

Request for Proposals
Angeles Crest Highway Fuels Reduction
Angeles National Forest, California

Background and Statement of Work: The Angeles Crest Highway Fuels Reductions Project will conduct fuels and vegetation management activities on National Forest System (NFS) lands along the Angeles Crest Highway in Los Angeles County. The project area consists of vegetation treatments along the Angeles Crest Highway corridor within the San Gabriel Mountains National Monument (SGMNM) in the Angeles National Forest (ANF). Limited hazardous fuels reduction and vegetation management activities have occurred in this area since the Station Fire of 2009. The overall size of this project is estimated at 1,638 acres and spans roughly 20 miles.

The purpose of the project is to conduct fuel and vegetation management activities within wildland-urban interface (WUI) zones and ANF lands along the Angeles Crest Highway to facilitate wildfire suppression actions and reinforce defensible locations during wildfire activities. Angeles Crest Highway is an evacuation route.

Throughout California, a changing climate has resulted in millions of acres of dense forests at extreme risk of burning in catastrophic wildfires or dying from drought and forest pests and pathogens (USDA Forest Service 2023). Southern California is both fire-prone and subjected to drought, creating conditions for intense and fast-moving fires. The treatments will increase suppression capability and reduce wildfire intensity and spread on Federal land, lowering the risk of catastrophic loss for at-risk communities.

Information Requested

If interested in submitting a bid for this project, please provide a proposal for the above statement of work by providing:

- technical approach
- work experience
- cost
- capacity for this project
- experience in similar projects

Specific requirements are detailed below.

I. PROJECT OVERVIEW AND REQUIREMENTS

General Specifications

- (a) Description of Work – This Request for Proposals is for restoration services related to the Angeles Crest Highway Fuels Reduction Project including the following:
1. Thinning trees, pruning ladder fuels, reducing vegetation density, and removing hazard trees (near trails, roads, and structures) in the project area (See Appendix A: Project Maps), totaling 1,638 acres.
 2. Treatments will be accomplished by hand and mechanical methods. Cut limbs and vegetation will be chipped. Cut trees and branches over 3" in diameter will be stacked along roadsides and sold as fuelwood where feasible. No new roads will be constructed during these project activities.

The Contractor shall identify what they can supply in terms of materials, labor, equipment, supplies, supervision, quality control, and incidentals required to complete the work described. The Contractor shall perform all work in a safe and conscientious manner.

- (b) Project Location – The project is located within the San Gabriel Mountains National Monument, Angeles National Forest, Los Angeles County, California. Refer to Appendix A for a map of the project boundary.

The overall project crosses three USGS 7.5' topographic quadrangles, including:

Condor Peak	T 2N. R 12W: Sections 9. 10. 15
Chilao Flat	T 2N, R 11W/12W and T 3N. R 11 W: Sections 2. 5. 6, 7. 8, 9. 10, 11. 12. 13. 14. 23. 26. 27. 34. 35
Waterman Mountain	T3N.R 11W: Sections 13.24. and T2N.R 11W: Section 1

- (c) Work Schedule – Work is expected to commence in the fall of 2024 as fire conditions allow. The expected period of performance is two (2) years from the contract award date.

Other Project Requirements and Specifications

- (a) Utilities – In many locations there will be no or limited sanitation, water, electrical, or housing services available. The Contractor shall make its own arrangements for temporary facilities if needed.
- (b) Specifications – Project work shall be accomplished in accordance with the following:
- **Trees / Snags**
 - Cut all dead and dying hazard trees, as defined by Region 5 guidelines (Angwin et al., 2012):

- within 200 feet of structures or facilities;
 - within 100 feet of roads (paved or not); or,
 - when they pose a threat to system trails or roads.
 - Thin trees greater than 10 feet tall to a crown distance of 10-20 feet between crowns of individual trees or clumps of trees.
 - Do not fell trees larger than 20 inches DBH, unless it poses a hazard to infrastructure.
 - Retain at least 2 hardwood snags per acre, and prioritize snags providing wildlife benefit such as cavities, nests, or acorn storage.
 - Do not cut or disturb any trees supporting birds' nests or nesting cavities, unless it is a hazard tree.
 - Within the limits set by above, cut all snags less than 16 inches DBH.
 - Cut stumps no higher than 6 inches from the ground. Cut conifer stumps horizontally flat without hinges to facilitate placement of a FS-approved borax-based fungicide such as Cellu-Treat for the prevention of *Heterobasidion annosus*. Place Cellu-Treat or other FS-approved borax compound within 24 hours of cutting, and never while it is raining.
 - Comply with all state and federal pesticide regulations.
 - Prune trees 10 feet above ground or retain 75% of the live crown, whichever comes first.
 - Prune branches 2 inches from the bole without damaging/ripping adjacent bark.
 - Do not prune trees/saplings under 10 feet tall.
 - Limb all felled trees and dispose of all slash according to the principles listed below.
 - Buck felled trees down to manageable sections only if tree components can be removed from the site (e.g., chipped, sold as fuelwood, deck sale, etc.). Do not buck trees that cannot be disposed of or moved from the project site.
- **Understory / Shrubs**
 - In forested areas: Remove all vegetation from underneath and around each retained tree to a distance of 5 feet from the drip line.
 - Fuels left standing should be native vegetation and preferred species including manzanita, ceonothus, shrub oaks, oaks, and conifers, with a localized preference for those larger in diameter.
 - Island left should be 10-20 feet in diameter and separated by at least 20 feet so that the crowns of adjacent clumps are separated by at least 10 feet.
 - Ideally remove 100% of non-native vegetation.
 - Prioritize chipping.
 - All limbs, slash, vegetation, and woody debris (created or existing) 3.0 inches or less in diameter will be chipped, masticated, removed, and/or burned.

- Cut all vegetation below the lowest live branch, with stump height no higher than 4 inches above ground level.
 - Retain a minimum vegetation buffer of 50 feet from bankfull edge at ephemeral, perennial, intermittent streams and springs. Follow the item above concerning the vegetative edge along these buffers.
- **Slash / Chippings**
 - Remove or blow chips back into the treatment area. Do not leave chips in waterways or drainages, within trees' drip lines, against boles, or to a depth of greater than 3 inches.
 - Remove excess chipped material (i.e., that exceeds the limits imposed in the previous point) from the site.
 - Lop and scatter all slash and shrubs that cannot be chipped.
 - Create slash piles of excess material more than 50 feet from the centerline of the road.
- **Equipment**
 - Conduct mechanical treatment according to all project parameters above.
 - Do not conduct mastication within 100 feet of any designated trail, recreation site, or visitor information facility if mastication is allowed.
 - Do not use equipment in RCAs and avoid deposition of masticated material in streams and waterways. Do not operate or drive through an intermittent, ephemeral, or perennial channel.
 - Drive equipment along the slope contour and avoid vertical ascending, descending, or turning at the mid-point of a swale.
 - Locate crew and equipment staging areas away from riparian areas and known occurrences of invasive species and rare plants.
- **Invasive and Special Status Plants**
 - Flag and avoid special status plants.
 - Implement washing requirements for project tools, vehicles, and equipment. Any vehicles/equipment engaged in off-road travel and all ground disturbing and vegetation removal tools and equipment (including handheld) must be cleaned prior to entering Forest Service land. Washing of tools, equipment, and vehicles will be done in a manner that will effectively remove seeds and propagules and would not further enhance the spread of invasive plants through improper disposal of rinse water. Washing of equipment and vehicles must include tires/tracks, wheel wells, bumpers, fuel/skid pans, and undercarriages. Personnel transport vehicles are exempt from this requirement as long as they have not engaged in off-road travel.
 - Holder shall notify Forest Service at least 2 working days prior to bringing each piece of equipment onto National Forest Land unless otherwise agreed. Notification will include vehicle washing information. Upon request of the Forest

Service, arrangements will be made for the Forest Service to inspect each piece of equipment prior to it being placed in service.

- If equipment has operated in areas the Forest Service has identified as containing invasive plant species, all equipment, and tools used at that site must also be washed after work has been completed and before leaving the site to conduct additional work on National Forest Lands.
- Holder shall certify in writing compliance with the terms of this provision prior to each start-up of operations.
- If any new infestations of invasive species are identified in the project area, it shall be promptly reported to the Forest botanist.

- **Wildlife**

- Before work commences, the Contractor will ensure work crews are familiar with any threatened, endangered, proposed or Forest Service sensitive species (**TEPS**) that could be found in the area.
- Notify the NFF and FS of any sightings of **TEPS** in the project area.
- Allow wildlife encountered during the course of project implementation the opportunity to evacuate the site.
- Avoid disturbance of rock outcroppings.
- Properly secure and dispose of any trash or debris generated by the project. F. Whenever practicable, implement project activities outside the bird breeding season
- (February 15 to September 15). If work is performed during the breeding season, the Contractor will make a reasonable effort to assess the site before and during their vegetation and fuels treatments to determine if nesting birds are present. If a songbird nest is found, leave a minimum 10 ft buffer of untreated vegetation around the shrub/tree with the nest where possible. If the songbird nest is high up in the tree (> 10 ft), it is not necessary to leave a buffer. If a raptor nest is present in the treatment area, notify the Forest biologist and they will determine the appropriate buffer size.
- Implement treatments in compliance with the June 2004 Conservation Strategy for the California Spotted Owl (*Strix occidentalis occidentalis*) on the National Forests of Southern California. Maintain a limited operating period (LOP) prohibiting activities within approximately 0.25 miles of a California spotted owl nest site or activity center where a nest site is unknown, during the breeding season (February 1 through August 15), unless surveys confirm that the owls are not nesting (S 19 and S20 LMP).

- **Hydrology and Soils**

- Do not cut any trees within a designated Riparian Conservation Area (**RCA**) or in the drainage/waterway of watersheds listed as impaired or functioning at risk without consultation (Map B) with the appropriate resource specialist.

- Refuel equipment and store fuel or ignition devices at least 100 feet away from surface waterbodies and wetlands.
- Report spills and clean up and remove spilled materials, residues, and any other hazardous materials from NFS land according to specified requirements in the appropriate guiding document and applicable State and Federal laws, rules, and regulations.
- Special provisions apply to areas identified as unstable soils. These provisions supersede any conflicting direction given above.
 - Retain 50% live vegetative cover/acre in all shrub-dominated areas.
 - Chip and scatter cut vegetation to protect soils.
- The Contractor shall submit a completed Fire Plan (See Appendix B: Fire Plan) to the NFF and the Forest Service for review and approval before work commences.
- Refer to Appendix C: Definitions for a list of project terms and definitions.

Insurance Requirements

Upon selection of the winning bid, the Contractor agrees that it has and shall maintain the following insurance coverage indicated below. The effective date of all coverage shall precede the start of any work.

- a. State minimum workers' compensation insurance coverage for its employees, if any.
- b. Broad form general liability, property damage, and automotive liability insurance in the minimum amount of \$1,000,000 for bodily injury, death, or damage to property of any person and \$2,000,000 for bodily injury, death, or damage to property of more than one person. The Contractor shall name NFF an Additional Named Insured and provide NFF with a certificate of insurance evidencing such coverages, prior to the initiation of the Scope of Services.
- c. If the Scope of Services includes professional services as identified herein, Contractor shall also provide professional errors and omissions liability insurance. Professional services for purposes of this section include, but are not limited to performing architecture, engineering, landscape architecture, land surveying or planning, preparation and signing or stamping of drawings, maps, surveys or construction specifications, or design and development of computer software, programs or websites by the Contractor or by subcontractors on behalf of the Contractor, for which professional liability insurance would typically be required. The minimum coverage limits required are \$1,000,000 for each claim and \$1,000,000 annual aggregate.

Prohibited Telecommunications Services and Equipment

If required, the Contractor is responsible for compliance with the prohibition on certain telecommunications and video surveillance services or equipment identified in 2 CFR 200.216.

Payment/Performance Security

Contractor 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, to assure completion of the work required under any subsequent agreement and payment of all amounts lawfully due to all persons supplying or furnishing to the Contractor or Contractor's subcontractors with labor, laborers, materials, rental machinery, tools or equipment used or to perform the work. Contractor may incorporate required associated costs into mobilization costs or other approved expenses.

- a. 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 not self-performing at least 85% 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.

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

Flowdown Requirements: 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 (Appendix D).

Competitive Range

The expected competitive range for bids to this solicitation is \$2,215,500 to \$2,692,500.

II. REQUIRED COMPONENTS

Technical Proposal

Please provide a detailed technical approach to the work.

Contractor Qualifications

- I. Past Experience – Please provide a brief explanation of previous work experience with land management agencies.
- II. References – Please provide three professional references that can speak to past performance.

Pricing Schedule

Contractor shall price work according to the schedule below.

	Task/Item	Acres	Unit Cost	Extended Cost
(a)	Shaded Fuelbreak Construction (including thinning trees, pruning ladder fuels, reducing vegetation density, and removing hazardous trees.)	1,638		
			Total Bid	

III. SUBMISSION, EVALUATION, AND CONTACTS

Contractor Selection Process

This is a request for proposals only and bids furnished are not offers from the National Forest Foundation. 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.

The NFF will use the Evaluation Factors below to review each submitted bid. Based on the outcomes of that selection process, the NFF will notify successful and unsuccessful bidders by August 30, 2024 and will prepare a separate contract document.

Evaluation Factors and Relative Importance

The following criteria will be used in the evaluation of submitted proposals, ordered from highest weighting (level 3) to lowest weighting (level 1).

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

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

Please submit any questions about the project in writing to the Point of Contact.

Brian Robey
National Forest Foundation Southern California Program Manager
brobey@nationalforests.org

Responses will be shared with known interested parties by email or otherwise posted at <https://www.nationalforests.org/rfp>.

Bid Submission

Submit bids via email to brobey@nationalforests.org by August 12, 2024.

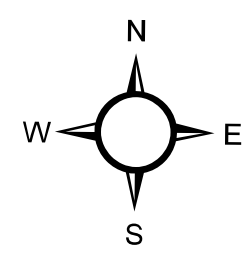
Equal Opportunity Provider

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.

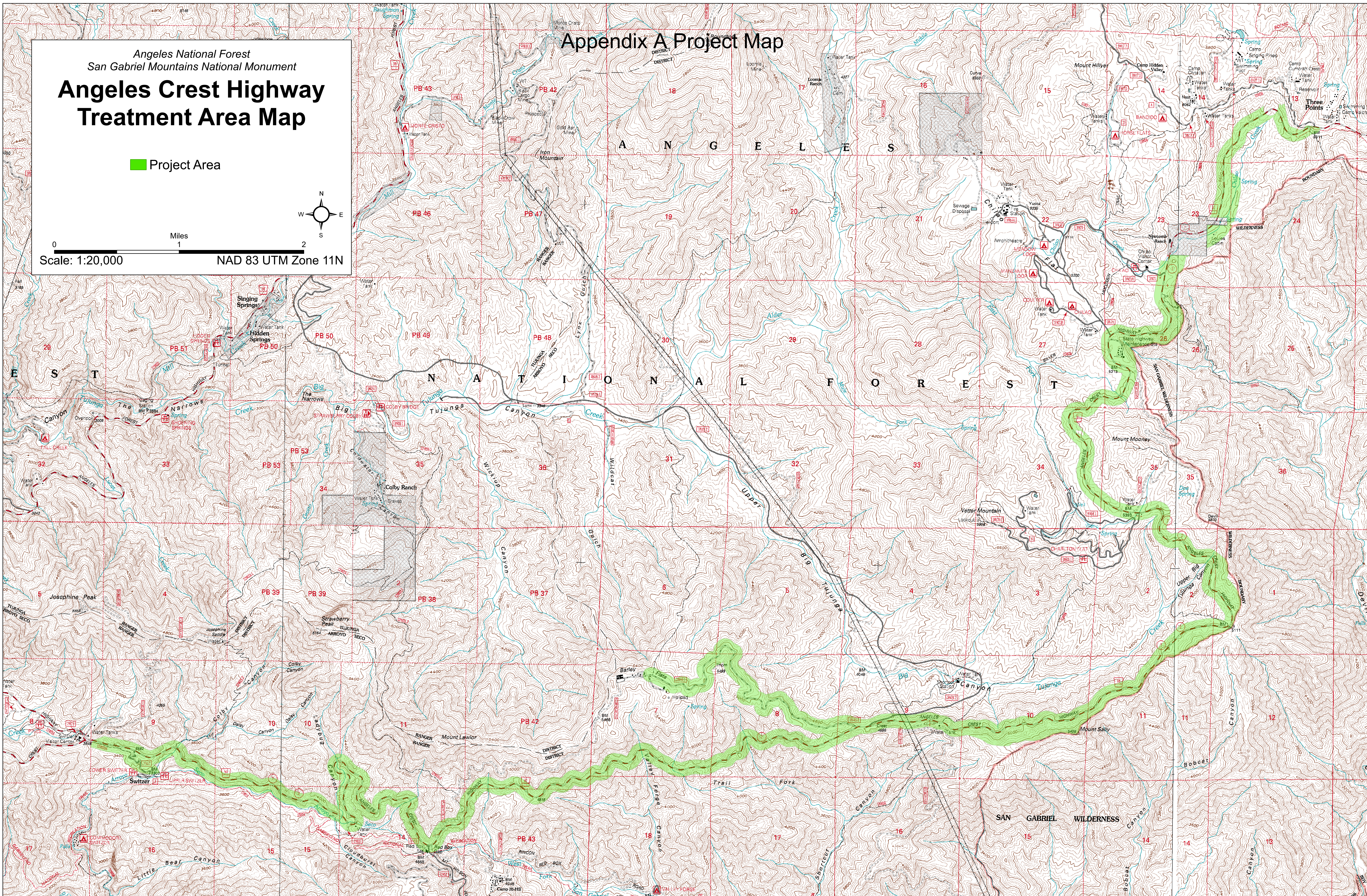
Appendix A Project Map

Angeles National Forest San Gabriel Mountains National Monument Angeles Crest Highway Treatment Area Map

 Project Area



0 1 2 Miles
Scale: 1:20,000 NAD 83 UTM Zone 11N



**APPENDIX B:
FIRE PLAN FOR CONSTRUCTION AND SERVICE CONTRACTS**

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 delimiting, 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 delimiters, 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:

Year-round

- This contract 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 delimeter, 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 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:

T e m p	Sea Level		1000 Feet		2000 Feet		3000 Feet		4000 Feet		5000 Feet		6000 Feet		7000 Feet		8000 Feet		9000 Feet		10000 Feet	
55	179	23	174	23	169	23	165	22	161	22	157	22	153	22	150	21	146	21	142	21	139	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
	P	G	P	G	P	G	P	G	P	G	P	G	P	G	P	G	P	G	P	G	P	G
	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P
	I	M	I	M	I	M	I	M	I	M	I	M	I	M	I	M	I	M	I	M	I	M

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

- (2) 300 feet of 3/4-inch inside diameter rubber-covered high-pressure hose mounted on live reel attached to pump with no segments longer than 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	Angeles ECC	Lancaster, CA	661-723-2703
Nearest FS Station	Mill Creek	27502 Angeles Forest Hwy.	626-440-1056
Fire Prevention Specialist	Chris Summers	Mill Creek FS Station	661-478-4772
COR			
District Ranger	Aaron Ash	Sylmar, CA	626-464-4796

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 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 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:

<u>Title</u>	<u>Name</u>	<u>Telephone Number</u>
Fire Supervisor		
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

Area 655 / Action RAWS

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:

661-723-2752

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	<i>Project Activity Minimum Requirements and Restrictions. Restrictions at each level are cumulative.</i>
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.
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	<p>1. The following activities may operate all day:</p> <ul style="list-style-type: none"> 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. <p>2. Hot Saws or Masticators may operate until 1:00 PM; provided that:</p> <ul style="list-style-type: none"> a) A tractor with a blade or other equipment 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. <p>3. All other conventional Mechanical Operations are permitted until 1:00 PM.</p> <p>4. Some operations may be permitted after 1:00 PM, on a case-by-case basis, under the terms of a PAL Ev Variance Agreement. Activities for which a Variance may be issued are:</p> <ul style="list-style-type: none"> • Rubber Tire Skidding • Chipping on Landings • Helicopter Yarding • Fire Salvage <p>When approved by a Line Officer, a Variance Agreement can be implemented when the criteria specified in the agreement are met and mitigation measures are in place. This approval is good for ten (10) days unless cancelled sooner or extended by the Contracting Officer for an additional ten (10) days. Variance approval can be withdrawn at the sole discretion of 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. (Variance must be requested by contractor, approved by Line Officer before operations may continue in PAL Ev).</p>
E	<p>The following activities may operate all day:</p> <ul style="list-style-type: none"> 1. Loading and hauling logs decked at approved landings. 2. Loading and hauling chips stockpiled at approved landings. 3. Servicing Equipment at approved sites. 4. Dust abatement, road maintenance (chainsaw use prohibited) or loading stock piles and rock aggregate installation (does not include pit or quarry development). 5. Chainsaw operation associated with loading at approved landings. <p>All other activities are prohibited.</p>

Appendix C: Definitions

Definitions

Accessible – Accessibility may be understood in terms of roads or as applied to ground-based equipment. Road accessibility occurs when a road exists closer than ¼ mile to a given treatment unit. An area is considered accessible to ground-based equipment whenever slopes do not exceed 50%, where slopes over 35% do not extend for more than 100 feet in length where a 150 foot endline cable can be stretched to reach after positioning equipment given the two slope and distance limitations.

Activity Fuel – Any hazardous fuel created from logging, felling, chipping, or from other forest treatment activities.

Additional Timber – Any merchantable sized tree that is designated and agreed to by the Contract Officer and Contractor after timber contract award.

Aerial Removal – Removal of woody material by helicopter.

Average Spacing – The average of the distances between all leave trees necessary to provide the desired number of leave trees per acre.

Berm – An outer border of the fire control line.

(BMP) Best Management Practices– A practice or combination of practices (as described in Water Quality Management for Forest System Lands in California, Best Management Practices, September 2000) determined to be the most effective, practicable means of preventing or reducing pollution from non-point sources to a level compatible with water quality goals.

Biomass – Any portion of any tree, designated for cutting, which does not meet the utilization standards for merchantable material set forth in the contract. The anticipated product of this material is wood chips for fuel or mulch. This material includes all woody material of a merchantable size. Biomass is sometimes referred to a Miscellaneous Convertible Products (MCP).

Brush (Shrub) – All woody perennial plants at least 1.0 foot tall having permanent single or multiple stems originating at or near ground level. This includes, but is not limited to chemise, manzanita, sagebrush, deerbrush, buckbrush, snowbrush, whitethorn, chinquapin, dogwood, ribes and several varieties of oak. Black Oaks that are greater than 6.0 inches in DBH or 20.0 feet are not considered brush.

CCF – The unit of measure, representing 100 cubic feet, at which merchantable and biomass are sold through a permit system specified in this service contract (nominal conversion rates of one cord or 500 board feet).

Cable Systems – A yarding system employing cables and winches in a fixed position.

Chip Material – Any woody chunks from bole wood, limbs, brush and other forest debris that exits the chute of a blade and drum type chipping machine.

Commercial Item – Consistent with the meaning contained in Federal Acquisition Regulation 2.101, Definitions.

Conifer Tree – A live tree with needle shaped or scale like leaves.

(CO) Contracting Office – The Government representative that has the authority to enter into, administer, or terminate contracts and make related documents and findings. Contracting officers may bind the Government only to the extent of the authority delegated to them. Information on the limits of the Contracting Officer's authority shall be readily available to the public and Agency personnel.

(COR) Contracting Officer's Representative– Any individual designated in writing by the Contracting Officer to assist the CO in the administration of a specific contract. The written designation defines the limitations of the COR's authority which usually does not include the authority to change the contract.

Control Areas – Equipment exclusion zones delineated by flagging for the purpose of protecting sensitive plants, heritage resources or other protected resources. In some cases, these areas may be exempt from treatment, yet in others, the specified level of treatment is to be met without the use of ground-based equipment.

Crown – The part of a tree or woody plant bearing live, or dead, branches or foliage.

Cull – Stems, bark, logs or branch material 10 inches or less and other material not meeting either merchantable or non-merchantable log standards that accumulates at the landing as the result of the operations.

Cultural and Threatened and Endangered (T&E) Sites – Locations where special protection is required to preserve and protect cultural values and species of plants or animals listed on the T&E list. See also "Control Area."

Culvert – An open or enclosed drainage structure to facilitate water drainage across or beneath a roadway.

Cut Tree – A tree that is designated by the Forest Service for cutting. Designation method will be stipulated by statement of work.

Damaged Beyond Recovery – A tree or brush having a defect or deformity, either genetic or mechanical, evidenced by dead or broken tops, stripped crowns, unnaturally leaning, butt scars or severe bark damage exceeding 50% of the bole circumference.

Dead – More than 50% of the crown of pine species or 90% of the foliar crown of cedar and oak species is absent of needles or leaves.

Debris – see cull.

Defense Zone – Within the Wildland Urban Interface, the first 300 feet from roads, structures and non-Forest Service lands.

Deferred Area – Non-treatment areas within the work unit boundaries. The deferred areas are designated with flagging. These areas may be down logs, rock outcrops, vegetated areas or others areas stipulated in the statement of work or located on statement of work maps.

Designated Trees/Vegetation – Trees/Vegetation to remain after treatment will be designated by description as stipulated in the statement of work.

Developed Areas – Within 200 feet of any location that is accessible to non-off highway motorized vehicles.

Diameter – Other vegetation (not trees) is measured 1 foot above ground.

(DBH) Diameter at Breast Height – The diameter of a tree measured at a point 4.5 feet above the point where the tree bole meets with the ground on the uphill side of the tree.

(DSH) Diameter at Stump Height – The diameter measured on the outside bark at a point 6.0 inches above ground level on the uphill side of the tree or stump as specified in the statement of work.

Diseased – Any tree or any brush with a mistletoe rating of 4 or greater on the Hawksworth 6-class dwarf mistletoe rating system or observable insect infestation to a level that effectively girdles the bole.

Down Log – Woody material exceeding 12.0 inches in diameter and 20.0 feet, in length lying on the forest floor or as stipulated in a statement of work.

Down Woody Material – Down logs, slash, branches and stumps.

Drip Line – The area directly beneath the crown of a tree or shrub.

Duff – The layer of decomposing organic matter found on top of forest soil and composed mainly of leaves and conifer needles.

Mistletoe – A parasitic plant disease occurring on conifers which infects the branches and bole of the tree. Aerial shoots and basal cups; excessively swollen branches or boles are positive indicators.

Dying – More than 50% of the crown of pine species or 90% of the foliar crown of cedar and oak species exhibiting a distinct alteration in normal foliar color of needles or leaves.

Ephemeral Stream – A stream or portion of a stream that flows only in direct response to precipitation. It receives little or no water from springs and no long-continued supply from snow or other sources.

Flagging – Strips of vinyl, plastic or other like material tied to objects for a purpose to be defined within the statement of work.

Fuelbreak – A break in existing fuel character to that changes fire behavior.

Grapple Pile – Piling slash both existing and created and other undesirable vegetation in piles or windrows with a tracked machine that has a boom capable of reaching (a minimum of) 15 feet and has a grapple mounted the end of the boom. Pile size will be stipulated by statement of work.

Grinding – Operation similar to chipping, except that the implement is outside the main body of the attachment or prime mover. This operation often results in coarser chips after treatment.

Hardwood Tree– A broad-leaved tree which usually has a single well defined trunk or attains a height greater than 20 feet. Includes, but not limited to, species such as black oak, canyon live oak, chinquapin, and other oak species. Sprouting hardwood species may be in the form of multi-stemmed clumps.

Hazard – The existence of a fuel complex that constitutes a threat of wildfire ignition, unacceptable fire behavior and severity, or suppression difficulty.

Hazard Reduction – The planned treatment or manipulation of naturally growing vegetation or any other flammable material for the purpose of reducing rate of spread and output of heat energy from any wildfire occurring in the area treated.

Hazard Tree – Any tree that is dead, dying, a fire threat, or otherwise deemed unsafe or has the potential hit roads, trails, utility lines, structures, facilities, improvements or private property.

Inaccessibility – Inaccessibility may be understood in terms of roads or as applied to ground-based equipment. Road inaccessibility occurs when no road exists closer than ¼ mile from a given treatment unit (see **Accessible**). An area is considered inaccessible to ground-based equipment whenever slopes exceed 50%, when slopes over 35% extend for more than 100 feet in length, or where a 150 foot endline cable cannot be stretched to reach after positioning equipment given the two slope and distance limitations.

Inner Gorge – A stream reach bounded by step walls that terminates upslope to a more gentle topography.

Intermittent Stream – A stream or portion of a stream that, in general, flows during wet seasons and is dry during dry seasons.

Intervisible – Mutually visible, or in sight, the one from the other, as stations.

Jackpot – Concentration of slash or natural fuels, heavier than the surrounding areas.

Key Personnel – any individual or individuals authorized to make or enter into agreements with the Government under the contract as designated in writing by the Contractor and accepted by the CO.

Ladder Fuels – Fuels that provide vertical continuity between the ground and the tree crowns, creating a pathway for surface fire to move into the overstory tree crowns.

Landing – Area used to stage and load forest products just prior to removal from the project area.

Leave Trees – Trees designated to remain after treatment. May include conifers, hardwoods, or hardwood clumps with less than or equal to three sprouts of common origin.

Leave Tree Group – A group of trees as stipulated by statement of work designated to remain after treatment. Groups may contain more than one species of tree. Examples would be a) two healthy ponderosa pine trees growing immediately adjacent to one another. b) a vigorous group white oak trees exhibiting a wide horizontal growth pattern. c) a large old pine with a healthy oak tree

growing near its base. The project inspector can show examples of suitable tree groups on the ground.

Leave Shrub Clump - A group shrubs as stipulated by statement of work designated to remain after treatment.

Litter - Needles, duff, twigs, cones and leaves.

(LOP) Limited Operating Period- The period of time in which no project or noise generating activities may occur. LOP locations and periods will be stipulated in the statement of work.

(LCR) Live Crown Ratio- The live crown ratio is the percent of the total height of a tree that has branches with live, green vegetation present. Epicormic branches, which are small branches originating from the main tree stem after the tree has been suddenly exposed to sunlight, do not count toward the LCR. One-sided crowns only count as half. Openings in the crown need to be deducted from the total.

Lop - The severing of limbs from the bole of felled trees at the point where the limb attaches to the bole.

Material - Any logs, vegetation, slash or debris.

Mastication - The mulching or grinding of vegetation utilizing steel or rubber track or wheel mounted machines using drum type or boom fixed heads with grinding heads possessing either fixed position or free moving chewing teeth.

Meadow - Perennially or seasonally saturated soils that support vegetation dominated by grasses, sedges, rushes and other flowering plants. Meadows will be stipulated by statement of work.

Mechanized Harvesting Machine with Hydraulic System - Machines such as, but not limited to, chippers, feller/bunchers, harvesters, forwarders, stroke delimiters and masticators that are powered by an internal combustion engines and require hydraulic systems in order to perform.

Mechanized Equipment with High-speed Rotary Head - Machines such as, but not limited to, chippers, harvesters, and masticators that are powered by an internal combustion engines and utilize fast turning or spinning drums, disks, heads or other similar method in order to manipulate vegetation.

Merchantable Logs - Merchantability standards will be calculated using National Forest Log Scaling Handbook, FSH 2409.11, as amended or as otherwise stated in the statement of work.

Merchantable tree - A tree that is greater than 10.0 inches at diameter at breast height which is diameter at 4.5 above ground taken from the up-hillside of the tree.

Mobilization - The act of delivering all ordered personnel and equipment to the project area; including labor, material, overhead and profit. The price for mobilization shall be included in the proposed unit prices.

Nest Stand - Areas identified on the unit maps that require a Limited Operating Period from February 1 thru August 15. The nest stand is comprised of the best 30 to 60 acres of contiguous forested habitat around the known or suspected nest tree.

Non-merchantable Logs – Any log that does not meet the definition of merchantable.

(PAC) Protected Area Corridor– Areas identified on the unit maps that have generally less intensive treatments associated with them. PACs are selected by identifying the 300 most highly suitable spotted owl habitat acres containing, or adjacent to, the nest or territory center within a 1.5 mile radius of the known nesting site or territory center.

Percent Cover – Portions of the project area beneath the dripline of vegetation to be cut. Does not include reserve vegetation.

Perennial Stream – A stream or portion of a stream that flows throughout the year.

Products – Cut woody material that has a commercial value.

Project Area – The area being treated with prescribed fire and any escapes or spot fires resulting from the prescribed fire.

(PI) Project Inspector– Any individual designated in writing by the Contracting Officer’s Representative to assist the CO in the administration of a specific contract. The PI is responsible for the project inspection for a specific statement of work. This person has contract administration experience and is qualified to conduct oversight and evaluations of the Contractor’s operations. The PI provides technical expertise to the COR regarding operations conducted under the statement of work.

Removal – Complete removal of products from National Forest lands under the terms of this contract as stipulated by statement of work.

Reserved Trees or Reserved Areas – Individual species of trees or certain areas within a treatment unit that the contract or COR designates are reserved from treatment.

Residual or Retention – a tree or snag remaining after an intermediate or partial cutting of a stand.

Riparian Buffer – For prescribed fire purposes, a 50-foot area extending upslope on each side of a stream channel.

(RCA) Riparian Conservation Area– A zone established for the protection of riparian areas in which the use of mechanical equipment is restricted. RCAs shall be identified and restrictions stipulated by statement of work.

Riparian Vegetation – Vegetation common to riparian areas. Riparian areas and required vegetation treatments will be stipulated by statement of work.

Sawlog – A log that meets minimum regional standards of diameter, length and defect, intended for sawing.

Saturated Soils – means that site conditions are sufficiently wet that timber operations displace soils in yarding or mechanical site preparation areas or displace road and landing surface materials in amounts sufficient to cause a turbidity increase in drainage.

facilities

Site Preparation – Piling, chipping, masticating and removal of existing vegetation and woody debris (slash) in preparation for tree new tree establishment that may include planting, coppice or natural regeneration methods.

Skid Trail – A travel way for ground based equipment to move or process forest material.

Slash – All woody material accumulated on the forest floor or as a result of previous and current activities. This includes, but not limited to brush (shrub) trimmings, tree boles, stems, tops, and branches that are larger than 1 inch in diameter and longer than 3 feet or as stipulated by statement of work.

Snag – Any standing dead or living tree that has 10 percent or less live crown greater than 15 inches DBH and at least 40 feet tall or as stipulated by statement of work.

Spike – Sharp pointed top or limb of living or dead vegetation.

Springs and Seeps – Perennially or seasonally saturated soils that may have a flow of water that support vegetation dominated by grasses, sedges, rushes, willows or other riparian vegetation. Springs and seeps will be stipulated by statement of work.

Stream Channel – That area influenced by high water at the time of the year with the highest flow as stipulated by statement of work.

(SMZ) Streamside Management Zone– Synonymous with Riparian Conservation Areas.

Structure – Something that is constructed **or** arranged in a definite pattern of organization. This may include, but is not limited to, buildings, roads, fences, utility lines, non-mobile objects and other forms of infrastructure.

Subcontracting – the transfer of commercial items between divisions, subsidiaries, or affiliates of the Contractor or subcontractor at any tier.

Subsoiling – A mechanical treatment which, using a narrow tool, loosens compacted soil through the full width and depth of compacted soil layer without inverting the soil horizon.

Thinning – Removal of excess trees (conifer and hardwood) as stipulated by statement of work.

Tillage – the thorough loosening of soil to the width and depth of the compacted layer or to a maximum depth of 6.0 inches with topsoil remaining substantially in place and with minimal sub-soil material brought to the surface.

Tractor – Ground based wheeled or tract mounted machines equipped with dozer blades, grapples, cable winches, brush blades, chippers, etc, used to support work associated with this contract.

Tractor Pile – Pushing slash (existing and created) and other undesirable vegetation into piles or windrows using a track mounted machine with a brush rake or equivalent apparatus.

Treated – Forest vegetative material that is cut, chipped, piled, masticated or yarded for the purposes of reducing hazardous fuels in a prescribed area.

Tree – A woody perennial plant, typically large and with a well-defined stem or stems carrying a more or less definite crown. All conifers greater than 1.0 feet tall, and any oaks greater than 6.0

inches diameter at stump height (DBH) or 20.0 feet tall, are considered trees under this statement of work.

Tons/Acre - Unit of measurement of fuel, usually but not always, of dead and down woody debris (slash). Tons/Acre is determined by using a Photo Series, such as USDA Forest Service GTR-PNW 51 (1976). These documents are available for review by the Contractor by contacting the issuing office.

Unit - An individual treatment unit delineated on the ground and stipulated by statement of work.

Water Bar - An earthen barrier constructed to divert water runoff and control soil erosion.

Watercourse - Any well-defined channel with distinguishable bed and bank showing evidence of having contained flowing water indicated by deposit of rock, sand, gravel, or soil, including but not limited to, perennial, intermittent and ephemeral streams.

Wildland Fire - An escaped prescribed fire is a wildland fire. The Burn Boss determines that an escape exists based on either, or both of two criteria: (1) When containment of a slopover requires personnel or equipment exceeding that specified in the Prescribed Fire Plan; (2) When environmental conditions or fire behavior exceeds that specified in the Prescribed Fire Plan and the Burn Boss determines that an escape has or is likely to occur.

(WUI) Wildland Urban Interface- The area where the urban development meets and intermingles with undeveloped land.

Wildlife Island - An area left untreated to provide cover and screening habitat for wildlife species as stipulated by statement of work.

Wildlife Trees - Standing dead or live trees left for nesting, feeding, perching and shelter for birds and mammals. Trees may be marked with paint or designated with wildlife tag. Wildlife trees may also be stipulated by statement of work.

Woodrat Nest - A ground nest used by woodrats. It is constructed of dried vegetation, usually sticks and other organic debris.

Appendix D - Federal Flowdowns

NFF Funding Code: 1596082, 1596083

NFF Funding Name: SA SPA SoCAL Fireshed Risk Reduction

Funder Agreement ID: 23-SA-11052000-059

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 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.

Type B Flowdown Requirements

The National Forest Foundation requires grant and/or contract recipients to comply with all requirements and regulations contained on the following pages.



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 B and designated on the ground by the Forest Service to meet the anticipated needs of the parties. The following are identified on the Map:
 - a) Identified patented claims.
 - b) Boundaries of all harvest and stewardship treatment units.
 - c) Diameter limits for overstory and understory removal units.
 - d) Areas where leave trees are marked to be left uncut.
 - e) Specified roads.
 - f) Sources of base course, surface rock, and rock riprap listed in the Schedule of Items.
 - g) Roads where log hauling or use is prohibited or restricted.
 - h) Roads and trails to be kept open.
 - i) Improvements to be protected.
 - j) Locations of known wildlife or plant habitat and cave resources to be protected.
 - k) Locations of areas known to be infested with specific invasive species of concern.
 - l) Maximum stump heights when more than one height is listed by areas.
 - m) Skidding or yarding methods.
 - n) Streamcourses to be protected.
 - o) Locations of meadows requiring protection.
 - p) Locations of wetlands requiring protection.
 - q) Locations of temporary roads to be kept open.
 - r) 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.
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 construction progress and a description of planned measures to be taken to provide erosion control for work in progress, including 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 construction 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 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 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 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).

SIGN STANDARDS

SHAPE & COLOR: Generally, signs for logging and maintenance operations are either diamond-shaped or rectangular. All signs are **reflective orange background with black legend and border** unless shown otherwise. Handpainted, homemade signs are not legal. Fluorescent paint is not reflectorized.

SUBSTRATE: Sign substrate material may be High Density Overlay (HDO) Plywood, Aluminum, Fiberglass Reinforced Plastic, Corrugated Plastic or Roll-up Fabrics.

SIGN SIZE: Sign size is a factor of speed and MUTCD & FS standards. Where conditions of speed, volume, or special hazard require greater visibility or emphasis, larger signs should be used. Minimum sizes for the most common signs can be found in Figure 4. Refer to the EM-7100-15 for additional sign sizes.

LEGEND: All lettering shall be Series "C" alphabet, conforming to Standard Alphabets for Highway Signs. Letter size is also a function of speed - use letter size and word messages as specified in MUTCD and EM-7100-15.

SIGN PLACEMENT

Signs are to be installed in locations as agreed to in the traffic control plan. All signs are to be removed, covered, or folded when operations are not in progress or the sign message is not applicable. Signs should generally be located on the right-hand side of the roadway. When special emphasis is needed, signs may be placed on both the left and right sides of the road. Sign message shall be clearly visible to road users, mounted on posts or portable sign stands.



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.

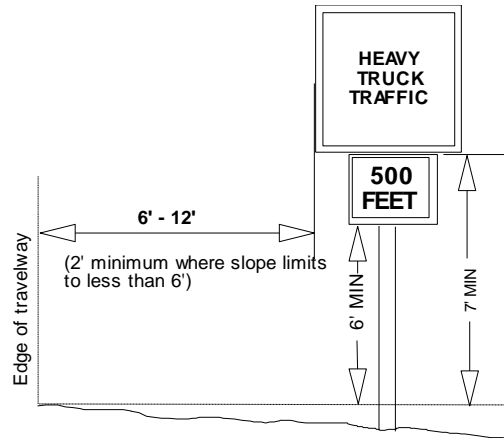


Figure 1: Sign Placement

Dimensions

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

Figure 2: A Portion of MUTCD TABLE II-1

SIGN SUPPORTS

POSTS: Signs are to be mounted on separate posts. Supplemental signs such as Speed Advisory plates are to be mounted on the same post as the primary sign. *Do not mount signs on trees or other signs.* Posts may be wood, metal, carsonite or similar material. Where sign supports cannot be sufficiently offset from the road edge, supports will meet breakaway standards. Single wood posts with less than 24 square inches do not require breakaway design.

TEMPORARY/PORTABLE SUPPORTS: Portable supports may be used for short-term, short-duration, and mobile conditions. MUTCD defines this time period as one work shift, 12 hours or less. All portable supports must meet MUTCD standards, including breakaway. These must be a minimum of 1 foot above the road surface or more if visibility requires it.

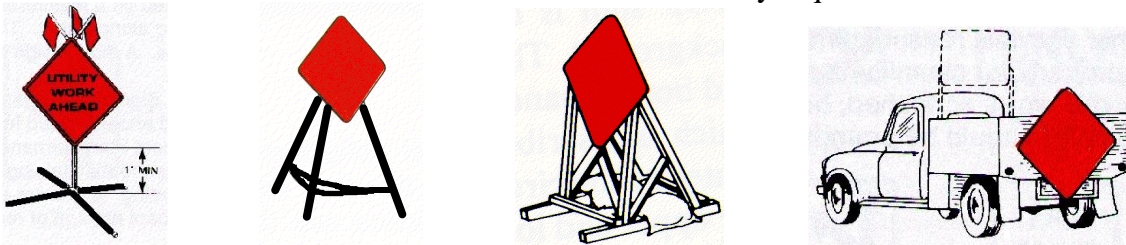
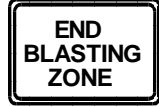


Figure 3: Examples of Temporary/Portable Supports

SIGNS



The following signs meet the intent of the Safety standard. *This is not a complete listing of signs that may be needed.*



FG20-1-48*
FW22-3-30

FG20-2-48

FG20-3-42*

FG20-3a-42



FW20-1-30*

W21-3-30*

FW21-4a-30

FW11-7-24

W22-1-36*



FW8-6-24
24*

FW11-9a-24

W7-3a-24*

W13-1-18**

W20-7aP-

* Specify Distance

Speed

** Specify



BM-L-O



BM-R-O

Barricade Markers (See MUTCD for length and stripe size)

- 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 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, 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, contractors or their employees or agents, directly or indirectly, as a result of NFF's operations, in accordance with 40 CFR 302.
11. **Washing 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 to the Stewardship Project Area. 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. Such bucked out material shall contain a minimum amount of sound wood, not in excess of the net scale in percentage of gross scale, or based on the merchantability factor. 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 E 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. **Rigging.** 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 streamcourses, except as may be authorized under paragraph (d). In event NFF cause(s) debris to enter streamcourses 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 streamcourses.
 - a) Culverts or bridges shall be required on Temporary Roads at all points where it is necessary to cross Streamcourses. 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 streamcourses unless fully suspended.
 - b) Wheeled or track-laying equipment shall not be operated in streamcourses, 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 streamcourses 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, 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, 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, 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 practicable.

- 24. Protection of Improvements.** So far as practicable, NFF shall protect specified roads and other improvements (such as roads, trails, telephone lines, ditches, and fences):
- Existing in the operating area,
 - Determined to have a continuing need or use, and
 - 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 logging, road construction, or other 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.
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. NFF may 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 NFF shall 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 economical 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 ***(fill-in dates)*** and during other such periods as specified by Forest Service.
2. *(Include Regional fire precautionary requirements, below.)*

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.

- 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. 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. Equipment shall be operated only by personnel approved by NFF, if so requested by NFF.

48. Fire Suppression Costs

Contractor's obligations for cost of fire suppression vary according to three classifications of fires as follows:

- a) **Operations Fire.** An "Operations Fire" is a fire caused by Partner's Operations other than a Negligent Fire.. Partner agrees to reimburse Forest Service for such cost for each Operations Fire, subject to a maximum of the dollar amount stated in **48.a Limited Liability for Operations Fire.** The cost of Contractor's actions, supplies, and equipment on any such fire provided under **47. Fire Control** , or otherwise at the request of Forest Service, shall be credited toward such maximum. If Partner's actual cost exceeds Partner's obligation stated in **48a.**, Forest Service shall reimburse Contractor for the excess.
- b) **Negligent Fire.** A "Negligent Fire" is a fire caused by negligence or fault of Partner's Operations, including, but not limited to, one caused by persons engaged in Partner's Operations during their employment, including during rest or lunch periods, while occupying camps authorized under this agreement, or if Partner's failure to comply with the requirements of **46. Fire Precautions and Control** results in a fire starting or permits a fire to spread. Damages and the cost of suppressing Negligent Fires shall be borne by Partner.
- c) **Other Fires on Contract Area.** Forest Service shall pay Partner, at firefighting rates common in the area or at prior Agreed rates, for equipment or personnel furnished by Contractor pursuant to **46. Fire Control**, or at the request of Forest Service, on any fire on Contract Area other than an Operations Fire or a Negligent Fire.

49. **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.

50. Fire Plan for Construction and Service Contracts.

FIRE PLAN FOR CONSTRUCTION AND SERVICE CONTRACTS 08/02/2012

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 delimiting, 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 delimiters, 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 year round.

- This contract 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 delimeter, 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 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	
	P	G	P	G	P	G	P	G	P	G	P	G	P	G	P	G	P	G	P	G	P	G
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

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 propellant.
4. The unit shall be capable of being completely recharged within 10 minutes.
5. When used on cable yarding landings, the unit shall be outfitted for immediate attachment to carriage and transported without damage to the unit.

Fire extinguishers required for Hot Saws, Masticators and similar equipment identified in Section 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			



Nearest FS Station			
Inspector			
COR			
District Ranger			

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 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 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:

<u>Title</u>	<u>Name</u>	<u>Telephone Number</u>
Fire Supervisor		
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

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:

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	<i>Project Activity Minimum Requirements and Restrictions. Restrictions at each level are cumulative.</i>
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.
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.



Level	Project Activity Minimum Requirements and Restrictions. Restrictions at each level are cumulative.
Ev	<p>1. The following activities may operate all day:</p> <ul style="list-style-type: none"> 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. <p>2. Hot Saws or Masticators may operate until 1:00 PM; provided that:</p> <ul style="list-style-type: none"> a) A tractor with a blade or other equipment 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. <p>3. All other conventional Mechanical Operations are permitted until 1:00 PM.</p> <p>4. Some operations may be permitted after 1:00 PM, on a case-by-case basis, under the terms of a PAL Ev Variance Agreement. Activities for which a Variance may be issued are:</p> <ul style="list-style-type: none"> • Rubber Tire Skidding • Chipping on Landings • Helicopter Yarding • Fire Salvage <p>When approved by a Line Officer, a Variance Agreement can be implemented when the criteria specified in the agreement are met and mitigation measures are in place. This approval is good for ten (10) days unless cancelled sooner or extended by the Contracting Officer for an additional ten (10) days. Variance approval can be withdrawn at the sole discretion of 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).</p>
E	<p>The following activities may operate all day:</p> <ul style="list-style-type: none"> 1. Loading and hauling logs decked at approved landings. 2. Loading and hauling chips stockpiled at approved landings. 3. Servicing Equipment at approved sites. 4. Dust abatement, road maintenance (chainsaw use prohibited) or loading stock piles and rock aggregate installation (does not include pit or quarry development). 5. Chainsaw operation associated with loading at approved landings. <p>All other activities are prohibited.</p>

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		Years Analyzed	



	A	B	C	D	Ev	E	Days	
Month	Expected Days per Month at Each PAL Value						Analyzed	
July								
August								
September								
October								



Timber Removal Specifications

F.1 – Location and Area -			
This Stewardship Project Area of:	<i>[insert number of acres]</i>	acres more or less are located in:	<i>[insert exact location of project, i.e., township, range, section]</i>
Angeles	62,431		T1N,R7W to T1N,R12W; T2N,R7W to T2N,R13W; T3N,R7W to T3N,R15W; T4N,R8W to T4N,R14W; T5N,R15W; T6N,R15W to T6N,R18W; T7N,R15W to T7N,R18W; and T8N,R17W (San Bernardino Meridian)
Cleveland	15,781		T4S,R7W; T5S,R5W to T5S,R7W; T6S,R5W to T6S,R6W; T9S,R1W; T9S,R1E to T9S,R4E; T10S,R1W; T10S,R1E to T10S,R2E; T11S,R2E; T12S,R2E; T14S,R3E to T14S,R5E; T15S,R4E to T15S,R5E; T16S,R4E; T17S,R5E (San Bernardino Meridian)
Los Padres	45,343		T4N,R20W to T4N,R21W; T5N,R18W to T5N,R28W; T6N,R19W to T6N,R27W; T7N,R19W to T7N,R29W; T8N,R19W to T8N,R30W; T9N,R19W to T9N,R25W; T9N,R27W to T9N,R30W; T10N,R29W; T11N,R29W to T11N,R31W. (San Bernardino Meridian)
San Bernardino	123,001		T32S,R17E; T31S,R17E to T31S,R16E; T30S,R16E to T30S,R14E; T29S,R16E to T29S,R15E; T25S,R6E; T24S,R6E to T24S,R5E; T23S,R5E; T22S,R5E to T22S,R4E; T21S,R5E; T20S,R3E to T20S,R2E; T19S,R4; T19,S:R2E to T19S,R1E; T18S:R4E; T18S,R2E to T18S,R1E (Mt. Diablo Meridian)
San Bernardino	123,001		T1N,R1W to T1N,R6W; T1N,R6W to T1N,R7W; T1N,R1E to T1N,R3E; T1S,R1E to T1S,R2E; T1S,R1W to T1S,R2W; T2N,R1W to T2N,R7W; T2N,R1E to T2N,R3E; T2S,R1E to T2S,R2E; T2S,R1W, T3N:R1W to T3N:R3W, T3N:R5W to T3N:R7W; T3N,R1E to T3N,R2E, T3S:R2E; T4S,R2E, T5S,R2E to T5S,R4E; T6S,R2E to T6S,R4E; T7S,R2E to T7S,R5E (San Bernardino Meridian)

F.2 -Volume Estimate and Utilization Standards.

Species	Product	Estimated Quantity	Unit of Measure	Minimum Specifications	
				Merchantable Tree	Piece Required to be Removed



				Diameter Breast High (d.b.h.) <i>(inches)</i>	Number of Minimum Pieces per Tree	Length <i>(feet)</i>	Diameter Inside Bark at Small End <i>(inches)</i>	Net Merch. Factor <u>1/</u>
CS	Sawtimber	10,000	CCF	10.0	1	10.0	6.0	12
All	Non-Sawtimber	10,000	CCF	3.0	1	6.0	NA	16
All	Green Biomass	30,000	Ton	3.0	1	6.0	NA	16
All	Green Biomass	10,000	CCF	3.0	1	6.0	NA	16
All	Fuelwood	10,000	Cord	6.0	1	2.0	4.0	16
Total Quantity								

1/ Enter Merchantability Factor (Merch. Factor) or Net Scale in % of Gross Scale, whichever is appropriate.

F.3- High Stumps.

Species	Product	Maximum Stump Height (inches)
All	Sawtimber	12
All	Non-Sawtimber	6
All	Biomass	6
All	Fuelwood	6



F.4- Timber Rates. (Scaled)

Cutting Unit Number	Approx. Acres					Rate of Payment \$/UOM	Required Deposit per unit of measure
		Species	Product	Quantity	Unit of Measure		
All		All	Green Biomass	30,000	Tons	0.10	0.00

F.5 - Timber Rates. (Tree Measurement)

Payment Unit Number	Approx. Acres					Total Payment	Required Deposit per Payment Unit
		Species	Product	Quantity	Unit of Measure		
All		CS	Sawtimber	10,000	CCF	10,000	0.00
All		All	Non-Sawtimber	10,000	CCF	2,500	0.00
All		All	Green Biomass	10,000	CCF	2,500	0.00
All		All	Fuelwood	10,000	Cords	50,000	0.00

F.6 - Timber Designations. Timber designated for cutting shall be confined to the Stewardship Project Area. No undesignated timber shall be cut without prior notification to and approval of the Forest Service. Prescriptions/timber designations are included later in this subsection.

	Number	Acres
Clearcutting Units		
Specified Road Clearing		
Overstory Removal Units		
Understory Removal Units		
Individual Trees		246,556
Incompletely Marked Timber		

F.7 – Timber Subject to Agreement

TIMBER SUBJECT TO AGREEMENT.

In addition, there is within Contract Area an unestimated quantity of:

Species	Product
CS	Fuelwood
CH	Fuelwood

that shall be Included Timber upon written agreement



F.8 - Cutting Unit Boundary Designation. The boundaries of cutting units are designated as shown in the following table. The trees used for boundary designation are not to be cut.

Cutting Unit/ Subdivision/ Area/ Payment Unit	Tree Paint Color	Designation or Specification
ALL	Blue/Green	<u>Hazard Tree.</u> Notwithstanding BT2.32 all dead and unstable live trees which are leaning towards a road or are otherwise hazardous to a road, and are sufficiently tall to reach Contractor's landings or the roadbed of National Forest System roads within Contract Area, shall be felled by Contractor when Marked in the specified paint color above and below stump height by Forest Service in advance of felling any other timber in the vicinity. Pieces meeting Utilization Standards from such dead and unstable live trees shall be removed unless Contractor is notified in writing that removal would cause unacceptable damage to areas requiring special protection such as residual timber, roads, administrative sites, streamside management zones, and areas identified on Contract Area Map or on the ground.
All	Blue/ Green	<u>Individual Tree Mark.</u> Individual trees are designated for cutting only if Marked above and below stump height with the specified paint color.
N/A		<u>Leave Tree Mark.</u> All live Conifers are designated for cutting unless Marked as leave trees. Leave trees are Marked above and below stump height with the specified paint color. Contract Area Map indicates areas plainly identified on the ground where leave trees are Marked to be left uncut.
ALL	White	<u>Wildlife Trees.</u> Notwithstanding the designation for cutting under BT2.31, BT2.32, BT2.34, or BT2.35, trees which are identified by standard Forest Service metal wildlife tree sign or painted with the specified paint color on the uphill and downhill side, shall be left uncut. In event such trees are destroyed in Contractor's Operations, Forest Service may designate alternate trees to be saved.



Cutting Unit/ Subdivision/ Area/ Payment Unit	Tree Paint Color	Designation or Specification
N/A		<u>Leave Tree Mark.</u> All live Conifers are designated for cutting unless Marked as leave trees. Leave trees are Marked above and below stump height with the specified paint color. Contract Area Map indicates areas plainly identified on the ground where leave trees are Marked to be left uncut.
ALL	White	<u>Wildlife Trees.</u> Notwithstanding the designation for cutting under BT2.31, BT2.32, BT2.34, or BT2.35, trees which are identified by standard Forest Service metal wildlife tree sign or painted with the specified paint color on the uphill and downhill side, shall be left uncut. In event such trees are destroyed in Contractor's Operations, Forest Service may designate alternate trees to be saved.
ALL	Black	<u>Marked Out Trees.</u> When it is necessary to delete previously marked trees, a unique tree marking paint color will be Marked over or adjacent to the original mark, but will not obscure the original marking. Trees Marked with the original marking paint color and the unique tree marking paint color are not Included Timber.
N/A		<u>Designation by Spacing CT2.351#</u>
N/A		Designation by Species and Diameter, CT2.352##
N/A		Designation by Damage Class, CT2.353#
N/A		Designation by Row Spacing, CT2.354#
N/A		Designation by Prescription, CT2.355#

F.9 Tree Designation/Prescriptions.

N/A

F.10- Control of Operations.

CT5.35## - ROAD AND WATER SUPPLY USE. (5/2008) National Forest water supply locations, access, method of filling trucks, period of water availability and procedures designed to maintain water quality at each location shall be agreed



in advance of use. Such use shall at no time reduce water supplies to the level that further use may be detrimental to aquatic resources or other established use. Waterholes and other improvements relating to said water supplies shall be put into condition, prior to expected seasonal periods of precipitation or runoff, to avoid resource damage.

Damage to resources at such locations caused by Contractor's Operations, other than fire suppression activities, shall be repaired by Contractor in a timely and agreed manner to the extent practicable to restore and prevent further resource damage.

Unless otherwise agreed, Contractor's use of roads and other water supply requirements shall conform to the following table.

SPECIFICATIONS PURSUANT TO CT5.35# - REQUIREMENTS OF ROAD AND WATER SUPPLY USE

<p>Load Limitations</p>	<p>Contractor shall notify Forest Service in writing of the planned size and load distribution for equipment which exceeds the State of California Vehicle Code legal size and weight, and the National Forest System roads to be used. Such notice may be part of plan of operation under BT6.311. Within 15 days after receipt of the written notice Forest Service shall notify Contractor in writing of any regulations or restrictions that may be needed to protect National Forest Transportation Facilities.</p> <p>A written permit shall be required for moving any vehicle which is in excess of the established legal size and weight which is not listed in the above plan, except as may be authorized in prior written agreements.</p>
<p>Existing Non-National Forest System Roads</p>	<p>Roads not shown on Contract Area Map may be used as Temporary Roads if there is agreement before use is started.</p>
<p>Snow Removal</p>	<p>If Contractor removes snow from roads, such work shall be done with Forest Service approval and in a manner that will protect roads and adjacent resources.</p> <p>Snow berms shall be removed or placed to avoid accumulation of melt water on the road and prevent water concentration on erosive slopes or soils.</p> <p>Snow must not be removed to the road surface. A minimum 3-inch snow depth must be left to protect the roadway. If the road surface is damaged, Contractor shall replace lost surface material and repair structures damaged in blading operations prior to hauling, unless climatic conditions prevent necessary work from being accomplished or as otherwise agreed in writing.</p> <p>Single lane roads shall be plowed full width including turnouts. In event double lane roads are not plowed to full width, warning signs shall be required, and plowing shall be no less than single lane (12 feet) with intervisible turnouts.</p>



Water Supply Deposits	NA3
Surface Replacement Deposits	NA

CT6.22# - PROTECTION OF IMPROVEMENTS. (5/2008) Contractor shall notify Forest Service at least **10** days prior to any operations in the vicinity of improvements identified on Contract Area Map. Contractor shall protect such improvements from damage and shall be responsible for their timely restoration if damaged by Contractor's Operations. If relocation or removal of said improvements is necessary to avoid foreseeable damage by Contractor's Operations, work and cost shall be borne by the party listed in the table below. If Contractor is required to move or relocate the improvements, they shall move or relocate the improvements listed in the following table to locations and in a manner as specified in drawings or in specifications attached hereto. Improvements shall be returned to their original locations following Contractor's Operations.

See table below for improvements to be protected.

SPECIFICATIONS PURSUANT TO CT6.22# - PROTECTION OF IMPROVEMENTS.

<u>Improvement</u>	<u>Owner's or Permittee's Name</u>	<u>Timing</u>	<u>Specifications</u>	<u>Work and Cost of Removal or Relocation Borne by</u>
Gates	USFS	10 days	Move, Remove, Replace	Partner
Developed Recreation Infrastructure (e.g., Kiosks, tables, fire rings, bbqs, etc)	USFS	10 days	Move, Remove, Replace	Partner
Fences/Pipe Rail	USFS	10 days	Move, Remove, Replace	Partner

PROTECTION MEASURES NEEDED FOR PLANTS, ANIMALS, CULTURAL RESOURCES, AND CAVE RESOURCES

Locations of known areas needing special measures for the protection of plants, animals, cultural resources, and/or cave resources are shown on Contract Area Map and/or identified on the ground. Special protection measures needed to protect such known areas are identified in Appendix B, if applicable.



In addition to any special protection measures noted, Contractor has a general duty to protect all known and identified resources referenced in this Subsection from damage or removal during Contractor's operations. Discovery of additional areas, resources, or members of species needing special protection shall be promptly reported to the other party, and operations shall be delayed or interrupted at that location, if Contracting Officer determines there is risk of damage to such areas, resources, or species from continued operations.

Wheeled or track-laying equipment shall not be operated in areas identified as needing special measures for the protection of cultural resources, except on roads, landings, tractor roads, or approved skid trails. Unless agreed otherwise, trees will not be felled into such areas. Contractor may be required to backblade skid trails and other ground disturbed by Contractor's operations within such areas in lieu of required cross ditching.

Contractor shall immediately notify Forest Service if disturbance occurs to any area identified as needing special protection measures and shall immediately halt operations in the vicinity of the disturbance until Forest Service authorizes Contractor to proceed. Contractor shall bear costs of resource evaluation and restoration to identified sites. Such payment shall not relieve Contractor from civil or criminal remedies otherwise provided by law.

Forest Service has exercised due diligence and followed established protocols in identifying known areas needing special protection measures. Nevertheless, nothing in this provision shall be interpreted as creating any warranty that all locations and special measures for the protection of plants, animals, cultural resources, and cave resources have been described herein, elsewhere in the contract, or designated on the ground.

Label on Contract Area Map	Restrictions
TBD	CAM Label and project/site specific restrictions will be provided to partner during layout and drafting of contracts

CT6.314 - RELEASE OF PAYMENT UNITS. (2/2005) Except for Specified Road Payment Units, Forest Service shall not Release for Cutting more Payment Units than can be logged within 60 calendar days at Contractor's normal rate of logging. Unless otherwise agreed in writing, upon completion of all contract requirements in a Payment Unit, additional Payment Units may be Released for Cutting.

CT6.315# - PROJECT OPERATIONS SCHEDULE. (12/2006) Unless otherwise agreed in writing, Contractor's Operations shall be performed in accordance with the following schedule:

SCHEDULE PURSUANT TO CT6.315# - PROJECT OPERATIONS SCHEDULE (12/2006)



Subdivision/ Area/Unit	Conditions of Operation	Purpose
As determined necessary, on a unit by unit basis.	Maintain a limited operating period (LOP) prohibiting activities within approximately .25 miles of a California spotted owl nest site, or activity center where nest site is unknown, during the breeding season (February 1 through August 15), unless surveys confirm that the owls are not nesting	To Protect California Spotted Owl Nest Sites during the Breeding Season
As determined necessary, on unit by unit basis.	Avoid or minimize disturbance to breeding and roosting California condors by prohibiting or restricting management activities and human uses within 1.5 miles of active California condor nest sites and within 0.5 miles of active roosts	To Protect breeding and Roosting California Condors
All Units	Skidding operations will only be permitted when soil moisture conditions are such that compaction, gulying, and/or rutting will be minimal. Equipment may operate on designated skid trails when soils are dry to a minimum of 4 inches. Low-ground pressure equipment may operate off of designated skid trails when soils are dry to a depth of 4 inches. High ground pressure equipment may operate off of designated skid trails when soils are dry to a depth of 8 inches. Off of designated skid trails, limit all equipment passes over the same piece of ground to reduce the potential for adverse soil compaction. Outside Normal Operating Season (NOS) or during wet periods within the NOS, utilize the TNF Wet Weather Operations Guidelines.	To protect soil from compaction, gulying, and/or rutting.
As determined necessary on a unit by unit basis	Additional Limitations to be determined based on project planning	To protect migratory nesting bird, Raptors and threatened, endangered, and sensitive plant and animal species.

CT6.331 - LOG TRUCKING. (2/2005) To promote safe operations on National Forest roads and on Specified Roads, loads shall be safely secured before trucks move from the landing or loading location.

CT6.37 - SUBSTITUTE METHODS. (2/2005) Notwithstanding other provisions herein, for minor changes such as changes in logging systems for areas



smaller than 5 acres, Contractor and Forest Service may agree in writing that use of substitute methods or equipment will achieve Forest Service objectives under this contract and may be used in lieu of those specified for Contractor's Operations.

CT6.41# - FELLING, BUCKING, AND LIMBING. (8/2007) Unless otherwise agreed in writing, Contractor's felling, bucking, and limbing operations shall be conducted as specified in the table below.

SPECIFICATIONS AND TREATMENTS PURSUANT TO CT6.41# - FELLING, BUCKING AND LIMBING

Treatment Method	Felling, Bucking and Limbing Specifications
Limbing	Outside of construction clearings, Clearcutting Units and regeneration units, unless otherwise provided by BT6.414, Purchaser shall, prior to skidding/yarding operations, cut exposed limbs from products which are to be skidded/yarded. Such limbing of stems shall be done to a top diameter of approximately 3 inches, at which point the top shall be cut from the remainder of the stem.
No Lop "No Lop"	Within units or payment units designated NO LOP on Contract Area Map, trees shall be skidded/yarded to agreed landing locations prior to lopping.
Whole Tree Yarding "Whole"	Notwithstanding the requirements above, within units or payment units designated "Whole" on Contract Area Map, trees smaller than 24 inches DBH shall be skidded/yarded to agreed landing locations prior to limbing, bucking, and lopping. Trees larger than or equal to 24 inches DBH shall be bucked into two or more pieces with the butt portion being no longer than 41 feet prior to skidding/yarding. The butt log shall not be limbed prior to skidding/yarding.
Directional Felling	Within areas designated DF on Contract Area Map, Included Timber shall be directionally felled away from stream courses, structures, survey monuments, and private property, and controlled areas with the use of specialized equipment. Such directional felling shall not be required when in the faller's judgment it is unsafe to do so, and shall be left standing.
Treatment of Stumps	Within areas shown on Contract Area Map, Contractor shall treat stumps of all live or Recently Dead Conifer trees equal to or greater than 2 inches stump diameter, (measured inside bark) unless otherwise agreed in writing. Treatment shall be with a borate compound registered by EPA in the State of California for prevention of annosus root disease.



Treatment Method	Felling, Bucking and Limbing Specifications				
	<p>Treatment shall consist of removal of sawdust and other loose debris from the cut surface of the stump and application of a thin layer of the borate compound uniformly over the entire cut surface, including exposed wood surfaces on the stump sides, at the rate specified on the product label. Any surface irregularities on the stump preventing application of a uniform layer of borate compound shall be cut level prior to treatment. Unless waived in writing, Contractor shall also apply an approved colorant mixed with the borax to insure complete coverage. Treatment should be done as soon as possible but shall be completed no later than 4 hours after felling, otherwise stumps shall be re-cut and treated.</p> <p>Contractor shall not apply borate compound during heavy rain fall or when such precipitation rate is predicted within 24 hours of application to cause borate compound to be flushed off the stump and become ineffective, in that case treatment shall be reapplied. Application shall be completed within 24 hours of the precipitation having ceased. Borate compound also shall not be applied to stumps located within 300 feet of live stream courses and meadows/wetlands shown on Contract Area Map and/or 10 feet of sensitive plant location boundaries as flagged on the ground.</p> <p>Contractor shall provide the borate compound and colorant and apply it in compliance with the State of California laws and regulations pertaining to pesticides and pest control operations. Borate compound storage shall be located such that any spillage will not contaminate water. All spills shall be promptly cleaned up and spilled material disposed of according to the product label. All spills occurring in water or over 0.5 pounds shall be reported to Forest Service within 3 hours.</p> <p>Contractor shall submit at the end of each month a "Monthly Summary of Pesticide Use Reports" to the appropriate County Agricultural Commissioner with a copy to the District Ranger.</p>				
<p>Maximum Log Length</p>	<p>Cut trees shall be bucked prior to skidding so that resulting logs shall not exceed the maximum log length including trim allowance shown in following table:</p> <table border="1" data-bbox="586 1713 1422 1808"> <thead> <tr> <th data-bbox="586 1713 967 1761">Unit Number</th> <th data-bbox="967 1713 1422 1761">Maximum Log Length</th> </tr> </thead> <tbody> <tr> <td data-bbox="586 1761 967 1808">All</td> <td data-bbox="967 1761 1422 1808">41'</td> </tr> </tbody> </table>	Unit Number	Maximum Log Length	All	41'
Unit Number	Maximum Log Length				
All	41'				
<p>Minimum Stump Height</p>					



Treatment Method	Felling, Bucking and Limbing Specifications		
	Unit/Subdivision	Minimum Stump Height (inches)	Purpose or Reason
	All	3 inches	Facilitate timber accountability

CT6.42# - GROUND BASED SKIDDING. (12/2006) Unless otherwise agreed in writing, the method of skidding Included Timber shall be as shown on the Contract Area Map, by areas, with symbols defined in the following table:

Ground-Based Skidding Table - CT6.42#



Map Symbol	Requirements
TRAC	<p>Skid road pattern shall be agreed in advance of felling and main skid roads shall be flagged on the ground in advance of felling. Contractor shall stage-log by felling and skidding Included Timber in two or more separate operations when necessary to prevent undue damage to the resources or residual stand. Needed tractor trails shall be constructed in advance of skidding.</p> <p>Products shall be end-lined as needed to protect resources or residual timber from unnecessary damage. The number of chokers shall be limited as necessary to avoid unnecessary damage to resources or residual timber. By agreement, tractors may be used to separate products to prevent stain.</p>
SUSP	<p>Products shall be skidded with leading end clear of ground.</p>
SPACE	<p>Skid roads will average <u>75</u> feet from center to center, except where converging.</p>
ENDL	<p>Endlining shall not be required for distances in excess of <u>75</u> feet uphill, and <u>100</u> feet downhill.</p>
MAX	<p>Tractors used for skidding outside Clearcutting Units, regeneration units or other authorized clearings, shall be of the type (rubber-tired or track-laying) shown on the Contract Area Map and shall not exceed the overall width designated on Contract Area Map.</p>
MH	<p>Contractor shall cut Included Timber and move it to designated skid trails using equipment with a boom having an operating radius of at least <u>20</u> feet for bunching trees, capable of severing, lowering and placing trees up to <u>24</u> inches diameter at stump height on the ground prior to skidding. Such equipment must be capable of operating on slopes up to <u>35</u> %.</p> <p>Notwithstanding above, hand felling using chainsaws may be required in or adjacent to sensitive areas to protect resources from unnecessary damage.</p> <p>Trees which exceed capability of specified equipment may be felled, bucked and skidded in a manner consistent with the requirements of BT6.41 - Felling and Bucking, CT6.41# - Felling, Bucking, and Limbing, and the above "TRAC", "SUSP", "SPACE", "ENDL", and "MAX" requirements.</p>



Map Symbol	Requirements
CTL	<p>Included Timber shall be felled, limbed and bucked by a self-propelled mechanical harvester capable of producing finished sawlogs or chippable boles. Limbs of Included Timber shall be placed evenly in the machinery skid trail prior to product removal. The harvester shall be an all-wheel drive machine with at least 3 axles and a processing head mounted on a boom having a minimum-operating radius of 20 feet.</p> <p>Notwithstanding above, hand felling using chainsaws may be required in or adjacent to sensitive areas to protect resources or residual timber from unnecessary damage.</p> <p>All Products shall be removed by an all-wheel drive forwarder with at least 3 axles capable of self-loading and unloading. The forwarder shall carry all products free of the ground during removal. The loading crane shall have a minimum-operating radius of 15 feet. Log landings and transfer points shall be agreed in advance of harvesting.</p> <p>Included Timber exceeding the harvester's capability may be felled by conventional chainsaw methods, forwarded to nearest skid trail and processed into a finished Product with harvester or chainsaw, consistent with the requirements BT6.61 - Meadow Protection, BT6.41 - Felling and Bucking, CT6.41# - Felling, Bucking, and Limbing, and the above "TRAC", "SUSP", "SPACE", "ENDL", and "MAX" requirements.</p>
PB	NA
HCTL	<p>Included Timber shall be felled, limbed and bucked by a self-propelled mechanical harvester capable of producing finished sawlogs or chippable boles. Such equipment must be capable of operating on slopes up to 85 %. The harvester shall be an all-wheel drive machine with at least 3 axles, or track mounted, and a processing head mounted on a boom having a minimum-operating radius of 20 feet.</p> <p>Notwithstanding above, hand felling using chainsaws may be required in or adjacent to sensitive areas to protect resources or residual timber from unnecessary damage.</p> <p>Included Timber exceeding the harvester's capability may be felled by conventional chainsaw methods</p>

CT6.425 - CABLE AND SKYLINE YARDING. (8/2007) Unless otherwise agreed in writing, requirements for cable and skyline yarding equipment are shown on Contract Area Map, by areas, with the following symbols:

CS - Cable yarding specified.

CR - Be capable of yarding from roadway with additional landing excavation to accommodate the yarder held to a minimum consistent with safe yarding operations.



CW - Meet all of above requirements using a swing-boom type yarder.

SY - All yarding except lateral yarding, shall be accomplished by a skyline system, which supports products clear of the ground across Buffer Strips and in other areas yard with one product end suspended.

SL - Meet all of above requirements, have lateral yarding capability hold skyline carriage stationary until products are yarded to skyline corridor.

SR - Meet all of above requirements and be capable of yarding from roadway with additional landing excavation to accommodate the yarder held to a minimum consistent with safe yarding operations.

SW - Meet all of above requirements using a swing-boom type yarder.

For SL, SR, and SW areas, locations of all skyline corridors shall be by agreement and designated on the ground. Such agreement shall be prior to felling unless ground and timber conditions otherwise justify. Width of said skyline corridors shall be kept to a practicable minimum consistent with the related silvicultural prescription.

For all yarding methods, if rigging must be slung on undesignated live trees, these trees shall be protected from damage by special steel plates, nylon tail-hold slings or similar effective protective devices.

Swing Yarding. In areas designated with the following labels on the Contract Area Map, the following requirements are included, unless otherwise agreed in writing:

"Tractor Swing" - all Included Timber shall be tractor skidded from yarder landing to loading areas shown on Contract Area Map or other agreed locations.

"Skyline Swing" - all Included Timber shall be skyline yarded from tractor skidded area to a skyline yarding landing. Location of tractor and skyline landings shall be agreed upon prior to skidding and yarding operations.

CT6.429 - HELICOPTER YARDING. (8/2007) Within subdivisions/payment units so designated on Contract Area Map, yarding shall be by a helicopter capable of lifting and transporting products to landings without unnecessary damage to residual trees.

Unless otherwise agreed in writing, the following conditions apply to this project.

Contractor is not required to cut trees if there is insufficient volume to make a turn of at least 100 cubic feet net scale (500 board feet net scale) within a 100 foot radius from the largest tree.

If trees that would have been exempt from cutting as described above are cut, pieces meeting minimum specifications in AT2 shall be removed, scaled and paid for.

Areas where flight pattern is restricted are shown on the Contract Area Map. Logs and other external loads shall not be flown over these areas.



CT6.5 - STREAMCOURSE PROTECTION. (2/2005) Unless otherwise agreed in writing, wheel or track laying equipment shall not operate within "Buffer Strips" except as necessary for fire suppression activities. "Buffer Strips" are areas marked on the ground or are within the distances identified on the Contract Area Map measured from the apparent high water mark of streamcourses. Boundaries of Buffer Strips may be modified by agreement in writing to meet unforeseen operating conditions.

Culverts, bridges, or other suitable structures shall be required on skid roads and trails only at points where it is necessary to protect Stream courses. The type of crossing structures, method of installation and removal shall be determined by agreement. Contractor in accordance with CT6.6# - Erosion Prevention and Control, shall remove such structures and associated fills.

Damage to Stream course or Buffer Strips caused by unauthorized Contractor's Operations shall be repaired by Contractor in a timely and agreed manner to the extent practical as determined by Forest Service to restore and prevent further damage to Stream courses.

CT6.6# - EROSION PREVENTION AND CONTROL. (5/2008) Erosion prevention and control work, including Streamcourse protection, required by CT6.5 and BT6.6 shall be completed within 15 calendar days after skidding operations related to each landing are substantially completed or after Forest Service designation on the ground of work where such designation is required hereunder. Said time limit shall be exclusive of full days lost in Contractor's Operations due to causes beyond Contractor's control. Such on the ground designation 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. After September 15 and as long thereafter as operations continue the work shall be done as promptly as practicable. Damage resulting from Contractor's Operations due to failure to perform required work shall be repaired by Contractor.

Notwithstanding other provisions in this contract and unless otherwise agreed in writing, any hay, straw, or mulch used in this contract shall be State of California certified weed free.

Additional erosion control requirements of this contract are listed in the following table.

SPECIFICATIONS PURSUANT TO CT6.6# - EROSION PREVENTION AND CONTROL.

Vegetative Soil Stabilization: NA

Special Erosion Prevention Measures: Contractor shall give adequate treatment by spreading slash or wood chips or by agreement giving other treatment to portion of tractor roads, skid trails, landings, cable yarding corridors, tractor-end lined corridors and Temporary Road fills where necessary to supplement other erosion prevention measures required elsewhere in this contract. In no event shall Purchaser be required to treat more acres than that shown in the legend of Contract Area Map. The specific locations to be treated shall be designated on the ground by Forest Service. These special erosion prevention measures are to be done within the same date and time periods as stated above.



Soil Scarification. NA

Backblading: Within recreation development sites and public use areas designated on Contract Area Map, Purchaser shall, at Forest Service request, backblade skid trails in lieu of cross ditching.

Tillage In addition to meeting the requirements of BT6.64, unless otherwise agreed in writing, tillage shall be required on the areas listed in the following table.

Tillage shall be accomplished by equipment that will lift and fracture the soil by vertical and lateral shattering, leaving soil loosened through the full width and depth of the compacted layer with the topsoil remaining substantially in place rather than being inverted.

Tillage depth is shown in the following table. Agreement in writing may be made to a lesser depth if rocks or other limiting site conditions are encountered.

Tillage shall be limited to periods when soil dryness will result in crumbled soil, avoiding the formation of large clods. Contractor and Forest Service shall agree in writing on the timing of completion of such work to coordinate with desirable soil moisture conditions.

Areas to Till	Tillage Depth (Inches)	Maximum Acres to Treat
Landings	12	Unestimated
Main Skid Roads and Tractor Roads designated by Forest Service	12	Unestimated
Temporary Roads	12	Unestimated

CT6.7# - SLASH TREATMENT. (12/2006) Contractor shall pile, scatter, yard, construct firelines or otherwise treat slash defined in specifications below, within designated areas. Work required of Contractor shall be in accordance with the following slash plan and specifications, and the Contract Area Map.

All vegetative debris associated with construction of Specified Roads such as unutilized timber, brush and grubbed stumps is Construction Slash. Measures to be taken by Contractor for treatment of Construction Slash are set forth in the attached road construction specifications and in the attached slash treatment specifications.

Vegetative debris larger than 1 inch in diameter outside bark and 3 feet long resulting from Contractor's Operations, other than Construction Slash, is Logging Slash. Measures to be taken by Contractor for treatment of Logging Slash are set forth below unless otherwise agreed in writing.

Forest Service and Contractor shall jointly develop a schedule for completion of slash treatment on the various portions of Project Area prior to Contractor's Operations.

Removing may be substituted for treatment of any other specified method.



By agreement in writing, certain slash may be left for fuelwood. When the specified treatment is by a combination of methods, Logging Slash not treated by one of the methods shall be treated by the other(s).

See the slash treatment specification table below.

SPECIFICATIONS PURSUANT TO CT6.7# - SLASH TREATMENT (12/2006)

Specified slash treatment methods shall be shown on Contract Area Map or listed in the following tables by the following symbols:

Slash Treatment Methods

<u>Symbol</u>	<u>Method</u>	<u>Definition</u>
Buck-L	"Bucking Large Logging Slash"	Tops and limbs over 4 inches diameter outside bark (d.o.b.), not to be otherwise treated, shall be bucked into lengths not to exceed 6 feet, unless agreed otherwise.
Buck-P	"Bucking and Piling"	Logging Slash smaller than TBD inches and larger than 4 inches in large end d.o.b. shall be bucked into lengths not to exceed <> feet and left in place. Logging Slash 4 inches and smaller in large end d.o.b. shall be hand Piled within Required Disposal Strip for Forest Service disposal.
Bury	"Burying"	Logging Slash shall be buried where agreed in borrow areas, pits, trenches, or other locations reasonably near the area of origin. Logging Slash shall be matted down in layers and shall be covered with at least 2 feet of rock and soil so that the final surface is sloped to drain and relatively smooth.
Chip	"Chipping"	Chippable Logging Slash up to 4 inches in d.o.b. shall be processed through a chipping machine. Chips shall be scattered to a loose depth not exceeding 6 inches.
Deck	"Decking" large material	Logging Slash <u>10</u> inches or larger in large end d.o.b. and <u>8</u> feet or more in length shall be Decked for disposal by Forest Service by piling pieces parallel to each other.
Mach	"Machine Piling"	Concentrations of Logging Slash, excluding scattered individual pieces, shall be Machine Piled by tractor equipped with brush rake for disposal by Forest Service.



Pile	"Piling" small material	Logging Slash smaller than <u>10</u> inches in large end d.o.b. and <u>8</u> feet long shall be hand Piled for disposal by Forest Service.
Remove	"Removing"	Logging Slash shall be moved or hauled to locations shown on Contract Area Map and designated on the ground where it shall be piled for disposal by Forest Service.
Scat 18" Scat 30"	"Scattering"	Logging Slash shall be scattered to reduce slash concentrations with slash being generally left within 18 or 30 inches of the ground as shown on Contract Area Map. Logging Slash shall be scattered into openings away from and without unnecessary damage to residual trees. All scattered logs shall be limbed, placed away from trees and positioned so they will not roll. When Scattering is specified, another method may be used by agreement.
Stack	"Stacking" small material	Logging Slash <u>10</u> inches or smaller in large end d.o.b. and <u>8</u> feet or more in length shall be stacked for disposal by Forest Service by piling pieces parallel to each other.
View	"Visible Slash Treatment"	Designated on Contract Area Map with boundaries posted on the ground are TBD with distance limitations for visible slash treatment. Within such units and the area of visible Logging Slash adjacent thereto, Logging Slash shall be treated by Contractor. Primary treatment shall be by Removing, Burying, Chipping, Piling, Machine Piling, or a combination of these means unless a method is specified or prohibited on Contract Area Map. Logging Slash not readily treated by the selected or specified method shall be removed to designated areas or treated as agreed.
YUMD	"Yarding Unutilized Material-Decking"	All unutilized material developed by Contractor's Operations shall be treated by the d.o.b. and length specifications as shown in the unit specification table. All unutilized material shall be Yarded to landings and Decked. Where this is impractical, or other reasons, other locations shall be agreed upon.



YUME "Yarding Unutilized Material-Exterior Boundary"

Unit	Large End d.o.b. (in)	Length (feet)
TBD		

All unutilized material developed by Contractor's Operations shall be treated by the d.o.b. and length specifications as shown in the unit specification table. All unutilized material shall be yarded to locations a minimum of 50 feet slope distance within the exterior boundaries of such units and positioned so the yarded material will not roll.

YUML "Yarding Unutilized Material-Landing"

Unit	Large End d.o.b. (in)	Length (feet)
TBD		

All unutilized material developed by Contractor's Operations shall be treated by the d.o.b. and length specifications as shown in the unit specification table. All unutilized shall be yarded to locations within 100 feet slope distance of landing. Where this is impractical, or other reasons, other locations shall be agreed upon.

YUMR "Yarding Unutilized Material-Removal"

Unit	Large End d.o.b. (in)	Length (feet)
TBD		

All unutilized material developed by Contractor's Operations shall be treated by the d.o.b. and length specifications as shown in the unit specification table. All unutilized shall be removed to locations shown on Contract Area Map and designated on the ground, or other agreed locations, and Decked.

Cover "Covering Piles"

Unit	Large End d.o.b. (in)	Length (feet)
TBD		

All piles shall be covered with a durable waterproof covering as approved by Forest Service. The material shall be at least six feet in width. Piles shall not be less than fifty percent covered, with the covering extending not less than half way down all sides. Pieces of burnable material shall be placed on top of the durable waterproof covering to keep the covering from blowing off the pile.



Fell	"Damaged Small Tress"	Unless treated under other provisions, all trees smaller than the minimum d.b.h. in AT2, over 5 feet in height, and damaged beyond recovery by Contractor's Operations shall be felled. Such trees shall be limbed to a stem diameter outside bark of approximately 3 inches, at which point the top shall be cut from the remainder of the stem, and shall be bucked into lengths not exceeding 20 feet.
Fire-L	"Firelines"	<p>Shown on Contract Area Map and to be flagged on ground after logging by Forest Service are firelines to be constructed by Contractor unless otherwise agreed in writing. Contractor shall construct not more than TBD chains of fireline by hand and not more than TBD chains of fireline by tractor.</p> <p>Firelines constructed by hand shall be cleared of all vegetative debris larger than one inch in d.o.b. and three feet long. The width of firelines shall be at least TBD feet, except across the top of cutting units where the width shall be at least TBD feet. At least TBD feet shall be scraped to mineral soil. In areas where there is potential for burning material to roll, the fireline shall be constructed in a trenched manner on the downhill side.</p> <p>Tractor lines shall be cleared of all vegetative debris, larger than one inch in diameter and three feet long, to a width of at least TBD feet, with at least TBD feet to mineral soil. No slash, brush, or other vegetative debris shall be buried in or under berms created in the construction of firelines. All limbs overhanging into the fireline, shall be removed to a minimum height of 8 feet.</p> <p>Firelines shall be completed on each unit in accordance with BT6.311 unless otherwise agreed in writing.</p> <p>In subdivisions TBD and shown on Contractor Area Map, Logging Slash shall be scattered within TBD feet slope distance of the inside edge of firelines.</p>
Fuel-B	"Fuelbreaks"	Shown on Contract Area Map, with boundaries designated on the ground, are



"Fuelbreaks" of varying width. Within such Fuelbreaks all Logging slash and Construction slash shall be treated by Contractor. Primary treatment shall be by Removing, Burying, Chipping, Piling, Machine Piling, or a combination of these methods unless a method is specified or prohibited on Contract Area Map. Slash larger than treatment size requirements of selected or specified methods shall be scattered outside Fuelbreak, or treated as agreed.

PILING SPECIFICATIONS. All piles shall be reasonably compact and free of soil to facilitate burning and shall be constructed of such size and at such distance from trees so that burning shall not result in unnecessary damage to residual timber. Such Logging Slash shall be bucked into lengths not exceeding ten feet prior to piling. Maximum width of tractor, with brush rake attached, shall not exceed <> inches. Machine Piling is not required on areas where use of tractors would cause undue damage to residual timber or where slopes exceed <> percent. Piles shall be located a distance of at least twice their height in feet from the outer edge of tree crowns or snags. Piles shall be no less than four feet in height or greater than <> feet in height. Material extending three feet or more outside the edge of a pile shall be trimmed. An eight foot fuelbreak shall be cleared of all but fine material around each Machine Pile and an 18 inch wide fireline shall be cleared to mineral soil around the outer ring of the fuelbreak. For hand piles, Contractor shall construct a fireline cleared to mineral soil and at least 3 feet wide around each pile. In areas where there is a potential for burning material to roll, firelines, including those for Machine Piles, shall be trenched on the downhill side of each pile to adequately prevent material from crossing firelines. Trenches shall be constructed by hand unless otherwise agreed.

UNIT AND SUBDIVISION.SLASH TREATMENT SPECIFICATIONS.

		SLASH TREATMENT	
Subdivision or Unit No	Specified Method	Prohibited Method	
All	MACH, FELL, COVER, PILE, SCATTER-!*	All Others	

LANDINGS AND DISPOSAL SITES. Unutilized logs accumulated at landings and disposal sites shall be Decked by Contractor for disposal by Forest Service. The maximum height of decks is shown in the following table. Other slash accumulated at landings and disposal sites shall be kept separate from unutilized logs and treated by the method shown in the following table.

		SLASH TREATMENT	
	Subdivision or Unit No.	Specified Method	Maximum Height o Decks
Landings	ALL	MACH, COVER, DECK	6



<u>Disposal Sites</u>	TBD		
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TREATMENT ALONG PERMANENT ROADS Permanent roads that require roadside slash treatment are listed in the attached table and shown on Contract Area Map. All Logging and Construction Slash within Required Disposal Strips shall be treated by Contractor. "Required Disposal Strips" are those areas adjacent to permanent roads where slash treatment is required for resource objectives. The width of Required Disposal Strips is shown in the attached table and is measured in slope distance from Roadbed edges of permanent roads. By agreement, in Clearcutting Units and regeneration units slash from Required Disposal Strips may be treated with other Logging Slash. By agreement the location of Required Disposal Strips may be adjusted from side to side without materially changing the total work required.

Slash treatment in Required Disposal Strips shall be accomplished without affecting the proper functioning of channels leading to and from drainage structures.

Logging Slash larger than treatment size requirements of the specified method shall either be Scattered outside Required Disposal Strip, within Required Disposal Strip or Decked at agreed locations as shown in the attached table.

			SLASH TREATMENT	
Road No.	Subdivision and/ or Unit No. or Road Juncitons (From To)	Width of Required Disposal Strip	Specified Method	Slash Larger Than Treatment Size Requirements of Specified Method
N/A				

TREATMENT ALONG TEMPORARY ROADS. Outside of Clearcutting Units or regeneration units, all trees felled or pushed over and trees damaged beyond recovery by Temporary Road construction shall be felled, limbed to a stem d.o.b. of approximately 3 inches, at which point the top shall be cut from the remainder of the stem, and stem shall be bucked into lengths not exceeding <> feet. Such slash shall be Scattered free of soil to reduce concentrations unless treatment is required by another specified method.

ADDITIONAL SLASH TREATMENT REQUIREMENTS. Within areas shown on Contract Area Map, Contractor shall perform work according to the specifications in the attached Table, unless otherwise agreed in writing.



Subdivision, Payment Units, Roads and or Road Segments	Additional Slash Treatment Requirements
All Mechanized Cutting Units	<p>Yard all stem material to a top d.o.b. of 1 inch, from timber designated for cutting, with the following exception: broken portions of logs and tops less than 4 feet in length need not be yarded.</p> <p>Broken ends of merchantable logs shall not be bucked off in the units.</p> <p>Slash and Substandard Material accumulated at the landings shall be Decked or Machined Piled, in accordance with specifications above.</p> <p>Material accumulated at landings shall be considered as Timber Subject to Agreement under CT2.11##, described as Substandard Material and may be removed and paid for at Contractor's option.</p>

CT6.83 - ACCOUNTABILITY. (2/2005) Forest Service and Contractor shall agree upon the haul route(s) prior to use. All products removed from Contract Area shall be transported over the designated route of haul.

Contractor shall:

(a) Require truck drivers to sign form R5-2400-242, product removal permit, assure permit is attached to the load prior to removal from the Contract Area and while in transit to load destination.

(b) Assign a competent individual at the landing to record the following information for each load on the product removal permit provided by Forest Service:

1. Date and time load is punched out with a paper punch or equivalent
2. Truck ID or license number
3. Load destination

Used books of product removal permits (stub portion) shall be returned to the Forest Service at least weekly, unless otherwise agreed.

(c) Require truck drivers to stop for transportation inspections, if requested by Forest Service, when products are in transit from Contract Area to Contractor's processing facility(s).

(d) Inform truck drivers of the designated route(s) of haul, the agreed upon location(s) for transportation inspections, the method of alerting drivers of an impending stop, and the fact that loads may be inspected at other locations where it is safe and possible to do so.

(e) Require truck drivers to assure the product removal permit is secured to each load of product (including chip vans, dump trucks or other container used for removing material) on the front lower corner of the drivers side of the load. Staple product removal permits to a log or attached piece of wood or other suitable material. Product



removal permit shall remain attached to log until manufactured into products or if chips, until load has been unloaded. After logs are processed or load of chips unloaded the product removal permit shall be either destroyed or otherwise rendered unusable, unless otherwise agreed.

CT8.66# - USE OF TIMBER (Option 1). (9/04) (a) This contract is subject to the Forest Resources Conservation and Shortage Relief Act of 1990, as amended (16 USC 620, *et seq.*).

(b) Except for NONE 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.

(d) 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.

(e) 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.

(f) 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 exported or domestically processed, whichever is applicable; and

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

(g) 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.

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

(i) For breach of this Subsection, Forest Service may terminate this contract 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.

F.11 - Roads. NFF is/are authorized to construct and maintain roads, bridges, and other transportation facilities, as needed for conducting treatments on National Forest and other lands



where Forest Service has such authority. As used in this Supplemental Project Agreement, “construct” includes “reconstruct.”

F.11-a– Specified Roads.							
Name and Date of Governing Road							
Specifications:							
Project		Design Class	Approx. Length (mi./km.)	Sheet Numbers and Approval Date	Performance Responsibility		
Road No.	Name				Survey	Design	Const. Staking

F.11-b - Road Maintenance Requirements. NFF shall maintain roads in accordance with the following Road Maintenance Requirements

Road Maintenance Requirements Summary

Road	Termini		Miles	Applicable Prehaul Road Maintenance Specifications													
	From	To															

P = Partner Performance Item, D = Deposit to Forest Service, D3 = Deposit to Third Party

F.11-c - Use of Roads By the Partner. NFF’s use of existing roads identified on Stewardship Project Area Map by the following codes is prohibited or subject to restrictive limitations, unless agreed to otherwise:

Code	Use Limitations
X	Hauling prohibited
R	Hauling restricted
U	Unsuitable for hauling prior to completion of agreed reconstruction
P	Use prohibited
A	Public use restriction
W	Regulation waiver

Roads coded A will be signed by the Forest Service to inform the public of use restrictions. NFF's use of roads coded R, A, or W shall be in accordance with the following restrictions:



Restricted Road List

Road Number	Road Name	Termini		Map	Description of Restrictions
		From	To	Legend	

F.12– Scaling Instructions and Specifications.

Name and Date of Governing Instructions: FSH 2409.11a, National Forest Cubic Log Scaling Handbook, as amended and supplemented. Governing instructions for products contained in E.2.

F.13– Scaling Services.

Species	Product	Unit of Measure	Site and Geographic Location	Method	Standard Estimated Cost per Unit \$

F.14 - Advance Deposits. NFF agree(s) to make advanced deposits in advance of cutting. These deposits may be in the form of cash, acceptable payment bond, earned stewardship credit or any combination thereof. Advanced deposits will be in such amounts as to maintain an unobligated balance sufficient enough to cover the value of timber to be cut. Forest Service and NFF will agree on a systematic approach to provide sufficient advanced deposits.

If the credit balance in the IRSA is less than the amount due for timber, the Forest Service will suspend all or any part of NFF’s operations until payment or acceptable payment guarantee is received.

F.15- Title Passage.

Scaled. All right, title, and interest in and to any included timber shall remain with the Forest Service until it has been cut, scaled, and removed from the Stewardship Project Area or other authorized cutting area, and paid for, at which time title shall then vest with NFF. Timber cut under cash deposit or acceptable payment guarantee shall be considered to have been paid for. Title to any included timber that has been cut, scaled and paid for, but not removed from the Stewardship Project Area or other authorized cutting area by the NFF on or prior to the termination date, shall remain with the Forest Service.

Tree Measurement. All right, title, and interest in and to any included timber shall remain with the Forest Service until it has been measured, paid for, and removed from the Stewardship Stewardship Project Area or other authorized cutting area, at which time title shall then vest with NFF. Timber cut under cash deposit or acceptable payment guarantee shall be considered to



have been paid for. Title to any included timber that has been measured and paid for, but not removed from the Stewardship Project Area or other authorized cutting area by NFF on or prior to the termination date, shall remain with the Forest Service.

F.16– Liability.

Liability for Loss. If Included Timber is destroyed or damaged by an unexpected event that significantly changes the nature of Included Timber, such as fire, wind, flood, insects, disease, or similar cause, the party holding title shall bear the timber value loss resulting from such destruction or damage; except that such losses after removal of timber from the Stewardship Project Area, but before scaling, shall be borne by NFF at current SPA Rates and Required Deposits. Deterioration or loss of value of salvage timber is not an unexpected event.

In the event Included Timber to which Forest Service holds title is destroyed, NFF will not be obligated to remove and pay for such timber. In the event Included Timber to which Forest Service holds title is damaged, the Forest Service shall make an appraisal to determine for each species the difference between the appraised unit value of Included Timber immediately prior to the value loss and the appraised unit value of timber after the loss. Current SPA Rates in effect at the time of the value loss shall be adjusted by differences to become the redetermined rates. There shall be no obligation for the Forest Service to supply, or for NFF to accept and pay for, other timber in lieu of that destroyed or damaged. This Subsection shall not be construed to relieve either party of liability for negligence.

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:

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

- (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.

\$21.08 /Hr. x 12 hours = \$ 252.96

- (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.

\$280 /Hr. x 12 hours = \$3,360 /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

Cooperator’s Obligation per Operations Fire,

Maximum	72,300
Amount:	\$ _____

F.17 – Use of Timber

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

(b) Except for **NONE** 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 Partner 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.

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

(e) Prior to award, during the life of this SPA and for a period of 3 years from Termination Date, Partner 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 Partner or affiliates.

(f) Prior to delivering unprocessed Included Timber to another party, Partner shall require each buyer, ex-changee, 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).
- (g) No later than 10 days following the execution of any such agreement between Partner and another party, Partner shall furnish to Forest Service a copy of each such agreement. Partner shall retain, for 3 years from Termination Date, the records of all sales, exchanges, or dispositions of all Included Timber.
- (h) Upon request, all records dealing with origin and disposition of Included Timber shall be made available to Contracting Officer.
- (i) For breach of this Subsection, Forest Service may terminate this SPA 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 Partner relating to the termination.

F.17 – Debarment and Suspension Certification

Pursuant to 2 CFR 180 and 2 CFR 417, Partner shall certify and obtain certifications from its Subcontractors regarding debarment, suspension, ineligibility, and voluntary exclusion, including additional Subcontractors obtained after execution of this SPA. “Subcontractors” are participants in lower tier covered transactions.

Partner may rely upon a certification of a prospective Subcontractor that it is not proposed for debarment under 48 CFR 9.4, debarred, suspended, ineligible, or voluntarily excluded from participating in covered transactions or contracts, unless Partner knows that the certification is erroneous.

Partner shall keep the certifications of its Subcontractors on file until contract Termination Date and any extensions thereof, and will provide a copy at the written request of Contracting Officer. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this Subsection. The knowledge and information of Partner is not re-quired to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

If Partner knowingly enters into a contract transaction with a person who is proposed for debarment under 48 CFR 9.4, suspended, debarred, ineligible, or voluntarily excluded from participation in covered transactions or contracts, in addition to other remedies available to the Government, Forest Service may pursue available remedies, including suspension and/or debarment.

Contracting Officer shall provide a copy of Forms AD-1047 Certification Regarding Debarment, Suspension and Other Responsibility Matters – Primary Covered Transactions and AD-1048 Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – Lower



Tier Covered Transactions to the Partner.

Partner shall complete form AD-1047 and provide to the Contracting Officer upon request.

Partner shall require each subcontractor to complete form AD-1048 and provide to the Contracting Officer upon request.