This project is funded by the California Department of Forestry and Fire Protection

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 Swedes Flat, in Butte County, CA. The project would create fuel breaks on up to 80 acres of private property alongside existing features such as roadways, property boundaries, or infrastructure.

Fuel breaks will be constructed along roadsides, streams and creeks, property boundaries, through private parcels. Implementation methods will consist of hand cutting using power-saws and piling using ground personnel. No mechanized equipment will be used in the proposed project area. The vegetation to be removed or modified will be standing or fallen brush and understory tree removal, as well as thinning of overstory trees to 60% or greater live crown canopy cover. Material will be constructed at a minimum of 3 x 3 foot and a maximum of 8 x 8 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 60 percent or greater. On brush dominated sites, at least one bush or groups of brush shall be retained so that no point is further than 30 feet from a specimen. On poorly vegetated sites, one shrub or group of shrubs shall be retained so that no point is further than 50 feet from a live shrub.

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, August 11th at 5 PM. Late submissions will not be accepted. Email bids to dallas@bcrcd.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 “Swedes Flat Fire Hazard Tree and Fuels Reduction”.

Critical Dates
Pre-bid site visit
Contractors wishing to bid on this project must attend a mandatory pre-bid meeting on Wednesday, August 2nd at 8:00 AM meeting at the intersection HWY 162 and Forbestown Road. We will then drive together to the work site. The pre-bid meeting is expected to last until noon.

Questions Regarding the Bid Packet
Contractors may submit questions by email to dallas@bcrcd.org before Friday, August 11th 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 BCRCD, 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 BCRCD on or before Friday, August 11th at 5 PM at the BCRCD 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 by 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 CEQA document for the project (Exhibit C).
Hazardous fuels reduction and site prep for pile burning on a total of 80 acres. See technical specifications below for details.

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
<th>Units and Acres</th>
</tr>
</thead>
</table>
| Task 1: Hazardous Fuels Reduction | Live and dead vegetative fuels will be treated to eliminate fuel ladders, decrease horizontal and vertical continuity of flammable vegetation, decrease flammability, and accelerate decomposition. The target post-treatment average canopy cover is a minimum of 60 percent live canopy cover on tree dominated sites. On brush dominated sites, at least one bush or groups of brush shall be retained so that no point is further than 30 feet from a specimen. On poorly vegetated sites, one shrub or group of shrubs shall be retained so that no point is further than 50 feet from a live shrub.  
(1) A tree of any size is a direct threat to personal safety or infrastructure, or  
(2) a Registered Professional Forester (RPF) determines that an alternative standard better meets management objectives or improves the health of the forest stand, and  
(3) is identified prior to cutting by an RPF or supervised designee.  
The goal is to retain wildlife trees, snags and/or large woody debris identified by a Biologist, RPF, or supervised designee as important elements of value to wildlife; at least one element per acre averaged across the treatment unit.  
Cut material will be piled for burning. Piles will be placed outside the dripline of residual trees. Waxed burn paper no smaller than 3’x3’ shall be placed near the top of the pile top facilitate ignition during the wet season. Woody material shall be placed on the burn paper to prevent shifting in the wind. Piles will be constructed as follows:  
- Make piles compact: Compactness is the single, most important factor affecting ignitability and flammability. Dense fuel concentrations contribute to easier and more robust fire growth. Compact piles shed moisture and allow heat to build up, ensuring that the whole pile is consumed. | 80 Acres |
Stack piles high. Three to five feet is a good height for hand piles. Three feet is a minimum. It is better to combine piles to make them five to six feet in diameter and four to five feet high, rather than to have a lot of small two-to-three-foot piles.

Trim long stems and limbs that protrude from the pile, adding the material to the top of the pile.

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.
- Reduce understory or mid-canopy vegetation and small trees to a minimum of 60% live canopy cover
  - Retain live canopy cover of 60 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.
  - Snags and downed material will be retained two per acre for wildlife habitat, forage, and as large woody debris.
- Where tree species are not present, large woody shrub specimens may be selected for retention.
- Prune retained live canopy species to the maximum reach of cutting tools above ground level, or to a minimum 50% live crown remaining.
- Stumps shall be cut as short and as flat as possible.

**Snag Retention:** Retain an average of two (2) snags per acre. All snags identified for retention shall be 12 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 12 inches DBH and at least 20 feet tall are the top priority for retention. Snags less than 12 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 leave 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 leave trees to avoid being scorched during burning. Piles cannot be located on or against stumps and logs. Piles will be placed at least 50 feet away from all watercourses.

**Invasive weed management:** Members of the project implementation teams should watch for and be able to recognize non-native invasive plants (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 leave trees.
- Piles will also include cutting and piling of standing dead and downed woody material.
- Piled material will be constructed at a minimum of 3 feet x 3 feet and a maximum of 8 x 8 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 leave trees and/or protected plants so 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.

- All watercourses will have a 50-foot Equipment Exclusion Zone (EEZ)
  - Hand crews may operate and cut vegetation within the EEZ
  - No piles will be built within the EEZ
  - No chipping/mastication/cutting discards within the EEZ
  - 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.
Project Design Features

Refer to Exhibit D, for project specific design features (PDFs) applicable to this project and incorporated into this project description.

**Invasive weed management** Clean all off-road equipment entering the project area if it may be coming from areas infested with non-native 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.

**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:

- A qualified 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 qualified Archaeologist, BCRCD Project Manager and CAL FIRE Project Manager or lead will be immediately notified by personnel responsible for project implementation. A map showing confidential resource locations (if known) will be provided separately to the BCRCD Project Manager.
- All work will cease within 100’ of the discovery. Contact the CAL FIRE archaeologist. Work will not resume until further notice from the archaeologist.
- In the event archaeological materials/human reamins are encountered during project implementation, work within 100 feet of the discovery will cease and the CAL FIRE archaeologist (Stephanie Velasquez at (530) 949-8822) will be contacted within 24 hours. Work will not resume in these areas until cleared by the archaeologist.
- The Archaeologist will make an assessment of the situation and, in consultation with the BCRCD Project Manager and 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 Archaeologist will oversee and document implementation of the agreed upon steps and will report the discovery event and the manner of its resolution.
- The BCRCD Project 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.
**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, if identified as songbirds, a buffer of 20-50 feet should be established around the nest and maintained until birds have fledged or breeding activities have ceased. If identified as a raptor, a buffer of up to 500 feet may be established, based on conversations with CDFW. 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.

**Botany Resources**

Botanical and habitat surveys were conducted on the 219 acre Swedes Flat Project for CALFIRE’s Vegetation Management Program. No rare plants, animals or sensitive natural communities were found during surveys.

There are a few different habitats within the project area. The southern two thirds of the project area consist of mainly blue oak/interior live oak woodland with annual grass/forb understory, some areas have dense *Arctostaphylos viscida, Ceanothus euneatus* understory. Northern third of project area is a gray pine/blue oak woodland with *Arctostaphylos viscida* understory. Structures and agricultural areas occur throughout project area, including a sizeable European olive orchard with a pond in the northeast. A stream is present in the southeast and an irrigation canal runs throughout the northern half of the project area.

The project area contains no special status plant or animal populations documented through CNDDB or CalFlora. Botanical surveys and a wildlife habitat survey were performed in Spring of 2020.

**Payment Schedule**
Contractor will be paid for expenses based on the invoices submitted on a monthly basis. The BCRCD must receive invoices no later than the 10th of each month in order to adhere to the BCRCD’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 BCRCD from the funding agency, which can be as much as three months after invoice submittal for this particular grant. BCRCD 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 80 acres of private lands which are encompassed by the Swedes Flat VMP, administered by the California Department of Forestry and Fire Protection (CAL FIRE) within Butte County, California. The project area can be legally accessed off Robinson Mills Road (See Exhibit A).

Legal Description: 7.5' USGS Topo Quad: Rackerby
T18N, R05E Sec 01; T18N, R06E, Sec 06;
T19N, R05E Sec 36; T19N, R06E, Sec 31

**Subcontracting**
Any subcontractors must be identified along with the defined work they will perform on the bid form provided. The BCRCD 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 manual 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 BCRCD 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 BCRCD with proof of Commercial general liability insurance of not less than $1,000,000.

Disputes:
Disputes regarding awarding of bids will be decided by the BCRCD 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, gullying, 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.”

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 private 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.
Utilization of Private Landowner Gates
Any and all gates that are used by the contractor will be left as they are found (closed or open) in order to prevent illegal access by 3rd parties and protect livestock.

Providing Adequate Restroom Facilities
This project takes place entirely on private property. As such, contractors will be required to provide an adequate number of portable toilets for their workers. It is the contractor’s sole responsibility to coordinate the acquisition, delivery, maintenance, cleaning, and removal of these facilities. The cost of these facilities should be reflected in your bid proposal.

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: CEQA document for the project
● Exhibit D: Project Design Features
Swedes Flat VMP Fire Hazard Tree & Fuels Reduction
Attachment 1- Contractor Information

Bid Due Date: **Wednesday July 19th at 5PM**

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  ........................................................................................................

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

<table>
<thead>
<tr>
<th>Subcontractor</th>
<th>Work</th>
<th>Dollar Amount</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
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<tr>
<td>2.</td>
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<tr>
<td>3.</td>
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</table>
### Swedes Flat VMP Fire Hazard Tree & Fuels Reduction

**Attachment No. 3 Bid Form**

<table>
<thead>
<tr>
<th>Task No.</th>
<th>Description</th>
<th>Qty</th>
<th>Unit</th>
<th>Unit Price</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hazardous Fuels Reduction</td>
<td>80</td>
<td>acre</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Bid Cost:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**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.
Swedes Flat VMP 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. ______________________________________
   ______________________________________
   ______________________________________
   ______________________________________
Swedes Flat VMP 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 Maps:
Exhibit B: Fire Plan

Butte Unit Fuels Reduction
Fire Prevention Plan
In addition to complying with the sections below, contractors must call 1-800-847-776 each day to find out the next day’s Project Activity Level, or PAL. The hotline is updated at 5pm 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, the PAL reverts to whatever level it was the day before.

CAL FIRE Butte Unit Fuel Reduction Fire Prevention Plan-2020

Intent - This Fire Prevention Plan ensures personnel are aware of, and comply with, the State of California’s (State) fire prevention laws and additional fire preventive measures required by the Department. Some of the Departments’ required fire preventive measures are stricter than the state fire prevention laws. Personnel should recognize conditions that may allow a fire to start. Personnel should take the appropriate precautionary measures to avoid a fire and be properly equipped and prepared to take appropriate action in the event of a fire.

Compliance with the Public Resources Code and Forest Practice Rules - The California Public Resources Code (PRC) and Forest Practice Rules (FPR) contain many provisions to reduce the risk of fire. Although our personnel are not “timber operators” as specified in the FPR or necessarily conducting “timber operations”, the FPR do provide a sound basis for the best management practices when working in conditions that may ignite a fire. These rules are also a State standard for timber regulations. By reference they are both incorporated into this Plan, and this Plan requires strict adherence to the PRC and FPR.

Effective Period and Project Activity Level (PAL) - In addition to requirements of the FPR and PRC, the Effective Period for all additional requirements of this Policy shall be determined by the CAL FIRE Unit Chief or designee. The CAL FIRE Unit Chief or designee has authority to invoke a more restrictive PAL (or waive PAL requirements in burned salvage areas), based on local conditions, resource availability or other appropriate considerations. CAL FIRE Unit Chief or designee shall notify personnel verbally or in writing when either increased or decreased PAL measures or patrol requirements are invoked.

Fuel Reduction Fire Prevention Requirements:

- Obtain the appropriate permits as necessary for fire protection within the federal, state or local government authority.

- Maintain fire suppression related tools and devices as required by PRC §§ 4427, 4428, 4429, 4431, and 4442
  
  ❖ **Basis** - FPR - Article 8 Fire Protection, 918, 938, 958 Fire Protection [Coast, Northern, Southern]

- Keep all roads passible until slash disposal has been completed
  
  ❖ **Basis** - FPR - Article 8 Fire Protection, 918.3, 938.3, 958.3 Roads to be Kept Passable [All Districts]

- Smoking by persons shall be confined to cleared landings and areas of bare soil at least three feet (.914 m) in diameter.
  
  ❖ **Basis** - FPR - Article 8 Fire Protection, 918.4, 938.4, 958.4 Smoking and Matches [All Districts]

- Crew use fires for warming or other needs shall be limited to the following:
  - 10-foot clearance to flammable vegetation
  - Built in a depression to hold the ash
  - Fires will be completely out when leaving the work site.
- **Basis - FPR - Article 8 Fire Protection, 918.5, 938.5, 958.5 Lunch and Warming Fires [All Districts]**
  - Company Officers or designee shall review reporting and safety procedures, daily, while providing adequate supervision with the crew.
    - **Basis - FPR - Article 8 Fire Protection, 918.6, 938.6, 958.6 Posting Procedures [All Districts]**
  - Personnel shall provide for a diligent fire watch service at the scene of any operations to prevent and extinguish fires.
    - **Basis - FPR - Article 8 Fire Protection, 918.7, 938.7, 958.7 Blasting and Welding [All Districts]**
  - Personnel will provide a diligent inspection of the operational area prior to leaving for the day. The person conducting the inspection shall have adequate communication available for prompt reporting of any fire that may be detected. Note: Fire preventive measures are stricter; requiring 2 continuous hours or more of patrol under certain conditions.
    - **Basis - FPR - Article 8 Fire Protection, 918.8, 938.8, 958.8 Inspection for Fire [All Districts]**
  - Operations using equipment such as any motor, engine, boiler, stationary equipment, welding equipment, cutting torches, tar pots, or grinding devices from which a spark, fire, or flame may originate, which is located on or near any forest-covered land, brush-covered land, or grass-covered land, without doing the following:
    - Provide a 10-foot clearance from object.
    - Maintain one serviceable point shovel no shorter that 46 inches & one backpack pump water-type fire extinguisher.
    - **Basis - Public Resources Code, Division 4, Chapter 6. 4427.**
  - Personnel will maintain the following tools in the event of a fire:
    - One backpack pump-type fire extinguisher filled with water, two axes, two McLeod fire tools, and enough shovels so that each employee at the operation can be equipped to fight fire.
    - 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.
    - Each vehicle will carry at least one shovel.
    - **Basis - Public Resources Code, Division 4, Chapter 6. 4428.**
  - When Gasoline powered saws are use, one serviceable round point shovel, with an overall length of not less than 46 inches, or one serviceable fire extinguisher shall be within the cutting proximity (25 feet).
    - **Basis - Public Resources Code, Division 4, Chapter 6. 4431.**
  - If an exhaust system is not designed with a muffler as defined in the Vehicle Code, then a spark arrester is required.
    - A spark arrester is a device constructed of nonflammable materials specifically for the purpose of removing and retaining carbon and other flammable particles over 0.0232 of an inch in size from the exhaust flow of an internal combustion engine that uses hydrocarbon fuels or which is qualified and rated by the United States Forest Service.
    - Turbocharged engines are not subject to this section if all exhausted gases pass through the rotating turbine wheel, there is no exhaust bypass to the atmosphere, and the turbocharger is in effective mechanical condition.
Additional Preventive Measures Required by the Department

The Effective Period of additional requirements under this Policy shall be determined by the CAL FIRE Unit Chief or designee. The Effective Period may be waived or invoked under specific conditions identified by the CAL FIRE Unit Chief or designee, verbally or in writing, of the Effective Period start date. The suspension of PALs for operations will be based on one or more of the following conditions:

- Current weather conditions (accumulated snow on the ground, significant rainfall, sub-freezing temperatures) and spot forecasts.
- Current and predicted PALs forecast data
- Lifting of the burn ban
- Closure of fire season

Determination of Project Activity Level Monitoring and Operational Requirements - The PAL is a rating of predicted fire risk based on local fuel and weather data. Each PAL contains specific procedures and restrictions to be implemented to reduce the risk of fire. These are summarized in the Table 1 - Daily Procedures and Restrictions by Project Activity Level.

Table 2 - Operational Categories and Requirements lists: categories of activities, PALs applicability, and procedures or equipment necessary for each activity.

The Pal can be accessed through the Northern California Geographical Coordination Center Predictive Services at [https://gacc.nifc.gov/oncc/predictive/weather/](https://gacc.nifc.gov/oncc/predictive/weather/) or the local ECC.

<table>
<thead>
<tr>
<th>ERC/IC</th>
<th>0-10</th>
<th>11-20</th>
<th>21-30</th>
<th>31-40</th>
<th>41-50</th>
<th>51-60</th>
<th>61-70</th>
<th>71-80</th>
<th>81-90</th>
<th>91-100</th>
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<tbody>
<tr>
<td>0-10</td>
<td>A</td>
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<td>A</td>
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<td>E</td>
<td>E</td>
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</tbody>
</table>

Note: If the Fire Danger Rating Area personnel are working in is not listed they can look up the ERC [https://gacc.nifc.gov/oncc/fuelsFireDanger.php](https://gacc.nifc.gov/oncc/fuelsFireDanger.php) and Calculate the Probability of Ignition and use the above chart to determine what the PAL is in the area they are working.

Table 1. Daily Procedures and Restrictions by Project Activity Level

Each PAL includes all preceding (lower) PAL requirements.

Note: On-site weather should be taken regularly and regardless of the predicted PAL if a combination
of the (10) Ten Hour Fuel Stick reaching 4\% and the Relative Humidity reaching 20\% the PAL will be considered E.

<table>
<thead>
<tr>
<th>PAL</th>
<th>PROCEDURES AND RESTRICTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Immediately following the cessation of operations using Masticators, a walking foot patrol</td>
</tr>
<tr>
<td>B</td>
<td>Immediately following the cessation of operations using Chainsaws, road side chipping, ground- based tracked equipment, clearing or mastication, a walking foot patrol is required over all of the areas operated that day.</td>
</tr>
<tr>
<td>C</td>
<td>Immediately following the cessation of operations using Chainsaws, road side chipping ground- based tracked equipment, clearing or mastication, a walking foot patrol is required over all of the areas operated that day.</td>
</tr>
<tr>
<td>D</td>
<td>Operations using Chainsaws, road side chipping, ground- based tracked equipment, clearing or mastication must be suspended at 1:00 P.M. and a walking foot patrol for 2 continuous hours is required over all of the areas operated that day. <strong>These operational activities may continue if a walking foot patrol is conducted once every hour on all areas operated that day, with patrols commencing at 1:00 P.M. and continuing for 2 continuous hours after cessation of operations.</strong></td>
</tr>
<tr>
<td>Ev</td>
<td>Chainsaws, road side chipping, ground based tracked equipment, clearing, and mastication may operate until 1:00 PM as long as a walking foot patrol is conducted once every hour on all areas operated that day, with patrols commencing at 9:00 AM and continuing for 2 continuous hours after cessation of operations.</td>
</tr>
</tbody>
</table>

**Table 2. Operational Categories and Requirements**

“X” - Denotes that the specific requirements apply to the listed Operational Categories

<table>
<thead>
<tr>
<th>Operational Categories</th>
<th>PAL</th>
<th>Designated Patrolman</th>
<th>Walking Patrol</th>
<th>Fire Engine/Water Tender</th>
<th>Fire Tools, Back Pump</th>
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</thead>
<tbody>
<tr>
<td>Chainsaw Operations</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Tracked Off-Road Chipping</td>
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<td>X</td>
<td>X</td>
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<tr>
<td>Roadside Chipping</td>
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<td>X</td>
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<tr>
<td>Masticating</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>Thinning</td>
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<td>X</td>
</tr>
<tr>
<td>Tracked Vehicle Operations</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

**Note:** When an operation is conducted that requires a Designated Patrolman for PAL D and Ev in Table 2, the 2 continuous hours of patrol will be performed by a “Designated Patrolman. All other operations within the Operational Categories in Table 2 that require Walking Patrol (but not by a Designated Patrolman) still require a walking patrol for 2 continuous hours on PAL D and Ev days.

**Definitions and Conditions**

**Brush and Blade Guards** - Ensure that operators clean out guards no less frequently than every two hours during operations to prevent the build-up of vegetative material.
**Communication Devices** - On site of every operation, Crew shall possess a communication device that is capable of contacting fire dispatch directly or indirectly through other contacts.

**Designated Patrolman** - For those activities specified in Table 1 - Operational Categories and Requirements walking patrols described under PAL’s D or Ev must be conducted by a designated patrolman who has no other duties to complete during the requisite patrol period. Designated patrolmen must be equipped as described in the “Foot Patrol”

**Foot Patrol** - The individual doing the walking foot patrol shall have a vehicle parked within or as close as possible to the patrolled area, and the vehicle shall be equipped to fight fire with all the following:

1) A serviceable 5 gallon backpack pump filled with water,
2) A shovel or McLeod fire tool,
3) Either a double bit ax or a serviceable chainsaw with a minimum 20-inch bar, and
4) Communications equipment capable of summoning additional fire suppression resources
5) In situations where the individual doing the walking foot patrol is the only person on the operation and a fire is detected, the individual will report the fire and take immediate action to contain and suppress the fire.

**Note** - The patrol shall carry around point shovel or McLeod fire tool during the entire walking foot patrol.

**On-Site Supervisor** - When the daily PAL is D, Ev, or E/Red Flag. The on-site supervisor shall be capable of receiving notices, taking action, and directing a response to a fire.

**Fire Engine/Water Tenders** - As designated in Table 1 - Operational Categories and Requirements several activities and operations require either a staffed water tender with communication devices (as required above) or a fire engine with a minimum capacity of 250 gallons and 200 feet of minimum 1 inch hose. The fire engine, and water tender shall be in working order and capable of delivering water under sufficient pressure at 200 feet to properly operate a standard fire nozzle.

**Red Flag Warning (Non-Lightning)** - Should the Crew become aware through contact with an ECC, National Weather Service or other fire weather web sites, that “Red Flag Warning” conditions have been issued and are in effect for the Crew’s area of operations, the Crew shall follow the procedures and restrictions of PAL E and shall be in effect for the time period in which the Red Flag Warning is in place.

**Red Flag Warning (For Lightning)** - Operations under a Red Flag Warning (For Lightning), declared specifically in response to predicted lightning activity, may proceed under the PAL assigned to the operation for that day.
Exhibit C: CEQA document for the project

- See Swedes Flat VMP Document. Due to the length of this document, it will be sent as a separate document/file. If you have not received a copy, or cannot locate it, please contact Dallas Koller at dallas@bcrcd.org

Exhibit D: Project Design Features

Archaeological Protection Measures:

Protection Measure 1: 30’ buffer to be flagged before operations– equipment exclusion zone (EEZ), hand crew only, no pile creation, no mastication/chipping/cutting discards within buffer. Equipment will use existing designated crossings.

Protection Measure 2: 50’ buffer to be flagged before operations - equipment exclusion zone (EEZ), hand crew only, no pile creation, no mastication/chipping/cutting discards within buffer. No operations shall occur within the site buffer during saturated soils conditions.

Protection Measure - New Archaeological Site/Material: all work will cease within 100’ of the discovery. Contact the CAL FIRE archaeologist. Work will not resume until further notice from the archaeologist.

Protection Measure – Human Remains: In the event archaeological materials are encountered during project implementation, work within 100 feet of the discovery will cease and the CAL FIRE archaeologist (Stephanie Velasquez at (530) 949-8822) will be contacted within 24 hours. Work will not resume in these areas until cleared by the archaeologist.

Watercourse Protection Measures:

- 50-foot watercourse Equipment Exclusion Zone (EEZ)
- Equipment may cross the watercourse at designated crossings
- Hand crews may operate within the EEZ
- No chipping/mastication/cutting discards within the EEZ
- No pile construction or pile burning within the EEZ
- No broadcast burning is proposed.
- The duff layer is not targeted for removal; exposed bare mineral soils will be less than one percent within the EEZ