead and dying trees, understory shrubs, and heavy accumulations of downed materials to reduce hazardous fuel loading and hazard trees in and around Lumpkin Road, in Butte County, CA. The proposed action would authorize the creation and maintenance of linear fuel breaks on up to 120 acres of BLM property

alongside existing features such as roadways, property boundaries, or infrastructure.

The purpose of the proposed action is to reduce the risk of wildfire to firefighters, residents, and natural resources by creating defensible space along roads and nearby homes. The current stand condition is made up of high loadings of dead standing vegetation and resprouting woody shrubs related to the high severity North Complex Wildfire that occurred in 2020. This arrangement of vegetation would support extreme fire behavior (crown fire and rapid rates of spread) during a wildfire. Any wildfire occurring in this area could pose an immediate threat to life and property. A change to the vegetation profile will improve community evacuation routes, access for first responders, and establish tactically viable suppression features adjacent to values at risk.

Fuel breaks will be constructed up to 200 feet in width from roadsides and property boundaries. Implementation methods will consist of hand cutting using power-saws, piling using ground personnel, chipping of cut material on-site, and burning of piles on site. No mechanized equipment will be used in the proposed project area. The vegetation to be removed or modified will be standing or fallen dead vegetation up to 24-inch diameter at breast height (DBH), selective thinning of overstocked live shrubs and trees less than 10 inches DBH, and mowing or weed eating ground fuels. Piled material will be constructed at a minimum of 6 x 6 foot and a maximum of 30 x 30 foot tall/wide, built outside of remaining canopy drip lines, free of dirt or non-organic materials, and covered using waxed craft paper or a similar non-plastic material. Post-treatment canopy closure of young and mid-sized stands would be 40 percent or greater within 200-foot-wide treatment areas along roadsides or other identified features.

Cutting:

Live standing vegetation removal would focus on creating gaps in vertical and horizontal fuel continuity by reducing understory or mid-canopy vegetation and small trees up to 10 inches DBH, targeting retained live canopy cover of 40 percent or greater. An average post-treatment stand condition would target 30-foot stem spacing of dominant canopy species, especially selecting for the retention of deciduous oak species. Pruning of retained live canopy species to 8 feet above ground level would also occur to maintain breaks in vertical fuel continuity. In regenerating Oak shrubs, individuals would be pruned to select for a single terminal leader in order to promote desired growth pattern. Where tree species are not present, large woody shrub specimens may be selected for retention. Standing and fallen dead vegetation up to 24 inches DBH will be felled, bucked, and piled to reduce hazard tree loading, risk to adjacent features and future fire threat. Snags and downed material will be retained two per acre for wildlife habitat, forage, and as large woody debris. Material greater than 24 inches DBH will be retained on site.

Chipping:

When chipping is used hand saws and personnel shall be used to cut, move, and chip the material. Material targeted for cutting and chipping treatment will be live and dead standing or fallen vegetation up to 10 inches in diameter. Residual slash or chip bed depth should be evenly distributed back into the unit and be no more than 4 inches depth on

average and not to accumulate in drainages, ditches, or culverts. Standing and fallen dead vegetation will be cut and chipped up to 24 inches DBH. Fuel breaks will be cut to build a 30-foot stem spacing profile. (Appendix A - Mechanical PDF's Outline Limitations)

Piling:

Piles will consist of cut trees and brush growing between live trees less than 10 inches DBH. Piles will also include cutting and piling of standing dead and downed woody material up to 24 inches DBH. Piled material will be constructed at a minimum of 6 feet x 6 feet and a maximum of 30 x 30 feet tall/wide, built outside of remaining canopy drip lines, free of dirt or non-organic materials, and covered using waxed craft paper or similar non-plastic material. Piling by hand is allowable throughout the treatment area, adhering to all piling specifications or exclusion areas. Fuel breaks will be cut to build a 30-foot stem spacing profile and/or retain 40 percent live canopy cover post-treatment.

Pile Burning:

Piles will be burned in accordance with a Bureau of Land Management pile burn plan and with a qualified on-scene burn boss during implementation. Piles will be ignited by hand, using drip torches. Pile burning would be conducted according to approved burn plans and within outlined prescriptions. The most favorable timeframe for burn operations would be after or during measurable precipitation. This will increase soil and duff moistures and reduce the probability of fire creeping outside of piles further than radiant heat would allow. The piles will be strategically placed outside the drip line of trees to reduce torching of trees and mortality. The piles and concentrations would be burned in coordination with local air districts and only during permissible burn-days after local and district notifications have been made. Handline construction could be included to limit fire spread from pile perimeters, or on an as needed basis. Piles and handline construction would not occur in exclusion areas such as cultural, botanical, riparian, wildlife, or other pre-identified exclusion areas. Piles would be monitored throughout the ignition and burn period to ensure greater than 80 percent of woody materials are consumed.

Maintenance:

Fuels reduction treatments proposed would be maintained using the original manual vegetation treatment method previously outlined. General timelines for maintaining effective fuel breaks require follow-up treatments within one to five years of the original entry. All follow-up maintenance intervals would adhere to described methods and specifications. Fuel break maintenance would be conducted following consultation with BLM resource and fire staff to ensure retreatment does not conflict with field office (FO) management objectives or other specific interests.

Refer to Attachment A, for project specific design features (PDFs) applicable to this project and incorporated into this project description. Botany, wildlife, and cultural resource specialists have conducted surveys as detailed below and provided relevant project specific recommendation based on the CA Hazard Removal and Vegetation Management Programmatic EA (HRVM pEA).

General Treatment Guidelines

The treatments may vary in width or treatment type due to slope, access constraints, riparian buffer zones, and any cultural or other resource avoidance zones. Access to the project sites would use established roads and trails; no new permanent construction would be allowed. Sensitive cultural resource areas may require an archeologically trained monitor, including use of local Native American monitors, to ensure site protective measures are followed.

Noxious and invasive weeds have been identified in and around the project area. These infestations will be inventoried and prioritized for treatment and/or avoidance, as necessary. The project area should be periodically monitored prior to follow up fuels treatments every one to five years to ensure that noxious and invasive weeds do not become established. Re-seeding of burn pile scars may be required following completion of pile burning.

Intermittent streams are present in the project area. Prior to the use of mechanized equipment, a riparian buffer of 50-foot around these streams should be flagged on the ground. No mechanized equipment would be allowed in these riparian buffers. Hand thinning of non-riparian woody species would be permitted. Burn piles would be located outside of the riparian buffer. Perennial streams require 100-foot exclusion of equipment and pile burning. BLM California Best Management Practices (BMPs) for water quality would be implemented to mitigate impacts to riparian resources. These BMPs are listed in detail under “BMPs for Fire and Fuels Management” in Appendix B.

Cultural Resources

A Class III cultural resources survey of the project’s Area of Potential Effect (APE) was conducted between January and August of 2022. Field inventory was performed by Lowell Thomas, and Eric Ritter, RFO archaeologists, with assistance from Alden Neel, RFO Resources Manager. BLM staff were accompanied by cultural Tribal monitors on behalf of the Enterprise Rancheria for six survey days between May and July of 2022. An archaeological survey report detailing project findings is on file with the BLM, RFO. A total of 172 acres of new Class III survey coverage was completed for this undertaking. The coverage includes approximately 40 acres from previous APE designations that have since been removed and are not included in the final project APE. Less than one third of the APE had been previously surveyed at an intensive level. Previous inventories were largely related to utility line maintenance, post-fire assessment, and access right of ways.

A total of 26 cultural and archaeological resources have been identified for this undertaking, including 8 previously identified and 18 newly identified resources. Resources include indigenous and multi-component habitation and task-oriented sites, historic transportation, power line and railway alignments, historic habitation, small and large-scale gold mining-related exploration, extraction, and processing features, sites, complexes, mined drainages and refuse scatters. Of the 26 identified resources, 23 occur within the final APE and have been individually assessed to determine appropriate treatments and protection measures (Table CR-1).

In general, some level of fuels treatment on each site is desired in order to reduce hazardous fuels loading and the threat of future high-intensity wildfire; reduce the risk of future ground and above-ground feature disturbances posed by fallen and uprooted trees; and to eliminate the creation of “fuel islands” comprised of untreated fuels that can draw the unwanted attention of people and graze animals.

Depending on the type of resource site-specific resource protection measures have been designed to: apply to the entire site area(s); apply to specific inter-site area(s); or not be required at all. For example, certain resources contain soils and/or features that are sensitive to trampling, dragging, falling, piling and burning of targeted fuels. These areas are to be flagged and require an archaeological monitor present to assist in the directional falling and removal of select fuels without causing damage to the resource. Other sites are less sensitive to one or more of the said actions and are subject to less restrictive protection measures. Lastly, certain sites are considered not sensitive to proposed actions and require no protection measures. These include areas that have previously been impacted by wildfire heat and either lack or no longer contain combustible or other sensitive components that could be adversely affected by proposed project actions.

Tribal consultation letters were sent by certified mail to the Berry Creek Rancheria, Mooretown Rancheria, and Enterprise Rancheria on March 10, 2022. Responses were received from the Mooretown and Enterprise Rancherias and have been addressed by email, mail, telephone, and in-person coordination between said Tribes and BLM archaeology staff.

All legal requirements for the proposed undertaking have been satisfied under Stipulation 7.2 “No Adverse Effect” of the 2019 California BLM State Protocol Agreement. The undertaking’s area of potential effect has been inventoried for cultural and archaeological resources and all identified resources have been assessed for sensitivity to proposed project actions and prescribed site-specific protection measures. Therefore, with implementation of the recommended project design features and resource protection measures this proposed undertaking will not cause adverse impacts to historic properties, cultural, or archaeological resources.

Table CR-1. Site-Specific Cultural Resource Protection Measures

| Resource ID | Other Identifiers | Management Measures Required |
|------------------------|---|------------------------------|
| Previously Known Sites | | |
| CA-030-1348 | Feather Falls Railway Segment-Oregon Gulch Area | No Restrictions |
| CA-030-1352 | Feather Falls Power Line | No Restrictions |

| | | |
|------------------------|--|---|
| CA-030-2411 | BUT-KH-002; BUT KH-003 | No Restrictions |
| CA-030-2412 | EZ003; Lumpkin Road | No Restrictions |
| CA-030-1349 | OGM | Archaeological monitor must be present during all work within flagged resource area. No dragging, piling, or burning within flagged resource area(s). |
| CA-030-2413 | EZ004 | Archaeological monitor must be present during all work within flagged resource area. No dragging, piling, or burning within flagged resource area(s). |
| CA-030-2414 | EZ-001; EL-05 | No Restrictions |
| CA-030-2415 | EL-01; EZ-002; EZ005; EL-16; EL- 21; EL-25 | No pile burning in ditch or on associated berms |
| Newly Identified Sites | | |
| CA-030-2417 | EL-03 | No Restrictions |
| CA-030-2419 | EL-06 | Archaeological monitor must be present during all work within flagged resource area. No dragging, piling, or burning within flagged resource area(s). |
| CA-030-2420 | EL-07 | Archaeological monitor must be present during all work within flagged resource area. No dragging, piling, or burning within flagged resource area(s). |
| CA-030-2421 | EL-08 | Archaeological monitor must be present during all work within flagged resource area. No dragging, piling, or burning within flagged resource area(s). |
| CA-030-2422 | EL-09 | Archaeological monitor must be present during all work within flagged resource area. No dragging, piling, or burning within flagged resource area(s). |

| | | |
|-------------|--------------------------|---|
| CA-030-2423 | EL-10 | Archaeological monitor must be present during all work within flagged resource area. No dragging, piling, or burning within flagged resource area(s). |
| CA-030-2424 | EL-11 | No Restrictions |
| CA-030-2425 | EL-12 | Archaeological monitor must be present during all work within flagged resource area. No dragging, piling, or burning within flagged resource area(s). |
| CA-030-2426 | EL-13 | No Restrictions |
| CA-030-2427 | EL-14; EL-15 | Archaeological monitor must be present during all work within flagged resource area. No dragging, piling, or burning within flagged resource area(s). |
| CA-030-2428 | EL-17 | No Restrictions |
| CA-030-2429 | EL-18 | Archaeological monitor must be present during all work within flagged resource area. No dragging, piling, or burning within flagged resource area(s). |
| CA-030-2430 | EL-19 | Archaeological monitor must be present during all work within flagged resource area. No dragging, piling, or burning within flagged resource area(s). |
| CA-030-2431 | EL-22 | Archaeological monitor must be present during all work within flagged resource area. No dragging, piling, or burning within flagged resource area(s). |
| CA-030-2433 | EL-24; BUT-KH-001; EL-20 | Archaeological monitor must be present during all work within flagged resource area. No dragging, piling, or burning within flagged resource area(s). |

General Cultural Resource Protection Measures:

The project would not excavate, remove, damage, alter, or deface any archeological or paleontological remains or specimens. The project plan would control the actions of

employees and subcontractors on the project to ensure that protected sites are not disturbed or damaged. *In the event of post-review discovery of, or unanticipated effects to, cultural resources during implementation the following procedures will be undertaken:*

- The (FO) Archaeologist will be given sufficient notice prior to project implementation to flag avoidance features in the project area according to site specific cultural resource protection measures outlined above, and to coordinate with the project manager prior to start of work to assure protection measures are successful.
- The FO Archaeologist, Field Manager, and BLM project manager or lead will be immediately notified by personnel responsible for project implementation. A map showing confidential resource locations will be provided separately to the Project Manager.
- All project work and activities with the potential to damage the cultural resource will cease immediately within 50 feet of the post-review discovery or where the unanticipated effects have occurred. This distance may be changed at the discretion of the FO Archaeologist in consultation with the Field Manager and BLM project manager, taking into account the circumstances of the specific project and discovery.
- The FO Archaeologist will make an assessment of the situation and, in consultation with the Field Manager, prescribe a course of action consistent with the Protocol, existing heritage laws and guidance, tribal input, and/or the Section 106 regulations at 36 CFR 800.13 pertaining to post-review discoveries and unanticipated effects.
- The FO Archaeologist will oversee and document implementation of the agreed upon steps and will report the discovery event and the manner of its resolution. • The Field Manager has sole discretion to authorize (through a Notice to Proceed) continuation of project work and activities within the area of the discovery or anticipated effects after the situation is fully resolved.
- Inadvertent discovery of human remains and objects subject, or potentially subject, to Native American Graves Protection Act (NAGPRA) as defined in 43 CFR 10.2 (d) will be handled by the BLM under the Archaeological Resources Protection Act (ARPA) regulation at 43 CFR 7 and NAGPRA regulations at 43 CFR 10 as well as related BLM policy, including BLM California-specific policy and procedures such as those in the Protocol. The situation will be resolved to the satisfaction of the Field Manager, working in consultation with the FO Archaeologist, before project work and activities are allowed to continue in the area of the inadvertent discovery. The Field Manager has sole discretion to authorize (through a Notice to Proceed) continuation of project work and activities in the area of the discovery.

Wildlife Resources

The project area contains suitable nesting habitat for a multitude of species protected under the Migratory Bird Treaty Act of 1918. The regional nesting season for raptors protected under the act with the potential to occur within the project area runs from January 1 through August 31; for non-raptors, nesting season in the region occurs from mid-February through August 15. Work conducted during either of these periods would require pre and concurrent wildlife surveys. Work conducted from September 1 through December 31 would not require nesting surveys.

Project activities that involve tree removal, vegetation disturbance, or other activities likely to cause disturbance to nesting birds would require the following design features if the activities were implemented during either nesting season:

Pre-project surveys:

Project activities conducted during the nesting season would require surveys to determine the presence of active nests within or adjacent to project areas, no more than 7 days prior to commencing work. Surveys would be conducted by a qualified biologist and should begin as early as possible within the nesting season, when visibility due to lack of foliage is highest.

Implementation of Avoidance Measures:

Where nests are found, a buffer of 250 feet should be established around the nest and maintained until birds have fledged or breeding activities have ceased. If it is determined that a smaller buffer would be sufficient to prevent impacts to nesting birds, buffer size may be adjusted by a qualified biologist, in coordination with United States Fish and Wildlife Service (USFWS). The buffer would be monitored by a biological observer until project work has ceased, or the nest is no longer active. Any incidental take of a migratory bird would be reported to USFWS.

Botany Resources

Botanical surveys were initiated in March of 2022 with a qualified contractor, Wild Ginger Botanical Consulting. Pre-survey desktop reviews targeted special status plant species that may occur in the project area using the California Natural Diversity Database (CNDDDB), the California Native Plant Society Rare Plant Inventory (CNPS 2019), CalFlora's "What Grows Here" search engine, and the BLM RFO species status plant list. Field surveys were completed in the spring of 2022 and timed to ensure all potential special status species could be identified to an appropriate taxonomic level during bloom. No special status plants were found during field surveys. If any special status plants are found during project implementation they will be flagged and avoided by project work.

C. Conformance with Resource Management Plan and Consistency with Related Subordinate Implementation Plans

LUP: Redding Resource Management Plan (RMP) Date Approved: July 27, 1993

The proposed action is in conformance with the Redding Resource Management Plan

because it is specifically provided for in the following decisions:

- Vegetation management will occur as a secondary benefit or impact in many BLM activities such as grazing, timber harvest, wetland construction, firefighting, mining and special status species management (page 26).
- Prescribed burn plans for hazard reduction and vegetation management activities include appropriate environmental analyses in conformance with the National Environmental Policy Act. No specific areas are identified in this RMP and assessment of environmental consequences is deferred to activity and project planning phases (page 15).

D. Identify the applicable NEPA document(s) and other related documents that cover the proposed action.

Primary Environmental Assessment (EA):

Environmental Assessment: Hazard Removal and Vegetation Management Project (DOI BLM-CA-9000-2018-0002-EA, February 2019 (<https://eplanning.blm.gov/eplanning/ui/project/109991/570>)). The Hazard Removal and Vegetation Management Project Programmatic EA analyzes treatments near critical infrastructure to address tree mortality, forest and woodland health, and excess fuel loadings. As noted in the EA, FOs may use the analysis provided after completing a Determination of National Environmental Policy Act (NEPA) Adequacy if the proposed action is consistent with the activities analyzed in the EA and if appropriate cultural and biological resource surveys are completed.

The DNA undertaken here satisfies the EA's requirement for FOs to complete a DNA and Decision Record for site-specific analysis before authorizing ground disturbing activities. Further the DNA is consistent with the activities in the Proposed Action of the EA including treatments such as dead and dying tree removal, vegetation management, prescribed fire using a range of tools, and associated temporary infrastructure.

Supporting Documents:

Redding Field Office Fire Management Plan (2014)

E. NEPA Adequacy Criteria

1. Is the current proposed action substantially the same action (or is a part of that action) as previously analyzed? Is the project within the same analysis area, or if the project location is different, are the geographic and resource conditions sufficiently similar to those analyzed in the existing NEPA document(s)? If there are differences, can you explain why they are not substantial?

Yes [X] No []

The site-specific proposed actions are fully consistent with the suite of actions analyzed

in the HRVM pEA. PDFs that apply to the site-specific proposed actions are listed in Appendix A and were analyzed in the HRVM pEA. The geographic and resource conditions for this site-specific project are the same as those analyzed HRVM pEA. The EA included the project area within the analyzed footprint.

2. Is the range of alternatives analyzed in the existing NEPA document(s) appropriate with respect to the current proposed action, given current environmental concerns, public interests, and resource values?

Yes No

The HRVM pEA analyzed an appropriate range of alternatives given the purpose and need for the project. No new environmental concerns, interests, resource values, or circumstances have been revealed since the tiered EA was published, in February 2019 that would indicate a need for additional alternatives.

3. Is existing analysis adequate in light of any new information or circumstances (including rangeland health standards assessments, inventory and monitoring data; updated threatened, endangered, proposed, and candidate species lists and updated BLM lists of sensitive species)? Can you reasonably conclude that all new information and all new circumstances are insignificant with regard to analysis of the proposed action?

Yes No

Redding Field Office Consistency Review of Northwest Forest Plan Implementation

Does the proposed action occur within either the California Klamath or California Cascades Physiographic Zones of the Northwest Forest Plan?

Yes No

4. Are the direct, indirect, and cumulative effects that would result from implementation of the new proposed action similar (both quantitatively and qualitatively) to those analyzed in the existing NEPA document?

Yes No

The HRVM pEA describe impacts to forest structure and fuel loading, vegetation and native plants, invasive plants and weeds, soils, fish and wildlife, federally listed species, cultural resources, paleontological resources, recreation, and lands with wilderness characteristics. Design and implementation PDFs and BMPs eliminate or reduce to less than significant potential impacts to air quality, climate change, greenhouse gas emissions, and water resources. These effect analyses cover the effects expected from the proposed action.

5. Are the public involvement and interagency review associated with existing NEPA document(s) adequate for the current proposed action?

Yes [X] No []

The existing NEPA document was posted on the BLM ePlanning website on July 9, 2018 for a 30-day public comment period. Ten substantive submissions were received from a total of 27 submissions. A discussion of comment disposition can be found in the Decision Record for the Hazard Removal and Vegetation Management Programmatic Environmental Assessment (DOI-BLM-CA-9000-2018-0002-EA).

F. Persons/Agencies/BLM Staff Consulted

Name Title Resource/Agency Represented

| | | |
|-----------------|---------------------------------------|------------------------------------|
| Natasha Braziel | Planning and Environmental Specialist | Planning |
| Chad Endicott | Planning and Environmental Specialist | Planning |
| Rob Winkler | Redding BLM FMO | Fire/Fuels |
| Alden Neel | Assistant Field Manager/Archeologist | Natural and Cultural Resources |
| Laura Brodhead | Assistant Field Manager/Ecologist | Recreation, Lands, Realty |
| Brooke Thompson | Ecologist | Botany, Weeds, Range |
| Steve Laymon | Wildlife Biologist | Wildlife, Aquatics |
| Eric Ritter | Archaeologist | Archaeology and Cultural Resources |
| Lowell Thomas | Archaeologist | Archaeology and Cultural Resources |

**Refer to the HRVM pEA, section 6, for a complete list of individuals involved in the original implementation plan review.

CONCLUSIONS

Based on the review documented above, it is concluded that:

Determination of NEPA Adequacy

[X] The existing NEPA documentation fully covers the proposed action and constitutes BLM's compliance with the requirements of NEPA.

[] The existing NEPA documentation does not fully cover the proposed action.

Appendix A – Project Design Features

Project design features (PDFs) with numbers come from the Hazard Removal and Vegetation Management Project, NEPA No. DOI-BLM-CA-9000-2018-002-EA. PDFs from that document which are applicable to this project are collected in this Appendix. Additional project specific PDFs developed by the Redding Field Office interdisciplinary team are marked by ***. The PDFs in this document are incorporated into the proposed action of this project.

Applicable Project Design Features

G-3: Any sensitive resources that require protection and/or subject to further investigation by a resource specialist will be clearly identified by flagging or other means of identification.

G-4: The boundaries of treatment areas will be recorded with a Global Positioning System (GPS) unit and tracked with all the applicable BLM geodatabases

G-6: Ensuring Avoidance of Listed Species

- Option 1 – Complete protocol level surveys of the site specific project area, documenting that no listed species are present or could move into the project area.

ME-16: No removal or treatment of live riparian hardwood species such as willow, ash, maple, alder, yew, dogwood, and valley oak

ME-17: Hand thinning of non-riparian tree species less than 7 inches in diameter is allowed within riparian areas. These trees will be piled more than 50 feet from ephemeral and intermittent streams and 100 feet from perennial streams for future burning or chipping.

ME-18: Soils series at inherent risk to detrimental compaction or erosion will be avoided. No ground-based equipment on these soils.

ME-21: Damage to high shrink-swell soils will be prevented by limiting compacting activities to periods when soils are sufficiently dry to resist damage from the activity.

ME-24: No treatments, other than dead tree felling, will occur on rare soils and hydric soils.

FIRE-1: No burning or storing materials (e.g., chips, slash, logs) in road ditchlines or on cut slopes above ditchlines, unless the material can provide bank stability and will not be transported into the ditch at the side of the road.

FIRE-5: Piles will be dispersed across treatment areas.

FIRE-6: No hand pile burning on fragile slope gradient and fragile surface erosion soils unless there is adequate vegetation between piles to intercept sediment displaced from piles. On these soils, ignite piles from upper slope so fire backs into pile wherever possible. Limit handpiles to slopes less than 65%. Piles will be burned when soil and duff moisture are high.

FIRE-8: The average depth of masticated material will be less than 4 inches, in order to control

erosion and suppress vegetative resprouting.

FIRE-11: No tractor firelines and no mechanical piling.

FIRE-13: Avoid burning of large woody material within the Riparian Zone. Down logs greater than 24-inch maximum diameter and 8 feet in length will be protected

FIRE-16: Approximately 10 to 20% of each fuels treatment unit greater than 10 acres will remain untreated.

FIRE-17: Approximately 10% of handpiles during handpile burn treatments units will be left unburned.

VEG-2: If special status plant species are discovered during individual project preplanning (G-2, G-3), the species will be identified, flagged, and will be avoided to the maximum extent possible. Buffer zone sizes around special status plant sites will be at least 50 feet and/or identified at the discretion of a qualified botanist.

VEG-5: Suitable habitat is habitat that has the potential to support federally-listed species. Habitat suitability will be initially assessed by the BLM based on species range and habitat characteristics (e.g., vegetation community, soil type, elevation).

Occupied Habitat is habitat that is either known to be occupied by a species or is suitable habitat that has not been surveyed sufficiently to demonstrate that it is unoccupied. Therefore:

1. Prior to conducting project activities with the potential to impact listed plant species (e.g., ground disturbing activity, vegetation removal, and off-road vehicle use) and within the species range for any listed plant species, conduct a desktop habitat assessment (same as G-2) within and adjacent to the project area to determine habitat suitability for each species potentially present. If a desktop habitat assessment is inconclusive then a botanist familiar with the species will conduct a site visit to determine habitat suitability. If suitable habitat is present, follow measure #2.
2. Conduct field surveys to determine species presence; the survey period will occur when nearby reference populations are in bloom, using known blooming periods and local blooming data as a guide. The activity will be conducted in the same year following the survey, or prior to the next blooming season. If a nearby reference population is not available, a qualified botanist will conduct early-, mid-, and late-blooming period site surveys when the species is most likely to be found. If the species can be found year-round (e.g., perennial evergreen species), one survey may be appropriate. If nearby reference populations are present, perform one site survey when the reference population is in bloom. A second year of surveys may be needed for ongoing multi-year activities, or if surveys occur during years with variable climatic conditions (e.g. below average precipitation).

VEG-3: In special status plant (SSP) populations, which includes federally listed plants, BLM sensitive plants, and rare plant communities (S1 ranked), the following applies:

- No heavy equipment will be allowed within 100 feet (including masticators) unless on an existing road.
- Dead and dying tree felling/removal will require consultation with a BLM specialist on a

case-by-case basis to determine which direction they should be felled in order to avoid adverse impacts.

- Existing landing use, construction of temporary roads, or burning of piles will not occur within 100 feet of known rare plant populations.

- Green tree thinning will not be allowed within 50 feet of boundary of population. •

Disturbed areas will be seeded with genetically appropriate native seed, when deemed appropriate by the FO botanist.

- Heavy equipment will be cleaned prior to entering BLM lands to remove all dirt and vegetation from the vehicle body, undercarriage, tires, and attachments.

VEG-4: In special status plant (SSP) populations, which includes federally listed plants, BLM sensitive plants, and rare plant communities (S1 ranked), the following applies: • Use only chainsaws or other hand tools to cut vegetation within SSP buffers as described above.

- Pile burning will only be allowed if designed to maintain or improve the habitat. •

Piles will be no larger than 8 feet by 8 feet in size and cover no more than 5% of the treatment area.

- Firelines constructed in suitable habitat will be pulled back and seeded with genetically appropriate native seed, when deemed necessary by the FO botanist.

WEED-1: Before ground-disturbing activities begin, weed infestations would be inventoried and areas would be identified for avoidance, particularly in operating areas and in areas along access routes.

WEED-3: To prevent weed germination and establishment, native vegetation will be retained to the maximum extent practicable in and around individual project activity areas and soil disturbance will be kept to a minimum while still meeting project objectives

WEED-4: If deemed appropriate by the FO botanist, burned piles or other disturbed sites will be seeded with native species or covered with native duff/litter, particularly if known or expected invasive plants species are present.

WEED-5: Each individual area will be monitored following treatment to ensure that noxious and invasive weeds do not become established.

WEED-6: Weed propagation and establishment will be minimized by avoiding driving through weed-infested areas to the maximum extent feasible.

WEED-7: Sites where equipment can be cleaned will be identified during the individual project planning phase. Equipment will be cleaned or pressure washed before entering public lands, prior to engaging in individual project activities, before transport to new work areas, and before leaving the project site if operating in areas infested with weeds to remove mud, dirt, and plant parts.

WEED-8: To avoid the importation or spread of invasive weeds or non-native invasive plant species, all tools, equipment and materials required for project implementation will be washed prior to transport to the project site.

WILD-1: All Special Status Wildlife: a habitat assessment will be done by a wildlife biologist prior to implementation for special habitat features that could be used by any special status wildlife species. For thinning treatments, these habitat features will be marked for retention or excluded from the thinning unit. For prescribed fire treatments, these habitat features will be excluded from the burn unit or fuels will be removed from around the habitat structure prior to burning

WILD-2: Survey and manage protocols will be followed in a consistent manner with current and future guidelines for areas requiring the management of these species.

WILD-5: Dead and dying trees which pose a hazard to public safety and are likely to fall on their own, will be felled at a minimum, and potentially left onsite if warranted by the following species-specific PDFs.

WILD-6: In designated critical habitat, the following will occur:

- Treatments have been designed to ensure they will not directly or indirectly adversely alter the quantity or quality of the essential physical or biological features of designated critical habitat for the relevant species.
- When possible, treatments will be designed to accelerate the capacity of the designated critical habitat to provide essential physical or biological features or to develop those features over time.

CR-1: Compliance with Section 106 of the National Historic Preservation Act (NHPA) must be completed for all projects proposed under the Programmatic Environmental Assessment (EA).

CR-2: Project design features will be designed to avoid or minimize adverse effects to cultural resources listed on or eligible (or potentially eligible or assumed eligible) for the National Register of Historic Places (NRHP). Other archaeological sites will be avoided or have hand work only as determined by FO archaeologist.

CR-3: The FO Archaeologist will define the undertaking's Area of Potential Effects (APE) in consultation with the BLM project manager or lead (i.e., forestry, fuels, or vegetation management specialist) and in accordance with the Protocol and other BLM and Department of the Interior (DOI) policy.

CR-4: The APE will also include areas where indirect effects may occur to NRHP-listed or -eligible cultural resources (or assumed eligible).

CR-5: All areas subject to proposed ground-disturbing activities (i.e., mechanical tree removal and vegetation treatments, etc.) must be inventoried at the BLM Class III level or have sufficient Class III level inventory coverage as determined by the FO Archaeologist in accordance with procedures in the Protocol.

CR-6: Certain cultural resources within the APE may not be affected by certain project activities or may be beneficially affected

CR-8: The BLM project manager or lead will be apprised of all cultural resource locations within

the APE before project implementation to help ensure protection.

CR-9: Cultural resources that require protection and will be subject to project design features recommended by the FO Archaeologist will be discussed with the BLM project manager

CR-10: At the request of the FO Archaeologist, cultural resources within the APE will be monitored by a BLM-approved archaeologist during and, as necessary, after project implementation.

CR-11: Project design features not included herein and/or tailored to specific project conditions will be recommended by the FO Archaeologist and implemented, as needed, on a project-by-project basis, to avoid or minimize adverse effects to NRHP-listed and -eligible (or assumed eligible) cultural resources within the APE.

CR-12: All dead or dying trees or green trees that are subject to removal and pose a threat to NRHP-listed or eligible (or assumed eligible) cultural resources will be directionally felled in order to avoid damaging those cultural resources.

CR-13: Generally, ground disturbance resulting in soil movement or compaction caused by tree removal and other mechanical vegetation treatments (i.e., use of heavy equipment, masticators, chippers, etc.) will not be allowed to occur on cultural resources listed on or determined to be eligible (or assumed eligible) for the NRHP or on other cultural resources as recommended by the FO archaeologist. Equipment such as masticators will have rubber tracks rather than metal tracks to reduce ground disturbance, whenever feasible or warranted by resource concerns, to further reduce potential for impacts.

CR-14: Prior to project implementation, cultural resources listed on or determined eligible (or assumed eligible) for the NRHP or otherwise identified will be marked on the ground for avoidance by the FO Archaeologist or BLM-approved archaeologist. Some locations may be excluded from the proposed project based on sensitivity.

CR: 18: Areas where pile burning is proposed will require BLM Class III inventory coverage prior to project implementation. The FO archaeologist has discretion to determine if pile burning will be allowed to occur on NRHP-listed or -eligible (or assumed eligible) cultural resources or other cultural resources.

CR-23: At the discretion of the FO Archaeologist, hand work (involving hand tools and methods) may occur within the boundaries of cultural resource sites and districts so long as the work does not negatively affect NRHP-listed or -eligible (assumed eligible) cultural resources

CR-24: At the discretion of the FO Archaeologist, woody material may be chipped within the boundaries of cultural resource sites and districts so long as the staging of chipping equipment on-site and placement of chipped material does not negatively affect cultural resources.

REC-2: Where needed, vegetation or woody materials will be retained or deposited to inhibit creation of undesired trails by recreationist or to protect/screen sensitive resources.

LR-1: BLM will notify the right-of-way (ROW) holder in writing when designing vegetation management projects near or adjacent to critical infrastructure.

VRM-1: Contrast Rating(s) will be conducted within sensitive viewsheds where treatments will occur within dense vegetation.

RM-1: BLM will contact all grazing permittees/lessees prior to cutting in a grazing allotment and inform them of the treatments and actions and the time entering and working in the allotment.

RM-2: If projects such as fences, gates, cattle guards, or water sources are cut/damaged, then they will be repaired immediately.

AQ-1: All uses of prescribed fire during will meet the air quality standards, regulations, policies, and guidelines specified by the Federal Clean Air Act, the California Clean Air Act, the California Air Resources Board (ARB), regional Air Quality Management Districts (AQMD)/Air Pollution Control Districts (APCD), and municipal air pollution requirements and BLM Handbooks. This will be detailed in the BLM approved Prescribed Fire plan.

AQ-2: If prescribed fire is used, a BLM approved Prescribed Fire Plan will be in place prior to ignition.

AQ-4: The BLM and its collaborators will adhere to fuel standards for diesel fuel emissions established by the Air Resources Board, AQMDs, and APCDs for all on-road vehicles and off road vehicles and equipment involved in projects.

HM-1: During operations described in the Proposed Action, the operator will be required to have a BLM-approved spill plan or other applicable contingency plan.

HM-2: Equipment refueling will not occur within 300 feet of perennial streams, 150 feet of intermittent streams, or 100 feet of any ephemeral stream to prevent toxic materials from entering waterways

HM-3: All hazardous materials and petroleum products will be stored in durable containers located at least 300 feet from perennial streams, 150 feet from intermittent streams, or 100 feet from any ephemeral stream.

SAFE-1: Signs and/or road guards will be posted to warn the public about vegetation management, prescribed fire, road, trail, and facilities maintenance when and where necessary for safety.

SAFE-2: Existing telephone, transmission lines, fences, ditches, roads, trails, and other improvements will be protected while implementing the proposed treatments.

SAFE-3: Mechanized hand tools will have federal- or state-approved spark arresters.

SAFE-4: Fire staff will evaluate recommended actions in terms of safety. If the recommended treatment cannot be completed due to safety concerns, the proposal will be returned to the resource staff for other treatment options and further analysis.

Appendix B – BMPs for Fire and Fuels Management

Fire and Fuels Management Activities

Objective: Avoid, minimize, or mitigate adverse effects to soil, water quality, and riparian

resources that may result from wildland fire or fuels management activities. Explanation: To minimize erosion and sediment delivery from bulldozer lines, loss of groundcover, fire line construction, plugging of culvert and drainage structures on roads and trails, mastication, and hazard tree removal best management practices are available. Common wildland fire management operations include using prescribed fire, managing wildfire using a wide range of strategies from monitoring to aggressive control and suppression, and rehabilitating fire and suppression damage. Firefighter and public safety are always the first priority in wildland fire activities. Implementation of BMPs to protect soil, water quality, and riparian resources, though important, must not compromise public or firefighter safety in wildland fire situations.

Prescribed fire is often a useful tool to reduce fuels and improve watershed condition by consuming vegetation, dead woody debris, humus, and duff. A prescribed fire may burn at a range of intensities, leaving a mosaic of burn severities within the fire perimeter. Activities associated with fuel reductions can affect watersheds. Actions to control and contain the prescribed fire, such as fire line construction can also adversely affect watershed condition by creating a ground disturbance.

During fuels and wildland fire management, heavy vehicles are often needed to create fire lines, prepare roads for fire crew access, clearing and grubbing safety zones, repair roads damaged during fires, remove hazard trees, and to change the nature of shrubby vegetation fuels. Small access roads and landings are either opened or constructed.

During wildland fire management, retrieving water and applying it to the fire, performing back fire operations, and applying aerial or ground-based fire retardant occur during wildfire suppression. Certain fire-retardant formulations are toxic to aquatic fauna, including fish.

Vegetation and ground cover may be removed by wildfire depending on soil burn severity. In high and moderate burn severity removal of vegetation exposes both the surface and subsurface soil to erosion. In the absence of invasive species such as cheat grass, riparian reserves and uplands may be able to recover naturally, if soils are not disturbed by fire lines. BMPs for rehabilitating fire lines, fire camps, staging areas, and burned areas are necessary to ensure protection of soil, water quality, and riparian resources. Temporary and long-term erosion control measures are necessary to reduce erosion and maintain overall slope stability where fuels and fire activities have disturbed soils. These erosion-control measures may include vegetative and structural techniques to ensure the area's long-term stability.

Trail and road drainage facilities may become inadequate after wildfires due to increased surface runoff, loss of vegetative cover, and stream bulking. New springs and seeps occasionally saturate trails after the occurrence of a wildfire. Timely maintenance and application of BMPs can correct these conditions to minimize erosion off trails (see recreation below) or roads. Many of these BMPs can be included as minimal impact suppression techniques (MIST). These techniques can be used for wildfire suppression and related activities in wilderness or other sensitive areas such as streams with sensitive aquatic species present.

The BMPs designated by FM are for fuels management, F for wildland fire and FS for Suppression repair, and FE Emergency Stabilization. Many of the BMPs were taken from interagency policies found at https://www.nifc.gov/policies/pol_ref_redbook.html. The Post Fire Emergency Stabilization and Rehabilitation Plan is written after fires on BLM lands to request

funding to work on roads, uplands, stream crossings and other locations. After a year or two additional funds under Burned Area Rehabilitation may be obtained after a plan is written. Other links may be more up to date, but these are both publicly available

<https://www.nps.gov/archeology/npsGuide/fire/docs/18%20Interagency%20BAER%20Handbook.pdf>

<https://www.fws.gov/fire/postwildfire/Files/Interagency%20BAR%20Guidebook.pdf>

Table 9. Best management practices for fire and fuels management

| BMP Number | Best Management Practices for Fire and Fuels Management |
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| <i>Fuels Management</i> | |
| FM 01 | Keep broadcast burns and jackpot burns out of Riparian Reserve, unless prescribed for restoration purposes (e.g., sudden oak death sanitation, improve species composition, invasive weed control, and invigorate deciduous trees, reduce fuel loading). |
| FM 02 | When operating in meadows use mowing or hand cutting of vegetation to maintain a fire perimeter. When burning in meadows the burn plan should have objectives to limit burn intensity or residence to limit soil heating. |
| FM 03 | Reduce fuel loads by whole tree yarding, and piling material, as necessary, prior to under burning in dry forest types where fuel loads are elevated. |
| FM 04 | To protect soils, do not directly light fires within the AMZ. Hand thin these areas to reduce fuels and pile and burn outside the AMZ. Do not burn piles within AMZ. |
| FM 05 | Avoid direct ignition of large woody material that is touching the high-water mark of a waterbody or that may be affected by high flows, even if this large wood is outside the AMZ. |
| FM 06 | Store and dispose of ignition devices/ materials (e.g., flares and plastic spheres) outside Riparian Reserve. Maintain and refuel equipment (e.g., drip torches and chainsaws) a minimum of 300 feet from waterbodies, floodplains, and wetlands (unless a road is nearby, and the equipment can be safely maintained and refueled without spilling) .Portable pumps can be refueled on-site within a spill containment system. |
| FM 07 | Avoid creating piles greater than 16 feet in height or diameter. Pile smaller diameter materials and leave larger > 12” pieces within the unit. |

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| FM 08 | <p>Prevent use of mechanized heavy machinery fuel reduction equipment within the Riparian Reserve unless prescribed for restoration.</p> <p>Low ground pressure equipment (13-PSI or less) can be used within AMZs and Riparian reserves.</p> <p>Limit mechanized heavy machinery fuel reduction equipment to slopes less than 35 percent. Restrict non-track mechanized equipment (e.g., feller bunchers and horizontal bar masticators) to slopes less than 35 percent.</p> |
| FM 09 | <p>Use temporary stream crossings if necessary, to access the opposite side with any equipment or vehicles (including OHVs). Follow Temporary Stream Crossing practices under Roads section.</p> |
| FM 10 | <p>Construct fire line to the minimum size and standard necessary to contain the prescribed fire and meet overall project objectives.</p> <p>Limit fire lines inside Riparian Reserve. Where hand constructed fire lines are necessary, angle the approach, where feasible, rather than have it perpendicular to the Riparian Reserves.</p> <p>Locate and construct fireline in a manner that minimizes erosion and runoff from directly entering waterbodies by considering site slope and soil conditions, and using and maintaining suitable water and erosion control measures.</p> <p>Consider alternatives to ground-disturbing fireline construction such as using wet lines, rock outcrops, or other suitable features for firelines.</p> <p>Locate fire lines to minimize soil disturbance near temporary and intermittent streams, areas directing water into waterbodies, wetlands, headwalls, or areas of instability.</p> |
| <p><i>Wildfire Management including Fire Suppression Repair</i></p> | |
| F 11 | <p>Fall snags in the Riparian Reserve towards the stream channel when felling is necessary for safety or fire suppression activities.</p> |
| F 12 | <p>Water drafting sites for engines and tankers would be reviewed by the resource advisor and/or agency representative.</p> |
| F 13 | <p>Within Riparian Reserves, consultation with wildlife biologist familiar with the species present in these habitats can guide where lines can go and not harm natural resources. Pre fire season planning is important to establish places for protection from ground disturbance during wildland fires unless the wildfire is deemed a threat to human safety or private property.</p> |
| F 14 | <p>Avoid delivery of chemical retardant foam or additives to within 300 feet of waterbodies, and wetlands. When retardant is discharged into a waterbody, complete reporting of discharge as required by 2018-2023. California Master Cooperative Wildland Fire Management and Stafford Act Response Agreement (CFMA and as amended), or federal operating plan guidance.</p> |

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| F 15 | <p>Use water or other less toxic wildland fire chemical suppressants for direct attack or less toxic approved fire retardants in areas occupied by threatened, endangered, proposed, candidate or sensitive species (TEPCS) or their designated critical habitats.</p> <p>Apply aerial retardant adjacent to Riparian Reserves by making parallel passes.</p> |
| F 16 | <p>Water drafting for aerial water bucket refills can be found in lakes and other open water bodies (see Table 1 for BMPs). Consultation with wildlife biologist familiar with the species present in these habitats can guide which are the most suitable, and which may have the required depths. Pre-fire season planning is important in arid areas and fire prone areas to establish places for water drafts during wildland fires.</p> |

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| F 17 | <p>Locate and maintain portable self-contained sanitation facilities at incident bases, camps (including spike/remote camps), helibases, staging areas, constructed helispots, and other centers for incident activities in accordance with State and local regulations.</p> |
| F 18 | <p>Avoid locating incident bases, camps, helibases, staging areas, constructed helispots, and other centers for incident activities in Riparian Reserves.</p> <p>Locate Incident Command Post, air resource bases, staging areas, and other fire management support areas outside of riparian reserves and wetlands, and at a suitable distance from waterbodies to minimize the potential for adverse effects to water quality.</p> <p>Protect surface and subsurface water resources from nutrients, bacteria, and chemicals associated with solid waste and sewage disposal.</p> <p>Collect and properly dispose of trash and other solid waste.</p> <p>Use applicable practices of BMP Road-10 (Equipment Refueling and Servicing) when servicing, refueling, and cleaning vehicles and equipment.</p> <p>Install suitable measures to minimize and control concentrated water flow and sediment from support areas.</p> |
| FS 19 | <p>To intercept water, trap sediment, place residual logs or branches on severely burned areas near trails and near stream crossings, where there is potential for sediment delivery into waterbodies, floodplains, and wetlands.</p> |
| FS 20 | <p>Stabilize fireline in areas that pose a risk to water quality. Use erosion control techniques such as tilling, water barring, or debris placement on fire lines when there is potential for soil erosion and delivery to waterbodies, floodplains, and wetlands. Space the waterbars on trails, and as directed in CFMA or local operating plan guidance.</p> |
| FS 21 | <p>Block dozer lines and roads or landing intersections with an approved barricade or scattered slash to preclude public motorized vehicle use</p> <p>Stabilize firebreaks in a manner that minimizes exposed soil to the extent practicable.</p> |

Emergency Stabilization

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| FE 22 | Evaluate post-fire threats due to flooding, debris flows, and hazard trees, as well as impacts to vegetation and wildlife to prepare emergency stabilization and rehabilitation plan. |
| FE 23 | <p>Stabilize disturbed areas including safety zones, fireline, and base camps that have increased erosion potential or drainage patterns altered by fire suppression activities. Install suitable drainage features to promote dispersed runoff from sites.</p> <p>Mitigate soil compaction to improve infiltration and revegetation conditions.</p> <p>Use suitable species and establishment techniques to stabilize the site in compliance with local direction and requirements for vegetation ecology and prevention and control of invasive species</p> |
| FE 24 | <p>In many cases there is enough perennial plants remaining on-site that, if protected from further disturbances would allow for natural site recovery. Riparian willows and graminoids recover quickly if allowed to grow over several years.</p> <p>Protection of willows and other riparian vegetation would be secured by temporary fencing of riparian areas, or deferment of grazing for at least two growing seasons. This treatment would allow those areas to recover from wildfires by preventing grazing of new and recovering vegetation.</p> |

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| FE 25 | <p>Seeding or planting native vegetation for short-term cover development and long-term recovery. Focus on sites highly susceptible to accelerated erosion, or where perennial plant species cannot reasonably be expected to provide soil and watershed protection, or areas with high densities of invasive annual species e.g., cheatgrass <i>Bromus tectorum</i>, or invasive annual grasses and noxious weeds may readily invade and become established. Temporarily close trails during post fire recovery where recovery is needed close to Waters of the State.</p> <p>When preparing seedbed ensure soil preparations are done prior to rainy season and that no erosion of soils will occur.</p> |
| FE 26 | <p>Implement emergency fire stabilization or rehabilitation treatments to accomplish erosion control as quickly as possible and before the wet season if fire timing allows. Soil and water conservation practices may include, but are not restricted to:</p> <p>Mulching with straw, wood chips, or other suitable material. To avoid introducing noxious weeds when mulching, use certified weed-free straw mulch or rice straw.</p> <p>Placing straw wattles on the contour at adequate spacing between each row to capture eroded material without overflowing. Embed to the surface of the soil in slight trench to prevent under cutting. Depending on slope place more wattles especially in severe burn or moderate burn areas on steep road banks or above culverts.</p> <p>Placing and anchoring log erosion barriers similarly to straw wattles.</p> <p>Spreading available cut vegetation or slash on bare soils to intercept water, trap sediment, preventing precipitation from forming rills and carrying ash and fine sediment to streams and other water bodies.</p> |

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| FE 27 | <p>Soil and water conservation practices for roads and trails include:</p> <p>Placing or clearing channel sediment retention or stabilization structures.</p> <p>Placing and maintaining trash racks for debris above road drainage structures.</p> <p>Preventing culvert and drainage structure plugging</p> <p>Replacing undersized or damaged culverts to increase peak flow capacity of stream crossing culverts to accommodate the 100-year design flood.</p> <p>Installing drainage structures, such as waterbars or drainage dips, on fire lines, fire roads, and other cleared areas according to guidelines in Table 7-b (Waterbar spacing by gradient and erosion class).</p> <p>Reducing road system hydrologic conductivity through proper grading, culvert spacing, and installing drivable dips.</p> <p>Repairing damaged road drainage facilities, such as flattened or ripped culvert ends, or burned out plastic pipes, or cleaning ditch lines of materials that impede natural flow.</p> <p>Correcting stream diversions.</p> |
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Additional NEPA documentation is needed if the project is to be further considered.

Prepared By: _____ **Date** _____ **Project Lead**

Reviewed By: _____ **Date** _____ **Planning/NEPA**
Coordinator

Reviewed By: _____ **Date** _____ **Resource Supervisor**

Approved By: _____ **Date** _____ **Field Manager**

Note: The signed CONCLUSION at the end of this worksheet is part of an interim step in the BLM's internal analysis process and does not constitute an appealable decision.

DOI-BLM-CA-N060-2022-0024-DNA

Reference Environmental Document: DOI-BLM-CA-9000-2018-0002-

EA Proposed Action Title: Post North Fire Hazard Tree and Fuels

Reduction

Decision and Rationale

It is the decision of the BLM RFO to implement the proposed action of reducing the hazardous fuel loading and hazardous trees in and around Lumpkin Road, in Butte County, CA by creating and maintaining linear fuel breaks on up to 120 acres of BLM property. The selected alternative best meets the purpose and need for the project which is to reduce the risk of wildfire to firefighters, residents, and natural resources by creating defensible space along roads and nearby homes. This project is not expected to adversely impact elements of the human environment due to design features and operations criteria. This decision is consistent with the Redding RMP and other relevant laws, regulations and policies guiding management of the project area. The existing environmental analysis and finding of no significant impact contained in HRVM pEA, DOI-BLM-CA-9000-2018-0002-EA (February 2019) fully covers the proposed action and constitutes BLM's compliance with the requirements of NEPA.

Authority

My decision is issued under the authority of 43 CFR 4190.1 (Effect of wildfire management decisions). Therefore, this decision is effective immediately and implementation can occur immediately upon the signature date.

Administrative Remedies

Administrative remedies may be available to those who believe they will be adversely affected by this decision. Appeals may be made to the Office of Hearings and Appeals, Office of the Secretary, U.S. Department of Interior, Board of Land Appeals (Board) in strict compliance with the regulations in 43 CFR Part 5003. Notices of appeal must be filed in this office within 15 days after publication of this decision. If a notice of appeal does not include a statement of reasons, such statement must be filed with this office and the Board within 15 days after the notice of appeal is filed. The notice of appeal and any statement of reasons, written arguments, or briefs must also be served upon the Regional Solicitor, Pacific Southwest Region, U.S. Department of Interior, 2800 Cottage Way, E 1712, Sacramento, CA 95825.

The effective date of this decision (and the date initiating the appeal period) will be the date this notice of decision is posted on BLM's RFO internet website.

Jennifer

Mata Date
Redding Field Manager

Exhibit D – Project Design Features

Project design features (PDFs) with numbers come from the Hazard Removal and Vegetation Management Project, NEPA No. DOI-BLM-CA-9000-2018-002-EA. PDFs from that document which are applicable to this project are collected in this Appendix. Additional project specific PDFs developed by the Redding Field Office interdisciplinary team are marked by ***. The PDFs in this document are incorporated into the proposed action of this project.

Applicable Project Design Features

G-3: Any sensitive resources that require protection and/or subject to further investigation by a resource specialist will be clearly identified by flagging or other means of identification.

G-4: The boundaries of treatment areas will be recorded with a Global Positioning System (GPS) unit and tracked with all the applicable BLM geodatabases

G-6: Ensuring Avoidance of Listed Species

- Option 1 – Complete protocol level surveys of the site specific project area, documenting that no listed species are present or could move into the project area.

ME-16: No removal or treatment of live riparian hardwood species such as willow, ash, maple, alder, yew, dogwood, and valley oak

ME-17: Hand thinning of non-riparian tree species less than 7 inches in diameter is allowed within riparian areas. These trees will be piled more than 50 feet from ephemeral and intermittent streams and 100 feet from perennial streams for future burning or chipping.

ME-18: Soils series at inherent risk to detrimental compaction or erosion will be avoided. No ground-based equipment on these soils.

ME-21: Damage to high shrink-swell soils will be prevented by limiting compacting activities to periods when soils are sufficiently dry to resist damage from the activity.

ME-24: No treatments, other than dead tree felling, will occur on rare soils and hydric soils.

FIRE-1: No burning or storing materials (e.g., chips, slash, logs) in road ditchlines or on cut slopes above ditchlines, unless the material can provide bank stability and will not be transported into the ditch at the side of the road.

FIRE-5: Piles will be dispersed across treatment areas.

FIRE-6: No hand pile burning on fragile slope gradient and fragile surface erosion soils unless there is adequate vegetation between piles to intercept sediment displaced from piles. On these soils, ignite piles from upper slope so fire backs into pile wherever possible. Limit handpiles to slopes less than 65%. Piles will be burned when soil and duff moisture are high.

FIRE-8: The average depth of masticated material will be less than 4 inches, in order to control erosion and suppress vegetative resprouting.

FIRE-11: No tractor firelines and no mechanical piling.

FIRE-13: Avoid burning of large woody material within the Riparian Zone. Down logs greater than 24-inch maximum diameter and 8 feet in length will be protected

FIRE-16: Approximately 10 to 20% of each fuels treatment unit greater than 10 acres will remain untreated.

FIRE-17: Approximately 10% of handpiles during handpile burn treatments units will be left unburned.

VEG-2: If special status plant species are discovered during individual project preplanning (G-2, G-3), the species will be identified, flagged, and will be avoided to the maximum extent possible. Buffer zone sizes around special status plant sites will be at least 50 feet and/or identified at the discretion of a qualified botanist.

VEG-5: Suitable habitat is habitat that has the potential to support federally listed species. Habitat suitability will be initially assessed by the BLM based on species range and habitat characteristics (e.g., vegetation community, soil type, elevation). Occupied Habitat is habitat that is either known to be occupied by a species or is suitable habitat that has not been surveyed sufficiently to demonstrate that it is unoccupied. Therefore:

1. Prior to conducting project activities with the potential to impact listed plant species (e.g., ground disturbing activity, vegetation removal, and off-road vehicle use) and within the species range for any listed plant species, conduct a desktop habitat assessment (same as G- 2) within and adjacent to the project area to determine habitat suitability for each species potentially present. If a desktop habitat assessment is inconclusive then a botanist familiar with the species will conduct a site visit to determine habitat suitability. If suitable habitat is present, follow measure #2.
2. Conduct field surveys to determine species presence; the survey period will occur when nearby reference populations are in bloom, using known blooming periods and local blooming data as a guide. The activity will be conducted in the same year following the survey, or prior to the next blooming season. If a nearby reference population is not available, a qualified botanist will conduct early-, mid-, and late-blooming period site surveys when the species is most likely to be found. If the species can be found year-round (e.g., perennial evergreen species), one survey may be appropriate. If nearby reference populations are present, perform one site survey when the reference population is in bloom. A second year of surveys may be needed for ongoing multi-year activities, or if surveys occur during years with variable climatic conditions (e.g. below average precipitation).

VEG-3: In special status plant (SSP) populations, which includes federally listed plants, BLM sensitive plants, and rare plant communities (S1 ranked), the following applies:

- No heavy equipment will be allowed within 100 feet (including masticators) unless on an existing road.
- Dead and dying tree felling/removal will require consultation with a BLM specialist on a case-by-case basis to determine which direction they should be felled in order to avoid adverse impacts.
- Existing landing use, construction of temporary roads, or burning of piles will not occur within 100 feet of known rare plant populations.
- Green tree thinning will not be allowed within 50 feet of boundary of population. • Disturbed areas will be seeded with genetically appropriate native seed, when deemed appropriate by the FO botanist.
- Heavy equipment will be cleaned prior to entering BLM lands to remove all dirt and vegetation from the vehicle body, undercarriage, tires, and attachments.

VEG-4: In special status plant (SSP) populations, which includes federally listed plants, BLM sensitive plants, and rare plant communities (S1 ranked), the following applies: • Use only chainsaws or other hand tools to cut vegetation within SSP buffers as described above.

- Pile burning will only be allowed if designed to maintain or improve the habitat. • Piles will be no larger than 8 feet by 8 feet in size and cover no more than 5% of the treatment area.
- Firelines constructed in suitable habitat will be pulled back and seeded with genetically appropriate native seed, when deemed necessary by the FO botanist.

WEED-1: Before ground-disturbing activities begin, weed infestations would be inventoried and areas would be identified for avoidance, particularly in operating areas and in areas along access routes.

WEED-3: To prevent weed germination and establishment, native vegetation will be retained to the maximum extent practicable in and around individual project activity areas and soil disturbance will be kept to a minimum while still meeting project objectives

WEED-4: If deemed appropriate by the FO botanist, burned piles or other disturbed sites will be seeded with native species or covered with native duff/litter, particularly if known or expected invasive plants species are present.

WEED-5: Each individual area will be monitored following treatment to ensure that noxious and invasive weeds do not become established.

WEED-6: Weed propagation and establishment will be minimized by avoiding driving through weed-infested areas to the maximum extent feasible.

WEED-7: Sites where equipment can be cleaned will be identified during the individual project planning phase. Equipment will be cleaned or pressure washed before entering public lands, prior to engaging in individual project activities, before transport to new work areas, and before leaving the project site if operating in areas infested with weeds to remove mud, dirt, and plant parts.

WEED-8: To avoid the importation or spread of invasive weeds or non-native invasive plant species, all tools, equipment and materials required for project implementation will be washed prior to transport to the project site.

WILD-1: All Special Status Wildlife: a habitat assessment will be done by a wildlife biologist prior to implementation for special habitat features that could be used by any special status wildlife species. For thinning treatments, these habitat features will be marked for retention or excluded from the thinning unit. For prescribed fire treatments, these habitat features will be excluded from the burn unit or fuels will be removed from around the habitat structure prior to burning

WILD-2: Survey and manage protocols will be followed in a consistent manner with current and future guidelines for areas requiring the management of these species.

WILD-5: Dead and dying trees which pose a hazard to public safety and are likely to fall on their own, will be felled at a minimum, and potentially left onsite if warranted by the following species-specific PDFs.

WILD-6: In designated critical habitat, the following will occur:

- Treatments have been designed to ensure they will not directly or indirectly adversely alter the quantity or quality of the essential physical or biological features of designated critical habitat for the relevant species.
- When possible, treatments will be designed to accelerate the capacity of the designated critical habitat to provide essential physical or biological features or to develop those features over time.

CR-1: Compliance with Section 106 of the National Historic Preservation Act (NHPA) must be completed for all projects proposed under the Programmatic Environmental Assessment (EA).

CR-2: Project design features will be designed to avoid or minimize adverse effects to cultural resources listed on or eligible (or potentially eligible or assumed eligible) for the National Register of Historic Places (NRHP). Other archaeological sites will be avoided or have hand work only as determined by FO archaeologist.

CR-3: The FO Archaeologist will define the undertaking's Area of Potential Effects (APE) in consultation with the BLM project manager or lead (i.e., forestry, fuels, or vegetation management specialist) and in accordance with the Protocol and other BLM and Department of the Interior (DOI) policy.

CR-4: The APE will also include areas where indirect effects may occur to NRHP-listed or -eligible cultural resources (or assumed eligible).

CR-5: All areas subject to proposed ground-disturbing activities (i.e., mechanical tree removal and vegetation treatments, etc.) must be inventoried at the BLM Class III level or have sufficient

Class III level inventory coverage as determined by the FO Archaeologist in accordance with procedures in the Protocol.

CR-6: Certain cultural resources within the APE may not be affected by certain project activities or may be beneficially affected

CR-8: The BLM project manager or lead will be apprised of all cultural resource locations within the APE before project implementation to help ensure protection.

CR-9: Cultural resources that require protection and will be subject to project design features recommended by the FO Archaeologist will be discussed with the BLM project manager

CR-10: At the request of the FO Archaeologist, cultural resources within the APE will be monitored by a BLM-approved archaeologist during and, as necessary, after project implementation.

CR-11: Project design features not included herein and/or tailored to specific project conditions will be recommended by the FO Archaeologist and implemented, as needed, on a project-by project basis, to avoid or minimize adverse effects to NRHP-listed and -eligible (or assumed eligible) cultural resources within the APE.

CR-12: All dead or dying trees or green trees that are subject to removal and pose a threat to NRHP-listed or eligible (or assumed eligible) cultural resources will be directionally felled in order to avoid damaging those cultural resources.

CR-13: Generally, ground disturbance resulting in soil movement or compaction caused by tree removal and other mechanical vegetation treatments (i.e., use of heavy equipment, masticators, chippers, etc.) will not be allowed to occur on cultural resources listed on or determined to be eligible (or assumed eligible) for the NRHP or on other cultural resources as recommended by the FO archaeologist. Equipment such as masticators will have rubber tracks rather than metal tracks to reduce ground disturbance, whenever feasible or warranted by resource concerns, to further reduce potential for impacts.

CR-14: Prior to project implementation, cultural resources listed on or determined eligible (or assumed eligible) for the NRHP or otherwise identified will be marked on the ground for avoidance by the FO Archaeologist or BLM-approved archaeologist. Some locations may be excluded from the proposed project based on sensitivity.

CR: 18: Areas where pile burning is proposed will require BLM Class III inventory coverage prior to project implementation. The FO archaeologist has discretion to determine if pile burning will be allowed to occur on NRHP-listed or -eligible (or assumed eligible) cultural resources or other cultural resources.

CR-23: At the discretion of the FO Archaeologist, hand work (involving hand tools and methods) may occur within the boundaries of cultural resource sites and districts so long as

the work does not negatively affect NRHP-listed or -eligible (assumed eligible) cultural resources

CR-24: At the discretion of the FO Archaeologist, woody material may be chipped within the boundaries of cultural resource sites and districts so long as the staging of chipping equipment on-site and placement of chipped material does not negatively affect cultural resources.

REC-2: Where needed, vegetation or woody materials will be retained or deposited to inhibit creation of undesired trails by recreationist or to protect/screen sensitive resources.

LR-1: BLM will notify the right-of-way (ROW) holder in writing when designing vegetation management projects near or adjacent to critical infrastructure.

VRM-1: Contrast Rating(s) will be conducted within sensitive viewsheds where treatments will occur within dense vegetation.

RM-1: BLM will contact all grazing permittees/lessees prior to cutting in a grazing allotment and inform them of the treatments and actions and the time entering and working in the allotment.

RM-2: If projects such as fences, gates, cattle guards, or water sources are cut/damaged, then they will be repaired immediately.

AQ-1: All uses of prescribed fire during will meet the air quality standards, regulations, policies, and guidelines specified by the Federal Clean Air Act, the California Clean Air Act, the California Air Resources Board (ARB), regional Air Quality Management Districts (AQMD)/Air Pollution Control Districts (APCD), and municipal air pollution requirements and BLM Handbooks. This will be detailed in the BLM approved Prescribed Fire plan.

AQ-2: If prescribed fire is used, a BLM approved Prescribed Fire Plan will be in place prior to ignition.

AQ-4: The BLM and its collaborators will adhere to fuel standards for diesel fuel emissions established by the Air Resources Board, AQMDs, and APCDs for all on-road vehicles and off road vehicles and equipment involved in projects.

HM-1: During operations described in the Proposed Action, the operator will be required to have a BLM-approved spill plan or other applicable contingency plan.

HM-2: Equipment refueling will not occur within 300 feet of perennial streams, 150 feet of intermittent streams, or 100 feet of any ephemeral stream to prevent toxic materials from entering waterways

HM-3: All hazardous materials and petroleum products will be stored in durable containers located at least 300 feet from perennial streams, 150 feet from intermittent streams, or 100 feet from any ephemeral stream.

SAFE-1: Signs and/or road guards will be posted to warn the public about vegetation management, prescribed fire, road, trail, and facilities maintenance when and where necessary for safety.

SAFE-2: Existing telephone, transmission lines, fences, ditches, roads, trails, and other improvements will be protected while implementing the proposed treatments.

SAFE-3: Mechanized hand tools will have federal- or state-approved spark arresters.

SAFE-4: Fire staff will evaluate recommended actions in terms of safety. If the recommended treatment cannot be completed due to safety concerns, the proposal will be returned to the resource staff for other treatment options and further analysis.

Exhibit F – BMPs for Fire and Fuels Management

Fire and Fuels Management Activities

Objective: Avoid, minimize, or mitigate adverse effects to soil, water quality, and riparian resources that may result from wildland fire or fuels management activities. Explanation: To minimize erosion and sediment delivery from bulldozer lines, loss of groundcover, fire line construction, plugging of culvert and drainage structures on roads and trails, mastication, and hazard tree removal best management practices are available. Common wildland fire management operations include using prescribed fire, managing wildfire using a wide range of strategies from monitoring to aggressive control and suppression, and rehabilitating fire and suppression damage. Firefighter and public safety are always the first priority in wildland fire activities. Implementation of BMPs to protect soil, water quality, and riparian resources, though important, must not compromise public or firefighter safety in wildland fire situations.

Prescribed fire is often a useful tool to reduce fuels and improve watershed condition by consuming vegetation, dead woody debris, humus, and duff. A prescribed fire may burn at a range of intensities, leaving a mosaic of burn severities within the fire perimeter. Activities associated with fuel reductions can affect watersheds. Actions to control and contain the prescribed fire, such as fire line construction can also adversely affect watershed condition by creating a ground disturbance.

During fuels and wildland fire management, heavy vehicles are often needed to create fire lines, prepare roads for fire crew access, clearing and grubbing safety zones, repair roads damaged during fires, remove hazard trees, and to change the nature of shrubby vegetation fuels. Small access roads and landings are either opened or constructed.

During wildland fire management, retrieving water and applying it to the fire, performing back fire operations, and applying aerial or ground-based fire retardant occur during wildfire suppression. Certain fire-retardant formulations are toxic to aquatic fauna, including fish.

Vegetation and ground cover may be removed by wildfire depending on soil burn severity. In high and moderate burn severity removal of vegetation exposes both the surface and

subsurface soil to erosion. In the absence of invasive species such as cheat grass, riparian reserves and uplands may be able to recover naturally, if soils are not disturbed by fire lines. BMPs for rehabilitating fire lines, fire camps, staging areas, and burned areas are necessary to ensure protection of soil, water quality, and riparian resources. Temporary and long-term erosion control measures are necessary to reduce erosion and maintain overall slope stability where fuels and fire activities have disturbed soils. These erosion-control measures may include vegetative and structural techniques to ensure the area's long-term stability.

Trail and road drainage facilities may become inadequate after wildfires due to increased surface runoff, loss of vegetative cover, and stream bulking. New springs and seeps occasionally saturate trails after the occurrence of a wildfire. Timely maintenance and application of BMPs can correct these conditions to minimize erosion off trails (see recreation below) or roads. Many of these BMPs can be included as minimal impact suppression techniques (MIST). These techniques can be used for wildfire suppression and related activities in wilderness or other sensitive areas such as streams with sensitive aquatic species present.

The BMPs designated by FM are for fuels management, F for wildland fire and FS for Suppression repair, and FE Emergency Stabilization. Many of the BMPs were taken from interagency policies found at https://www.nifc.gov/policies/pol_ref_redbook.html. The Post Fire Emergency Stabilization and Rehabilitation Plan is written after fires on BLM lands to request funding to work on roads, uplands, stream crossings and other locations. After a year or two additional funds under Burned Area Rehabilitation may be obtained after a plan is written. Other links may be more up to date, but these are both publicly available.

<https://www.nps.gov/archeology/npsGuide/fire/docs/18%20Interagency%20BAER%20Handbook.pdf>

<https://www.fws.gov/fire/postwildfire/Files/Interagency%20BAR%20Guidebook.pdf>

Best management practices for fire and fuels management

| BMP Number | Best Management Practices for Fire and Fuels Management |
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| <i>Fuels Management</i> | |
| FM 01 | Keep broadcast burns and jackpot burns out of Riparian Reserve, unless prescribed for restoration purposes (e.g., sudden oak death sanitation, improve species composition, invasive weed control, and invigorate deciduous trees, reduce fuel loading). |

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| FM 02 | <p>When operating in meadows use mowing or hand cutting of vegetation to maintain a fire perimeter.</p> <p>When burning in meadows the burn plan should have objectives to limit burn intensity or residence to limit soil heating.</p> |
| FM 03 | <p>Reduce fuel loads by whole tree yarding, and piling material, as necessary, prior to under burning in dry forest types where fuel loads are elevated.</p> |
| FM 04 | <p>To protect soils, do not directly light fires within the AMZ. Hand thin these areas to reduce fuels and pile and burn outside the AMZ. Do not burn piles within AMZ.</p> |
| FM 05 | <p>Avoid direct ignition of large woody material that is touching the high-water mark of a waterbody or that may be affected by high flows, even if this large wood is outside the AMZ.</p> |
| FM 06 | <p>Store and dispose of ignition devices/ materials (e.g., flares and plastic spheres) outside Riparian Reserve. Maintain and refuel equipment (e.g., drip torches and chainsaws) a minimum of 300 feet from waterbodies, floodplains, and wetlands (unless a road is nearby, and the equipment can be safely maintained and refueled without spilling) .Portable pumps can be refueled on-site within a spill containment system.</p> |
| FM 07 | <p>Avoid creating piles greater than 16 feet in height or diameter. Pile smaller diameter materials and leave larger > 12” pieces within the unit.</p> |

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| FM 08 | <p>Prevent use of mechanized heavy machinery fuel reduction equipment within the Riparian Reserve unless prescribed for restoration.</p> <p>Low ground pressure equipment (13-PSI or less) can be used within AMZs and Riparian reserves.</p> <p>Limit mechanized heavy machinery fuel reduction equipment to slopes less than 35 percent. Restrict non-track mechanized equipment (e.g., feller bunchers and horizontal bar masticators) to slopes less than 35 percent.</p> |
| FM 09 | <p>Use temporary stream crossings if necessary, to access the opposite side with any equipment or vehicles (including OHVs). Follow Temporary Stream Crossing practices under Road’s section.</p> |

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| FM 10 | <p>Construct fire line to the minimum size and standard necessary to contain the prescribed fire and meet overall project objectives.</p> <p>Limit fire lines inside Riparian Reserve. Where hand constructed fire lines are necessary, angle the approach, where feasible, rather than have it perpendicular to the Riparian Reserves.</p> <p>Locate and construct fireline in a manner that minimizes erosion and runoff from directly entering waterbodies by considering site slope and soil conditions, and using and maintaining suitable water and erosion control measures.</p> <p>Consider alternatives to ground-disturbing fireline construction such as using wet lines, rock outcrops, or other suitable features for firelines.</p> <p>Locate fire lines to minimize soil disturbance near temporary and intermittent streams, areas directing water into waterbodies, wetlands, headwalls, or areas of instability.</p> |
| <p><i>Wildfire Management including Fire Suppression Repair</i></p> | |
| F 11 | <p>Fall snags in the Riparian Reserve towards the stream channel when felling is necessary for safety or fire suppression activities.</p> |
| F 12 | <p>Water drafting sites for engines and tankers would be reviewed by the resource advisor and/or agency representative.</p> |
| F 13 | <p>Within Riparian Reserves, consultation with wildlife biologist familiar with the species present in these habitats can guide where lines can go and not harm natural resources. Pre fire season planning is important to establish places for protection from ground disturbance during wildland fires unless the wildfire is deemed a threat to human safety or private property.</p> |
| F 14 | <p>Avoid delivery of chemical retardant foam or additives to within 300 feet of waterbodies, and wetlands. When retardant is discharged into a waterbody, complete reporting of discharge as required by 2018-2023. California Master Cooperative Wildland Fire Management and Stafford Act Response Agreement (CFMA and as amended), or federal operating plan guidance.</p> |
| F 15 | <p>Use water or other less toxic wildland fire chemical suppressants for direct attack or less toxic approved fire retardants in areas occupied by threatened, endangered, proposed, candidate or sensitive species (TEPCS) or their designated critical habitats.</p> <p>Apply aerial retardant adjacent to Riparian Reserves by making parallel passes.</p> |
| F 16 | <p>Water drafting for aerial water bucket refills can be found in lakes and other open water bodies (see Table 1 for BMPs). Consultation with wildlife biologist familiar with the species present in these habitats can guide which are the most suitable, and which may have the required depths. Pre-fire season planning is important in arid areas and fire prone areas to establish places for water drafts during wildland fires.</p> |

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| F 17 | Locate and maintain portable self-contained sanitation facilities at incident bases, camps (including spike/remote camps), helibases, staging areas, constructed helispots, and other centers for incident activities in accordance with State and local regulations. |
| F 18 | <p>Avoid locating incident bases, camps, helibases, staging areas, constructed helispots, and other centers for incident activities in Riparian Reserves.</p> <p>Locate Incident Command Post, air resource bases, staging areas, and other fire management support areas outside of riparian reserves and wetlands, and at a suitable distance from waterbodies to minimize the potential for adverse effects to water quality.</p> <p>Protect surface and subsurface water resources from nutrients, bacteria, and chemicals associated with solid waste and sewage disposal.</p> <p>Collect and properly dispose of trash and other solid waste.</p> <p>Use applicable practices of BMP Road-10 (Equipment Refueling and Servicing) when servicing, refueling, and cleaning vehicles and equipment.</p> <p>Install suitable measures to minimize and control concentrated water flow and sediment from support areas.</p> |
| FS 19 | To intercept water, trap sediment, place residual logs or branches on severely burned areas near trails and near stream crossings, where there is potential for sediment delivery into waterbodies, floodplains, and wetlands. |
| FS 20 | Stabilize fireline in areas that pose a risk to water quality. Use erosion control techniques such as tilling, water barring, or debris placement on fire lines when there is potential for soil erosion and delivery to waterbodies, floodplains, and wetlands. Space the waterbars on trails, and as directed in CFMA or local operating plan guidance. |
| FS 21 | Block dozer lines and roads or landing intersections with an approved barricade or scattered slash to preclude public motorized vehicle use Stabilize firebreaks in a manner that minimizes exposed soil to the extent practicable. |
| <i>Emergency Stabilization</i> | |
| FE 22 | Evaluate post-fire threats due to flooding, debris flows, and hazard trees, as well as impacts to vegetation and wildlife to prepare emergency stabilization and rehabilitation plan. |
| FE 23 | <p>Stabilize disturbed areas including safety zones, fireline, and base camps that have increased erosion potential or drainage patterns altered by fire suppression activities. Install suitable drainage features to promote dispersed runoff from sites.</p> <p>Mitigate soil compaction to improve infiltration and revegetation conditions.</p> <p>Use suitable species and establishment techniques to stabilize the site in compliance with local direction and requirements for vegetation ecology and prevention and control of invasive species</p> |

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| FE 24 | <p>In many cases there is enough perennial plants remaining on-site that, if protected from further disturbances would allow for natural site recovery. Riparian willows and graminoids recover quickly if allowed to grow over several years.</p> <p>Protection of willows and other riparian vegetation would be secured by temporary fencing of riparian areas, or deferment of grazing for at least two growing seasons. This treatment would allow those areas to recover from wildfires by preventing grazing of new and recovering vegetation.</p> |
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| FE 25 | <p>Seeding or planting native vegetation for short-term cover development and long-term recovery. Focus on sites highly susceptible to accelerated erosion, or where perennial plant species cannot reasonably be expected to provide soil and watershed protection, or areas with high densities of invasive annual species e.g., cheatgrass <i>Bromus tectorum</i>, or invasive annual grasses and noxious weeds may readily invade and become established. Temporarily close trails during post fire recovery where recovery is needed close to Waters of the State.</p> <p>When preparing seedbed ensure soil preparations are done prior to rainy season and that no erosion of soils will occur.</p> |
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| FE 26 | <p>Implement emergency fire stabilization or rehabilitation treatments to accomplish erosion control as quickly as possible and before the wet season if fire timing allows. Soil and water conservation practices may include, but are not restricted to:</p> <p>Mulching with straw, wood chips, or other suitable material. To avoid introducing noxious weeds when mulching, use certified weed-free straw mulch or rice straw.</p> <p>Placing straw wattles on the contour at adequate spacing between each row to capture eroded material without overflowing. Embed to the surface of the soil in slight trench to prevent under cutting. Depending on slope place more wattles especially in severe burn or moderate burn areas on steep road banks or above culverts.</p> <p>Placing and anchoring log erosion barriers similarly to straw wattles.</p> <p>Spreading available cut vegetation or slash on bare soils to intercept water, trap sediment, preventing precipitation from forming rills and carrying ash and fine sediment to streams and other water bodies.</p> |
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Soil and water conservation practices for roads and trails include:

Placing or clearing channel sediment retention or stabilization structures.

Placing and maintaining trash racks for debris above road drainage structures.

Preventing culvert and drainage structure plugging

Replacing undersized or damaged culverts to increase peak flow capacity of stream crossing culverts to accommodate the 100-year design flood.

Installing drainage structures, such as waterbars or drainage dips, on fire lines, fire roads, and other cleared areas according to guidelines in [Table 7-b](#) (Waterbar spacing by gradient and erosion class).

Reducing road system hydrologic conductivity through proper grading, culvert spacing, and installing drivable dips.

Repairing damaged road drainage facilities, such as flattened or ripped culvert ends, or burned-out plastic pipes, or cleaning ditch lines of materials that impede natural flow.

Correcting stream diversions.

Addendum to Lumpkin Road Post North Complex Fire Hazard Tree & Fuels Reduction

Addendum #1 April 6th, 2023

BID PACKET

This Project is funded by the Bureau of Land Management



Critical Dates Pre-bid site visit

The RCD will be hosting one additional pre-bid meeting for contractors who were unable to attend the first pre-bid meeting. Contractors wishing to bid on this project must attend a **mandatory pre-bid meeting on Wednesday, April 12th at 9:00 AM at the intersection of Lumpkin Road and Craig Access Road**. The pre-bid meeting is expected to last until noon.

Questions Regarding the Bid Packet

Contractors may submit questions by email to dallas@bcrd.org before Friday, April 14th at 5:00 PM. All pertinent questions will be answered and shared via email with all the other Contractors who attend the mandatory pre-bid site visit. The contractor understands and agrees that it has a duty to inquire about and clarify any Bid Packet questions that the Contractor does not fully understand or believes may be interpreted in more than one way. The BCRCDC, however, is not required to answer questions that are not pertinent to the Bid Packet or are considered to be proprietary information.

Dallas Koller

Email: dallas@bcrd.org