

CONTRACT SPECIFICATIONS DRAFT

Mohawk Valley Wildfire Resilience Project

Pre-bid Tour
March 11, 2022

FEATHER RIVER RESOURCE CONSERVATION DISTRICT

With

United States Forest Service

And

Plumas Eureka Community Services District

1 PROJECT DESCRIPTION

The purpose of this Request for Proposals is to solicit potential contractor interest in providing services for hand thinning (using chainsaws) trees and snags with grapple piling and hand piling of existing and activity created slash and related work in compliance with contract terms, specifications, and provisions. This includes furnishing labor, equipment, supervision, transportation, operating supplies, and incidentals except those items listed as District-furnished property.

This project is in collaboration with the United States Forest Service, Plumas National Forest, and Plumas Eureka Community Services District. Therefore, the project will adhere to Federal and State regulation and Best Management Practices.

Contractor Responsibility: The Contractor shall provide everything – including, but not limited to, all equipment, supplies, transportation, labor, and supervision – necessary to complete the project, except for that which the contract clearly states is to be furnished by the District.

2 PROJECT LOCATION

Location: The project is located in Plumas county along the Middle Fork Feather River and California Highway 70/89 corridor near the communities of Blairsden, Graeagle, Johnsville, and Plumas Pines. All items are located on either the Beckwourth Ranger District of the Plumas National Forest or lands owned by the Plumas Eureka Community Services District.

Description: Please see attached maps for specific locations.

Boundaries: All units are designated with yellow flagging and may be tagged with the project name and unit number. Units on Forest Service land are signed with yellow “Boundary of Contract Area” signs with project name and unit number designated.

Accessibility: Work site access instruction as given here is for information only.

Weather and wet or muddy road conditions may make it necessary to utilize a four-wheel drive vehicle to access the units. It is the Contractor’s responsibility to reach the worksite when it is ready for treatment. The Contracting Officer’s Representative (COR) may determine the access routes which will be used. In order to reduce the introduction and spread of noxious weeds, operational equipment and ATVs must be thoroughly cleaned and inspected of all mud and debris before they enter Forest Service, State Park, and CSD land.

Exclusions: Equipment exclusion zones located in Riparian Conservation Areas (RCAs), control areas (heritage resources), botanical resources and any other control areas shall be discussed and identified at contract prework and, where needed, identified on the ground. A separate map showing these areas will be made available to the Contractor post-award, prior to start of work. See Protective Mitigations for limitations / restrictions associated with these areas.

3 SPECIFIC WORK REQUIREMENTS

Bid Item 1: Hand Thin with Grapple Pile (296 ACRES)

- Hand thin trees up to 10.0" DBH and machine pile activity created slash, existing slash and competing vegetation to specifications. Trees ≤ 2 inches DBH and ≤ 6 feet in height may be grappled and piled versus hand cut. All trees > 2 inches DBH must be hand cut prior to grapple piling. All trees shall be felled away from identified control areas and improvements such as but not limited to fences, gates, signs or water tanks.

Selection of Leave Trees

The contractor shall select the trees to leave. Leave trees shall generally be those of the tallest height, largest crown, and straightest stems that are free of structural defects (crooks, forks, dead tops, branch brooms, exposed cambium, etc.); damage due to insects (bark beetles, defoliators, etc.); disease (blister rust, dwarf mistletoe, etc.), or mechanical causes. If no healthy undamaged tree exists at the required spacing interval, trees with minor damage may be left. Residual trees shall not be damaged.

1. No aspen, cottonwood, sugar pine / western white pine (SP/WWP), or California black oak shall be cut. Sugar Pine or western white pine will be cut if evidence of white pine blister rust exists.
2. Thin conifer trees 2' tall to 10.0" DBH to an average spacing (distance from bole to bole) of 25'x25'. Spacing may be varied up to 25% (20-30') to leave the most desirable trees.
3. Tree spacing is measured off all residual/leave conifers regardless of size and hardwoods > 3 " DBH.

Leave Tree Priorities

The contractor shall select leave trees in the following order:

1. Free from insect, disease, or mechanical damage.
2. Healthiest crown/greatest needle retention.
3. Tallest tree.
4. Straightest stem.
5. Preferred leave species:
 1. Sugar pine / western white pine (5 needle pines) / California Black Oak
 2. Ponderosa pine/Jeffrey pine
 3. Douglas-fir
 4. Red fir
 5. Incense cedar
 6. White fir

Cut Tree Priorities

The following trees shall be cut regardless of spacing:

1. All trees between 2' tall and 4.9" DBH that are infected with dwarf mistletoe.
2. All trees between 5.0" DBH and the maximum DBH of 10.9" with dwarf mistletoe infection ratings of 3-6 (SEE ATTACHMENT C).
3. All trees up to the maximum DBH of 10" which have been severely defoliated.
4. Any conifer, including SP/WWP, up to 10" DBH with a broken or dead top.
5. All dead trees up to 10.0" DBH unless they exhibit signs of active wildlife habitation.

Buck material to a length not to exceed 6 feet.

Cut trees shall have stump heights of less than 6". All live limbs below the cutting point shall be severed flush with the stump.

No felled material shall lean against or be suspended by a leave tree.

Competing Vegetation

All brush shall be uprooted, by machine, below the root collar and piled with the exception of brush occurring within 1 foot of leave trees, snags, leave logs and areas designated by the COR as not to be treated. Machinery shall work adjacent to and reach into equipment exclusion zones with extendable boom and grapple competing vegetation and pile outside of exclusion zones.

Grapple Piling – Pile all activity created slash, uprooted brush and existing down woody material (decay classes 1 and 2) 3" diameter on the small end to 15" diameter on the large end and <10 feet in length shall be grapple piled.

1. Piling shall be accomplished with minimal disturbance to top soil and duff. Brush shall be free of dirt.
2. Grapple piles shall be compact and constructed to promote complete and efficient combustion.
3. Do not grapple pile or otherwise damage any down logs greater than 15" diameter on the small end. Brush or slash occurring within 1' of these leave logs may be left untreated.
4. Piles shall be reasonably compact and free of soil to facilitate burning and shall be constructed in areas where burning will not cause damage to the crowns or stems of residual trees. Where feasible piles should be a minimum of at least 25 feet from the drip line of residual trees.
5. Piles shall be of a height equal to or greater than their width (approximately 15 feet maximum height and 20 feet maximum in diameter). Log material may not extend more than 3 feet outside main pile.
6. Material extending three feet or more outside the edge of a pile shall be trimmed.
7. Mechanically created piles shall be placed a minimum of 40 feet apart whenever possible.
8. No piles are to be located on the running surface of roads, road cut-banks, road drainage ditches or sensitive wet areas.

9. Machinery shall work adjacent to and reach into exclusion zones with the extendable boom and grapple activity created and existing slash (decay classes 1 and 2). Within exclusion zones where activity created slash and existing slash cannot be grappled, the contractor shall hand pile activity created and existing slash. Piles shall be at least 25 feet away from the edge of stream channel. No piles shall be located within stream channels. Hand piles shall be created following hand piling specifications under Bid Item 2.

10. If piles cannot be located to meet residual tree damage restrictions or locations, upon the Contractor's request, the COR may designate locations for the contractor.

Equipment Specification Standards (Grapple Pile):

- Be tracked
- Have a boom capable of reaching 15 feet out from the machine.
- Capable of working on slopes up to 45 percent.
- Not have a ground pressure of exceeding 8 pounds per square inch.
- Capable of operating within 16 foot spacing without damage to leave trees.

Covering of Grapple Piles: All grapple piles shall have at a minimum three ignition points covered with a durable waterproof covering as approved by the FRRCD. Ignition points shall measure approximately 5'X5'. Pieces of burnable material shall be placed on top of the durable waterproof covering to keep the covering from blowing off the pile.

Bid Item 2 – Hand Thin with Hand Pile (362.5 ACRES)

Selection of Leave Trees

The contractor shall select the trees to leave. Leave trees shall generally be those of the tallest height, largest crown, and straightest stems that are free of structural defects (crooks, forks, dead tops, branch brooms, exposed cambium, etc.), damage due to insects (bark beetles, defoliators, etc.), disease (blister rust, dwarf mistletoe, etc.) or mechanical causes. If no healthy undamaged tree exists at the required spacing interval, trees with minor damage may be left. Residual trees shall not be damaged.

1. No aspen, cottonwood, sugar pine/western white pine (SP/WWP), or California black oak shall be cut. Sugar pine or western white pine will be cut if evidence of white pine blister rust exists.

2. Thin conifers trees 2' tall to 10" DBH to an average spacing (distance from bole to bole) of 25'X 25'. Spacing may be varied up to 25% (20'-30') to leave the most desirable trees. However, spacing control using the original guides shall be maintained whenever possible.

3. Residual/leave tree spacing is measured off all conifers regardless of size and hardwoods > 3" DBH.

4. Buck material to a length not to exceed 4 feet.
5. Cut trees shall have stump heights less than 6". All live limbs below the cutting point shall be severed flush with the stump.
6. No felled material shall lean against or be suspended by a leave tree.

Leave Tree Priorities

The contractor shall select leave trees in the following order:

1. Free from insect, disease, or mechanical damage.
2. Healthiest crown/greatest needle retention.
3. Tallest tree.
4. Straightest stem.
5. Preferred leave species:
 1. Sugar pine / western white pine (5 needle pines) / California Black Oak
 2. Ponderosa pine/Jeffrey pine
 3. Douglas-fir
 4. Red fir
 5. Incense cedar
 6. White fir

Leave all trees with sign of active wildlife habitation or use (cavity nests, branch nests, etc.) or are signed with wildlife, superior tree, or are given special designation through identified tagging.

Cut Tree Priorities

The following trees shall be cut regardless of spacing:

1. All trees between 2' tall and 4.9" DBH that are infected with dwarf mistletoe.
2. All trees between 5.0" DBH and the maximum DBH of 10.0" with dwarf mistletoe infection ratings of 3-6 (SEE ATTACHMENT C).
3. All trees up to the maximum DBH of 10.0" DBH which have been severely defoliated.
4. Any conifer, including SP/WWP, up to 10.0" DBH with a broken or dead top.
5. All dead trees up to 10.0" DBH unless they exhibit signs of active wildlife habitation.

Hand Piling: All activity created slash will be hand piled. Existing downed material, in decay classes 1 and 2 (SEE ATTACHMENT B) up to 8 inches in diameter will also be hand piled. Piles will follow these criteria:

- Pile locations should be located at least 10 feet from the edge of the drip line of residual trees or in open areas. However, pile locations less than 10 feet from the edge of the drip line will be accepted by COR/Inspector if deemed appropriate.

- **DO NOT** pile slash inside areas identified with red/black (heritage sites), or blue/black with red/black striped flagging (botany sites).
- Piles shall be located at least 25 feet from perennial, intermittent, ephemeral or other hydrological depressions.
- Piles will be built to resemble a log deck:
 - Material length will not exceed 4 feet
 - Pile dimensions will be no larger than 5'H X 8'W.
 - "Fine fuels" (limbs, branches, and needles) will be piled in the bottom portion of the pile, and then the "bole" wood will be stacked on top.
 - All piles will be covered with at least 4 mil plastic or Kraft paper. Plastic/paper will be placed over the bottom 2/3 of the pile cover and 80% of the surface area at this level of the pile.
 - Remaining material will be piled in the upper 1/3 of the pile so the plastic is covered and secured.
- Stem material will be oriented perpendicular to the slope (pointing up and down hill) to prevent rollout during burning operations.

Bid Item 3 – Brush Removal and Grapple Pile (80 ACRES)

Competing Vegetation

All brush shall be uprooted, by machine, below the root collar and piled with the exception of brush occurring within 1 foot of leave trees, snags, leave logs and areas designated by the COR as not to be treated. Machinery shall work adjacent to and reach into equipment exclusion zones with extendable boom and grapple competing vegetation and pile outside of exclusion zones.

Grapple Piling – Pile all activity created slash, uprooted brush and existing down woody material (decay classes 1 and 2) 3" diameter on the small end to 15" diameter on the large end and <10 feet in length shall be grapple piled.

1. Piling shall be accomplished with minimal disturbance to top soil and duff. Brush shall be free of dirt.
2. Grapple piles shall be compact and constructed to promote complete and efficient combustion.
3. Do not grapple pile or otherwise damage any down logs greater than 15" diameter on the small end. Brush or slash occurring within 1' of these leave logs may be left untreated.
4. Piles shall be reasonably compact and free of soil to facilitate burning and shall be constructed in areas where burning will not cause damage to the crowns or stems of residual trees. Where feasible piles should be a minimum of at least 25 feet from the drip line of residual trees.
5. Piles shall be of a height equal to or greater than their width (approximately 15 feet maximum height and 20 feet maximum in diameter). Log material may not extend more than 3 feet outside main pile.

6. Material extending three feet or more outside the edge of a pile shall be trimmed.
7. Mechanically created piles shall be placed a minimum of 40 feet apart whenever possible.
8. No piles are to be located on the running surface of roads, road cut-banks, road drainage ditches or sensitive wet areas.
9. Machinery shall work adjacent to and reach into exclusion zones with the extendable boom and grapple activity created and existing slash (decay classes 1 and 2). Within exclusion zones where activity created slash and existing slash cannot be grappled, the contractor shall hand pile activity created and existing slash. Piles shall be at least 25 feet away from the edge of stream channel. No piles shall be located within stream channels. Hand piles shall be created following hand piling specifications under Bid Item 2.
10. If piles cannot be located to meet residual tree damage restrictions or locations, upon the Contractor's request, the COR may designate locations for the contractor.

Protective Mitigations

Site Specific Protection Measures:

Maps identifying these features will be made available to the Contractor prior to starting any work.

Historic Control Area Protection Measures:

Boundaries are designated with red/black stripe flagging (may fade to orange/black after time). All sites will be avoided by all project operations.

Botanical Resource Protection:

Boundaries are designated a combination of blue/black and red/black striped flagging with a rectangular tag. All sites will be avoided by all project operations.

All off-road equipment will be washed prior to entering the Forest or State Park in accordance with the USFS protocol to prevent the unintentional spread of noxious weeds. Staging of equipment will be done in weed free areas. Also, equipment operating in areas known to be infested with noxious weeds will be washed prior to leaving the infested area. If new occurrences of noxious weeds are identified during treatment implementation, equipment used will be washed prior to leaving an infested area.

Riparian Conservation Areas (RCAs):

Mechanical Equipment Use in RCAs: Equipment use within RCAs will be restricted from equipment exclusion zones. Equipment exclusion zone widths, measured on each side of the RCA feature (e.g. edge of the active channel, wet perimeter of the soil, etc.) or riparian vegetation, whichever is greater. Equipment exclusion zone widths per RCA type are listed below:

Riparian Conservation Area Type	Equipment Exclusion Zone Width (Feet)
Perennial Streams	100 feet from edge of feature or to edge of riparian vegetation, whichever is greater
Seasonally Flowing Streams (includes intermittent and ephemeral)	50 feet from edge of feature or to edge of riparian vegetation, whichever is greater
Streams in Inner Gorge ¹	Top of Inner Gorge
Special Aquatic Features	50 feet from the edge of the feature or riparian vegetation
Other hydrological or topographic depressions without a defined channel	25 feet from edge of feature or riparian vegetation

Machinery can work adjacent and reach into the exclusion zone with the extendable boom.

A map providing equipment exclusion zones will be provided at the pre-work meeting.

Wildlife Resource Protection:

Trees with nests or other active wildlife habitation or use will be retained. Nest boxes, guzzlers, and cattle fences may exist in the contract area and will not be damaged or removed during operations.

4 INSPECTION AND ACCEPTANCE

District inspections are for the purpose of satisfying the District that the services are acceptable and do not relieve the Contractor of the responsibility for maintaining quality control. The Contracting Officer's Representative or designated inspector will conduct all inspections. The Contractor (or designated representative) is encouraged to be present to observe inspections. Summary results will be made available on request.

Compliance Inspections. Visual compliance inspections will be made on a periodic basis. Such inspections are not final and do not constitute acceptance by the District.

Final Inspections. Final (formal) inspections for payment will be made on completed sub-items only. Contractor shall request final inspections in writing and give the FRRCD at least two working days advanced notice. Inspections will be completed within four working days after the notice is received. If the work is not ready for inspection at the time specified by the Contractor, the cost associated with the inspection attempt may be charged to the Contractor.

Disputed Inspection. The Contractor may request re-inspection without rework if the results are unacceptable. Re-inspection must be requested in writing within 48 hours after receiving written notice of the inspection results. Re-inspection will be accomplished within five working days after receipt of the contractor's written request.

The same sampling and inspection procedures will be used, but new samples will be taken. The

¹ Inner gorge is defined by stream adjacent slopes greater than 70 percent gradient.

inspection pattern will be shifted so that new samples will not overlap previously inspected samples. Results will be rounded to the nearest whole percent.

If re-inspection results are within five percentage points of the first inspection, the original inspection result will be used in determining acceptability and payment. If re-inspection results are greater than five percentage points above or below the first inspection, the re-inspection results will be used.

If the re-inspection results are within five percentage points of the first inspection, the Contractor shall pay the actual costs of the re-inspection.

Re-inspection after Rework. Where rework after a failed inspection may improve the inspection results, the Contractor may rework the area and request (in writing) a second inspection. The District will charge to the Contractor the cost of this additional inspection. Re-inspection will be accomplished within five working days after the notice is received. The results of the second inspection will be final, and no further rework will be permitted. Areas not ready for re-inspection at the time specified by the Contractor will not be re-inspected, and the results of the first inspection will be final.

2-1 District's Inspection System

Plots. At least one percent of each treatment area will be sampled by a random series of plots distributed over the entire area. Plot size will be: [X] 1/50th acre.

Visual Inspection may be used in-lieu of plots.

E.2-2 Specific Inspection Procedures

Hand Thinning with Grapple Piling:

- Selection of leave trees
- Damage to leave trees
- Treatment of competing vegetation
- Treatment of existing dead and downed material
- Amount of downed material retained
- Amount of soil disturbance
- Pile placement (relative to existing vegetation, RHCA zones)
- Pile construction, compactness, and covering with heavy duty paper/plastic
- Amount of soil in piles
- Stump height

Grapple Pile:

- Treatment of competing vegetation
- Treatment of existing dead and downed material
- Amount of downed material retained
- Amount of soil disturbance
- Pile placement (relative to existing vegetation, RHCA zones)

- Pile construction, compactness, and covering with heavy duty paper/plastic
- Amount of soil in piles

Hand Thinning with Hand Piling:

- Selection of leave trees
- Damage to leave trees
- Treatment of existing dead and downed material
- Pile placement (relative to existing vegetation, sensitive areas)
- Pile construction, compactness, and covering with heavy duty paper/plastic
- Amount of soil in piles
- Stump height

3. Acceptance

3-1 Acceptance Level

Work on this contract will be deemed acceptable when the above measurable performance standards are met.

3-2 Quality Assurance Plan

District Quality Assurance Plan

The District will conduct inspections of each unit to determine work quality. Initial inspections will consist of a 100 percent visual inspection and will be based on adherence to the specific tasks listed in the contract. The District will also inspect a series of circular plots. Plots will be randomly located throughout each sub-item to obtain a representative sample of the work. Plot size is 1/50th.

Visual inspections and acceptance may be used in lieu of plots.

Hand Thinning with Grapple Piling: Each plot will be examined, and the findings recorded as listed below:

- a. Spacing and density of leave trees
- b. Quality of selected leave trees
- c. Removal of competing vegetation at root crown
- d. Piling of removed material and existing dead and downed material
- e. Retention of snags and downed material
- f. Pile placement (specified distances) and location (i.e. away from residual trees, roads, streams, etc.)
- g. Pile height and diameter and compactness
- h. Stump height
- i. Covering Piles (covering fine debris and securely anchored)

Grapple Piling

- a. Removal of competing vegetation at root crown
- b. Piling of removed material and existing dead and downed material

- c. Retention of snags and downed material
- d. Pile placement (specified distances) and location (i.e. away from residual trees, roads, streams, etc.)
- e. Pile height and diameter and compactness
- f. Stump height
- g. Covering Piles (covering fine debris and securely anchored)

Hand Thinning with Hand Piling: Each plot will be examined, and the findings recorded as listed below:

- a. Spacing and density of leave trees
 - b. Quality of selected leave trees
- Piling of removed material and existing dead and downed material
- c. Retention of snags and downed material
 - d. Pile placement (specified distances) and location (i.e. away from residual trees, roads, streams, etc.)
 - e. Pile height and diameter and compactness
 - f. Stump height
 - g. Covering Piles (covering fine debris and securely anchored)

After inspection of all plots for a unit, the quality shall be calculated as follows:

$$\frac{\text{(Total Number of acceptable plots)}}{\text{(Total Number of plots)}} \times 100 = \text{Performance Quality Percent}$$

Performance Quality below 90% will be deducted from payment or reworked at contractor's expense (See Payment clause). When inspection results are below 90 percent, and erosion control specifications constitute any part of the deficiency, payment will not be made until the deficiency has been corrected by the Contractor. Re-inspections, after rework, will be made in the same manner as the first inspection, but on different plot lines. The Contractor shall pay for inspections necessitated by the rework.

5 CONTRACTOR FURNISHED PROPERTY

The Contractor shall provide everything – including, but not limited to, all equipment, supplies, transportation, labor, and supervision – necessary to complete the project, except for that which the contract clearly states is to be furnished by the District.

6 DISTRICT FURNISHED PROPERTY

Maps and/or GIS unit shapefiles will be provided at the request of the Contractor.

7 EVALUATION CRITERIA

Price, Technical Approach, Availability, Past Performance, and Community Benefit will be considered for the “Best Value” evaluation. The order of importance corresponds with each criteria’s preceding order of appearance.

8 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK

The Contractor shall be required to (a) commence work under this contract within three (3) calendar days after the date the Contractor receives the notice to proceed, (b) prosecute the work diligently, and (c) complete the entire work ready for use no later than **January 31, 2025**.

The length of the workday shall not exceed 10 hours per day and no later than 6:00 p.m. with no work on Sundays or holidays unless agreed upon by the contracting officer.

9 CONTRACTING OFFICER

Name: Michael Hall

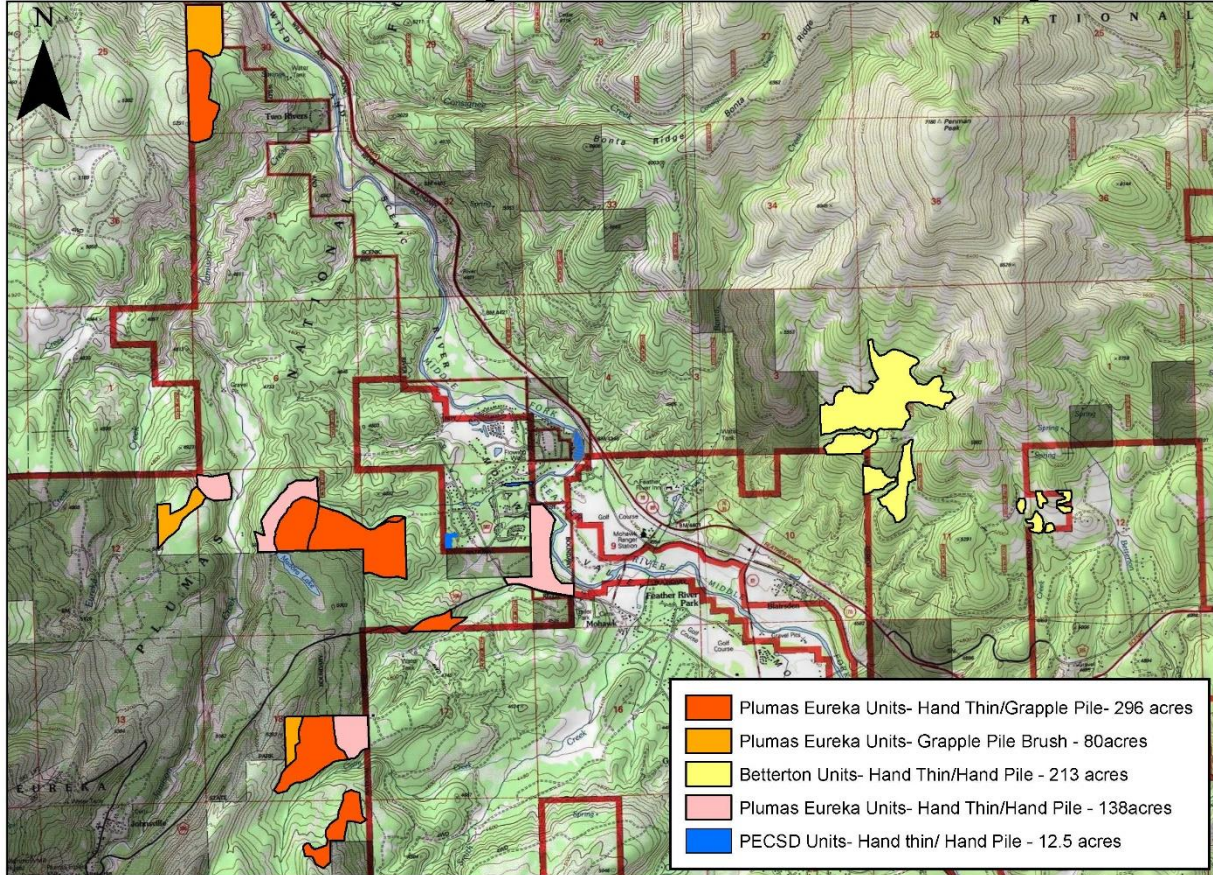
Telephone Number: (530) 927-5299

Email: mhall@frrcd.org

10 LIST OF ATTACHMENTS

Title	Description
A) Maps	Vicinity map, work area maps
B) Detailed Unit Information	Unit information and acreage

Mohawk Valley Wildfire Resilience Project



Bid Item 1: Hand thin with Grapple Pile (296 Acres)

Unit	Acres
7	50
16	40
19	94
22	2
27	15
38	62
39	33
43	.001

Bid Item 2 – Hand Thin with Hand Pile (362.5 ACRES)

Unit	Acres
1	54
17	36
31	17
41	29
103B	5
103A	3
103E	3
103C	2
103D	5
30B (See Section 9 - LOP)	20
30C (See Section 9 - LOP)	13
30D (See Section 9 - LOP)	28
102A	135
PECSD 132	2
PECSD 139	4
PECSD 130	0.25
PECSD 131	1
PECSD 127	1
PECSD 125	0.78
PECSD 145	0.65
PECSD 144	0.67
PECSD 143	0.7
PECSD 141	0.4

Bid Item 3 – Brush Removal and Grapple Pile (80 ACRES)

Unit	Acres
32	25
36	14
42	41

Mohawk Contract Tour Schedule March 11, 2022
Subject to change

From	To	Activity
0930	0945	Meet at parking lot of USFS Beckwourth Ranger Station Welcome Contractors and Tour Overview
0945	1000	Travel to Plumas Eureka Unit 1
1000	1030	Discuss Hand Thin, Hand Pile specs
1030	1045	Travel to Plumas Eureka Unit 27 (HTGP)
1045	1130	Discuss Hand thin, Grapple Pile Specs and Grapple Brush Removal
1130	1200	Travel to Units 41, 38, 36
1200	1230	Lunch
1230	1300	Discuss units and specs
1300	1330	Travel to PECSD Unit 132
1330	1345	Discuss PECSD units
1345	1415	Travel to Betterton units 103E, 103A, 103B, 103C, 103D
1415	1445	Discuss Units and Specs
1445	1515	Travel to Betterton Unit 102
1515	1600	Discuss Units, Follow up questions, Dismiss