National Forest Foundation

BUILDING 27, SUITE 3, FORT MISSOULA ROAD
MISSOULA, MONTANA 59804
TEL 406.542.2805
NATIONALFORESTS.ORG

Request for Proposals

McKinsie Hand Thin & Pile

Plumas National Forest, California

NFF Background:

The National Forest Foundation (NFF) is a congressionally chartered nonprofit organization with the simple mission of bringing people together to restore and enhance National Forests and Grasslands. The NFF is the leading organization inspiring personal and meaningful connections to our National Forests, the centerpiece of America's public lands. Working on behalf of the American public, the NFF leads forest conservation efforts and promotes responsible recreation. We believe these lands, and all they provide, are an American treasure and are vital to the health of our communities.

Project Background:

The NFF and the USDA Forest Service (USFS) are working together to protect and restore the Plumas National Forest through targeted efforts on the Community Protection – Central and West Slope Project (2025). The NFF and the Beckwourth Ranger District (BKRD) of the Plumas National Forest are collaborating on the 1,863-acre McKinsie Hand Thin & Pile Project. This project is a manual hand thinning and piling project located in Plumas and Sierra Counties, near the community of Whitehawk Ranch, and is designed to reduce wildfire risk by removing suppressed understory trees with poor crown structure to disconnect vertical and horizontal tree-ladder fuels.

Statement of Work:

The selected contractor will be responsible for hand thinning and piling of fuels in accordance with the project specifications listed in Appendix E. The attached project appendices contain maps, detailed project specifications, and guidelines.

Timeline:

This Request for Proposals will close and all proposals will be due on 5:00pm on Monday, November 30, 2026. The NFF anticipates being able to enter into a contract with any selected bidder(s) by January 22, 2027, with an anticipated projected implementation start date of June 2027. Changes in the closing date for this Request for Proposals will be updated on the NFF website at https://www.nationalforests.org/rfp under the link for this project's Request for Proposals. All contract related dates are estimates and subject to change at the NFF's sole discretion.

I. PROJECT OVERVIEW AND REQUIREMENTS

General Specifications

(a) Description of Work – This Request for Proposals is for services related to the McKinsie Hand Thin and Pile project, located on the Plumas National Forest. Work on this project will include manual hand thinning of fuels with chainsaws and piling of cut fuels. The selected contractor(s) will be responsible for performing the following deliverables:

1. Hand Thinning & Piling

(b) Specifications – Project work shall be accomplished in accordance with the following:

1. Appendix C – Project Area Maps
2. Appendix D – Guidelines for Operations
3. Appendix E – Schedule of Items and Specifications
4. Appendix H – Fire Plan

Bidders shall identify in their proposals what they can supply in terms of materials, labor, equipment, supplies, supervision, quality control, and incidentals required to complete the work as described. Proposals shall be sufficient to guarantee that the selected contractor shall be able to perform all work in a safe and conscientious manner and in accordance with all industry standards.

(c) Project Location – The McKinsie Hand Thin & Pile Project is located on the Beckwourth Ranger District of the Plumas National Forest in Plumas and Sierra Counties, California. The project area is west of the community of Whitehawk Ranch at the south end of the Mohawk Valley. Appendix C includes maps of the project displaying the entire project area within which treatments will occur.

(d) Work Schedule – Work will commence as early as June 2027 and finish by December 31, 2028. Much of the project area overlaps with wildlife Protected Area Centers (PACs) and is therefore subject to Limited Operating Periods (LOPs). Bidders should assume that all LOPs within the project area will remain in effect, unless within-season wildlife surveys can shorten the applicable LOP date. Appendix C includes a map showing the location and effective dates of project LOPs. The NFF and Successful Bidder will negotiate a schedule of operations upon award.

Due to the decreased operating period due to LOPs within the project area, NFF reserves the right to select more than one contractor to accomplish project objectives within the specified two-year project window. If more than one contractor is selected, a subset of project units will be awarded to each contractor.

Other Project Requirements

Utilities/Work Site Conditions – In many locations there will be no or limited sanitation, water, electrical or housing services available. Bidders shall consider all relevant factors when submitting proposals for this work. Proposals should account for the need of the selected contractor to make its own arrangements for temporary facilities if required.

Insurance Requirements

1. Minimum Insurance. In accordance with the terms of the Services Agreement, prior to the start of any work, the successful Bidder (the "Contractor") will be required to maintain, and ensure that its subcontractors performing work described in the proposal (Subcontractors) maintain, the minimum coverages and comply with the insurance requirements indicated below.

    a. Coverage Requirements

        i. Commercial General Liability Insurance ("CGL"). Commercial general liability insurance, including bodily injury, property damage, personal injury, advertising injury, products and completed operations and contractual liability in the amount no less than:

            - $1,000,000 each occurrence;
            - $1,000,000 products/completed operations limit;
            - $1,000,000 advertising injury and personal injury limit; and
            - $2,000,000 general aggregate.

        ii. Business Automobile Liability Insurance. If using motor vehicles (owned, hired, or borrowed) to deliver or perform the work described in the proposal, business automobile liability insurance with a minimum limit of $1,000,000 combined single limit each accident for bodily injury and property damage for all owned, rented leased or hired vehicles used in conjunction with the performance of the services.

        iii. Workers' Compensation Insurance. Statutory workers' compensation insurance in accordance with all state and local requirements of the state(s) in which services will be performed.

        iv. Professional Liability/Errors and Omissions Insurance. Professional or errors and omissions liability insurance with combined single limits of $1,000,000 per occurrence and $1,000,000 aggregate, per year, covering the performance of the successful bidder and any of its Subcontractors under the Services Agreement.

    b. Waiver of Subrogation. All insurance policies shall include a waiver of any and all rights of subrogation or recovery of the insurers thereunder against, inter alia, the NFF, and its assigns, successors, undertakings and their subsidiaries, affiliates, employees, insurers and underwriters, and of any right of the insurers to any set-off or counterclaim or any other deduction, whether

by attachment or otherwise, in respect of any liability of any such person insured under any such policy or in any way connected with any loss, liability or obligation covered by such policies of insurance.

c. Primary and non-contributory. With the exception of Workers' Compensation and Professional Liability insurance (if applicable), all insurance required to be maintained by Contractor shall be primary with respect to all claims arising out of Contractor's performance and/or activities under this Agreement, and any insurance or self-insurance maintained by the NFF shall be excess only and not be required to contribute with it.

d. "Claims Made" Coverage. Any liability insurance purchased on a "claims made" basis must be continuously maintained for a period equal to the applicable statute of repose, but in any case, not less than 3 years, following final performance or termination of Services, either through the continued purchase of insurance or the purchase of an extended reporting period. The retroactive date applicable to such "claims made" insurance, if any, must precede the first date on which Services are to be performed.

e. Verification of Coverage. Contractor will have furnished to the NFF original certificates of insurance and amendatory endorsements or copies of the applicable policy language effecting coverage required herein prior to or at the time of execution of the Agreement, and shall further provide evidence that the foregoing is in place and will not be cancelled or reduced during the term of the agreement. Contractor's and any Subcontractors' certificates of insurance will list "The National Forest Foundation" as an Additional Insured on its or their commercial general liability policy and business automobile liability policy (as applicable). Contractor will submit updated certificates of insurance upon expiration of the required policies.

2. Additional Insurance Requirements. In addition to the minimum insurances set-forth above, the NFF reserves the right to request additional coverage as reasonably necessary based on the scope, nature, and risks associated with the services to be performed.

Payment/Performance Security

If selected to contract with the NFF, Bidder(s) shall post cash, a letter of credit, bond, or other financial security that is easily convertible into cash in a form acceptable to the NFF, in its sole determination. The security will be used to ensure completion of the work required under any subsequent agreement and payment of all amounts lawfully due to all persons. All persons shall include, but not be limited to, those supplying or furnishing to the Bidder or Bidder's subcontractors with labor, laborers, materials, rental machinery, tools or equipment used or to perform the work. Bidders may incorporate required associated costs into mobilization costs or other approved expenses. Payment or Performance security will be required in the following amounts as applicable:

a. For work that is classified as construction in accordance with the Miller Act or Little Miller Act or if required per conditions of the funding source, payment and

performance bonding will be required in the full amount of any Agreement. For the purposes of this Request for Proposal, construction is defined as “any contract greater than $100,000 for the construction, alteration, or repair of any public building or public work where the federal government is the owner”; or

b. If Contractor is subcontracting 15% or more of the total contract value, or if the cost of materials is in excess of the larger of $100,000 or 50% of the contract total, payment and performance bonding will be required in the full amount of the agreement; or

c. If the value of the agreement is in excess of $250,000, Contractor will be required to post financial security in a form acceptable to the NFF in the amount of 5% of the total agreement value up to $250,000 in total financial security.

The NFF will not provide blanket waivers of payment/performance security requirements though reserves the right to negotiate payment and performance security terms and conditions with selected contractors based upon legal requirements and organizational needs and policies.

Prohibited Telecommunications Services and Equipment

NFF contractors are responsible for compliance with the prohibition on certain telecommunications and video surveillance services or equipment identified in 2 CFR 200.216.

Federal Exclusion Verification

The selected Contractor will be required to affirm that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

Federal Flowdown Provisions

NFF funding for projects may vary but will frequently include federal funds. As such, any Agreement associated with this RFP may be subject to flowdown requirements under associated federal or state funding agreements, which are included and made part of by this reference. Federal flowdown requirements are not negotiable by the NFF and will not be removed or edited.

Identified Flowdown Provisions

While flowdown provisions may change depending on funding, the NFF has identified the following non-negotiable federal flowdown provisions as currently being required for this work:

Appendix B: Federal Flowdowns

II. REQUIRED COMPONENTS

Technical Proposal

(a) Minimum Requirements. Bidders shall submit a technical proposal for the work described in this RFP. Bidders shall consider all relevant factors when submitting proposals for this work. Bidders shall identify in their proposals what they can supply in terms of materials, labor, equipment, supplies, supervision, quality control, and incidentals required to complete the work as described. Proposals should account for the need of the selected contractor to make its own arrangements for temporary utilities and facilities, if required. Proposals shall be sufficient to guarantee that the selected contractor shall be able to perform all work in a safe and conscientious manner and in accordance with all industry standards. At a minimum, each proposal must include the following:

a. An overview and description of the services, materials, supplies, labor, equipment, utilities, and facilities provided by the Bidder that align with the requests in this RFP.

b. A description of the project management or administration approach that will be followed by the Bidder to ensure that the identified work is completed on time and within budget.

c. A project work plan and schedule that lists in detail the stages of work expected to be completed in this project, all identifiable deliverables, and the dates on which the Bidder would anticipate being able to complete delivery of the work.

d. Any change or risk management approaches utilized by the Bidder when completing projects of the type described in this RFP.

e. A project personnel overview identifying key personnel to be utilized if selected to perform the work described in this RFP and any relevant or required credentials or certifications held by the key personnel.

Bidder Qualifications

Bidders shall submit a statement of their qualifications for the work described in this RFP. The statement should include the following items in narrative format:

1. Experience –
    i. Please provide a brief explanation of previous work experience with land management agencies, noting specifically any work performed on National Forests or Grasslands.
    ii. Please provide a listing of relevant projects of similar size, scope, and total value performed by the Bidder within the past 5 years.
2. References –
    i. Please provide three professional references, identifying as applicable any government or conservation nonprofit references.

ii. Provide the name, email address, and telephone number for each reference, as well as the dates of the projects during which the Bidder worked with each reference.

3. SAM.gov Requirement –
   i. The successful bidder must be registered with SAM.gov and have a UEI number before entering into contract agreement.
   ii. Please provide whether the contractor is currently registered with SAM.gov, or is able to obtain registration before the project commences.
4. Federal Exclusion Verification - Bidder(s) will be required to affirm that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

Failed Projects or Legal Actions

Bidders shall identify any past failed projects and the reasoning behind the failure or incompletion. Bidders shall also identify any and all current or pending legal matters in which the Bidder or any of its principals is involved.

Pricing Schedule

Bidders shall price work according to the schedule below. If Bidders believe that an alternative method of pricing is more applicable, they may also provide an alternative pricing schedule in addition to the format requested below.

The NFF, in its sole discretion, reserves the right to utilize any alternative pricing schedule proposed by any Bidders.

All quantities and measurements identified in this RFP are based upon the best knowledge available to the NFF and are subject to change.

Due to the dynamic and changing nature of NFF funding, the NFF reserves the right to negotiate an increased cost with the selected Bidder in the event that prevailing wages become required for the work described in this RFP.

If the opportunity to add additional funding to the work described in this RFP arises, the NFF may increase the quantities of work to be performed as part of this project, as agreed upon by the NFF and the selected Bidder.

	Task/Item	Units (Acres)	Unit Cost	Extended Cost
(a)	Hand Thinning & Piling – High Productivity PAC Units	1,450		
(b)	Hand Thinning & Piling – Low-Mod Productivity PAC Units	126		
(c)	Hand Thinning & Piling – General Forest Units	287		
			Total Bid	

Payment Schedule.

Bidders shall submit a proposed payment schedule consistent with their proposed pricing structure. Lump sum proposals should identify invoicing milestones tied to deliverables or project phases, while time-and-materials proposals should identify the anticipated invoicing frequency, cost of materials/supplies, and the applicable rates for invoicing. Proposed payment schedules are for evaluation purposes only. The final payment structure and invoicing terms will be negotiated with the selected Bidder and incorporated into the executed agreement.

Invoice Number	Milestone/Deliverable	Corresponding Cost
1.		
2.		
3.		
4.		
5.		
	Agreement Total	

Insurance Information.

Bidders must identify the insurance coverage currently in place. If available, please attach sample certificates of insurance.

III. SUBMISSION, EVALUATION, AND CONTACTS

Bidder Selection Process:

Optional Bid Tour

An optional bid tour will be held on **Tuesday, November, 17th, 2026 at 1:00pm**.

Meet at the parking area on the west side of CA-89 approximately ¼ mile south of the Gold Lake Highway. We will drive into the project area from the meeting location.

Coordinates: 39.75197725375038, -120.5972200673597

Google maps link: https://maps.app.goo.gl/EAkZNCyeEpyQ9vjc8

Bid Submission

Bidders shall submit proposals containing all of the required information described above via email at the address specified below by the stated deadline:

Submission Address: jgicklhorn@nationalforests.org

Submission Deadline: 5:00 pm PST on Monday, November 30th, 2026.

Proposals submitted after this RFP closes will not be considered unless approved by the NFF. The NFF will review all proposals determined to be responsive using the evaluation factors listed below. Proposals may be deemed non-responsive for failure to submit any required information or for failure to comply with any terms of this RFP. Non-responsive proposals may be disqualified from evaluation in the sole discretion of the NFF.

Notification

If a proposal is selected by the NFF to advance to the contracting stage, the NFF will notify the successful Bidder via email by 12/15/2026. Once the selected Bidder has been notified, the NFF project representative will coordinate the drafting and negotiation of an NFF agreement outlining the terms and conditions of the work to be performed.

Unsuccessful Bidders will be notified via email as soon as possible after the closing date of this RFP. Please Note: The NFF **will not** share any information about the organizations submitting proposals nor any information regarding the proposals submitted by other organizations. If a Bidder has questions about its proposal, the Bidder may ask the NFF Point of Contact identified below. If an answer can be provided, the NFF will respond via email as soon as it is able to do so.

Request for Proposals Only

This is a request for proposals only and bids furnished do not bind the NFF in any way. Selection of a bid will result in the opportunity to contract with the NFF but will not guarantee a resulting contract or any amount of work. The NFF reserves the right to disqualify any incomplete or improper proposal submitted as non-responsive. The NFF may also decide not to select any proposals submitted to this RFP for

advancement to contract negotiations. This request does not commit the National Forest Foundation to pay any costs incurred in the preparation or submission of the proposal or to contract for supplies or services.

Evaluation Factors and Scoring

The following factors will be used to evaluate any responsive submitted proposals. The factors, as listed, are ordered from highest priority (Level 3) to lowest priority (Level 1). Each factor can receive a score from 1 point to 3 points. The number of points awarded will be multiplied by the priority level to determine the total score for each factor. (Example: If Price/Cost (level 3) is awarded 2 points, the total score for price would be 6 points.)

Level 3 Criteria

- Price / cost
- Equipment and contractor capability
- Timing of when contractor can begin and/or finish the project
- Past performance, references, and USFS feedback
- Registration with SAM.gov

Level 2 Criteria

- Technical proposal / proposed approach to project
- Overall strategic benefits to meeting NFF goals and grant needs, requirements, and timelines

Level 1 Criteria

- Benefits to the local community
- Relationship to local community

Point of Contact

Any questions about this Request for Proposals shall be submitted in writing to the NFF contact identified below. Questions determined to be of importance to all potential Bidders will be posted as an attachment to an updated version of this RFP at https://www.nationalforests.org/rfp.

Jeff Gicklhorn
National Forest Foundation, Northern Sierra Project Coordinator
jgicklhorn@nationalforests.org

Bid Submission

Submit bids via email to jgicklhorn@nationalforests.org by 5:00pm PST on Monday, November 30th, 2026.

Equal Opportunity Provider

In accordance with Federal law and U.S. Department of Agriculture policy, the National

Forest Foundation is prohibited from discriminating on the basis of race, color, national origin, sex, age, religion, political beliefs, or disability.

Appendix B

NFF Funding Code: 1596055
NFF Funding Name: SA SPA Plumas Comm Protection Central and West Slope

Funder Agreement ID: 23-SA-11051100-020

Flowdown Provisions

U.S. FOREST SERVICE ACKNOWLEDGED IN PUBLICATIONS, AUDIOVISUALS AND ELECTRONIC MEDIA.

Award Recipient or Contractor shall acknowledge U.S. Forest Service support in any publications, audiovisuals, and electronic media developed as a result of this agreement.

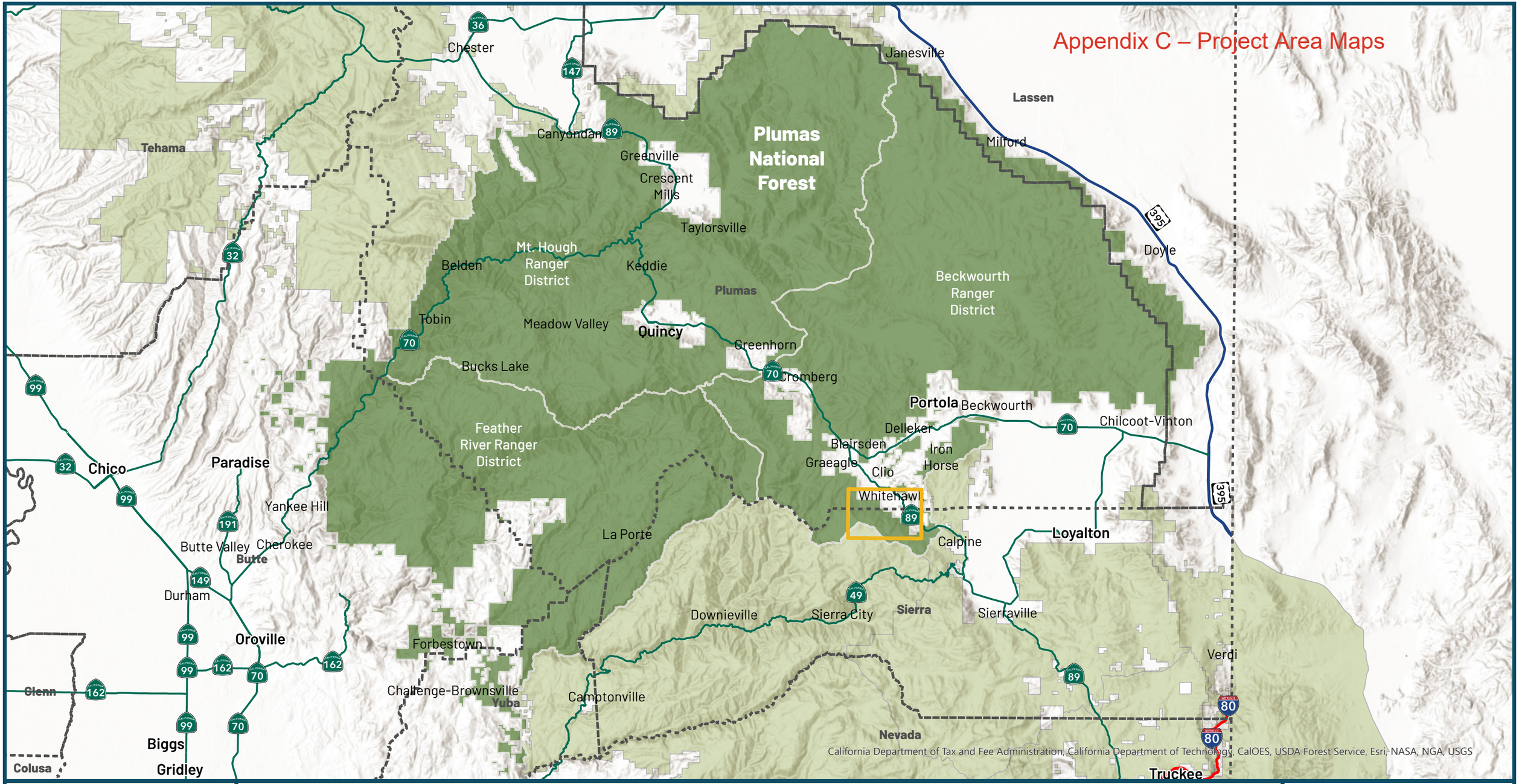
COPYRIGHTING.

Award Recipient or Contractor is/are granted sole and exclusive right to copyright any publications developed as a result of this agreement. This includes the right to publish and vend throughout the world in any language and in all media and forms, in whole or in part, for the full term of copyright and all renewals thereof in accordance with this agreement. No original text or graphics produced and submitted by the U.S. Forest Service must be copyrighted. The U.S. Forest Service reserves a royalty-free, nonexclusive, and irrevocable right to reproduce, publish, or otherwise use, and to authorize others to use the work for Federal Government purposes. This right must be transferred to any sub-agreements or subcontracts.

This provision includes:

- The copyright in any work developed by Award Recipient or Contractor under this agreement.
- Any right of copyright to which Award Recipient or Contractor purchase(s) ownership with any Federal contributions.

Appendix C – Project Area Maps



McKinsie Hand Thin & Pile - Project Location

National Forest Foundation

0 5 10 Miles

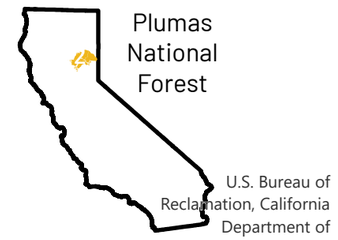
N

Legend

Major Roads

- Interstate
- US Hwy
- State Hwy

- County Boundaries
- Plumas National Forest
- Other US Forest Service Lands



U.S. Bureau of Reclamation, California Department of

McKinsie Hand Thin & Pile - Unit Classifications & Project Roads

National Forest Foundation

0 0.25 0.5 Miles

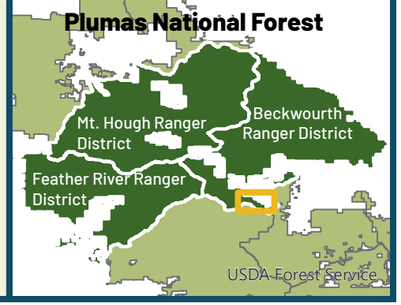
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Unit Classification

- PAC Unit - High Productivity
- PAC Unit - Low/Moderate Productivity
- General Forest Unit

- USFS System Road
- Primary Access Routes



USDA U.S. Forest Service, Esri, NASA, NGA, USGS, FEMA

McKinsie Hand Thin & Pile
Resource Protections Map 1

National Forest Foundation

0 500 1,000 Feet

N

Legend

McKinsie Hand Thin Unit Boundaries

Limited Operation Periods (LOPs)
- California Spotted Owl (Mar 1 - Aug 15)
- Northern Goshawk (Feb 15 - Sept 15)

Productivity
- Nest Core

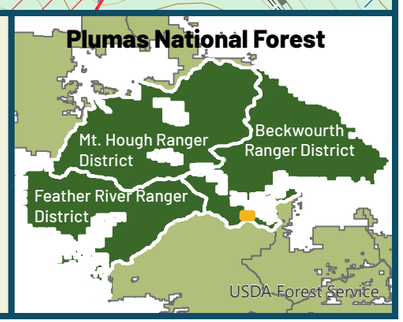
Water Features
- Pond
- Seep
- Spring

Stream Features
- Ephemeral
- Intermittent
- Perennial

Meadow Areas
- Dry Meadow
- Fen
- Wet Area
- Wet Meadow

General Avoidance Areas
- Control Areas

Botany Avoidance Areas
- Special Status Plant



USDA,U.S. Forest Service

McKinsie Hand Thin & Pile
Resource Protections Map 2

National Forest Foundation

0 500 1,000 Feet

N

Legend

McKinsie Hand Thin Unit Boundaries

Limited Operation Periods (LOPs)
- California Spotted Owl (Mar 1 - Aug 15)
- Northern Goshawk (Feb 15 - Sept 15)

Productivity
- Nest Core

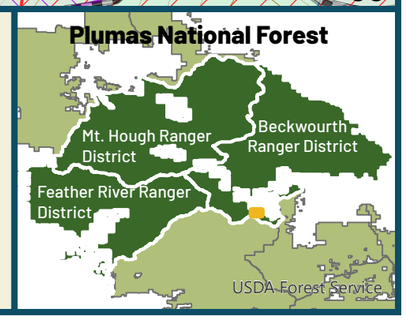
Water Features
- Pond
- Seep
- Spring

Stream Features
- Ephemeral
- Intermittent
- Perennial

Meadow Areas
- Dry Meadow
- Fen
- Wet Area
- Wet Meadow

General Avoidance Areas
- Control Areas

Botany Avoidance Areas
- Special Status Plant



USDA,U.S. Forest Service

McKinsie Hand Thin & Pile
Resource Protections Map 3

National Forest Foundation

0 500 1,000 Feet

N

Legend

McKinsie Hand Thin Unit Boundaries

Limited Operation Periods (LOPs)
- California Spotted Owl (Mar 1 - Aug 15)
- Northern Goshawk (Feb 15 - Sept 15)

Productivity
- Nest Core

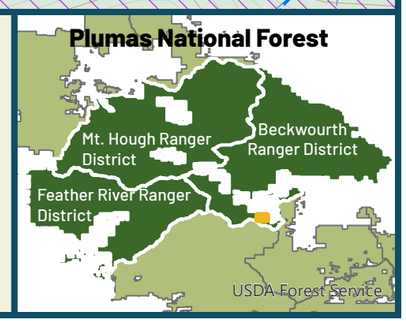
Water Features
- Pond
- Seep
- Spring

Stream Features
- Ephemeral
- Intermittent
- Perennial

Meadow Areas
- Dry Meadow
- Fen
- Wet Area
- Wet Meadow

General Avoidance Areas
- Control Areas

Botany Avoidance Areas
- Special Status Plant



USDA,U.S. Forest Service

McKinsie Hand Thin & Pile
Resource Protections Map 4

National Forest Foundation

0 500 1,000 Feet

N

Legend

McKinsie Hand Thin Unit Boundaries

Limited Operation Periods (LOPs)
- California Spotted Owl (Mar 1 - Aug 15)
- Northern Goshawk (Feb 15 - Sept 15)

Productivity
- Nest Core

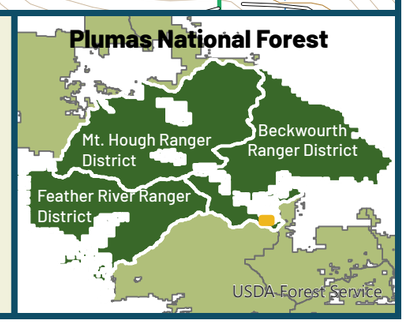
Water Features
- Pond
- Seep
- Spring

Stream Features
- Ephemeral
- Intermittent
- Perennial

Meadow Areas
- Dry Meadow
- Fen
- Wet Area
- Wet Meadow

General Avoidance Areas
- Control Areas

Botany Avoidance Areas
- Special Status Plant



USDA,U.S. Forest Service

McKinsie Hand Thin & Pile
Resource Protections Map 5

National Forest Foundation

0 500 1,000 Feet

N

Legend

McKinsie Hand Thin Unit Boundaries

Limited Operation Periods (LOPs)
- California Spotted Owl (Mar 1 - Aug 15)
- Northern Goshawk (Feb 15 - Sept 15)

Productivity
- Nest Core

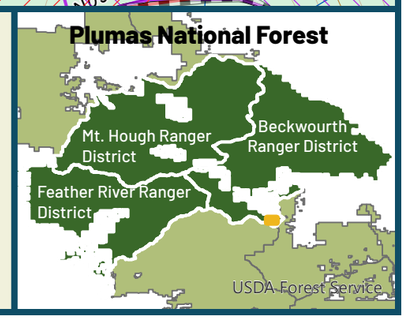
Water Features
- Pond
- Seep
- Spring

Stream Features
- Ephemeral
- Intermittent
- Perennial

Meadow Areas
- Dry Meadow
- Fen
- Wet Area
- Wet Meadow

General Avoidance Areas
- Control Areas

Botany Avoidance Areas
- Special Status Plant



USDA,U.S. Forest Service

Appendix D
Guidelines for Operations

The following Guidelines for Operations apply to activities under this SPA, when relevant to the project. These guidelines are intended to clarify the expectations of the parties related to these specific areas of operations.

1. **Stewardship Project Area Map (Map)**

This is the boundary of the Stewardship Project Area as shown in Appendix C and designated on the ground by the Forest Service to meet the anticipated needs of the parties. The following are identified on the map:

b) Identified patented claims.

c) Boundaries of all harvest and stewardship treatment units.

d) Diameter limits for overstory and understory removal units.

e) Areas where leave trees are marked to be left uncut.

f) Specified roads.

g) Sources of base course, surface rock, and rock riprap listed in the Schedule of Items;

h) Roads where log hauling or use is prohibited or restricted.

i) Roads and trails to be kept open.

j) Improvements to be protected.

k) Locations of known wildlife or plant habitat and cave resources to be protected.

l) Locations of areas known to be infested with specific invasive species of concern.

m) Maximum stump heights when more than one height is listed by areas.

n) Skidding or yarding methods.

o) Streamcourses to be protected.

p) Locations of meadows requiring protection.

q) Locations of wetlands requiring protection.

r) Locations of temporary roads to be kept open.

s) Payment units, if required

2. **Use of Roads by the Partner**

NFF is/are authorized to use existing National Forest system roads and specified roads. The Parties will determine that such use will not cause damage to the roads or National Forest resources. Limit haul to times when the base and subgrade are not saturated. If haul is needed at times when damage could occur, icnrease tha structural section of the road appropriately to reduce resource damage. Any damage to the resource will be reahbiliated after haul. All main haul routes shall receive a min of 3” of aggregate as outlined in the Technical Requirments for Road Service Work Items.

3. **Plan of Operations for Roads**

Annually, prior to start of operations, NFF will prepare a supplement to the Technical Proposal that shall include a schedule of proposed maintenance and re-construction progress and a description of planned measures to be taken to provide erosion control for work in progress, including providing a set of plans and specifications as outlined in the requirments under the technical Requirments for Road Service Work. Special measures to be taken on any segments of construction not substantially completed prior to periods of seasonal precipitation or runoff. NFF shall submit a revised schedule when they propose a significant deviation from the progress schedule. Prior to beginning maintenance on any portion of specified roads identified as sensitive on plans, the parties shall agree on the proposed method of construction and maintenance.

4. **Protection of Residual Trees**

NFF's operations shall not unnecessarily damage young growth or other trees to be reserved.

5. **Safety**

NFF's operations shall facilitate the Forest Service's safe and practical inspection of NFF's operations and conduct of other official duties on the Stewardship Project Area. NFF has/have all responsibility for compliance with safety requirements for NFF's employees.

When operations are in progress adjacent to, or on Forest Service controlled roads and trails open to public travel, NFF shall furnish, install, and maintain all temporary traffic controls that provide the user with adequate warming of hazardous or potentially hazardous conditions associated with operations occurring in the area. The parties shall agree to a specific traffic control plan prior to commencement of work. Devices shall be appropriate to current conditions and shall be covered or removed when not needed.

During periods of general recreation activity within Stewardship Project Area or vicinity, the Forest Service may restrict road construction, timber cutting, yarding, and other harvesting operations to days other than Saturdays, Sundays, and holidays.

Logging and Maintenance Operations Signing Standards

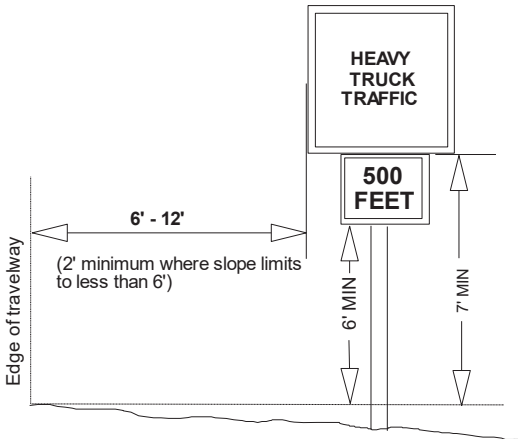
All signs must be manufactured & installed as specified in the FHWA "**Manual on Uniform Traffic Control Devices**" (MUTCD) & FS publication "**Standards for Forest Service Signs & Posters**"(EM 7100-15). Submit a sign plan for approval.

LATERAL CLEARANCE

From the edge of the road - 2 foot minimum, where slope limits to less than 6 feet. 6-12 foot preferred.

HEIGHT

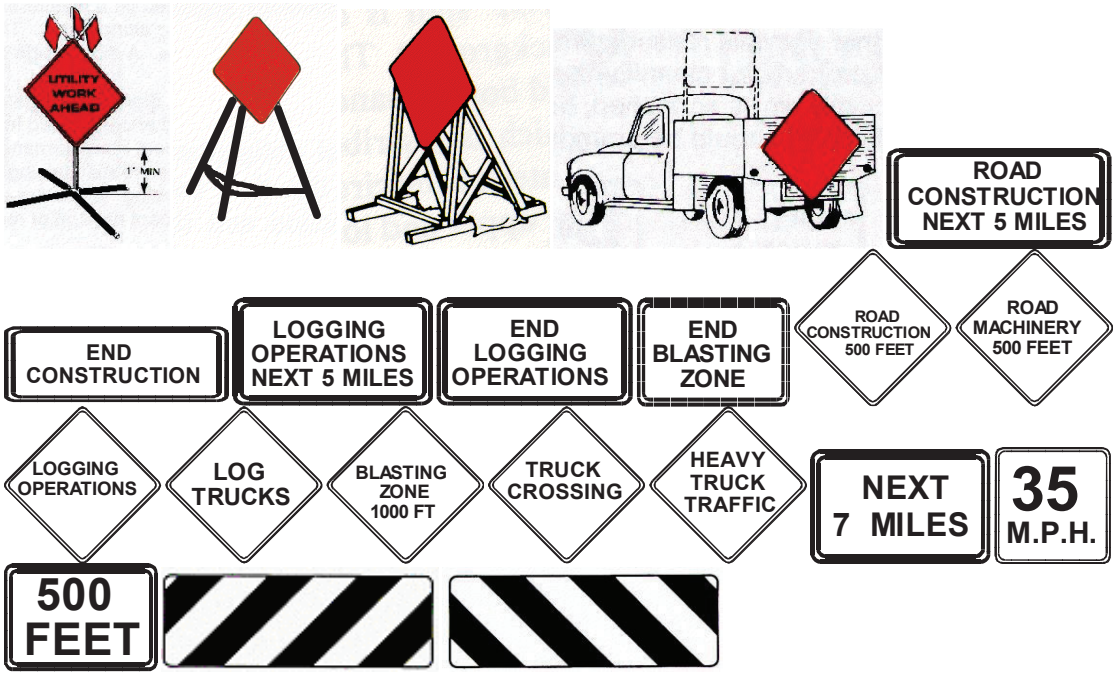
Minimum of 7 feet, measured from the bottom of the sign to the near edge of the travelway. The height to the bottom of a supplemental sign mounted below the primary sign will be 6 feet.



PLACEMENT DISTANCE

Signs must be located 100-500 feet prior to the activity, (both ends if a through road) and maintained at that distance. This distance is based on speed. Refer to Figure 2 , Table II-1, MUTCD, a portion of which is reproduced here, to determine correct placement distance.

Posted or 85 percentile speed MPH	Deceleration to listed advisory speed MPH				
	10	20	30	40	50
20	NA				
25	100				
30	150	100			
35	200	175			
40	275	250	175		
45	350	300	250		
50	425	400	325	225	
55	500	475	400	300	
60	575	550	500	400	300
65	650	625	575	500	375



6. **Safety (Timber Hauling*).*** NFF shall secure all products transported by truck with at least two chain or cable wrappers over the load, such wrappers being securely fastened to effectively contain every bolt or log in at least two places.

7. **Accident and Injury Notification.** NFF shall notify Forest Service of any lost time personal injury accident or any accident or vandalism resulting in personal property damage over $400 in value that occurs as a result of or is associated with NFF's Operations.

NFF shall notify OSHA/CalOSHA within the timeframe of their reporting requirements, and the Forest Service within 8 hours of any personal injury accident. For vandalism and personal property accidents, NFF shall notify Forest Service at the same time notification is given to the state and local law enforcement authorities.

NFF shall take all reasonable measures after an accident or vandalism event to preserve the scene of the incident and provide information to facilitate a Forest Service investigation.

8. **Sanitation and Servicing.** NFF shall take all reasonable precautions to prevent pollution of air, soil, and water by NFF's operations. Precautions shall include if facilities for employees are established on the Stewardship Project Area, they shall be operated in a sanitary manner. The parties shall agree to the cleanup and restoration of a polluted site. NFF shall maintain all equipment operating on Stewardship Project Area in good repair and free of abnormal leakage of lubricants, fuel, coolants, and hydraulic fluid. NFF shall not service tractors, trucks, or other equipment on National Forest lands where servicing is likely to result in pollution to soil or water. NFF shall furnish oil-

absorbing mats for use under all stationary equipment or equipment being serviced to prevent leaking or spilled petroleum-based products from contaminating soil and water resources. NFF shall remove from National Forest lands all contaminated soil, vegetation, debris, vehicle oil filters (drained of free-flowing oil), batteries, oily rags, and waste oil resulting from use, servicing, repair, or abandonment of equipment.

9. **Prevention of Oil Spills.** If NFF maintain(s) storage facilities for oil or oil products on the Stewardship Project Area, NFF shall take appropriate preventive measures to ensure that any spill of such oil or oil products does not enter any stream or other waters of the United States or any of the individual States. If the total oil or oil products storage exceeds 1,320 gallons in containers of 55 gallons or greater, NFF shall prepare a Spill Prevention Control and Countermeasures Plan. Such plan shall meet applicable EPA requirements (40 CFR 112), including certification by a registered professional engineer. NFF shall notify the Forest Service and appropriate agencies of all reportable (40 CFR 110) spills of oil or oil products on or in the vicinity of the Stewardship Project Area that are caused by NFF's employees, agents, sub-contractors or their employees or agents, directly or indirectly, as a result of NFF's operations. NFF will take whatever initial action may be safely accomplished to contain all spills.

10. **Hazardous Substances.** NFF shall notify the National Response Center and Forest Service principal contact of all releases of reportable quantities of hazardous substances on or in the vicinity of the Stewardship Project Area that are caused by NFF's employees, agents, sub-contractors or their employees or agents, directly or indirectly, as a result of NFF's operations, in accordance with 40 CFR 302.

11. **Cleaning Equipment**. In order to prevent the spread of noxious weeds into the Stewardship Project Area, NFF shall be required to clean all off-road logging and construction equipment **prior** to entry on Fores Service Lands. This cleaning shall remove all soil, plant parts, seeds, vegetative matter, or other debris that could contain or hold seeds. Only logging and construction equipment so cleaned and inspected by the NFF will be allowed to operate within the Stewardship Project Area. All subsequent move-ins of equipment to the Stewardship Project Area shall be treated in the same manner as the initial move in. "Off-road equipment" includes all logging and construction machinery, except for log trucks, chip vans, service vehicles, water trucks, pickup trucks, cars, and similar vehicles.

NFF shall employ whatever cleaning methods are necessary to ensure that off-road equipment is free of noxious weeds. Equipment shall be considered free of soil, seed, and other such debris when a visual inspection does not disclose such material. Disassembly of equipment components or specialized inspection tools is not required.

As agreed upon, NFF shall inspect equipment at cleaning location, and provide documentation of inspection to the Forest Service.

New infestations of noxious weeds, of concern to Forest Service and identified by either NFF or Forest Service, on the Stewardship Project Area or on the haul route, shall be promptly reported to the other party. NFF and Forest Service shall agree on treatment methods to reduce or stop the spread of noxious weeds when new infestations are found. A current list of noxious weeds of concern to Forest Service is available at each Forest Service office.

12. **Conduct of Logging.** Unless otherwise specifically provided herein, NFF shall fell trees designated for cutting and shall remove the portions that meet Utilization Standards, prior to acceptance of work for completion of logging and stewardship projects. Forest Service may make exceptions for occasional trees inadvertently not cut or trees or pieces not removed for good reason, including

possible damage to forest resources or gross economic impracticability at the time of removal of other timber.

13. **Felling and Bucking.** Felling shall be done to minimize breakage of included timber and damage to residual timber. Unless agreed otherwise, felling shall be done by saws or shears. Bucking shall be done to permit removal of all minimum pieces. NFF may buck out cull material when necessary to produce pieces meeting utilization standards. If necessary to assess extent of defect, NFF shall make sample saw cuts or wedges.

14. **Felling in Clearings.** Insofar as ground conditions, tree lean, and shape of clearings permit, trees shall be felled so that their tops do not extend outside clearcutting units, construction clearings, and areas of regeneration cutting.

15. **Stump Heights.** Stumps shall not exceed, on the side adjacent to the highest ground, the maximum heights set forth in Appendix F except that occasional stumps of greater heights are acceptable when NFF determine(s) that they are necessary for safe and efficient conduct of logging. Unless otherwise agreed, NFF shall re-cut high stumps so they will not exceed heights specified in F-14 and shall dispose of severed portions in the same manner as other logging debris. The stump heights shown in Appendix F were selected with the objective of maximum reasonable utilization of the timber, unless the Map shows special areas where stump heights are lower for aesthetic, land treatment, or silvicultural reasons.

16. **Bucking Lengths.** Trees shall be bucked in various lengths to obtain the greatest utilization of material meeting utilization standards.

17. **Limbing.** NFF shall cut exposed limbs from products prior to skidding, as necessary to minimize damage to the residual stand during skidding. NFF may leave uncut those limbs that cannot be cut with reasonable safety.

18. **Skidding and Yarding.** Methods of skidding or yarding specified for particular areas, if any, are indicated on the Map. Outside clearcutting units and construction clearings, insofar as ground conditions permit, products shall not be skidded against reserve trees or groups of reproduction and tractors shall be equipped with a winch to facilitate skidding.

19. **igging.** Insofar as practicable, needed rigging shall be slung on stumps or trees designated for cutting.

20. **Landings and Skid Trails.** Location of all landings, tractor roads, and skid trails shall be agreed upon prior to their construction. The cleared or excavated size of landings shall not exceed that needed for efficient skidding and loading operations.

21. **Arches and Dozer Blades.** Skidding tractors equipped with pull-type arches or dozer blades wider than tractor width or C-frame width, whichever is greater, shall not be used in residual timber outside clearcutting units and other authorized clearings, except on constructed tractor roads or landings, unless there is written agreement that residual timber will not be damaged materially by such use.

22. **Protection of Streamcourses.** NFF's Operations shall be conducted to prevent debris from entering stream courses, except as may be authorized under paragraph (d). In event NFF cause(s) debris to enter stream courses in amounts that may adversely affect the natural flow of the stream, water quality, or fishery resource, NFF shall remove such debris as soon as practicable, but not to exceed 2 days, and in an agreed manner that will cause the least disturbance to stream courses.

    a) Culverts or bridges shall be required on Temporary Roads at all points where it is necessary

to cross Stream courses. Such facilities shall be of sufficient size and design and installed in a manner to provide unobstructed flow of water and to minimize damage to streamcourses. Trees or products shall not be otherwise hauled or yarded across stream courses unless fully suspended.

b) Wheeled or track-laying equipment shall not be operated in stream courses, except at crossings agreed to by NFF and the Forest Service or as essential to construction or removal of culverts and bridges.

c) Flow in stream courses may be temporarily diverted only if such diversion is necessary for NFF's planned construction and Forest Service gives written authorization. Such flow shall be restored to the natural course as soon as practicable and, in any event, prior to a major storm runoff period or runoff season.

23. **Erosion Prevention and Control.** NFF's operations shall be conducted reasonably to minimize soil erosion. Equipment shall not be operated when ground conditions are such that excessive damage will result. NFF shall adjust the kinds and intensity of erosion control work done, to ground conditions and weather conditions and the need for controlling runoff. Erosion control work shall be kept current immediately preceding expected seasonal periods of precipitation or runoff.

Prior to periods of accelerated water runoff, especially during the spring runoff and periods of heavy rainfall, commensurate with its use, NFF shall inspect and open culverts and drainage structures, construct special cross ditches for road runoff, and take other reasonable measures needed to prevent soil erosion and siltation of streams.

Unless otherwise agreed in writing, after September 15 of each operating season, erosion control work must be kept current. NFF shall complete erosion prevention and control work, including streamcourse protection, within 15 calendar days after completion of skidding and/or yarding operations for each landing.

Designation of on the ground work shall be done as promptly as feasible unless it is agreed that the location of such work can be established without marking on the ground.

During periods of accelerated water runoff, especially during the spring runoff and periods of heavy rainfall, commensurate with its use, NFF shall inspect and open culverts and drainage structures, construct special cross ditches for road runoff, and take other reasonable measures needed to prevent soil erosion and siltation of streams.

When operations are active, erosion control work will be kept current and will be completed as soon as possible. Additionally, FS may require special erosion prevention measures which can include, but not be limited to; use of certified weed free straw, wood chips, slash, mulch, etc. on areas of bare soil with high erosion hazard potential.

24. **Protection of Improvements.** So far as possible, NFF shall protect specified roads and other improvements (such as roads, trails, telephone lines, ditches, and fences):

a) Existing in the operating area,

b) Determined to have a continuing need or use, and

c) Designated on the Map.

NFF shall keep roads and trails needed for fire protection or other purposes and designated on the Map reasonably free of equipment and products, slash, and debris resulting from NFF's operations. NFF shall make timely restoration of any such improvements damaged by NFF's operations and, when necessary

because of such operations, shall move such improvements.

25. **Meadow Protection.** Reasonable care shall be taken to avoid damage to the cover, soil, and water in meadows shown on the Map. Vehicular or skidding equipment shall not be used on meadows, except where roads, landings, and tractor roads are approved. Unless otherwise agreed, trees felled into meadows shall be removed by endlining. Resulting logging slash shall be removed where necessary to protect cover, soil, and water.

26. **Wetlands Protection.** Wetlands requiring protection under Executive Order 11990 are shown on the Map. Vehicular or skidding equipment shall not be used in such wetlands, except where roads, landings, and tractor roads are approved.

27. **Temporary Roads.** As necessary to attain stabilization of roadbed and fill slopes of temporary roads, NFF shall employ such measures as outsloping, drainage dips, and water-spreading ditches. After a temporary road has served NFF's purpose, NFF shall give notice to the Forest Service and shall remove bridges and culverts, eliminate ditches, outslope roadbed, remove ruts and berms, effectively block the road to normal vehicular traffic where feasible under existing terrain conditions, and build cross ditches and water bars, as staked or otherwise agreed to. When bridges and culverts are removed, associated fills shall also be removed to the extent necessary to permit normal maximum flow of water.

28. **Temporary Roads to Remain Open.** All bridges and culverts shall remain in place and ditches shall not be eliminated on Temporary Roads, shown as "Remained Open on the Map. All drainage structures shall be left in functional condition.

29. **Landings.** After landings have served NFF's purpose, NFF shall ditch and slope them to permit water to drain or spread. Unless agreed to otherwise, cut and fill banks around landings shall be sloped to remove overhangs and otherwise minimize erosion.

30. **Skid Trails and Fire Lines.** NFF shall construct cross ditches and water-spreading ditches on tractor roads and skid trails, where needed to prevent erosion. By agreement, NFF may use other comparable erosion control measures, such as backblading skid trails, in lieu of cross ditching.

31. **Current Operating Areas.** Where stewardship project work is in progress but not completed, unless agreed to otherwise, NFF shall, before operations cease annually, remove all temporary log culverts and construct temporary cross drains, drainage ditches, dips, berms, culverts, or other facilities needed to control erosion. Such protection shall be provided, for all disturbed, unprotected ground that is not to be disturbed further prior to end of operations each year, including roads and associated fills, tractor roads, skid trails, and fire lines. When weather permits operations, NFF shall keep such work on any additional disturbed areas as up to date as practicable.

32. **Erosion Control Structure Maintenance.** During the period of this SPA, NFF shall provide maintenance of soil erosion control structures constructed by NFF until they become stabilized, but not for more than one year after their construction. **No tightly woven fiber mesh or plastic monofilament netting shall be used for temporary or permanent erosion control.**

33. **Slash Disposal.** NFF's timing of product removal and preparatory work shall not unnecessarily delay slash disposal. Specific slash disposal measures to be employed by NFF are stated in Appendix E.

34. **Scaling.** Scaling includes:

    a) Various volume determination methods, such as log rule, sampling, measuring, linear measuring, counting, weighing, or another method or combination of methods;

b) Various sites, such as truck Scaling stations, rollways, weighing stations, woods landings, water Scaling stations, or other sites.

c) Various geographic locations.

35. **Scaling Services.** Scaling services shall be performed by Forest Service personnel or parties under contract to Forest Service, except that weighing services may be performed by personnel or parties approved by the Forest Service. Scaling shall be provided in accordance with the instructions and specifications in Appendix F. Scalers shall be currently certified to perform accurate Scaling services. The scaling services provided shall be selected exclusively by the Forest Service. Scaling services may be continuous, intermittent, or extended.

    a) Continuous scaling services is scaling at one site five (5) 8-hour shifts a week, exclusive of Sundays and Federal holidays.

    b) Intermittent scaling services are non-continuous scaling services.

    c) Extended scaling services are scaling services exceeding continuous scaling services and may include Sundays and designated Federal holidays.

As mutually agreed to by the parties, the Forest Service may provide other services, such as but not limited to grading, tagging, or marking of Scaled logs.

36. **Scaling Location.** The Forest Service shall provide scaling services at the scaling site(s) shown in Appendix F. The Scaling site(s) shown in Appendix F normally will be a non-exclusive site where more than one National Forest NFF may be served. NFFmay request, in writing, an alternate scaling site, such as at a private mill yard, private truck ramp, or a privately operated log transfer facility. The Forest Service may approve an alternate scaling site, when the Forest Service determines that scaling conditions at an alternate site are acceptable. Such conditions shall include at a minimum:

    a) Scaler safety and comfort,

    b) Product accountability and security,

    c) Facilities and practices conducive to accurate and independent Scaling, and

    d) The ability to provide for remote check Scaling.

Upon approval of an alternate scaling site, the Forest Service and NFFshall enter into a written memorandum of agreement governing Scaling at that alternate location. NFF agree(s) that Forest Service personnel or persons under contract with the Forest Service shall perform scaling services at an alternative scaling site. In no instance shall NFF perform scaling services.

37. **Scaling Adjustments.** The Forest Service shall check the accuracy of the scaling performed on National Forest logs. Scaling will be satisfactory if performed within the accuracy standards in governing instructions identified in Appendix F. In the event the Forest Service check scale(s) shows a variance in net scale in excess of the allowable variance, an adjustment to volume reported scaled may be made by the Forest Service. Such adjustment will be based on the difference between Forest Service check Scale(s) and original Scale for SPA volume Scaled within the adjustment period. The volume to which this difference will be applied will be:

    a) One-half of the volume Scaled between the last satisfactory check Scale and the first unsatisfactory check Scale or, if a period of 120 days or more occurs without Scaling National Forest timber for stumpage, the adjustment will be applied to 100 percent of the volume Scaled after this period and

b) 100 percent of the volume Scaled between unsatisfactory check Scales and

c) One-half of the volume Scaled between the last unsatisfactory check Scale and the next satisfactory check Scale, or if no satisfactory check Scale is completed and a period of 120 days or more occurs without Scaling of National Forest timber for stumpage, the adjustment will be applied to 100 percent of the volume Scaled since the last unsatisfactory check Scale.

Adjustments may increase or decrease the original Scaled volume. Adjustments will be applied to Integrated Resource Account to correct charges for Included Timber, plus deposits, Scaled during the adjustment period.

38. **Weighing Services.** Weighing services for stumpage payment purposes may be provided by either public or privately owned and operated weighing facilities. A "Weighing Services Agreement," approved by the Forest Supervisor, must be executed at each weighing facility providing weighing services.

Scales used to weigh National Forest products for payment purposes must be a currently certified scale in accordance with State law and be capable of weighing the entire load of logs in a single operation. The weighing of less than the entire load or weighing two loads at once is prohibited. Unless otherwise agreed, the minimum sized weighing facility shall be a 60-ton capacity scale with a 10 foot by 70 foot platform or larger. The weighmaster must work in a position where it is possible to verify that the truck wheels are on or off the scales.Weighing facilities shall meet the following minimum requirements:

a) Be an electronic design,

b) Use electronic load cells or have a fully enclosed and sealed weigh-beam,

c) Have digital weight meters sealed with a seal approved by the State,

d) Have a zero interlocking device on the printer,

e) Have an automatic zero-setting mechanism,

f) Have an automatic motion-detecting device,

g) Be shielded against radio or electromagnetic interference, and

h) Have a date and time stamp and gross and tare weights that print electronically with each weighing. The Forest Service may waive electronic printing for public or third party weighing facilities. NFF shall bear all charges or fees for weighing services.

39. **Presentation for Scaling.** NFF shall present products so that they may be Scaled in an eco-nomical and safe manner.

40. **Accountability.** When Scaling is performed away from Stewardship Project Area, products shall be accounted for in accordance with Forest Service written instructions, as follows:

a) NFF shall plainly mark or otherwise identify products prior to hauling;

b) Forest Service shall issue removal receipts to NFF;

c) NFF shall assign a competent individual at the landing to complete removal receipts and attach them to each load of products removed from Stewardship Project Area;

d) Removal receipts shall be returned to Forest Service at periodic intervals;

e) When products are in transit, the truck driver shall possess or display removal receipt and show it upon request as evidence of authority to move products;

f) The scaler's portion of removal receipt shall be surrendered at point of Scaling, the unloading point, or as requested by Forest Service; and

g) NFF shall notify Forest Service of lost or off-loaded logs and their location within 12 hours of such loss. NFF shall not place products in storage for deferred Scaling until an accountability system has been agreed to in writing for a stated period.

41. **Route of Haul.** As part of the annual Operating Schedule, NFF shall furnish a map showing the route of haul over which unscaled products will be transported from the Stewardship Project Area to the approved Scaling location. Such route of haul shall be the shortest, most economical haul route available between the points.

Upon advance written agreement, other routes may be approved. All unscaled products removed from Stewardship Project Area shall be transported over the designated routes of haul. NFF shall notify Forest Service when a load of products, after leaving Stewardship Project Area, will be delayed for more than 12 hours in reaching Scaling location.

NFF shall require truck drivers to stop, if requested by Forest Service, for the following reasons:

a) For accountability checks when products are in transit from Stewardship Project Area to the designated Scaling location or

b) For a remote check Scale when products are in transit after being truck Scaled at the designated Scaling location.

NFF and Forest Service shall agree to locations for accountability checks and remote check Scales in advance of haul. Such locations shall be established only in areas where it is safe to stop trucks. The Forest Service shall notify NFF of the methods to be used to alert truck drivers of an impending stop.

42. **Product Identification.** Before removal from the Stewardship Project Area, unless the Forest Service determines that circumstances warrant a written waiver or adjustment, NFF shall:

a) Hammer brand all products that are eight (8) feet or more in length and one-third (1/3) or more sound, on each end that is seven (7) inches or more in diameter.

b) West of the 100th meridian, paint with a spot of highway-yellow paint all domestic processing products that are eight (8) feet or more in length and one-third (1/3) or more sound, on each end that is seven (7) inches or more in diameter. Each paint spot must be not less than three (3) square inches in size.

The Forest Service shall assign brands and, if the Stewardship Project Area is within a State that maintains a log brand register, brands shall be registered with the State. NFF shall use assigned brand exclusively on logs under this SPA until Forest Service releases brand. NFF will furnish and apply highway-yellow paint of a lasting quality (oil-base or equivalent).

All hammer brands and/or highway-yellow paint must remain on logs until they are domestically processed. NFF shall replace identifying marks if they are lost, removed, or become unreadable. NFF may remanufacture products into different log lengths. Except for logs remanufactured as part of the mill infeed process immediately before processing, remanufactured products must be rebranded with the assigned SPA brand and repainted with highway-yellow paint, unless otherwise agreed to in writing by the Forest Service Representative. For such remanufactured products, Forest Service may approve use of a brand to be used exclusively as a catch brand, in lieu of the assigned SPA brand.

43. **Scaling Lost Products.** The volume of lost products shall be determined by the best methods currently available, using data from the records for the period in which the loss occurred or the most

applicable period if loss should occur substantially after cutting. In the absence of specific information indicating size or species of lost products, species distribution and volume for entire truckloads shall be assumed to be the same as the average volume Scaled per truck during the report period, and for individual products it shall be assumed that the volume and species were the average volume of the highest priced species Scaled during the report period.

44. **Scaling Lost Sample Loads.** If Scaling is being done by sampling loads of logs, NFF shall present such sample loads for Scaling by Forest Service. If loads of logs selected to be sample Scaled are placed in the decks before they are Scaled, they will be considered as lost sample loads. It will be difficult, if not impossible, to determine the volume and species contained in such loads for payment purposes. Therefore, lost sample loads will be deemed to have a Scale volume and species composition equal to that of the highest value load Scaled during the sampling period, as established by Forest Service. If no sample loads were Scaled during the period, the Scale data for the high valued load will be taken from the most current preceding sampling period with Scale. Sample loads lost as a result of Forest Service actions shall be treated as non-Scaled loads.

45. **Scale Reports.** The Forest Service shall provide NFF a copy of Forest Service scaler's record, if requested in writing.

46. **Fire Precautions and Control**

    a) **Plans.** Prior to initiating NFF's operations during Fire Precautionary Period, NFF shall file with Forest Service a Fire Prevention and Control Plan providing for the prevention and control of fires on the Stewardship Project Area and other areas of NFF's Operations. Such plan shall include a detailed list of personnel and equipment at NFF disposal for implementing the plan. This requirement may be met by preparing a single plan for more than one SPA.

    b) **Fire Precautions.** Specific fire precautionary measures listed in this Appendix shall be applicable during NFF's Operations in "Fire Precautionary Period" described. The dates of Fire Precautionary Period may be changed by agreement, if justified by unusual weather or other conditions. Required tools and equipment shall be kept in serviceable condition and immediately available for fire fighting at all times during NFF's operations in Fire Precautionary Period.

    c) **Substitute Precautions.** The Forest Service may authorize substitute measures or equipment, or waive specific requirements by written notice, if substitute measures or equipment will afford equal protection or some of the required measures and equipment are unnecessary.

    d) **Emergency Precautions.** The Forest Service may require the necessary shutting down of equipment on portions of NFF's Operations, as specified by the emergency fire precautions schedule. Under such conditions, after NFF cease(s) active operations, NFF shall release for hire by Forest Service, if needed, NFF's shutdown equipment for fire standby on the Stewardship Project Area or other areas of NFF's Operations and personnel for fire standby or fire patrol, when such personnel and equipment are not needed by NFF for other fire fighting or protection from fire. Equipment shall be paid for at fire fighting equipment rates common in the area or at prior agreed rates and, if NFF request(s), shall be operated only by personnel approved by the NFF. Personnel so hired shall be subject to direction and control by Forest Service and shall be paid by Forest Service at fire fighting rates common in the area or at prior agreed rates.

    e) **Fire Precautionary Period and Fire Precautions.** Specific fire precautionary measures are set forth below. Upon request of Forest Service, NFF shall permit and provide an individual to assist in periodic testing and inspection of required fire equipment. NFF shall promptly remedy

deficiencies found through such inspecting and testing.

1. The following requirements shall apply during the period April 1- December 1 and during other such periods as specified by Forest Service.
2. *See fire plan*

47. **Fire Control.** NFF shall, both independently and in cooperation with Forest Service, take all reasonable and practicable action to prevent and suppress fires resulting from NFF's Operations and to suppress any forest fire on Stewardship Project Area. NFF's independent initial fire suppression action on such fires shall be immediate and shall include the use of all necessary personnel and equipment at NFF's disposal on Stewardship Project Area or within the distance of Stewardship Project Area: ***(Initial fire suppression within 25 road miles, and fire suppression re-inforcement within 100 miles).***

a) **The Partner's Reinforcement Obligations.** Whenever an Operations Fire or Negligent Fire, whether on or off Stewardship Project Area or any other forest fire on Stewardship Project Area, has not been suppressed by initial action and appreciable reinforcement strength is required, Forest Service may require further actions by NFF until such fire is controlled and mopped up to a point of safety. Such actions may include any or all of the following as necessary to fight such fire:

b) **Suspend Operations.** To suspend any or all of NFF's Operations.

c) **Personnel.** To release for employment by Forest Service any or all of NFF's personnel engaged in NFF's Operations or timber processing within the distance of Stewardship Project Area: ***(25 Road miles).*** Any organized crew so hired shall include NFF's supervisor, if any. Personnel so employed shall be paid at Forest Service standard emergency fire fighting rates.

d) **Equipment.** To make available for Forest Service rental at fire fighting equipment rates common in the area or at prior agreed rates any or all of NFF's equipment suitable for fire fighting and currently engaged in NFF's Operations within the distance of Stewardship Project Area: ***(100 Road miles)***. Equipment shall be operated only by personnel approved by NFF, if so requested by NFF.

Limited Liability for Operations Fires.

Maximum Amount of NFF's Obligation per Operation's Fire. Entry should be determined as follows and rounded up to the nearest $100. The minimum amount will be $1,000.00. If State statute or law defines limited liability, use that determination (e.g. Oregon), otherwise calculate the amount using the following formula:

[(1) x (2) + (3) x (4)] x (5) = Maximum Amount of Cooperator's Obligation per Operations Fire. Round up to the next $100.

(1) Equals the number of workers normally required to operate the size of proposed project.

4 Workers

(2) Equals the daily (12 hour) wage rate for semi-skilled (AD-1) firefighter.

$15.50/Hr. x 12 hours = $186

(3) Equals the number of pieces of equipment normally required to operate the size of proposed project that can effectively cut and clear fire lines.

4 Pieces of equipment

(4) Average daily rate for each piece of equipment, including cost of operator, from current local engineering cost guide.

$120/Hr. x 12 hours = $1,440/12hr.

(5) Equals the number of days normally required to control and mop up such fires to a point where control lines can reasonably be expected to hold under foreseeable conditions. Minimum is one day and maximum is 10.

5 days

NFF's Obligation per Operations Fire,

Maximum Amount: $ 51,389

48. **Temporary Roads and Skid Trails**. NFF shall locate Temporary Roads and Skid Trails on locations approved by the Forest Service. Such location shall include the marking of road centerline or grade-line and the setting of such construction stakes as are necessary to provide a suitable basis for economical construction and the protection of National Forest lands.

Temporary road surface width shall be limited to truck bunk width plus four (4) feet, except for needed turnouts which shall not exceed two (2) times the bunk width plus four (4) feet. If shovels or cranes with revolving carriage are used to skid or load, temporary road surface width equal to track width plus tail swing shall be permitted.

As necessary to attain stabilization of roadbed and fill slopes of Temporary Roads, NFF shall employ such measures as outsloping, drainage dips, and water-spreading ditches.

49. **USE OF TIMBER (Option 1)**.

a) This agreement is subject to the Forest Resources Conservation and Shortage Relief Act of 1990, as amended (16 USC 620, *et seq.*).

b) Except for 1/ NA determined pursuant to public hearing to be surplus, unprocessed Included Timber shall not be exported from the United States nor used in direct or indirect substitution for unprocessed timber exported from private lands by Contractor or any person as defined in the Act (16 USC 620e).

c) Timber in the following form will be considered unprocessed:

(i) Trees or portions of trees or other roundwood not processed to standards and specifications suitable for end product use;

(ii) Lumber, construction timbers, or cants intended for remanufacturing not meeting standards defined in the Act (16 USC 620e); and

(iii) Aspen or other pulpwood bolts exceeding 100 inches in length.

(a) Unless otherwise agreed in writing, unprocessed Included Timber shall be delivered to a domestic processing facility and shall not be mixed with logs intended for export.

(b) Prior to award, during the life of this contract, and for a period of 3 years from Termination Date, Contractor shall furnish to Forest Service, upon request, records showing the volume and geographic origin of unprocessed timber from private lands exported or sold for export by Contractor or affiliates.

(c) Prior to delivering unprocessed Included Timber to another party, Contractor shall require each

buyer, exchangee, or recipient to execute an acceptable agreement that will:

(i) Identify the Federal origin of the timber;

(ii) Specify domestic processing for the timber involved;

(iii) Require the execution of such agreements between the parties to any subsequent transactions involving the timber;

(iv) Require that all hammer brands and/or yellow paint must remain on logs until they are either legally export- ed or domestically processed, whichever is applicable; and

(v) Otherwise comply with the requirements of the Act (16 USC 620d).

(d) No later than 10 days following the execution of any such agreement between Contractor and another party, Contractor shall furnish to Forest Service a copy of each such agreement. Contractor shall retain, for 3 years from Termination Date, the records of all sales, exchanges, or dispositions of all Included Timber.

(e) Upon request, all records dealing with origin and disposition of Included Timber shall be made available to Contracting Officer.

For breach of this Subsection, Forest Service may terminate this agreement and take such other action as may be provided by statute or regulation, including the imposition of penalties. When terminated by Forest Service under this Subsection, Forest Service will not be liable for any Claim submitted by Contractor relating to the termination.

Technical Requirements for Road Service Work Items

This work will be organized, evaluated, planned, and carried-out in three phases:

1. The Assessment Phase.
2. The Design Phase.
3. The Implementation Phase.

Assessment Phase Guidance and Requirements

Assessment of roads within the project area shall identify and distinguish work items in support of the selected alternative and signed Decision for the Community Protection Central and West Slopes. Provide a transportation plan identifying roads needed to complete the work, and that lead to preferred collector and arterial roads beyond Project boundaries.

Develop an Assessment Plan that addresses, at a minimum, the following:

1. Identify Key Personnel including Project Manager(s) and Survey Personnel and describe their experience with performing condition surveys of low-volume forest roads.
2. A Project Schedule for the assessment work, with critical milestones identified.
3. Resources to be applied to the field assessment work.
4. The planned means (GPS hardware and software) intended for establishing the location of features and other points of note.
5. The expected and proposed costs.
6. Develop a Road Analysis Plan including access and transport routes and the anticipated amount and type of use of each route.

Perform road reconnaissance and survey to identify current road conditions and re-construction and maintenance needs for all Forest Service system roads associated with agreement use and implementation.

Based on the findings of the initial Assessment, develop an Assessment Report (AR) as guidance for the Design Phase

At a minimum, the AR shall include the following:

1. A list of all FS roads surveyed with the current Operational Maintenance Level (OpML), Objective Maintenance Level (ObLM), and surface type noted. The Forest will provide a list of roads with data, to be confirmed by on the ground condition surveys, with any differences described. This includes major collector routes outside the project boundary.
2. A list of any FS roads within the project area which were not surveyed and an explanation for their omission.
3. A list of roads recommended for reconstruction work and an estimate of the work required.
4. A list of roads with segments recommended for relocation with a detailed explanation and justification for the recommendation and an estimate of the work required. As a general rule, the construction of new system roads will not be approved.
5. Notations on the geometry of suspected conflicting features such as tight horizontal curves or abrupt vertical grade changes like humps, dips, water-bars, fords etc. Such notes shall be of sufficient detail so as to allow the designer to accurately depict the road and feature in

drawings. Include data on existing grades and slopes.

6. A list of all significant drainage interactions (bridges, culverts, dips, low-water crossings, etc) with notations on the ability for existing features to accommodate current and expected future drainage volumes. The list shall include the GPS location of each to within 15' of actual. Bridges and large culverts locations are identified at the center of the span.
7. Identify existing, missing, and recommended additional Traffic Control Devices
8. Identify road maintenance requirements according to the PASER Manual for gravel roads (https://interpro.wisc.edu/tic/wp-content/uploads/sites/3/2019/12/Gravel-PASER_02_rep15.pdf,) or the PASER Manual for unimproved roads (https://interpro.wisc.edu/tic/documents/paser-manual-unimproved-roads-pubpas06/), whichever is applicable
9. Temporary roads are not to be included in the Road Analysis Plan. They are developed in the detailed vegetation and fuels treatment plan (Appendix E).
10. The Plan shall identify and describe anticipated maintenance needs for each road surveyed.
11. Format for the Assessment Report
    a) Text documents shall be prepared both as MS Word (or compatible) and PDF files.
    b) Drawings shall be prepared both as AutoCAD 2016 or later DWG (or compatible) and Adobe Acrobat protable document files (.pdf).
    c) Maps shall be provided as shapefiles for use in ArcGIS and shall be prepared as PDF files.
    d) Illustrations and tables not part of a text document shall be submitted as Adobe Acrobat portable document files (.pdf).

Design Phase Requirements

The Design Phase is intended to result in a complete set of documents (plans, specifications, and directives which will guide and direct the Implementation Phase of the Road Service Work.

Specific requirements of this phase are as follows:

1. For Road Reconstruction, the AASHTO's "Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT<400), the Standard Specifications of Construction of Roads and Bridges on Federal Highway Projects, FP-14, FHWA, and the Forest Service Supplemental Specifications shall be applied in the design and reconstruction of all road work on the project. FP-14 is available from the Federal Highway Administration (https://highways.dot.gov/federal-lands/specs). The Supplemental Specifications are provided in Appendix G. Road reconstruction includes all work performed prior to use of the road(s) to transport treatment products out of the project area.
2. For Road Maintenance work, the Specifications for Maintenance of Roads, R-5 January 2021 shall be applied during, and after the treatment phase of the project. The Maintenance Specifications are provided in Appendix G Once the use of a road for the project has ended, the road shall be restored to it's original OpML condition in accordance with provisions of FHWA FP-14. All preexisting drainage features shall be restored to full function unless directed otherwise by the Forest Service.
3. For road maintenance work, where significant cuts or fills are required to accommodate the critical and/or design vehicle, a geotechnical analysis will be required to ensure the

constructability and stability of the constructed features. (see Design Certifications below)

4. Identify maintenance activities according to the use during project implementation and the road managemnent objective, utilizing the PASER Manual for gravel roads (https://interpro.wisc.edu/tic/wp-content/uploads/sites/3/2019/12/Gravel-PASER_02_rep15.pdf,) or the PASER Manual for unimproved roads (https://interpro.wisc.edu/tic/documents/paser-manual-unimproved-roads-pubpas06/), whichever is applicable as a guide to identify difficnencies.

Element Definitions, Time Periods and Milestone Dates

A. Conceptual Design Verification (CDV): The time period during which the design criteria are finalized. Preliminary drawings and written descriptions are prepared to illustrate the proposed design of the work or a portion of the work to the Government.

B. Meeting Requirement: NFF shall initiate and lead a program review meeting to initiate the project and review the Forest Service road layers and potential project needs

C. Submittals: Meeting notes and final design project schedule

D. Design Development (DD): The time period during which the form, arrangement, size, and materials of the work are determined.

E. Submittals: 35%, and 60% DD submittals required for Government Review and Approval. Each drawing issuance shall be accompanied by a corresponding cost estimate for construction.

F. Schedule: As listed in schedule submitted in CDV phase by NFF to meet Period of performance (POP) deadlines

G. Construction Documents (CD): The time period during which process working drawings, specifications, and other documents describing the work are prepared in sufficient detail to allow accurate and complete construction.

H. Submittals: 95% and 100% CD submittals required for Government review. Each drawing set issuance shall be accompanied by a corresponding cost estimate for construction. Each CD set shall be submitted as a pdf and AutoCad file.

I. Schedule: As listed in schedule submitted in CDV phase by NFF to meet POP deadlines

J. Government Review Periods: The Government shall have 15 business days to review and comment or approve all drawing, specifications and cost estimates.

K. Construction Cost Estimate

   I. During the design of the project, the NFF shall submit cost estimates as part of and at the time of all review submittals. Submittals will not be considered complete without the specified cost estimate information.

   II. Each cost estimate shall be prepared to reflect the design detail available to the estimator at the time of the submittal. As the design progresses, cost estimates shall become more detailed, complete, and accurate. Cost estimates not corresponding to the most current design revisions will be returned to the Contractor to update prior to the Government submittal review period taking effect.

   III. Reconstruction and maintenance labor costs shall be based on the applicable federal (DoL) wage determinations.

Deliverable Materials and Contract Document Standards

NFF shall provide drawings, reports, specifications and calculations as required for a full and complete design to the Government in formats as outlined below.

A. All written deliverables and drawings shall be submitted in electronic format as .pdf via email to the Government COR per approved project schedule. Provide the original electronic CAD and/or shapefile

B. Text Documents: Both MS Word DOCX compatible format PDF file format compatible with Acrobat 2015 or later.

C. Drawing Size: All drawings must be a uniform standard designated size, 11 x 17 inches long and reproduced in Black Only ink

D. Digital Drawing: Provide drawings, plans, etc. in both DWG file format compatible with AutoCAD 2016 or later and PDF file format compatible with Acrobat 2015 or later.

E. Project Scheduling: Microsoft Project or compatible format.

F. Dimensioning: All dimensioning shall be in standard units

G. CAD Standards: Latest version of the National CAD Standard (NCS).

5. Design Certifications

All designs for road reconstruction or relocation shall be completed and signed by a competent designer(s) with a minimum of five years experience as a low-volume roads designer.

The following features, if included in the designs, shall require the review and approval of a design professional currently licensed as a PE in the State of California. The engineering specialty shall be directly related to the function of the feature.

A. Culverts, of any design over 5’ in width or buried less than 1.25 times the diameter of the pipe below the traveled surface. Any “bottomless” culvert design.

B. Reinforcement of roads to be utilized in winter or in saturated base conditions.

C. Reconstructed intersections with state or county roads/highways.

D. Excavated cuts greater than 8’ high. (Requires a geotechnical analysis)

For any feature described above(A-D), the applicable Drawings/Plans shall be stamped and signed by the certifying PE.

6. Once NFF and Forest Service agree upon the road reconstruction and maintenance plans and finalized worklist, any additional work shall be accomplished through modifications to the agreement. Quantities in the agreement shall be modified based on pay items from the specifications applicable to the work being performed.

7. Provide the Forest Service with separate detailed maps showing re-construction work items located by milepost and GPS coordinates. GPS coordinates may be presented in a table format. Cover sheet must prominently display United States Dept. of Agriculture logo, the Forest Service logo, Region 5 Pacific Southwest Forest Service logo, and project name and location.

8. Security Requirements: All drawings and specifications prepared for reconstruction or maintenance, either in electronic or paper formats, must have imprinted on each page of the drawings or plans and on the label of electronic media, in a minimum of 14-point bold type

"PROPERTY OF UNITED STATES GOVERNMENT - FOR OFFICIAL USE ONLY" .

9. The following paragraph will be noted on the cover page of the construction drawings set and the cover page of the specifications:

"PROPERTY OF THE UNITED STATES GOVERNMENT. COPYING, DISSEMINATION, OR DISTRIBUTION OF THESE DRAWINGS, PLANS OR SPECIFICATIONS TO UNAUTHORIZED PERSONS IS PROHIBITED." in a minimum 14-point bold type.

10. The Road Service Implementation Plan shall include the following:

(a) Plan shall be designed with the objective of supporting the long-term sustainable thinning and forest health restoration including product removal, protection of water resources and project completion.

(b) Additional supplemental specifications that are required to complete the work as the road reconstruction and maintenance documents are further developed.

(c) Create a detailed map of road maintenance and reconstruction requirements and include as an attachment to the Plan.

(d) Identify specific work needed to accommodate cross-drainages and expected storm runoff events, and any reconstruction required to meet regulatory compliance for water quality. Identify any required regulatory work which exceeds that that needed to meet transportation objectives.

(e) Identify roads needing reconstruction to allow for a critical design vehicle, such as a chip-van, low boy etc. should be indicated as such for approval by FS. This includes adjustments to either the horizonal or vertical alignment, or both.

(f) Complete and include in the Plan, a list, in table format, of all roads to be reconstructed or relocated. The table shall include sub-item number, a description of proposed work to be performed, approximate location of each requirement, and quantities needed.

(g) Assemble plans per industry standard.

Implementation Phase Requirements

1. Maps shall be prepared as Adobe Acrobat portable document files (.pdf) and be data provided as shapefiles for use in ArcGIS and ArcPro.

2. Approved in the Design Phase or as may be modified in the agreement. All work shall conform to the designs and specifications developed and

3. Where any transport is planned or occurs on paved or bituminous surface treated roads, repair any safety related deficiencies prior to use of the route for the transport of equipment, materials, or forest products related to project treatment implementation.

4. Establish the roads to a good condition, reflecting the needs for the project operations from start to finish and implement maintenance requirements reflecting the need to ensure safe and suitable transit routes through the term of the project as described this agreement.

5. For roads that are identified as aggregate surfaced in the Forest Service inventory and will be used as main transport routes, provide a minimum of 3" of new aggregate as surface replacement. If identified as a critical need for road maintenance in the assessment and planning period, additional material may be prescribed on a location by location or road by road basis. Re-establish proper drainage as outlined in the PASER manual prior to placing new

aggregate.

6. Limit truck and heavy-load transport to the period between May 1 and November 15 and in unsaturated road base conditions. If road use is required outside of those dates, or in saturated conditions, reinforce the structural section of the road to accommodate traffic, and repair all damage as a result of any road use.
7. Cost associated with completion of road reconstruction and maintenance shall be estimated using the accepted plan and established industry standards. Costs will be incorporated into the final plan for approval.
8. For the purposes of the treatment project, once the use of a road has ended and it is returned to original OpML condition, any further use by the project for equipment or material transportation shall require a reassessment with any required work performed as provided for here-in.
9. For any work which requires the placement and compaction of earth or aggregate material (included any bonded aggregate, AC) or the placement of poured-in-place concrete, the NFF shall employ a third-party quality control entity to perform the required work of Contractor Quality Control.
10. At the end of a road's use for the project, re-establish all surface drainage features (water bars, rolling dips, etc.) that were removed to accommodate the project needs.

Road Maintenance

1. Maintenance is defined as that periodic work required to ensure the stability and protection of the road(s) in an administratively determined condition.
2. All Road Maintenance work shall be done in accordance with the requirements and specifications of the Specifications for Maintenance of Roads, USDA-Forest Service, R-5. January 2021.
3. The evaluation of the roads to determine maintenance needs shall be in accordance with the recommendations found in the PASER Manual for gravel roads (https://interpro.wisc.edu/tic/wp-content/uploads/sites/3/2019/12/Gravel-PASER_02_rep15.pdf,) or the PASER Manual for unimproved roads (https://interpro.wisc.edu/tic/documents/paser-manual-unimproved-roads-pubpas06/), whichever is applicable
4. The Plan shall prescribe the frequency of dust abatement activity, the application method, and identify the product(s) to be used. Provide dust abatement on all gravel and native surface roads during their period of use.

END OF SECTION

Table 204-1
Sampling, Testing, and Acceptance Requirements

Material or Product (Subsection)	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Source								
Topping (704.05)	Measured and tested for conformance (106.04 & 105)	Classification[1]	–	AASHTO M 145	1 per soil type and source of material	Processed material	Yes	Before using in work
Unclassified borrow (704.06)	"	"	–	"	"	"	"	"
Production								
Topping (704.05) and (204.11(a))	Measured and tested for conformance (106.04)	Moisture-density	–	T 99, Method C[2]	1 per soil type, but not less than 1 per each 13,000 yd^3 (10,000 m^3)	Processed material	Yes	Before using in work
		Density	–	AASHTO T 310 or other approved procedures	1 per 3500 yd^2 (3000 m^2), but not less than 3 per layer	In-place	No	Before placement of next layer
Unclassified borrow (704.06) and (204.11(a))	"	Moisture-density	–	T 99, Method C[2]	1 per soil type, but not less than 1 per each 13,000 yd^3 (10,000 m^3)	Processed material	Yes	Before using in work

Table 204-1
Sampling, Testing, and Acceptance Requirements

Material or Product (Subsection)	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
		Density	–	AASHTO T 310 or other approved procedures	1 per 3500 yd^2 (3000 m^2), but not less than 3 per layer	In-place	No	Before placement of next layer
Production (continued)								
Earth embankment (204.11(a))	Measured and tested for conformance (106.04)	Classification	–	AASHTO M 145	1 per soil type	Source of material	Yes	Before using in work
		Moisture-density	–	T 99, Method C[(2)]	1 per soil type, but not less than 1 per each 13,000 yd^3 (10,000 m^3)	"	"	"
		Density	–	AASHTO T 310 or other approved procedures	1 per 3500 yd^2 (3000 m^2), but not less than 3 per layer	In-place	No	Before placement of next layer
Top of subgrade (204.11(a))	"	Density	–	AASHTO T 310 or other approved procedures	1 per 2500 yd^2 (2000 m^2), but not less than 3 per layer	In-place	No	Before placement of next layer
Finished Product								

Table 204-1
Sampling, Testing, and Acceptance Requirements

Material or Product (Subsection)	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Roadbed (204.13)	Measured and tested for conformance (106.04)	Final line & grade	–	Field measured	Determined by the CO	Determined by the CO	No	Before placement of next layer

(1) Not required when using Government-provided source.
(2) Minimum 5 points per proctor.

Appendix E Schedule of Items and Specifications
McKinsie Hand Thin & Pile

Objectives: Reduce hazardous fuels by hand thinning and hand piling to restore forest health on 1,863 acres within the Plumas National Forest (PNF). The goal is to thin competing conifers and reduce fuel by removing suppressed understory trees with poor crown structure to disconnect vertical and horizontal tree-ladder fuels. Other goals include reducing dead and down ground fuels and brush.

1. Resource Protection Measures

a) **Wildlife** -

i. California Spotted Owl (CSO): Units 1, 7, 33, 34, 36, 111, 251, 371, and 372 fall completely within a Limited Operating Period (LOP) for California Spotted Owl. Units 4, 13, 20, and 382 fall partially within a CSO LOP. No operations may occur within the LOP from March 1 – August 15, unless within-season surveys allow for a reduction in the LOP area.

ii. Northern Goshawk (NOGO): Units 7, 12, and 40 fall completely within a Limited Operating Period (LOP) for Northern Goshawk. Units 13, 20, 33, and 36 fall partially within a NOGO LOP. No operations may occur within the LOP from February 15 – September 15, unless within-season surveys allow for a reduction in the LOP area.

iii. Units 20, 33, 34, 36, and 40 contain raptor nest core areas. Within nest cores, manually thin only up to a maximum of 6.0” DBH. These nest cores are mapped in Appendix C.

iv. Amphibians: The project area represents potential habitat for the Sierra Nevada yellow-legged frog. Foothill yellow-legged frogs habitat may also occur within the project area (outside of mapped habitat). No target amphibian populations have been found within aquatic features on the project area. Burn pile buffers for perennial and intermittent streams and Special Aquatic Features (SAFs) for this project are listed in the table in **1.e) Hydrology** below

v. If any Sierra Nevada yellow-legged frogs or foothill yellow-legged frogs are found at any time during implementation of the proposed project, operations will cease in the vicinity of the frog. The immediate area around the frog will be vacated and the frog will be left alone. No activity will occur in that area until such time as the frog has left the area on its own. Amphibian species will not be handled. The occurrence will be reported as soon as possible to the District Biologist and communicated to the appropriate line officer. If any of the three potential amphibian species are found during surveys or operations, an 82-foot pile exclusion buffer will be implemented around any occupied streams.

b) **Recreation/Infrastructure -** All recreational improvements (directional and informational signs, barriers, etc.) will be protected. If any barriers (including natural barriers) or improvements are damaged or removed during Project activities, they will be replaced and re-installed in the same location and manner immediately following vegetation management operations. There are no USFS system trails located within the project area.

c) **Botany -**

i. Special Status Plants: Protected botany avoidance areas occur in units 34, 40, and 91, are flagged with solid white and red polkadot flagging, and are mapped in Appendix C. These areas will not be treated and are to be completely avoided during all activities.

ii. Noxious Weeds: Noxious weed infestations will not be treated and are to be completely avoided during all activities. There are no known noxious weed infestations within the project area.

d) **Control Areas -** There are several control areas throughout the project. Trees may be cut within these areas, but must be piled outside of flagged area boundaries. Do not move or pile woody debris not associated with cut trees. Control areas are flagged on the ground with black and red striped flagging, and are mapped in Appendix C.

e) **Hydrology –** Specific resource protection measures are required when hydrologic features are present within treatment units. Cutting and pile location buffers are identified in the table below. Additional minimization guidance is listed below the table.

Hydrologic Feature [1]	Hand Cut Buffer [4,5]	Minimum Distance to Burn Piles
Perennial Streams	No buffer	25 ft [2,3]
Intermittent Streams	No buffer	25 ft [2,3]
Ephemeral Streams	No buffer	15 ft
Special Aquatic Features (reservoirs, wetlands, fens, and springs)	Perimeter of feature	25 ft [2,3]
Other Riparian Features (dry meadows, seasonal wetlands)	Perimeter of feature	25 ft

1. *Fell trees away from streams.*
2. *For streams and SAFs, minimum buffers vary depending on the presence of special-status aquatic species.*
3. *If surveyed, occupied habitat for special status amphibians, the minimum exclusion distance is increased to 82 feet.*
4. *No hand cutting of riparian vegetation or vegetation that provides stream bank stabilization. The minimum distance for burn piles must be adhered to. Hand cutting within SAFs, and other riparian features is allowed if marked by a designated hydrologist or biologist.*
5. *Minimum buffers for meadow features vary depending on the condition of the meadow (e.g., if the meadow is encroached by conifers, there would be a smaller buffer).*

2. Boundary Designation

- Unit boundaries are delineated using virtual boundaries with select unit boundaries flagged in solid blue (e.g. property lines, ridgelines, hillslopes).
- Wildlife areas (nest core areas) are flagged in solid white with red polkadots.
- Botany avoidance areas are flagged in black and blue stripped flagging.
- Control areas are flagged using black and red stripped flagging.
- Hydrologic feature pile buffers should be measured from the edge of each feature on the ground.

Unit Summary and Special Resource Information

Unit #	Acres	Unit Type	Resource Notes
1	15	General Forest	• Wildlife: CSO LOP (No operations Mar 1 - Aug 15) • Hydrologic Features: Ephemeral Stream
4	17	General Forest	• Wildlife: CSO LOP (No operations Mar 1 - Aug 15) • Hydrologic Features: Intermittent Stream, Ephemeral Stream, Wet Meadow, Dry Meadow, Seep/Spring
7	6	PAC - High Productivity	• Wildlife: CSO LOP & NOGO LOP (No operations Feb 15 - Sept 15) • Hydrologic Features: Ephemeral Stream
12	34	General Forest	• Wildlife: NOGO LOP (No operations Feb 15 - Sept 15) • Hydrologic Features: Perennial Stream, Ephemeral Stream
13	69	General Forest	• Wildlife: CSO LOP (No operations Mar 1 - Aug 15) • Hydrologic Features: Perennial Stream, Intermittent Stream
20	377	PAC - High Productivity	• Wildlife: CSO LOP & NOGO LOP (No operations Feb 15 - Sept 15) • Hydrologic Features: Perennial Stream, Intermittent Stream, Ephemeral Stream, Seasonally Wet Area, Seep/Spring • Control Features
21	73	General Forest	• Hydrologic Features: Perennial Stream, Intermittent Stream, Ephemeral Stream, Seasonally Wet Area, Seep/Spring • Control Features: - Piles must be placed outside of flagged control feature boundaries. Do not move or pile downed woody debris.
29	18	General Forest	• Hydrologic Features: Perennial Stream, Ephemeral Stream, Dry Meadow
33	307	PAC - High Productivity	• Wildlife: CSO LOP & NOGO LOP (No operations Feb 15 - Sept 15) • Hydrologic Features: Perennial Stream, Intermittent Stream, Ephemeral Stream, Wet Meadow • Control Features: - Piles must be placed outside of flagged control feature boundaries. Do not move or pile downed woody debris.
34	225	PAC - High Productivity	• Wildlife: CSO LOP (No operations Mar 1 - Aug 15) • Hydrologic Features: Perennial Stream, Intermittent Stream, Fen, Seasonal Wet Area, Seep/Spring • Control Features: - Piles must be placed outside of flagged control feature boundaries. Do not move or pile downed woody debris. Botany: Sensitive Plant Species – protect and avoid, no cutting or piling within flagged area.

Unit #	Acres	Unit Type	• Resource Notes
36	233	PAC - High Productivity	• Wildlife: CSO LOP (No operations Mar 1 - Aug 15) • Hydrologic Features: Perennial Stream, Intermittent Stream, Ephemeral Stream, Dry Meadow, Wet Meadow, Seasonal Wet Area, Seep/Spring • Control Features: - Piles must be placed outside of flagged control feature boundaries. Do not move or pile downed woody debris.
40	301	PAC - High Productivity	• Wildlife: NOGO LOP (No operations Feb 15 - Sept 15) • Hydrologic Features: Perennial Stream, Intermittent Stream, Ephemeral Stream, Dry Meadow, Wet Meadow, Seep/Spring • Botany: Sensitive Plant Species – protect and avoid, no cutting or piling within flagged area.
91	10	General Forest	• Hydrologic Features: Perennial Stream • Botany: Sensitive Plant Species – protect and avoid, no cutting or piling within flagged area.
111	4	General Forest	• Wildlife: CSO LOP (No operations Mar 1 - Aug 15) • Hydrologic Features: Perennial Stream
231	1	General Forest	• Hydrologic Features: Intermittent Stream, Seasonal Wet Area
232	16	General Forest	• Hydrologic Features: Intermittent Stream, Ephemeral Stream • Control Features: - Piles must be placed outside of flagged control feature boundaries. Do not move or pile downed woody debris.
251	6	General Forest	• Wildlife: CSO LOP (No operations Mar 1 - Aug 15) • Hydrologic Features: Wet Meadow
371	46	PAC - Low/Mod Productivity	• Wildlife: CSO LOP (No operations Mar 1 - Aug 15)
372	28	PAC - Low/Mod Productivity	• Wildlife: CSO LOP (No operations Mar 1 - Aug 15) • Hydrologic Features: Intermittent Stream • Control Features: - Piles must be placed outside of flagged control feature boundaries. Do not move or pile downed woody debris.
381	41	PAC - Low/Mod Productivity	• Hydrologic Features: Intermittent Stream • Control Features: - Piles must be placed outside of flagged control feature boundaries. Do not move or pile downed woody debris.
382	11	PAC - Low/Mod Productivity	• Wildlife: CSO LOP (No operations Mar 1 - Aug 15) • Hydrologic Features: Intermittent Stream, Ephemeral Stream • Control Features: - Piles must be placed outside of flagged control feature boundaries. Do not move or pile downed woody debris.

Unit #	Acres	Unit Type	Resource Notes
421	15	General Forest	• Control Features: - Piles must be placed outside of flagged control feature boundaries. Do not move or pile downed woody debris.
522	10	General Forest	• Hydrologic Features: Ephemeral Stream

3. Hand Thin Specifications

This project area contains three separate unit types, with prescriptions that vary based upon unit type. General specifications for all units are listed below with detailed specifications for each prescription following:

Selection of Leave Trees:

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

1) California black oak (most desirable leave tree)
2) sugar pine/western white pine
3) ponderosa pine/Jeffrey pine
4) Douglas-fir
5) incense cedar
6) juniper
7) red fir
8) white fir
9) lodgepole pine

ii. In general, preserve the largest, healthiest, and best formed trees available that are in a good growing position regardless of species.

iii. Retain all trees with signs of wildlife habitation (visible nests, active cavities).

iv. Retain remnant and 'character' trees for wildlife habitat unless they pose a hazard to infrastructure or life. Wildlife trees include three or more of the following features: cavities, forked tops, broken tops, granary trees, and larger DBH snags that do not pose a hazard.

v. Do not cut blaze trees, damage or disturb any property boundary markers, including but not limited to: USFS corner, survey and boundary markers or private property signs. Any tree with a sign of any kind is exempt from cutting.

Tree and Brush Thinning Standards:

Adhere to the following specifications for the removal of excess conifers, brush, and down woody debris in all treatment units.

i. Thin forest stands using handheld chainsaws.

ii. All trees shall be felled into the treatment units, and away from identified control areas, botany sites, and improvements such as but not limited to fences, gates, signs, or water tanks.

iii. Fall trees away from streams.

iv. No hand cutting of riparian vegetation or vegetation that provides stream bank stabilization.

v. Stumps shall be less than 6.0" in height and shall be cut flat or with a minimal angle to avoid creating a sharp stump (stobs).

vi. Cut manzanita, deer brush, and whitethorn brush leaving staubs no taller than 3 inches.

vii. Cut all snags and solid down woody debris from 2 to 14 inches in diameter into manageable sized lengths for piling (about 6-foot lengths). This will include the branches and tops of larger downed trees.

viii. Cut all resulting slash into manageable sized pieces for piling (about 6 foot lengths).

ix. Trees less than one foot in height need not be cut.

x. Prune branches of all remaining conifers to 6 feet in height.

a. High Productivity PAC Prescription

Desired Treatment Objectives:

Treatments are designed to maintain approximately the existing canopy cover and remove ladder fuels, pile, burn piles, and prescribed burn to meet primary and secondary objectives.

- Conifer thinning or removal shall consist of selecting leave trees with consideration for health, vigor and spacing, and cutting 90% of all other trees less than or equal to 10.0 inches DBH.
- To protect the nest site, within each PAC up to (6) ten-acre "nest cores" have been identified and mapped prior to treatment. Treatment in these "nest cores' differ from the remainder of the PAC. PAC nest cores are determined by PNF wildlife biologist.
- Within the nest core, cut all conifer trees less than or equal to 6.0 inches DBH.

Thinning, removal, and burn pile location shall be done in a manner that does not damage the leave trees.

Selection of Leave Trees:

i. **General PAC:** The spacing between leave trees (oaks and conifers) less than or equal to 10.0 inches DBH shall be at least 25 feet. Leave all trees larger than 10.0" DBH.

   Within the nest core: The spacing between leave trees (oaks and conifers) ≤ 6.0 inches DBH shall be at least 25 feet. Leave all trees larger than 6.0" DBH. Leave all trees with nest structures and large cavities.

ii. Select leave trees from healthy undamaged oaks and conifers as necessary to achieve the average spacing. Leave any tree if there is no other tree within 25 feet. Do not leave trees within 25' of residual overstory trees. Variability is encouraged in order to create a heterogeneous habitat.

iii. Leave leaning trees where available to provide for California spotted owl fledgling roost and refuge trees.

Tree and Brush Thinning Standards:

Adhere to the following specifications for the removal of excess conifers, brush, and down woody debris in the High Productivity PAC treatment units.

i. 90% of all live conifer trees and brush less than or equal to 10.0 inches in DBH (6.0 inches DBH in nest core) except the selected leave trees shall be cut.

ii. Black oak and riparian species (aspen, cottonwood, alder, willow, dogwood) will not be cut or removed unless needed for operations and/or safety.

iii. Leave between 10-20 saplings < 6" dbh per acre, preferably bushy cedar or fir trees with well-developed limbs that extend to the forest floor to provide for bird nesting and hiding cover.

b. Low/Moderate Productivity PAC Prescription

Desired Treatment Objectives:

Treatments are designed to maintain approximately the existing canopy cover and remove ladder fuels, pile, burn piles, and prescribed burn to meet primary and secondary objectives.

- Conifer thinning or removal shall consist of selecting leave trees with consideration for health, vigor and spacing, and cutting 90% of all other trees less than or equal to 14.0 inches DBH.
- To protect the nest site, within each PAC up to (6) ten-acre "nest cores" have been identified and mapped prior to treatment. Treatment in these "nest cores' differ from the remainder of the PAC. PAC nest cores are determined by PNF wildlife biologist.
- Within the nest core, cut all conifer trees less than or equal to 6.0 inches DBH.

Thinning, removal, and burn pile location shall be done in a manner that does not damage the leave trees.

Selection of Leave Trees:

i. **General PAC:** The spacing between leave trees (oaks and conifers) less than or equal to 14.0 inches DBH shall be at least 25 feet. Leave all trees larger than 14.0" DBH.

   Within the nest core: The spacing between leave trees (oaks and conifers) ≤ 6.0 inches DBH shall be at least 25 feet. Leave all trees larger than 6.0" DBH. Leave all trees with nest structures and large cavities.

ii. Select leave trees from healthy undamaged oaks and conifers as necessary to achieve the average spacing. Leave any tree if there is no other tree within 25 feet. Do not leave trees within 25' of residual overstory trees. Variability is encouraged in order to create a heterogeneous habitat.

iii. Leave leaning trees where available to provide for California spotted owl fledgling roost and refuge trees.

Tree and Brush Thinning Standards:

Adhere to the following specifications for the removal of excess conifers, brush, and down woody debris in Low/Moderate Productivity PAC treatment units.

i. 90% of all live conifer trees and brush less than or equal to 14.0 inches in DBH (6.0 inches DBH in nest core) except the selected leave trees shall be cut.

ii. Black oak and riparian species (aspen, cottonwood, alder, willow, dogwood) will not be cut or removed unless needed for operations and/or safety.

iii. Leave between 10-20 saplings < 6" dbh per acre, preferably bushy cedar or fir trees with well-developed limbs that extend to the forest floor to provide for bird nesting and hiding cover.

c. General Forest Prescription

Desired Treatment Objectives:

1. Wildfire behavior is modified to a low intensity surface fire, with reduced vegetation burn severity and diminished crown fire potential that would mimic conditions occurring under a natural fire regime.
    a. Fuels treatments reduce surface, ladder, and crown fuels.
    b. Canopy fuel continuity is broken both horizontally and vertically to reduce the potential for crown fire initiation and spread. Surface fuels are ≤5 tons per acre maximum post-treatment primarily in the form of large down logs.
2. Vegetation treatments improve forest resilience, which decreases the potential for tree mortality from drought, insects, pathogens, climate change (ie. the conditions that contribute to hazardous fuels accumulation). Fire risk is reduced in developing stands.
3. Existing fuel breaks are maintained to provide locations with favorable conditions for firefighters, which helps protect nearby communities. Roadside fuels and hazards are reduced. Vegetation treatments extend to the public/private boundary lines to support all-lands approach to fire and fuels management.

Hand Thin to 14.0" DBH by Spacing

Conifer thinning or removal shall consist of selecting leave trees with consideration for health, vigor and spacing, and cutting 90% of all other trees less than or equal to 14.0 inches DBH.

Thinning, removal, and burn pile location shall be done in a manner that does not damage the leave trees.

Selection of Leave Trees:

i. Leave healthy/vigorous conifer trees <14.0"DBH using 35' x 35' spacing with a live crown ratio (LCR) of 30% or greater. Do not leave trees within 35' of residual overstory trees. Vary spacing (+/-5') to leave the healthiest preferred trees.

ii. When retaining a California black oak leave tree with multiple stems, thin black oak to retain only 1-2 dominant stem(s) within DBH limit.

iii. With all other variables being equal, follow species preference listed in Section 4 Leave Tree Preference.

Tree and Brush Thinning Standards:

Adhere to the following specifications for the removal of excess conifers, brush, and down woody debris in General Forest treatment units.

i. 90% of all live conifer trees and brush less than or equal to 14.0 inches in DBH except the selected leave trees shall be cut.

ii. Riparian species (aspen, cottonwood, alder, willow, dogwood) will not be cut or removed unless needed for operations and/or safety.

4. **Hand Pile Specifications**

   a. Hand pile all slash created from the hand thinning activities, including snags and solid down woody debris.

   b. Minimum acceptable hand pile size will be 7x7 feet high, maximum size 15'x15' with at least 20 feet between piles.

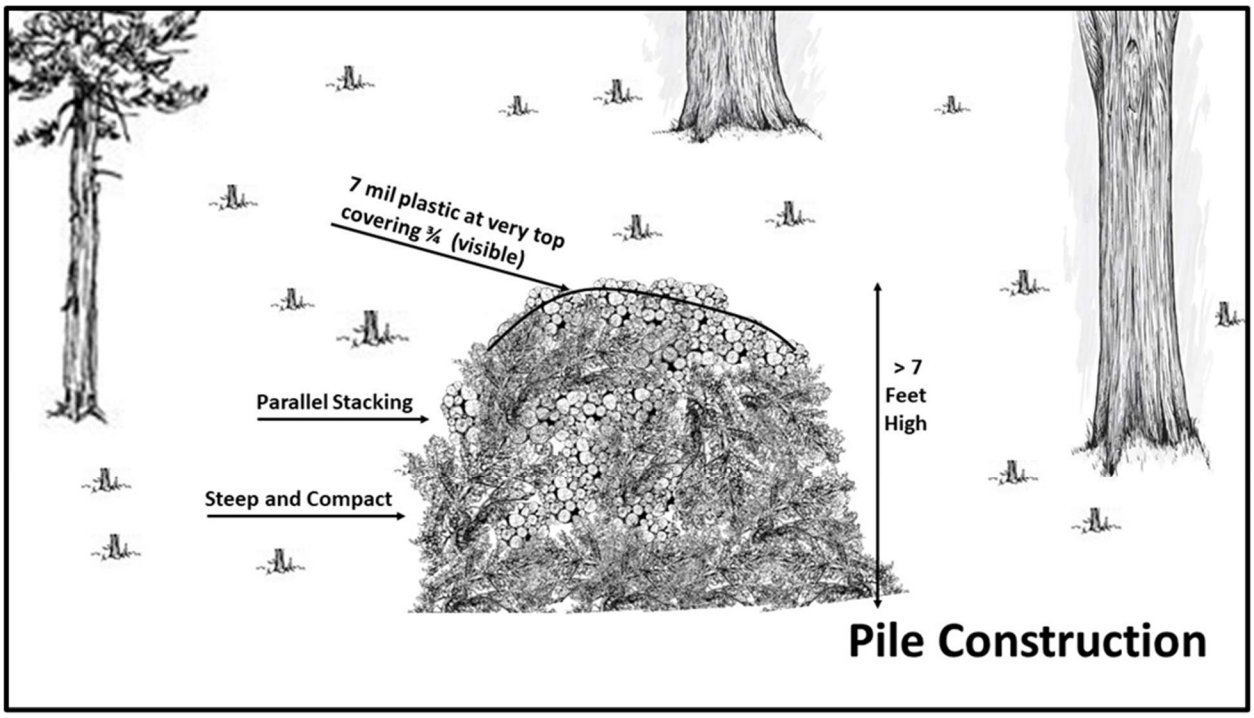
   c. Piles will be compact and vertical. Dead and down limbs and trees and brush over 1" diameter and longer than 6 feet and less than 14" diameter shall be piled. Piles should be constructed with smaller material such as needles and branches in the bottom and center, and larger material such as boles on top to compress lighter fuels.

   d. Piles shall be located in areas free of vegetation, or vegetation shall be cleared for a minimum of 3 feet from the edge of the piles. No material will protrude more than 3 feet outside the pile.

   e. Boles will be stacked parallel to each other (no teepees) and oriented parallel to the slope (pointing up and down hill) to prevent rollout during burning and maintain compactness.

   f. Cover at least 3/4 of each pile with ≥4 mil or greater plastic placed at the very top of the pile. Secure plastic with a minimal amount of slash to anchor it in high winds. Plastic must be obviously visible at the top of the pile.

Pile Construction Example:



g. Piles must be made at least 25 feet from perennial streams, intermittent streams, special aquatic features, and other riparian features. Piles must be made at least 15 feet from ephemeral streams. Pile buffers associated with streams are explained in Section **1.a) Wildlife** and **1.e) Hydrology**. The occurrence of aquatic features for each unit are listed in **Section 3. Unit Summary and Special Resource Information** and mapped in Appendix C.

h. Piles will be located outside the drip line of leave trees whenever possible.

i. No piles will be placed on trails.

j. No piles will be placed within 15 feet of standing snags or decaying stumps.

k. No piles will be placed within 10 feet of downed logs and stumps >20.0".

l. No piles will be placed within 25 feet of the private property boundaries.

m. No piles will be placed underneath or within 25 feet of phone or power lines.

n. No piles will be placed within 25 feet of improvements such as, but not limited to water lines, fences, gates, signs, or water tanks.

5. Monitoring and Acceptance

During contract administration, the NFF's consulting oversight forester will conduct inspections of completed units verifying tree spacing, piling, species retention, diameter limits, and other specifications listed above. If the unit is deemed acceptable by the oversight forester based on the project specifications, the unit will be reviewed by USFS personnel for a final inspection to determine approval. If substantial variations from the project specifications are identified during operations, corrective action will be taken by the contractor as directed by NFF.

Invoices will be accepted no more frequently than every 30 days, and only completed and approved units will be invoiced.

Guidelines for Operations

1. **Protection of Residual Trees**
   The Contractor's operations shall not unnecessarily damage young growth or other trees to be reserved.

2. **Safety**
   The Contractor's operations shall facilitate safe and practical inspection of the Contractor's operations. The Contractor has/have all responsibility for compliance with safety requirements for the Contractor's employees.

   When operations are in progress adjacent to, or on Forest Service controlled roads and trails open to public travel, the Contractor shall furnish, install, and maintain all temporary traffic controls that provide the user with adequate warning of hazardous or potentially hazardous conditions associated with operations occurring in the area. The parties shall agree to a specific traffic control plan prior to commencement of work. Devices shall be appropriate to current conditions and shall be covered or removed when not needed.

   During periods of general recreation activity within the operations area or vicinity, the Forest Service may restrict activities to days other than Saturdays, Sundays, and holidays.

3. **Sanitation and Servicing**
   The Contractor shall take all reasonable precautions to prevent pollution of air, soil, and water by the Contractor's operations. Precautions shall include if facilities for employees are established, they shall be operated in a sanitary manner. The parties shall agree to the cleanup and restoration of a polluted site. The Contractor shall maintain all equipment operating on site in good repair and free of abnormal leakage of lubricants, fuel, coolants, and hydraulic fluid. The Contractor shall not service tractors, trucks, or other equipment on National Forest lands where servicing is likely to result in pollution to soil or water. The Contractor shall furnish oil-absorbing mats for use under all stationary equipment or equipment being serviced to prevent leaking or spilled petroleum-based products from contaminating soil and water resources. The Contractor shall remove from National Forest lands all contaminated soil, vegetation, debris, vehicle oil filters (drained of free-flowing oil), batteries, oily rags, and waste oil resulting from use, servicing, repair, or abandonment of equipment.

4. **Prevention of Oil Spills**
   If the Contractor maintains storage facilities for oil or oil products on site, the Contractor shall take appropriate preventive measures to ensure that any spill of such oil or oil products does not enter any stream or other waters of the United States or any of the individual States. If the total oil or oil products storage exceeds 1,320 gallons in containers of 55 gallons or greater, the Contractor shall prepare a Spill Prevention Control and Countermeasures Plan. Such a plan shall meet applicable EPA requirements (40 CFR 112), including certification by a registered professional engineer. The Contractor shall notify the Forest Service and appropriate agencies of all reportable (40 CFR 110) spills of oil or oil products that are caused by the Contractor's employees, agents, sub-contractors or their employees or agents, directly or indirectly, as a result of the Contractor's operations. The Contractor will take whatever initial action may be safely accomplished to contain all spills.

5. **Hazardous Substances**
   The Contractor shall notify the National Response Center and NFF principal contact of all

releases of reportable quantities of hazardous substances on or in the vicinity of the work site that are caused by the Contractor's employees, agents, sub-contractors or their employees or agents, directly or indirectly, as a result of the Contractor's operations, in accordance with 40 CFR 302.

6. Cleaning Equipment

In order to prevent the spread of noxious weeds, the Contractor shall be required to clean all off-road logging and construction equipment prior to entry on Forest Service Lands. This cleaning shall remove all soil, plant parts, seeds, vegetative matter, or other debris that could contain or hold seeds. Only equipment so cleaned and inspected by the NFF or their agent will be allowed to operate on site. All subsequent move-ins of equipment to the site shall be treated in the same manner as the initial move in. "Off-road equipment" includes all logging, mastication and construction machinery, except for log trucks, chip vans, service vehicles, water trucks, pickup trucks, cars, and similar vehicles.

7. Protection of Streamcourses

The Contractor's Operations shall be conducted to prevent debris from entering stream courses. In the event the Contractor cause(s) debris to enter stream courses in amounts that may adversely affect the natural flow of the stream, water quality, or fishery resource, the Contractor shall remove such debris as soon as practicable, but not to exceed 2 days, and in an agreed manner that will cause the least disturbance to stream courses.

a) Wheeled or track-laying equipment shall not be operated in stream courses, except at crossings agreed to by the Contractor and the Forest Service or as essential to construction or removal of culverts and bridges.

8. Erosion Prevention and Control

The Contractor's operations shall be conducted reasonably to minimize soil erosion. Equipment shall not be operated when ground conditions are such that excessive damage will result. The Contractor shall adjust the kinds and intensity of erosion control work done, to ground conditions and weather conditions and the need for controlling runoff. Erosion control work shall be kept current immediately preceding expected seasonal periods of precipitation or runoff.

9. Protection of Improvements

So far as possible, the Contractor shall protect specified roads and other improvements (such as survey monuments, roads, trails, telephone lines, ditches, and fences) that exist in the operating area.

The Contractor shall keep roads and trails reasonably free of equipment, slash, and debris resulting from the Contractor's operations. The Contractor shall make timely restoration of any such improvements damaged by the Contractor's operations and, when necessary because of such operations, shall move such improvements.

10. Meadow Protection

Reasonable care shall be taken to avoid damage to the cover, soil, and water in meadows, whether shown on the contract map or discovered during implementation. Equipment shall not be used on meadows, except where approved in writing by NFF or FS. If so approved, resulting slash or debris shall be removed where necessary to protect cover, soil, and water.

11. Fire Precautions and Control

a) **Plans.** Prior to initiating the Contractor's operations during Fire Precautionary Period, the Contractor shall file with the NFF and Forest Service a Fire Prevention and Control Plan providing for the prevention and control of fires on the contract area and other areas of the Contractor's Operations. Such plan shall include a detailed list of personnel and equipment at the Contractors disposal for implementing the plan.

b) **Fire Precautions.** Specific fire precautionary measures listed in this Appendix and in Appendix H – Fire Plan shall be applicable during the Contractor's Operations in "Fire Precautionary Period" described. The dates of Fire Precautionary Period may be changed by agreement, if justified by unusual weather or other conditions. Required tools and equipment shall be kept in serviceable condition and immediately available for fire fighting at all times during the Contractor's operations in Fire Precautionary Period.

   Inspection of fire tools and required equipment shall be conducted and documented by NFF or their agent prior to operations during the Fire Precautionary Period and at least once every two weeks during operations within the Precautionary Period. Lack of required tools and equipment is grounds for an immediate stop work order, such order may be issued by NFF's agent or by FS staff.

c) **Substitute Precautions.** The NFF in cooperation with the FS may authorize substitute measures or equipment, or waive specific requirements by written notice, if substitute measures or equipment will afford equal protection or some of the required measures and equipment are unnecessary.

d) **Emergency Precautions.** The NFF may require the necessary shutting down of equipment on portions of the Contractor's Operations, as specified by the emergency fire precautions schedule. Under such conditions, after the Contractor cease(s) active operations, the Contractor shall release for hire by Forest Service, if needed, the Contractor's shutdown equipment for fire standby on the project area or other areas of the Contractor's Operations and personnel for fire standby or fire patrol, when such personnel and equipment are not needed by the Contractor for other fire fighting or protection from fire. Equipment shall be paid for at fire fighting equipment rates common in the area or at prior agreed rates and, if the Contractor request(s), shall be operated only by personnel approved by the Contractor. Personnel so hired shall be subject to direction and control by Forest Service and shall be paid by Forest Service at fire fighting rates common in the area or at prior agreed rates.

e) **Fire Precautionary Period and Fire Precautions.** Specific fire precautionary measures are set forth below. Upon request of Forest Service, the Contractor shall permit and provide an individual to assist in periodic testing and inspection of required fire equipment. The Contractor shall promptly remedy deficiencies found through such inspecting and testing.

   i. The following requirements shall apply during the period April 1- December 1 and during other such periods as specified by Forest Service.

   ii. *See fire plan.*

12. Fire Control

The Contractor shall, both independently and in cooperation with Forest Service, take all

reasonable and practicable action to prevent and suppress fires resulting from the Contractor's Operations and to suppress any forest fire on the project area. The Contractor's independent initial fire suppression action on such fires shall be immediate and shall include the use of all necessary personnel and equipment at the Contractor's disposal: **(Initial fire suppression within 25 road miles, and fire suppression re-inforcement within 100 miles).**

a) **Reinforcement Obligations.** Whenever an Operations Fire or Negligent Fire has not been suppressed by initial action and appreciable reinforcement strength is required, Forest Service may require further actions by the Contractor until such fire is controlled and mopped up to a point of safety. Such actions may include any or all of the following as necessary to fight such fire:

b) **Suspend Operations.** To suspend any or all of the Contractor's Operations.

c) **Personnel.** To release for employment by Forest Service any or all of the Contractor's personnel engaged in the Contractor's Operations or timber processing within the distance of Stewardship Project Area: ***(25 Road miles)***. Any organized crew so hired shall include the Contractor's supervisor, if any. Personnel so employed shall be paid at Forest Service standard emergency fire fighting rates.

d) **Equipment.** To make available for Forest Service rental at fire fighting equipment rates common in the area or at prior agreed rates any or all of the Contractor's equipment suitable for fire fighting and currently engaged in the Contractor's Operations within the distance of Stewardship Project Area: ***(100 Road miles)***. Equipment shall be operated only by personnel approved by the Contractor, if so requested by the Contractor.

APPENDIX H
FIRE PLAN FOR CONSTRUCTION AND SERVICE CONTRACTS
01/27/2016

1. **SCOPE:**

The provisions set forth below outline the responsibility for fire prevention and suppression activities and establish a suppression plan for fires within the contract area. The contract area is delineated by map in the contract. The provisions set forth below also specify conditions under which contract activities will be curtailed or shut down.

2. **RESPONSIBILITIES:**

A. Contractor

(1) Shall abide by the requirements of this Fire Plan.

(2) Shall take all steps necessary to prevent his/her employees, subcontractors and their employees from setting fires not required in completion of the contract, shall be responsible for preventing the escape of fires set directly or indirectly as a result of contract operations, and shall extinguish all such fires which may escape.

(3) Shall permit and assist in periodic testing and inspection of required fire equipment. Contractor shall certify compliance with specific fire precautionary measures in the fire plan, before beginning operations during Fire Precautionary Period and shall update such certification when operations change.

(4) Shall designate in the Fire Plan and furnish on Contract Area, during operating hours, a qualified fire supervisor authorized to act on behalf of Contractor in fire prevention and suppression matters.

B. Forest Service

The Forest Service may conduct one or more inspections for compliance with the Fire Plan. The number, timing, and scope of such inspections will be at the discretion of agency employees responsible for contract administration. Such inspections do not relieve the Contractor of responsibility for correcting violations of the fire plan or for fire safety in general, as outlined in paragraph 2.A above.

3. **DEFINITIONS:**

The following definitions shall apply:

Active Landing: A location the contractor may be skidding logs into, or performing other operations such as delimbing, log manufacturing, and chipping logs. Except for EV and E days, loading logs or stockpiling chips only, on a cleared landing, does not constitute an Active Landing.

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

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

4. **TOOLS AND EQUIPMENT:**

The Contractor shall comply with the following requirements during the fire precautionary period, as defined by unit administering contracts:

The Fire Precautionary Period is set by the State of California which is April 1 through December 1 of any year.

- **This contract ☐x requires, ☐ does not require, a Fire Box and associated Fire Tools according to CPRC Section 4428.**

A. Fire Tools and Equipment: Contractor shall meet minimum requirements of Section 4428 of the California Public Resources Code (C.P.R.C.). Fire tools kept at each operating landing shall be sufficient to equip all employees in the felling, yarding, loading, chipping, and material processing operations associated with each landing. Fire equipment shall include two tractor headlights for each tractor dozer used in Contractor's Operations. Tractor headlights shall be attachable to each tractor and served by an adequate power source. All required fire tools shall be maintained in suitable and serviceable condition for fire fighting purposes.

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

Where cable yarding is used, Contractor shall provide a size 0 or larger shovel with an overall length of not less than 46 inches and a filled backpack can (4 or 5 gallon) with hand pump within 25 feet of each tail and corner block.

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

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

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

Contractor shall equip each mechanized harvesting machine with hydraulic systems, powered by an internal combustion engine (chipper, feller/buncher, harvester, forwarder, hot saws, stroke delimber, etc), except tractors and skidders, with at least two 4-A:60-B:C fire extinguishers or equivalent.

C. Spark Arresters and Mufflers: Contractor shall equip each operating tractor and any other internal combustion engine with a spark arrester, except for motor vehicles equipped with a maintained muffler as defined in C.P.R.C. Section 4442 or tractors with exhaust-operated turbochargers. Spark Arresters shall be a model tested and approved under Forest Service Standard 5100-1a as shown in the. National Wildlife Coordinating Group Spark Arrester Guide, Volumes 1 and 2, and shall be maintained in good operating condition. Every motor vehicle subject to registration shall at all times be equipped with an adequate exhaust system meeting the requirements of the California Vehicle Code.

D. Power Saws: Each power saw shall be equipped with a spark arrester approved according to C.P.R.C. Section 4442 or 4443 and shall be maintained in effective working order. An Underwriters Laboratories (UL) approved fire extinguisher containing a minimum 14 ounces of fire retardant shall be kept with each operating power saw. In addition, a size 0 or larger shovel with an overall length of not less than 38 inches shall be kept with each gas can but not more than 300 feet from each power saw when used off cleared landing areas.

- **This contract x☐ requires, does not require, Section 4E of the Fire Plan.**

E. Tank Truck or Trailer: Contractor shall provide a **water tank truck or trailer** on or in proximity to Contract Area during Contractor's Operations hereunder during Fire Precautionary Period. When Project Activity Level B or higher is in effect, a tank truck or trailer shall be on or immediately adjacent to each active landing, unless otherwise excepted when Hot Saws or Masticators are being used. See Section 6 for specific contract requirements.

The tank shall contain at least 300 gallons of water available for fire suppression. Ample power and hitch shall be readily available for promptly and safely moving tank over roads serving Contract Area. Tank truck or trailer shall be equipped with the following:

(1) Pump, which at sea level, can deliver 23 gallons per minute at 175 pounds per square inch measured at the pump outlet. Pumps shall be tested on Contract Area using a 5/16 inch orifice in the Forester One Inch In-Line Gauge test kit. Pump shall meet or exceed the pressure value in the following table for nearest temperature and elevation:

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

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

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

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

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

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

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

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

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

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

Fire extinguishers required for Hot Saws, Masticators and similar equipment identified in Section 4 B. above may be substituted with a 3 gallon CAFS.

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

This equipment and accessories shall also be deliverable to a fire in the area of operations and subject to the requirements for each specific activity level identified in Section 6.

5. GENERAL

A. **State Law**: In addition to the requirements in this Fire Plan, the Contractor shall comply with all applicable laws of the State of California. In particular, see California Public Resource Codes.

B. **Permits Required**: The Contractor must secure a special written permit from the District Ranger or designated representative before burning, welding or cutting metal or starting any warming fires. If contract requires Blasting and Storing of Explosives and Detonators, an Explosives Permit may be required pursuant to the California Health and Safety Code, Section 12101.

C. **Blasting**: Contractor shall use electric caps only unless otherwise agreed in writing. When blasting is necessary in slash areas, a Fire Patrolperson equipped with a size 0 or larger shovel with an overall length of not less than 46 inches and a filled backpack can (4 or 5 gallon) with hand pump shall remain in the immediate area for an hour after blasting has been completed.

D. **Smoking**: Smoking shall not be permitted during fire season, except in a barren area or in an area cleared to mineral soil at least three feet in diameter. In areas closed to smoking, the CO may approve special areas to be used for smoking. The Contractor shall sign designated

smoking areas. Contractor shall post signs regarding smoking and fire rules in conspicuous places for all employees to see. Contractor's supervisory personnel shall require compliance with these rules. Under no circumstances shall smoking be permitted during fire season while employees are operating light or heavy equipment, or walking or working in grass and woodlands.

E. **Storage and Parking Areas**. Equipment service areas, parking areas, and gas and oil storage areas shall be cleared of all flammable material for a radius of at least 10 feet unless otherwise specified by local administrative unit. Small mobile or stationary internal combustion engine sites shall be cleared of flammable material for a slope distance of at least 10 feet from such engine. The COR shall approve such sites in writing.

F. **Reporting Fires**: As soon as feasible but no later than 15 minutes after initial discovery, Contractor shall notify Forest Service of any fires on Contract Area or along roads used by Contractor. Contractor's employees shall report all fires as soon as possible to any of the following Forest Service facilities and/or personnel listed below, but not necessarily in the order shown:

	Name	Office Address	Office telephone
Dispatch Center	**Plumas Dispatch**	**159 Lawrence, Quincy, CA**	**530-283-7858**
	Beckwourth Ranger District	23 Mohawk Hwy Rd, Blairsden, CA 96103	530-836-2575

When reporting a fire, provide the following information:

- Your Name
- Call back telephone number
- Project Name
- Location: Legal description (Township, Range, Section); and Descriptive location (Reference point)
- Fire Information: Including Acres, Rate of Spread and Wind Conditions.

▪ **This contract ☐x requires, ☐ does not require, Section 5G of the Fire Plan.**

G. **Communications**: Contractor shall furnish a serviceable telephone, radio-telephone or radio system connecting each operating side with Contractor's headquarters. When such headquarters is at a location which makes communication to it clearly impractical, Forest Service may accept a reasonable alternative location. The communication system shall provide prompt and reliable communications between Contractor's headquarters (or agreed to alternative) and Forest Service via commercial or Forest Service telephone.

▪ **This contract ☐x requires, ☐ does not require, Section 5H of the Fire Plan.**

H. **Fire Patrolperson**: Contractor shall furnish a qualified fire patrolperson each operating day when Project Activity Level C or higher is in effect. When on duty, sole responsibility of patrolperson shall be to patrol the operation for prevention and detection of fires, take suppression action where necessary and notify the Forest Service as required. This Fire patrol is required on foot, unless otherwise agreed. By agreement, one patrolperson may provide patrol on this and adjacent projects. No patrolperson shall be required on Specified Road construction jobs except during clearing operations unless otherwise specified.

The Contractor shall, prior to commencing work, furnish the following information relating to key personnel:

1) Title	Name	Telephone Number
2) Fire Supervisor		
3) Fire Patrolperson		

I. **Clearing of Fuels:** Contractor shall clear away, and keep clear, fuels and logging debris as follows:

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

6. **EMERGENCY PRECAUTIONS**

Contractor's Operations shall conform to the limitations or requirements in the Project Activity Level (PAL) table below. Project Activity Levels applicable to this project shall be the predicted activity levels for the Fire Danger Rating Area(s), or fire weather station(s) stated in the Contract Area Map Legend on Integrated Resource Service Contracts (IRSC's), and other contracts where applicable.

Fire Danger Rating Area/Fire Weather Station for Project **East Zone/ Beckwourth RD**

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

Phone Number or Website to obtain Predicted Activity Levels: 1-800-847-7766

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

PROJECT ACTIVITY LEVEL

Level	***Project Activity Minimum Requirements and Restrictions. Restrictions at each level are cumulative.***
A	Minimum requirements noted above in Sections 4 and 5.
B	1. Tank truck, trailer, or approved CAFS substitute shall be on or adjacent to the Active Landing.

Level	***Project Activity Minimum Requirements and Restrictions. Restrictions at each level are cumulative.***
C	1. When Hot Saws or Masticators are operating, a tank truck, trailer, or approved CAFS substitute shall be within ¼ mile of these operations. Effective communications shall exist between the operator and the Active Landing. 2. Immediately after Mechanical Operations cease, Fire patrol is required for two hours.
D	1. Immediately after Hot Saw or Masticator operations cease, Fire patrol is required for three hours. 2. No Dead Tree felling after 1:00 PM, except recently dead. 3 No burning, blasting, welding or cutting of metal after 1:00 PM, except by special permit.
Ev	1. The following activities may operate all day: a) Loading and hauling logs decked at approved landings. b) Loading and hauling chips stockpiled at approved landings. c) Servicing equipment at approved sites. d) Dust abatement, road maintenance (Chainsaw use prohibited)**,** culvert installation within cleared area, chip sealing, paving, earth moving or rock aggregate stock pile loading and installation (does not include pit or quarry development). e) Chainsaw and log processing operations associated with loading logs or other forest products at approved landings. 2. Hot Saws or Masticators may operate until 1:00 PM; provided that: a) A tractor or other equipment with a blade capable of constructing fireline is on or adjacent to the active landing or within ¼ mile of the operating equipment. This piece of equipment shall have effective communication with the Hot Saw or Masticator. b) Any additional restrictions specified by the Forest. 3. All other conventional Mechanical Operations are permitted until 1:00 PM. 4. Some operations may be permitted after 1:00 PM, on a case-by-case basis, under the terms of a PAL Ev Variance Agreement. Activities for which a Variance may be issued are: • Rubber Tire Skidding • Chipping on Landings • Helicopter Yarding • Fire Salvage When approved by a Line Officer, a Variance Agreement can be implemented when the criteria specified in the agreement are met and mitigation measures are in place. This approval is good for ten (10) days unless cancelled sooner or extended by the Contracting Officer for an additional ten (10) days. Variance approval can be withdrawn at the sole discretion of the Forest Service. Variance approval is contingent on the 7-day fire weather forecast, fuel conditions, site characteristics, current fire situation, state of Contractor's equipment for prevention and suppression readiness, type of operation and social and community considerations etc. (See attached Project Activity Level Variance Agreement).
E	The following activities may operate all day: 1. Loading and hauling logs decked at approved landings. 2. Loading and hauling chips stockpiled at approved landings. 3. Servicing Equipment at approved sites. 4. Dust abatement, road maintenance (chainsaw use prohibited) or loading stock piles and rock aggregate installation (does not include pit or quarry development). 5. Chainsaw operation associated with loading at approved landings. All other activities are prohibited.

This Project utilizes “The Project Activity Level” (PAL), an industrial operation’s fire precaution system. The following Climatology Chart indicates the Historic Activity Levels for the Project Fire Danger Rating Area or Fire Weather Station utilized on this Project. This is only a historical average of the Activity Levels for the identified Fire Danger Rating Area or Weather Station.

Project Activity Level Climatology

Fire Danger Rating Area/Weather Station		Central/Quincy RD and Cashman RAWS			Years Analyzed		2013	
	A	B	C	D	Ev	E	Days	
Month	Expected Days per Month at Each PAL Value						Analyzed	
June			11	6	11	0	30	
July			5	6	20	0	31	
August								
September								

Project Activity Level Climatology

Fire Danger Rating Area/Weather Station		West/Jarbo Gap andPike County RAWS			Years Analyzed		2013	
	A	B	C	D	Ev	E	Days	
Month	Expected Days per Month at Each PAL Value						Analyzed	
June			22	1	0	0	30	
July			18	9	1	0	31	
August								
September								

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

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

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

Proposed Actions:

Description of Mitigation Measures:

Remarks:

Fire Management Officer Concurrence | Date

Line Officer Approval | Date

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

Contracting Officer | Date

Contractor Representative | Date