

FS Agreement No. 15-IA-11051100-028  
Cooperator Agreement No. \_\_\_\_\_

**INTERAGENCY AGREEMENT**  
**Between The**  
**USDI, BUREAU OF INDIAN AFFAIRS**  
**And The**  
**USDA, FOREST SERVICE**  
**PLUMAS NATIONAL FOREST**

This INTERAGENCY AGREEMENT is hereby made and entered into by and between the USDI, Bureau of Indian Affairs, hereinafter referred to as “BIA,” and the USDA, Forest Service, Plumas National Forest hereinafter referred to as the “U.S. Forest Service,” under the authority of: Economy Act of June 30, 1932 (31 USC 1535, P.L. 97-258 and 98-216); National Indian Forest Resources Management Act (November 28, 1990, 25 USC 3101 & 25 USC 3109, Pub.L. 101-630).

This Agreement is being issued in as an inter-agency effort to provide a government to government Indian self-determination partnership with the Mooretown Rancheria of Maidu Indians of California (AAJJ51626T) in accordance with Presidential Memorandum 59 F.R. 22951(e) as Codified in Indian Law (25 USC 450 et. seq.). Utilizing federal inter-agency partnering authority to benefit the Tribe's Forest Management Program (43 USC 1712(b)) including its forestry workforce and improving its forest resources (25 USC 3103(7)) provided by the National Indian Forestry Management Act (25 USC 3109b(1)D) and providing the Tribe benefits of its forest products (25 USC 3055).

Background: The Keddie Ridge and Mud Lake-Baker Cypress Fuels Reduction Projects are located on the Mount Hough Ranger District of the Plumas National Forest and are part of the Moonlight Fire Restoration efforts. The Keddie Ridge Project comprises of approximately 953 acres of service work to including hand cut & pile, grapple pile and mastication. The Mud Lake-Baker Cypress Project comprises of 235 acres of grapple pile service work to protect a stand of rare Cypress species.

Through this collaboration, the Plumas National Forest is directly building on its government-to-government relationship with the Concow Maidu Tribe of Mooretown Rancheria, and utilizing the interagency agreement with Bureau of Indian Affairs as an efficient method to protect the Mooretown Rancheria's forest resources and to promote the development of its Tribal forest workforce programs. The Mooretown Rancheria is currently the only tribe with ancestral lands on the Plumas National Forest that can provide both hand thinning and mechanical thinning services to include mastication. The Mooretown Rancheria is working towards building a sustainable tribal forestry crew with the ability to competitively bid on contracts, however, at this time the Tribe still relies heavily upon its collaborative projects with the Forest Service in order to build up its capacity. Indirectly, this collaboration also promotes intertribal relations and the development of the Greenville Rancheria's training/manpower program. The Mooretown Rancheria has developed a partnership with Greenville Rancheria and plans to work together on hand thinning and piling service work. Mooretown Rancheria is outreaching to hire crew members local to Indian Valley, which is nearby and adjacent to the project areas to promote tribal workforce.

Although the Mooretown Rancheria is physically located outside of Oroville, CA, there is an interconnection and shared ancestral land between the federally recognized Maidu Tribes on the Plumas



National Forest. Out of the seven tribes, six are comprised of Maidu People who share the same history, traditions, culture, family members and ancestral lands. During consultation and collaboration, ancestral tribal boundaries are often fluid in nature and are deferred to the tribes to define.

Title: Keddie Ridge - Mud Lake Baker Cypress Fuels Reduction Project

**I. PURPOSE:**

The purpose of this agreement is to document the cooperation between the parties to complete fuel treatments across a portion of the Moonlight Fire Restoration area utilizing tribal workforce for the purpose to promote tribal training and manpower programs, tribal economic development, inter-tribal collaborative efforts and government-to-government relationship building with Tribes who maintain an ancestral connection to the Plumas National Forest lands. in accordance with the following provisions and the hereby incorporated Operating and Financial Plan, attached as Exhibit A, and B.

In consideration of the above premises, the parties hereto agree as follows:

**II. THE BIA SHALL:**

- A. Perform in accordance with the Financial and Operating Plan, Exhibit B.
- B. Perform tasks as outlined in the Mud Lake Baker Cypress Project scope of work (Exhibit A).
- C. Perform tasks as outlined in the Keddie Ridge Project scope of work (Exhibit A).

**III. THE U.S. FOREST SERVICE SHALL:**

- A. Perform in accordance with the Financial and Operating Plan, Exhibit A and B.
- B. BILLING – IA: The maximum total cost liability to the U.S. Forest Service for this agreement is \$ 1,181,500. Transfer of funds to the BIA must be through the Interagency Payment and Collection System (IPAC) billing. A detailed list of expenditures must be made available upon request. To facilitate the IPAC billing, the MO Number and Line Number should be placed in the Purchase Order Number block on the IPAC bill in the following format: MOXXXXXXXX#YYY (where X is the MO number and Y is the Line Number).



The IPAC billing document which BIA prepare(s) must contain the following information:

BILLING DATA	U.S. FOREST SERVICE	PERFORMING AGENCY
Obligation Document Number (MO# and Line Number)	Will be provided after execution	N/A
Agency Location Code (ALC)	12-40-1100	14-20-0699
Treasury Account Symbol (TAS)	12 X 1115	014X2100
Account/Cost Structure or Job Code/Override	0511RICW0413	15XA1125RM AAJJ51626T AF6904000.999900 AR.FIR.J1500004
Budget Object Code (BOC)	2510	2510
Document Agreement Number	15-IA-11051100-028	AG1500004
Data Universal Numbering System (DUNS)	92-9332484	926038407
Common Agreement Number (CAN) – USDA Agencies Only		
Business Event Type Code (BETC)	DISB	COLL

- C. The FS will provide technical direction and oversight in support of the tasks outlined in Exhibit A as needed

**IV. IT IS MUTUALLY AGREED AND UNDERSTOOD BY AND BETWEEN THE PARTIES THAT:**

- A. PRINCIPAL CONTACTS. Individuals listed below are authorized to act in their respective areas for matters related to this agreement.

**Principal Cooperator Contacts:**

Cooperator Program Contact	Cooperator Administrative Contact
Gerald Jones 2800 Cottage Way Sacramento, CA 95825 Telephone: 916-978-6076 FAX: 916-978-6081 Email: <a href="mailto:gerald.jones@bia.gov">gerald.jones@bia.gov</a>	Corazon Dela Vega 2800 Cottage Way Sacramento, CA 95825 Telephone: 916-978-6149 FAX: 916-978-6081 Email: <a href="mailto:corazon.delavega@bia.gov">corazon.delavega@bia.gov</a>



**Principal U.S. Forest Service Contacts:**

<b>U.S. Forest Service Program Manager Contact</b>	<b>U.S. Forest Service Administrative Contact</b>
Wade McMaster 159 Lawrence St Quincy, CA, 95971 Telephone: 530-283-7795 FAX: 530-283-7716 Email: <a href="mailto:wcmaster@fs.fed.us">wcmaster@fs.fed.us</a>	Aaron Stout 631 coyote St Nevada City, CA 95946 Telephone: 530-478-6825 FAX: 530-478-6161 Email: <a href="mailto:asstout@fs.fed.us">asstout@fs.fed.us</a>

B. **NOTICES.** Any communications affecting the operations covered by this agreement given by the U.S. Forest Service or BIA are sufficient only if in writing and delivered in person, mailed, or transmitted electronically by e-mail or fax, as follows:

To the U.S. Forest Service Program Manager, at the address specified in the agreement.

To BIA, at BIA’s address shown in the agreement or such other address designated within the agreement.

Notices will be effective when delivered in accordance with this provision, or on the effective date of the notice, whichever is later.

C. **INFORMATION SECURITY.** By accepting this agreement, the servicing agency agrees to comply with all Federal information technology (IT) laws, regulations and requirements; and shall be responsible for properly protecting all information used, gathered, or developed as a result of work under this agreement.

The servicing agency shall, upon request, provide to the U.S. Forest Service Information Security staff for review and examination documentation which supports the servicing agency’s assertion that adequate security controls are in place to protect U.S. Forest Service information and data which it holds. Documentation may include, but is not limited to, certification and accreditation documentation, security testing results, audit and assessment results, and risk documentation.

The servicing agency shall notify the U.S. Forest Service Computer Incident Response Team (CIRT), by e-mail, at [CIRT@fs.fed.us](mailto:CIRT@fs.fed.us), within 1 business day of any security incidents which affected or may affect the confidentiality, integrity, or availability of the U.S. Forest Service information and data which it holds, and include an analysis of the extent of the incident and summary of preliminary corrective actions.

D. **TERMINATION – INTERAGENCY AGREEMENTS.** This IA may be terminated upon 30 calendar days’ written notice by either party. If this agreement is cancelled, any implementing contract/order may also be cancelled. If the IA is terminated, the agencies shall agree to the terms of the termination, including costs attributable to each party and the disposition of awarded and pending actions. If the Servicing Agency incurs costs due to the Requesting



Agency's failure to give the requisite notice of its intent to terminate the IA, the Requesting Agency shall pay any actual costs incurred by the Servicing Agency as a result of the delay in notification, provided such costs are directly attributable to the failure to give notice.

- E. ALTERNATE DISPUTE RESOLUTION – INTERAGENCY. The parties to this agreement shall settle any disputes that may arise under this agreement by following direction in the Treasury Financial Manual, Volume 1, Bulletin 2011-04, Section VII (“Resolving Intragovernmental Disputes and Major Differences”).
- F. MODIFICATIONS. Modifications within the scope of this agreement must be made by mutual consent of the parties, by the issuance of a written modification signed and dated by all properly authorized, signatory officials, prior to any changes being performed. Requests for modification should be made, in writing, at least 30 days prior to implementation of the requested change. The Forest Service is not obligated to fund any changes not properly approved in advance.
- G. COMMENCEMENT/EXPIRATION DATE. This agreement is executed as of the date of the last signature and is effective through December 31, 2018 at which time it will expire, unless extended by an executed modification, signed and dated by all properly authorized, signatory officials.
- H. AUTHORIZED REPRESENTATIVES. By signature below, each party certifies that the individuals listed in this document as representatives of the individual parties are authorized to act in their respective areas for matters related to this agreement. In witness whereof, the parties hereto have executed this agreement as of the last date written below.

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AMY L. DUTSCHKE, Regional Director Date  
 U.S. Bureau of Indian Affairs, Pacific Regional Office

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DEBRA WHITMAN, Forest Supervisor Date  
 U.S. Forest Service, Plumas National Forest

The authority and format of this agreement has been reviewed and approved for signature.

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 5/1/2015  
Date  
 AARON S. STOUT  
 U.S. Forest Service Grants & Agreements Specialist



### Burden Statement

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0596-0217. The time required to complete this information collection is estimated to average 4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call toll free (866) 632-9992 (voice). TDD users can contact USDA through local relay or the Federal relay at (800) 877-8339 (TDD) or (866) 377-8642 (relay voice). USDA is an equal opportunity provider and employer.

## DESCRIPTION/SPECIFICATIONS/SCOPE OF WORK

### Scope of Work

*Description of Work:* The intent of this contract is to secure services for chainsaw thinning and piling of trees, snags, and dead surface fuels. Piles are to be covered with 6 mil plastic to cover 80% of each pile with plastic located in the upper 1/5<sup>th</sup> of the pile. This project includes 953 acres.

*Responsibility:* BIA shall provide all equipment, supplies, transportation, labor, and supervision--necessary to complete the project, except for that which is to be furnished by the Government.

### Project Location & Description

*Location:* This project is located on the Plumas National Forest, Mt. Hough Ranger District. Treatment units are located about 4 miles east of Greenville, CA.

*Description:* All units are flagged in yellow and tagged with the project name and unit number.

*Weed free equipment:* Prior to arriving on site, all heavy equipment must be thoroughly cleaned of debris and dirt so as not to transport weed or weed seed.

*Exclusions:* There are small exclusion areas in and adjacent to many of the units. These areas are flagged on the ground with the following colors: archaeological = red and black, sensitive plants = blue and black, noxious weeds = orange.

*Accessibility:* Well maintained road systems provide basic access to treatment units. Walk in and ATV use will be needed to access all areas of large units. Snow or wet road conditions may limit access to the project areas seasonally.

### Maps

Maps showing the general vicinity and/or specific work areas are included in Scope of Work Package. Maps are general in nature and are not to be considered as definitively identifying locations.

### Restrictions on Work

Work may be performed at any time during the period of the agreement, except as outlined here. Restrictions are as follows:

1. In accordance with the fire plan, included.
2. When the Contracting Officer (or designated representative) determines that adverse weather has made access too dangerous or that continued vehicular travel would cause unacceptable road damage.

## Technical Requirements

### Definitions

Bole – The stem of a tree.

Snag – a dead tree.

Conifer - A live evergreen tree with needle shaped or scale-like leaves.

Co-dominant Tree - A tree with the crown forming the general level of the crown cover and receiving full light from above, but comparatively little from the sides.

Crop Tree - A tree without excessive mechanical damage or phenotypical defects and insect or disease infestation and which has a live crown ratio of greater than 30%.

Control area- A point or area identified within the treatment unit with red & black or noxious weed flagging. Special restrictions apply.

Damaged Tree – Any injury caused by the contractor’s performance of work that exposes the cambium of a leave tree (i.e. scarred bole, cut limbs in the upper 50% of the tree, cut top).

D.B.H. - Diameter Breast Height, the diameter of a tree as measured at a point 4 1/2 feet above ground on the uphill side of a tree.

Hand Piles – Hand built piles of slash, brush, and woody debris with a piece of plastic placed over the upper third and top.

Leave Trees – Established conifers and oaks expected to remain part of the forest. A leave tree is determined by both spacing and vigor of existing conifers.

Limited Operating Period (LOP) – Restricted operating dates due to wildlife (Spotted Owl, Goshawk) or recreation requirements.

Leave Tree Spacing - The distance, in feet, between trees less than 8 inches DBH that are left on site after hand thinning is complete.

Slash - The woody residue, branch material, and brush resulting from hand thinning as well as existing down dead wood less than 8 inches in diameter at its largest point.

### Specifications

#### Mastication

**Units: 18, 23, 31C, 85**

Masticate brush and trees less than 10 inches DBH to approximately 25 foot spacing. In addition, masticate snags less than 10 inches DBH. Preserve the healthiest and best formed live conifer trees on the site. Retain all hardwoods greater than 3 inches DBH.

Operate machinery in a way so as not to damage any remaining trees or cause undo damage to surrounding resources such as roadways or streambeds. After mastication, stump heights shall be no more than 6 inches high as measured on the uphill side or 4 inches above natural obstacles (i.e. logs, rocks). No slash or vegetative debris shall be more than 18 inches deep as measured from the ground level. No individual pieces of slash or vegetative debris shall be greater than 4 feet in length. No masticated or cut material shall lean against or be suspended by a leave tree. Do not masticate or otherwise damage any down logs greater than 16" diameter. Survey monuments and bearing trees shall be protected and not damaged in any way.

See Table 1 for equipment restriction zones near drainages.

**Table 1. Equipment Restriction Zones and Burn Pile Restriction Zones in RHCAs**

Stream Type	Equipment Restrictions by Slope Class			Burn pile restrictions by Slope Class <sup>a</sup>	
	0–15%	15–25%	>25%	0–15%	>15%
<b>Perennial, fish bearing</b>	100 ft	150 ft	No mechanical treatment	25 ft	40 ft
<b>Perennial, no fish</b>	50 ft	100 ft	No mechanical treatment	25 ft	40 ft
<b>Intermittent</b>	25 ft	50 ft	No mechanical treatment	15 ft	25 ft
<b>Ephemeral</b>	25 ft	25 ft	No mechanical treatment	15 ft	15 ft
<b>Reservoirs/wetlands greater than 1 acre</b>	50 ft	75 ft	No mechanical treatment	15 ft	25 ft

**Piling of Fuels Hand or Machine**

**Units: 9, 17, 22, 42a, 42b, 42c, 45, 49**

Thin forest stands using hand held chainsaws. Fall 90% of all live conifers 8 inches in DBH or less, and 60% of live conifers 8 to 10 inches in DBH. Conifers that are growing underneath or within 25 feet of larger trees as measured from stem to stem should be targeted. The goal is to heavily thin competing conifers while maintaining a multistoried canopy with all size classes represented.

All trees shall be felled into the treatment units, away from identified control areas and improvements such as, but not limited to fences, gates, signs, or water tanks. Remaining stumps shall be less than 6 inches in height and shall be cut flat or with a minimal angle to avoid creating a sharp stump. Prune branches of all residual trees to 6 feet in height. Cut all resulting slash into manageable sized pieces for piling (about 5 foot lengths). Trees less than one foot in height need not be cut. Do not cut oaks or other hardwood.

Piling may be done by hand or by machine or a combination of both to achieve the specifications described below and shown in Figure 1.

**Piling of Fuels, Hand****Units: 8, 15, 19, 24, 26, 30, 35, 37, 84, 87**

Same thinning prescription as above with an 8 DBH limit on live conifers and all material must be piled by hand.

**Leave Tree Selection on all units**

Leave trees shall generally be those of tallest height, largest crown, and straightest boles that are free of damage due to insects, disease, physical and mechanical causes. Do not cut conifers that are growing in open areas 25 feet or more from other trees. In areas where all trees are less than 10 inches in diameter, thin trees to 25 foot spacing preserving the largest, healthiest, and best formed of these trees. These specifications ensure that forest gaps will not be created and will encourage the growth of younger trees that are in a good growing position.

With all other variables being equal, species preference from most desirable leave trees to least will be:

1. oaks and other hardwoods
2. sugar pine
3. ponderosa pine
4. incense cedar
5. Douglas fir
6. white fir

**Snags, Dead, and Down**

Cut all snags, (standing dead trees), and solid down woody debris from 3 to 8 inches in diameter into manageable sized lengths for piling (about 5 foot lengths). This will include the braches and tops of larger downed trees.

**Piling**

All slash created from the above mentioned activities will be piled except green tree boles 6 to 10 inches in diameter. Green tree boles 6 to 10 inches in diameter should be left out of piles. Minimum acceptable pile size will be 5 feet high and 5 feet wide. Piles should be compact with smaller material such as needles and braches in the center and larger material such as boles on top to compress lighter fuels. As much as possible, piles should be located in open areas, out from underneath the crowns, (drip line), of residual trees. Cover at least 80% of each pile with 6 mil plastic placed in the upper 1/5<sup>th</sup> of the pile. Plastic must be sufficiently anchored with slash or brush so that it will not blow off in high winds. See Figure 1.

- No piles will be placed within 15 feet of dry creek beds.
- No piles will be placed within 25 feet of perennial creeks.
- No piles will be placed within 15 feet of control areas.
- No piles will be placed within 15 feet of standing snags
- No piles will be placed within 15 feet of downed logs greater than 20 inches in diameter.
- No piles will be placed within 15 feet of the private property boundaries.
- No piles will be placed underneath or within 20 feet of power lines.

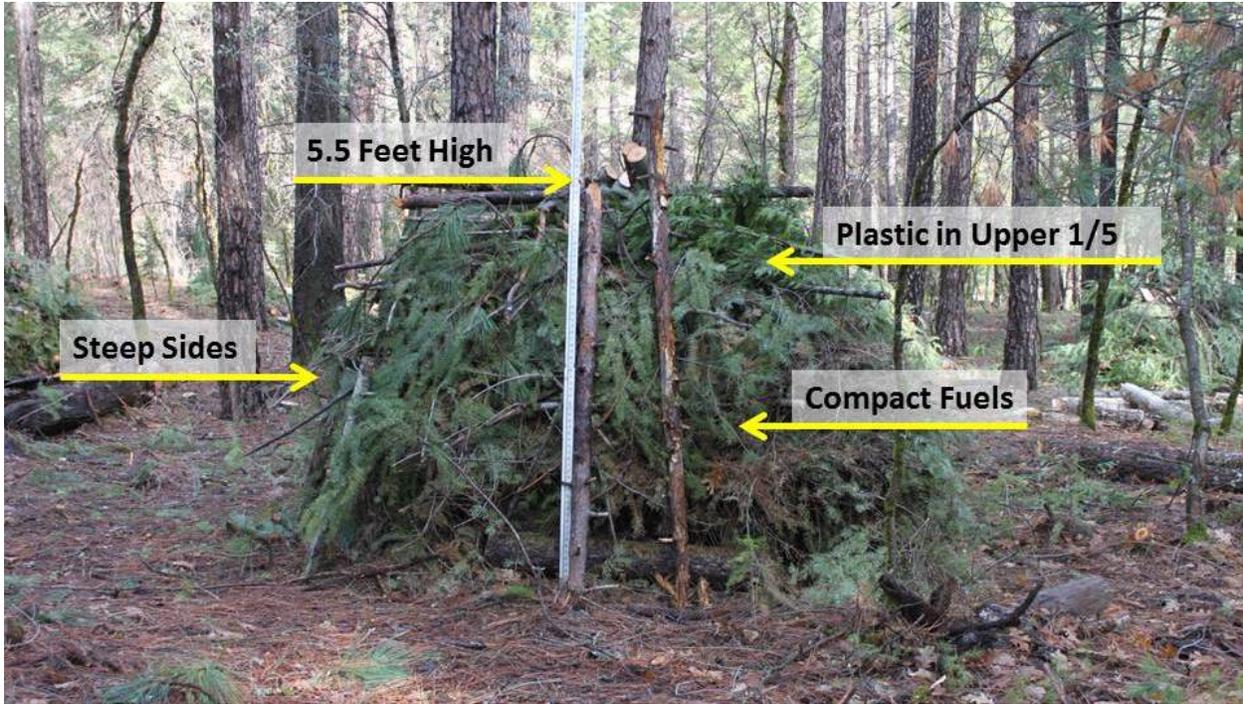


Figure 1. Ideal pile size and structure.

Table 2. Itemized Units

Treatment and Unit Number	Acres
<b>Mastication</b>	<b>266</b>
Unit 18	24
Unit 23	67
Unit 31c	25
Unit 85	185
<b>Piling of Fuels, Hand</b>	<b>510</b>
Unit 15	90
Unit 19	20
Unit 24	44
Unit 26	6
Unit 30	10
Unit 35	11
Unit 37	29
Unit 8	20
Unit 84	145
Unit 87	151
<b>Piling of Fuels, Hand or Machine</b>	<b>177</b>
Unit 17	55
Unit 22	31
Unit 42a	9
Unit 42b	9

Unit 42c	58
Unit 45	38
Unit 49	8
Unit 9	5
<b>Grand Total</b>	<b>953</b>

**Control Areas:**

**Botanical (noxious weeds):** Noxious weeds are flagged with orange “noxious weed” flagging. There will be no driving, parking, cutting, piling, or any other physical disturbance within these areas.

**Botanical (sensitive plants):** Sensitive plants are flagged in blue and black flagging. There will be no thinning, piling or other physical disturbance within these areas.

**Heritage (archaeological):** Known heritage sites are flagged in red and black flagging. There will be no thinning, piling or other physical disturbance within these areas.

If during the course of project activities any new discoveries are found by BIA or Tribe that have not been flagged or marked for avoidance, the Tribe will cease project activities within that area and notify USFS of that discovery..

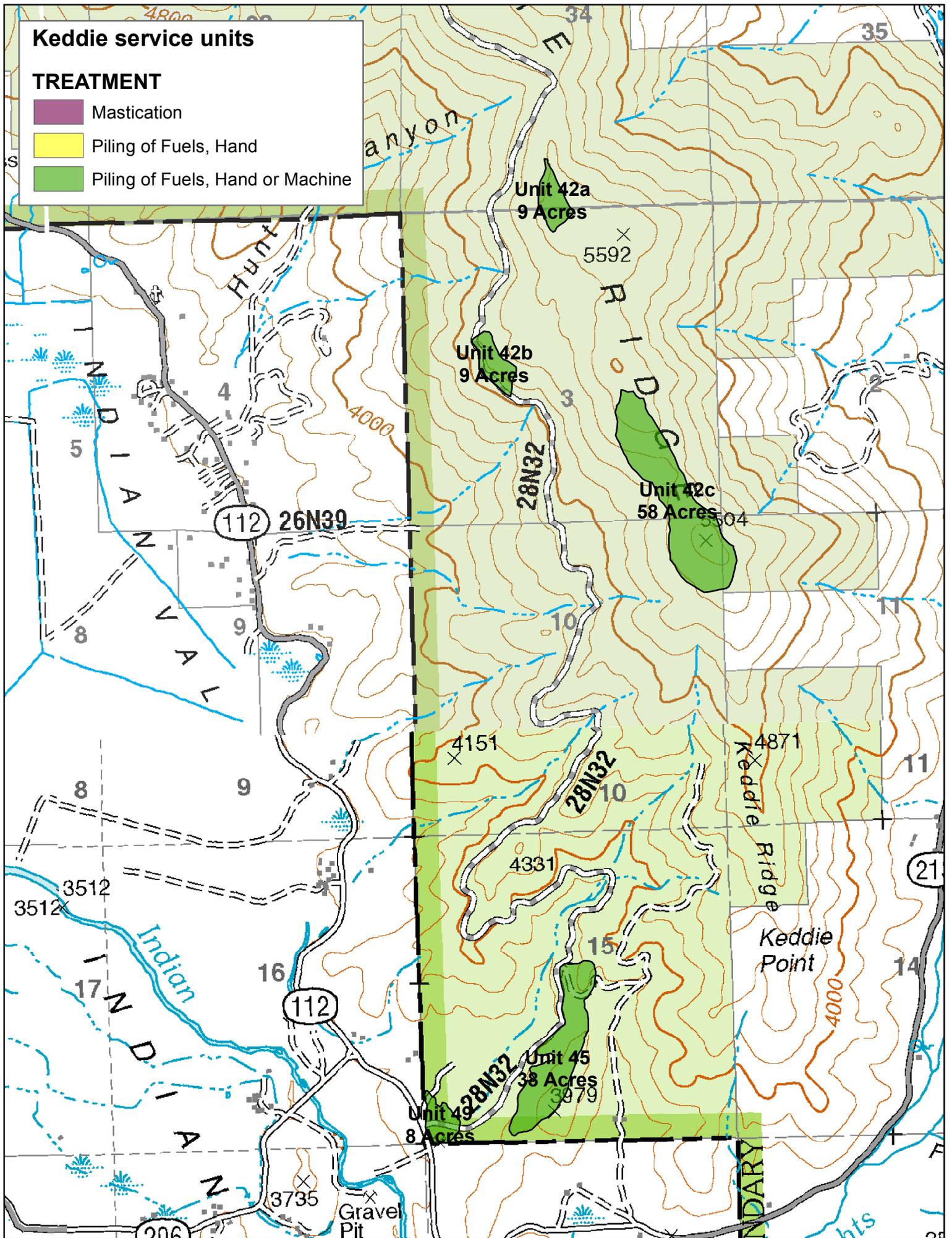
**Power/Phone Lines:** Power or phone lines may exist within or adjacent to units. Avoid cutting any trees that may pose a risk to contacting any phone or power lines.



**Keddie service units**

**TREATMENT**

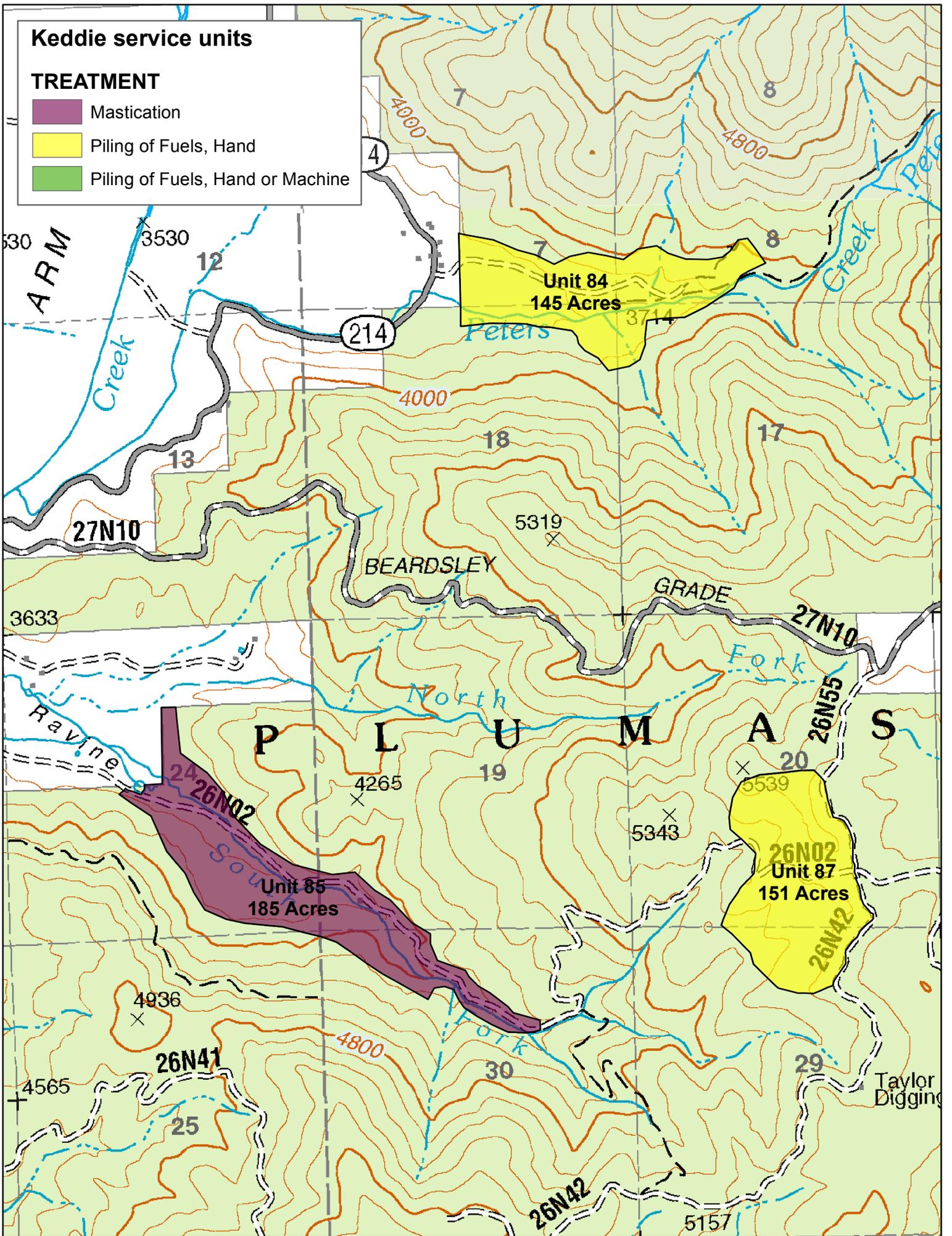
-  Mastication
-  Piling of Fuels, Hand
-  Piling of Fuels, Hand or Machine



**Keddie service units**

**TREATMENT**

-  Mastication
-  Piling of Fuels, Hand
-  Piling of Fuels, Hand or Machine



## Mud Lake Baker Cypress Restoration Project Description

### PROJECT LOCATION

The Mud Lake Baker Cypress Restoration Project is located approximately 20 miles northeast of Quincy, California on the Mt. Hough Ranger District of the Plumas National Forest (Figure 1). The project consists of two units surrounding the Mud Lake unit of the Mud Lake Research Natural Area (MLRNA) within the perimeter of the Moonlight Fire. The project is bounded by National Forest System road 27N11 on the east and north. The legal land description for the project is: T27N, R11E, Sections 23, 24, 25 and 26, Plumas County, California, Mount Diablo Meridian.

### BACKGROUND

Baker cypress (*Hesperocyparis bakeri*) is a rare fire-adapted conifer known from only 11 widely scattered locations in northern California and southern Oregon. Baker cypress possess closed or serotinous cones that open in response to high severity fire, and seeds that require high sunlight and exposed mineral soil characteristic of burned areas to germinate. Cypress stands take between 35 and 50 years to develop sufficient canopy seed storage to regenerate the population. If a fire occurs before that, there may be insufficient regeneration to re-establish the population. Populations of other cypress species have been eliminated as a result of too frequent fire.

The Mud Lake unit of the MLRNA contains one of two populations of Baker cypress found on the Plumas National Forest. Prior to the 2007 Moonlight Fire, no fires had been recorded in the Mud Lake unit since 1910. Baker cypress trees in the Mud Lake unit averaged 135 years of age. Fire suppression at the MLRNA had allowed dense thickets of shade-tolerant white fir to dominate the stand, resulting in high levels of cypress mortality. There was concern that without immediate action to reintroduce fire to this population, it would be extirpated.

After the 2007 Moonlight Fire, substantial Baker cypress regeneration was observed in the Mud Lake unit. Despite low densities of living mature cypress in the stand prior to the fire, these residual trees had sufficient canopy seed storage to produce numerous seedlings (Figure 2). The high severity fire effects caused by the Moonlight Fire were very beneficial to this population of Baker cypress. The Baker cypress population at the Mud Lake unit is currently comprised of tens of thousands of seedlings. It will be at least seven years before these seedlings begin to produce cones, and between 30 and 50 years before enough cones have been produced to regenerate the stand in the event of another fire. Until that time, the population is at significant risk of extirpation from fire. Currently there is a high density of snags throughout most of the stand,

and potential fire hazard may increase over time as these snags decay (see Figure 2). A fuel treatment is critically needed to protect the immature Baker cypress seedlings that currently occupy the site.

**PROJECT DESCRIPTION**

This project would implement 235 acres of fuels treatments, consisting of two grapple pile and hand thin units designed to break up fuel continuity while minimizing impacts to cypress seedlings (Figure 3). One unit is located on the eastern and northern boundaries of the MLRNA. A second, smaller unit extends northwest of the MLRNA to protect an isolated patch of cypress seedlings

Table 1. Proposed units for the Mud Lake Baker Cypress Restoration Project.

Project Unit	Acres	Location	Proposed treatment
1	309	East and North of MLRNA	Grapple pile, hand thin
2	12	West of MLRNA	Grapple pile, hand thin

**OBJECTIVES**

The objectives of the Mud Lake Baker Cypress Restoration Project are to:

- a) Reduce the risk of fire eliminating the Mud Lake population of Baker cypress by implementing strategic fuel treatments around the population; and
- b) Maintain wildlife habitat and increase landscape heterogeneity by implementing hand thin and grapple piling treatments using guidelines described in the *Post-fire Avian Monitoring Report* (PRBO 2011) and *Managing Sierra Nevada Forests* (PSW-GTR-237 2012).

Figure 1. General location of Mud Lake Research Natural Area. The Mud Lake unit was burned in the Moonlight Fire (red) and is the target of this project.

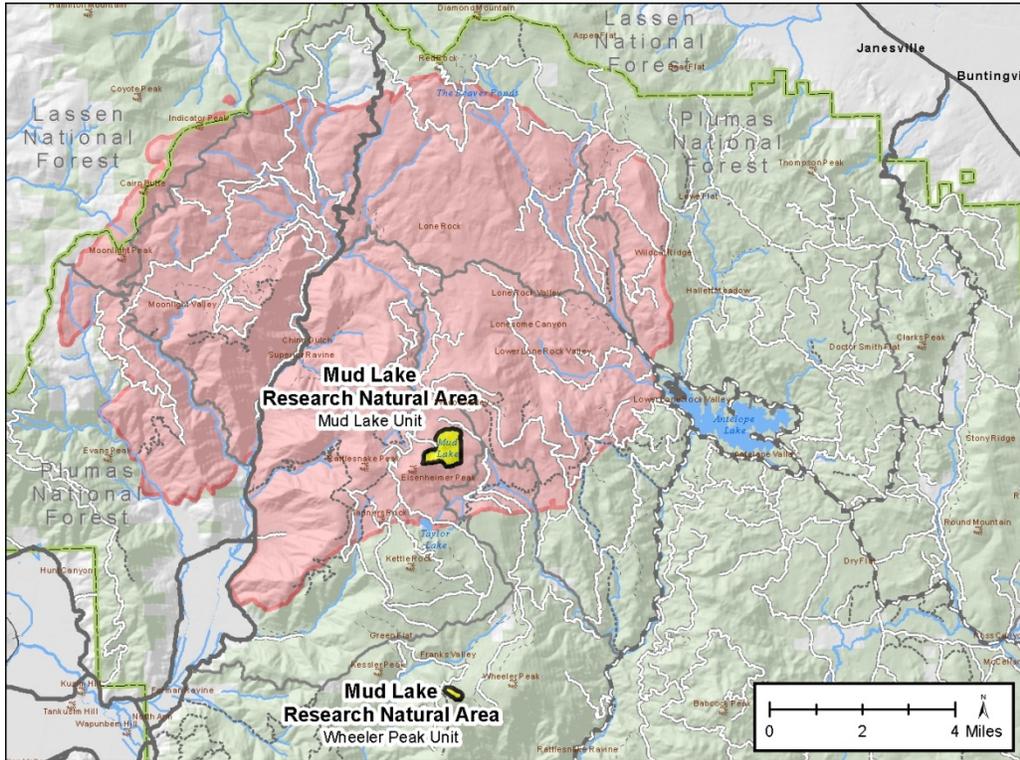


Figure 2. The Moonlight Fire stimulated high rates of regeneration of Baker Cypress in the MLRNA. However, current fuel loads in the stand puts the population at risk of extirpation if another fire kills these trees before they have matured to produce cones.



Figure 3. Proposed units for the Mud Lake Baker Cypress Restoration Project. MLRNA boundary shown in black.

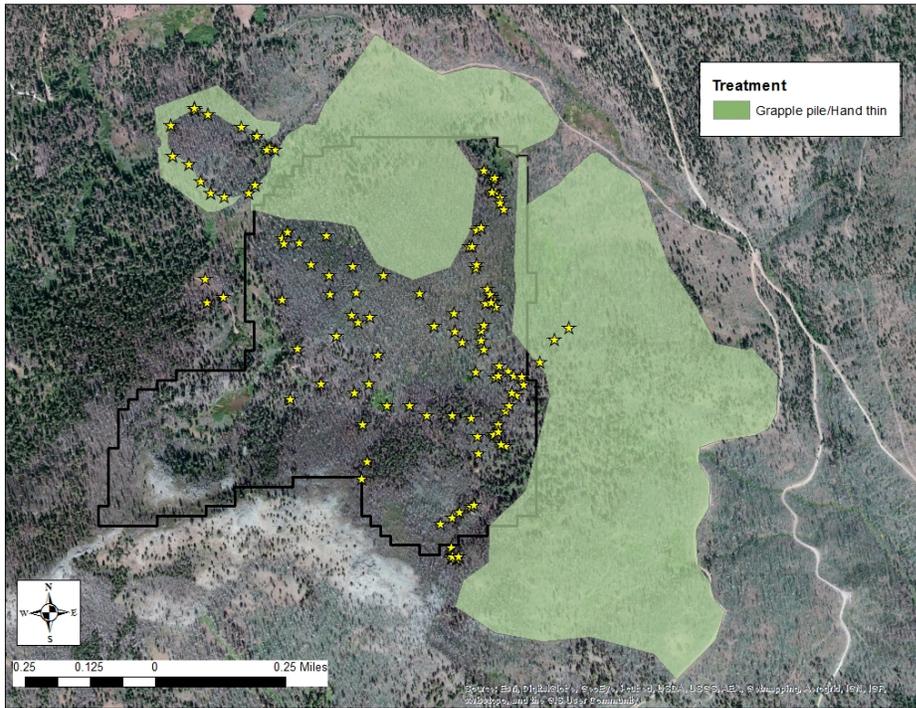


Figure 4. Areas to the east of the MLRNA with high snag densities would be grapple piled and hand thinned in patches to reduce fuel loads while also increasing habitat heterogeneity.



<b>Keddie Ridge-Mud Lake Project Deliverables and Timeframes</b>			
<i>Out Year Project Planning</i>			
<b><u>Task #</u></b>	<b><u>Work item Description</u></b>	<b><u>Unit of Measure</u></b>	<b><u>Estimated Completion Timeframe</u></b>
1	Mastication Treatment Units: 18, 23, 31C, 85	180 Acres	Dec 2015
2	Mastication Treatment Units: 18, 23, 31C, 85	86 Acres	Oct 2016
3	Grapple Pile & Hand Thin Treatment Units: 1 East and North of MLRNA	140 Acres	Nov 2015
4	Grapple Pile & Hand Thin Treatment Units: 1 East and North of MLRNA	83 Acres	Nov 2016
5	Grapple Pile & Hand Thin Treatment Units: 2 West of MLRNA	12 Acres	Oct 2015
6	Hand Thin & Piling of Fuels Treatment Units: 8, 15, 19, 24, 26, 30, 35, 37, 84, 87	180 Acres	Nov 2015
7	Hand Thin & Piling of Fuels Treatment Units: 8, 15, 19, 24, 26, 30, 35, 37, 84, 87	180 Acres	Nov 2016
8	Hand Thin & Piling of Fuels Treatment Units: 8, 15, 19, 24, 26, 30, 35, 37, 84, 87	150 Acres	Nov 2017
9	Hand or Machine Piling of Fuels Treatment Units: 9, 17, 22, 42a, 42b, 42c, 45, 49	125 Acres	Nov 2015
10	Hand or Machine Piling of Fuels Treatment Units: 9, 17, 22, 42a, 42b, 42c, 45, 49	52 Acres	Nov 2016
<b>TOTAL ACRES TREATED: 1188</b>			

<b>Keddie Ridge-Mud Lake Project Objectives</b>			
<i>Out Year Project Planning</i>			
<b><u>Obj. #</u></b>	<b><u>Objective Description</u></b>	<b><u>Unit of Measure</u></b>	<b><u>Completion Timeframe</u></b>
1	Through collaborative project process, the Forest Service will build upon its government-to-government relationship with Concow Tribe of Mooretown Rancheria and meet its continued collaborative obligations to federally recognized tribes.	Task Completion	May 2015-Dec 2017
2	Mooretown Rancheria will provide workforce training and work experience to members of Mooretown Rancheria, neighboring tribes and members of the local community.	Task Completion	May 2015-Dec 2017
3	Through the inter-agency agreement with Bureau of Indian Affairs, opportunity for inter-tribal collaborations is provided and encouraged.	Task Completion	May 2015-Dec 2017
4	Provide opportunities for Mooretown Rancheria to build its capacity as a robust forestry crew with the ability to bid competitively and provide a variety of land management services to Federal, State, Local and private entities.	Task Completion	May 2015-Dec 2017
5	Provide USFS outreach opportunities to the Native American population.	Task Completion	May 2015-Dec 2017

**WORKSHEET FOR**

**Keddie Ridge Fuels Reduction Financial Plan**

<b>Salaries/Labor</b>					
<b>Standard Calculation</b>					
Job Description	Crew Size	Cost/Day	# of Days		Total
Hand Crew	20	\$ 3,136	65		\$ 203,859
Mastecator Crew	2	\$ 340	75		\$ 25,525
Grapple Pile Crew	20	\$ 3,074	55		\$ 169,090
					\$ -
					\$ -
					\$ -
					\$ -
					\$ -

(All Rates include Salary plus Fringe)

**Non-Standard Calculation**

**Total Salaries/Labor** **\$ 398,474**

<b>Travel</b>					
<b>Standard Calculation</b>					
Travel Expense	Employees	Cost/Trip	# of Trips		Total
Hand Crew to Work Site	Sup./Crew	\$ 190	65		\$ 12,350
Hand Crew Machine	Sup./Crew	\$ 190	55		\$ 10,450
Masticator	Sup./Crew	\$ 190	75		\$ 14,250
					\$ -

**Non-Standard Calculation**

**Total Travel** **\$ 37,050**

<b>Equipment</b>					
<b>Standard Calculation</b>					
Piece of Equipment	# of Units	Cost/Day	# of Days		Total
Equipment - Mastecator		\$ 1,000	75		\$ 74,984
Equipment - CAT		\$ 1,364	55		\$ 75,000
Rental Van		\$ 100	195		\$ 19,500
Rental Truck #1		\$ 100	195		\$ 19,500
Rental Truck #2		\$ 100	195		\$ 19,500

**Non-Standard Calculation**

**Total Equipment** **\$ 208,484**

<b>Supplies/Materials</b>				
<b>Standard Calculation</b>				
Supplies/Materials		# of Items	Cost/Item	Total
Gloves/glasses		42	\$ 50	\$ 2,100
Chainsaw chains, files, oil		20	\$ 700	\$ 14,000
Hand Tools (Shovels, Pulaskis, etc.)		42	\$ 40	\$ 1,680
Fuel		6	\$ 14,398	\$ 86,385
Supplies/Materials (water, first aid, Gas Can etc.)		42	\$ 50	\$ 2,100
Other supplies		42	\$ 575	\$ 24,150
				\$ -
<b>Non-Standard Calculation</b>				

<b>Total Supplies/Materials</b>				<b>\$ 130,415</b>
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<b>Printing</b>				
<b>Standard Calculation</b>				
Paper Material		# of Units	Cost/Unit	Total
				\$0.00
<b>Non-Standard Calculation</b>				
				\$0.00
<b>Total Printing</b>				<b>\$0.00</b>

<b>Other Expenses</b>				
<b>Standard Calculation</b>				
Item		# of Units	Cost/Unit	Total
				\$0.00
				\$0.00
				\$0.00
				\$0.00
<b>Non-Standard Calculation</b>				
				\$0.00
<b>Total Other</b>				<b>\$0.00</b>

<b>Subtotal Direct Costs</b>	<b>\$</b>	<b>774,423</b>
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<b>Cooperator Indirect Costs</b>			
Current Overhead Rate	Direct Expense		Total
22.22%	\$774,423.00		\$172,077
<b>Total Coop. Indirect Costs</b>			<b>\$172,077</b>

<b>TOTAL COST</b>	<b>\$</b>	<b>946,500</b>
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**WORKSHEET FOR**

**Mud Lake-Baker Cypress Fuels Reduction Financial Plan**

**Salaries/Labor**

**Standard Calculation**

Job Description	Crew Size	Cost/Day	# of Days	Total
Grapple Crew	3	\$ 762	80	\$60,960
(All Rates include Salary plus Fringe)				\$0

**Non-Standard Calculation**

**Total Salaries/Labor** **\$60,960.00**

**Travel**

**Standard Calculation**

Travel Expense	Employees	Cost/Trip	# of Trips	Total
Daily Travel to Work Site	Sup./Crew	\$ 180	80	\$ 14,400
				\$ -
				\$ -
				\$ -
				\$ -

**Non-Standard Calculation**

**Total Travel** **\$ 14,400**

**Equipment**

**Standard Calculation**

Piece of Equipment	# of Units	Cost/Day	# of Days	Total
CAT	1	\$ 935	80	\$ 74,800
Truck Rental	1	\$ 100	80	\$ 8,000
				\$ -
				\$ -
				\$ -

**Non-Standard Calculation**

**Total Equipment** **\$ 82,800**

<b>Supplies/Materials</b>				
<b>Standard Calculation</b>				
Supplies/Materials		# of Items	Cost/Item	Total
Fuel		2	\$ 13,800	\$ 27,600
Chainsaws		1	\$ 700	\$ 700
Equipment Repair		2	\$ 2,892	\$ 5,784
				\$ -
<b>Non-Standard Calculation</b>				
<b>Total Supplies/Materials</b>				<b>\$ 34,084</b>

<b>Printing</b>				
<b>Standard Calculation</b>				
Paper Material		# of Units	Cost/Unit	Total
				\$0.00
<b>Non-Standard Calculation</b>				
				\$0.00
<b>Total Printing</b>				<b>\$0.00</b>

<b>Other Expenses</b>				
<b>Standard Calculation</b>				
Item		# of Units	Cost/Unit	Total
				\$0.00
				\$0.00
				\$0.00
				\$0.00
<b>Non-Standard Calculation</b>				
<b>Total Other</b>				<b>\$0.00</b>

<b>Subtotal Direct Costs</b>	<b>\$192,244.00</b>
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<b>Cooperator Indirect Costs</b>				
Current Overhead Rate	Subtotal Salary/Lorbor			Total
22.24%	\$192,244.00			\$42,756
<b>Total Coop. Indirect Costs</b>				<b>\$42,756</b>

<b>TOTAL COST</b>	<b>\$235,000</b>
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