

Request for Proposals
Schultz Hand Thinning, Hand Piling & Mastication
Coconino National Forest, Arizona

Background and Statement of Work: The Schultz Hand Thinning, Hand Piling & Mastication project, totaling 341 acres, is located roughly 14 miles north of Flagstaff, AZ. The work involves cutting most of the unmarked conifers up to 9" dbh. Due to the recreational importance of this area, it is requested that no motor vehicles drive within the project area unless critical to project completion.

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 hand thinning, hand piling, and mastication, including the following:

Hand Thin (Units 1, 2, 3, 4, 80, 85, 86A and 86C):

1. Hand thin and hand pile conifers (2' – 9" DBH) across 182 acres.
2. Leave up to 5-10 live conifers per acre <9" dbh at an approximate 100x100 foot spacing. Please refer to Appendix B for specific unit prescriptions.
3. Ensure retained trees have full healthy crowns, no major form defects, no dwarf mistletoe infection, and are not located directly under the crowns of larger trees.
4. Species preference is ponderosa pine > southwestern white pine > Douglas fir > white fir.
5. Cut stumps as low as possible (maximum allowable height is 6") and ensure cut surface is flat (<30° angle). Hand pile all activity slash (including boles).

6. The minimum pile size differs by unit and ranges from 7' wide x 7' tall up to 9' wide x 8' tall (See Appendix B). Larger piles are preferred.
7. Piles shall be built in accordance with Appendix B (see example photo in Figure 1).
8. Unit 2 requires piling portions of reasonably sound pre-existing logs between 4" and 9" diameter and greater than 4' long.

Mastication:

1. Units 82, 83, 84, and 86B:
 - a. Masticate most unpainted conifers between 1 foot to 9" dbh, except to leave desirable unpainted conifers to approximately 100x100 foot spacing (space only off other retained conifers greater than 9" dbh), favoring in order ponderosa pine, southwestern white pine, Douglas fir, and white fir.
 - b. Hand thin and pile any conifers that cannot be masticated due to operational constraints, with a minimum pile size of 7x7 feet tall.
2. Unit 80 and 85:
 - a. Cut all undesirable conifers between 1 foot tall and 9" dbh. Thin desirable conifers between 1 foot tall and 9" dbh to an approximate 50x50 foot spacing (space only off other retained conifers greater than 9" dbh), favoring in order ponderosa pine, southwestern white pine, Douglas fir, and white pine.
 - b. Pile all activity slash generated from hand thinning, with a minimum pile size of 9' wide by 8' tall.

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 Schultz Tank site is located in Coconino County, north of Flagstaff off of US-180 (Fort Valley Road). The main access route is located via the 6353A road off of the 420 road (Schultz Pass Road). See Appendix A Project Area Map.
- (c) Work Schedule – Work may begin as early as October 1, 2024. Work must be completed by December 31, 2025. A portion of this project cannot be completed until adjacent timber sale operations are completed and closed out.

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:
 - Work shall be confined within project boundaries as indicated in Appendix A Project Area Map.
 - Contractor shall follow the prescription for each unit in Appendix B Detailed Prescription List.
 - Contractor shall adhere to operational guidelines found in Appendix D Guidelines for

Operations.

- Contractor shall adhere to Appendix D General Requirements when operating in the project boundaries.
- All work shall be in accordance with all project appendices and other applicable local, state and/or federal regulations.

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 attached as Appendix E.

II. REQUIRED COMPONENTS

Technical Proposal

Please provide a detailed technical approach to the work.

Contractor Qualifications

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

Pricing Schedule

Contractor shall price work according to the schedule below. Prevailing wages are required per conditions of funding sources.

Description	Unit	Quantity	Unit Cost	Total Cost
Hand thin and pile live and dead conifers between 2' tall and 9" DBH.	Acres	182		
Mastication	Acres	159		
			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 December 20, 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.

Caio Vissicaro
National Forest Foundation Northern Arizona Program Forestry Coordinator
928.463.5321
cvissicaro@nationalforests.org

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

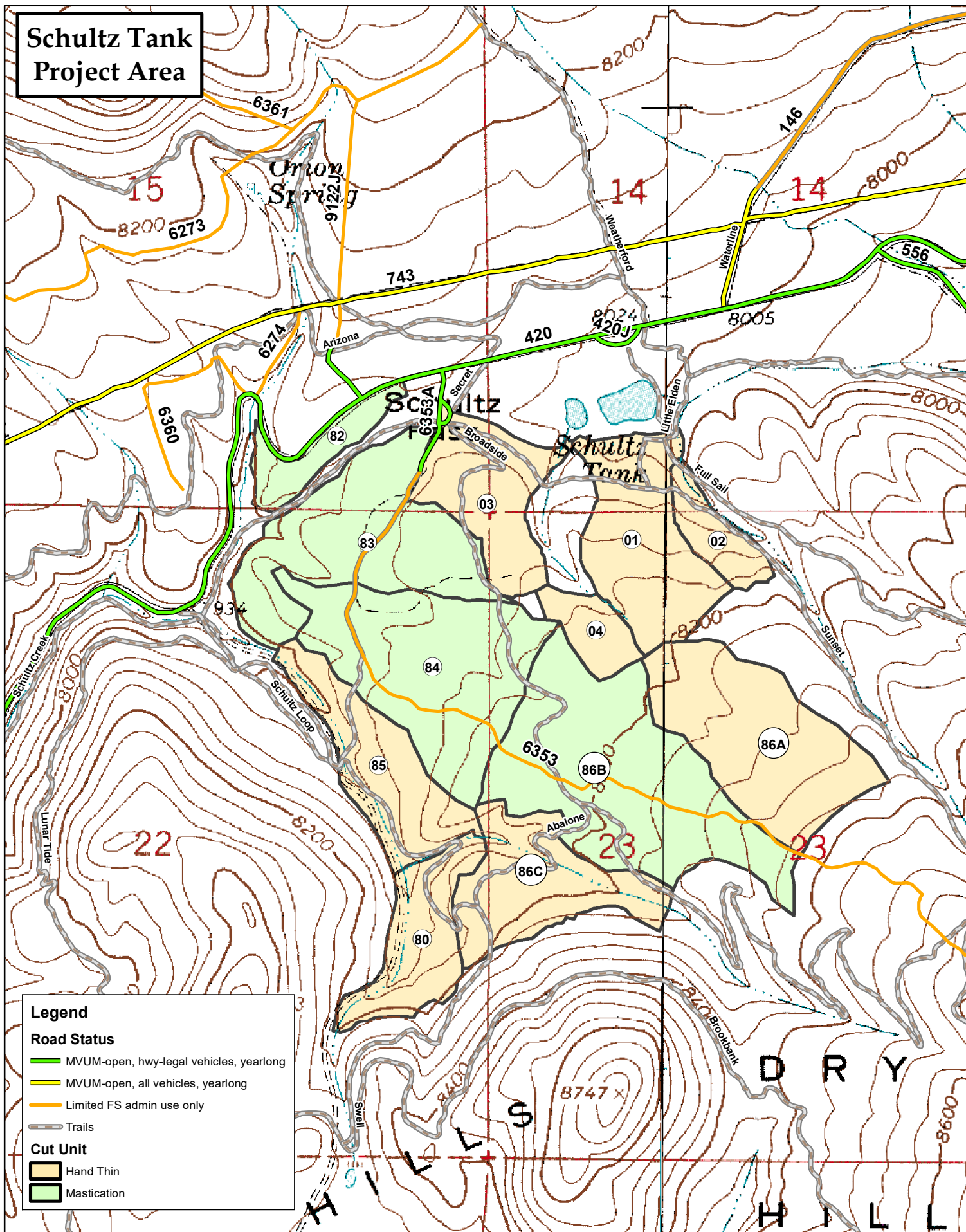
Bid Submission

Submit bids via email to cvisicaro@nationalforests.org by December 6, 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.

Schultz Tank Project Area



Legend

Road Status

- MVUM-open, hwy-legal vehicles, yearlong
- MVUM-open, all vehicles, yearlong
- Limited FS admin use only
- Trails

Cut Unit

- Hand Thin
- Mastication



**Schultz HTHP & Mastication
APPENDIX B:
DETAILED PRESCRIPTION**

Schultz Units

Unit	Acres	Cutting Method
01	31	Hand Thin
02	9	Hand Thin
03	23	Hand Thin
04	8	Hand Thin
80	19	Hand Thin
82	9	Mastication
83	42	Mastication
84	48	Mastication
85	25	Hand Thin
86A	40	Hand Thin
86B	60	Mastication
86C	27	Hand Thin
	341	

Detailed Prescription

Unit: 01, 03, 04

Acres: 62 (total)

Timing Restrictions: None

Boundary: Unit boundaries will be provided via georeferenced PDF map and/or shapefiles. Boundaries are not painted/flagged on ground. Any sites requiring avoidance within unit boundaries will be painted white.

Prepared by: /s/ Mark Nabel **Date:** 4/29/2024

Tree Cutting

- Hand fall most live and dead conifers between 2 feet tall and 9" dbh, except leave up to 5 live conifers per acre <9" dbh at an approximate 100x100 foot spacing, ensuring retained trees have full healthy crowns, no major form defects, no dwarf mistletoe infection, and are not located directly under the crowns of larger trees. Species preference is ponderosa pine > SW white pine > Douglas-fir > white fir.
- Cut stumps as low as possible (maximum allowable height is 6") and ensure cut surface is flat (<30° angle)

Slash Treatment

- Hand pile all activity slash (including boles).
- Minimum pile size is 9' wide x 8' tall (larger piles preferred).
- Piles shall be built and compacted by distributing limbs, tops, boles <5" diameter at the large end, and other slash so there are very few air spaces. Smaller material shall generally be concentrated towards the bottom and center of the pile. Boles >5" diameter at the large end shall be placed towards the top of the pile or leaning tightly against the edge of the pile (gumdrop-shaped), with <6" of air space between the bottom of each bole and the general contour of the pile. Material leaning against the pile shall be >4' long. No piece of material shall protrude more than 2' beyond the general contour of the pile. Ensure a 2' log and slash-free buffer around the base of each pile (cutting and removing material as needed to clear space for each pile). See example photo in Figure 1.
- Piles shall be located outside the dripline of standing live trees where possible and in openings where available. No portion of a pile shall be constructed within 25' of live trees >24" dbh or snags >18" dbh. No portion of a pile shall be constructed within 50' of a road or trail, or 15' of any other improvement (fences, signs, land survey monuments).

Definitions

- **Activity slash** – tree tops, limbs, and boles created from current thinning work
- **DBH** - diameter at breast height (4.5 feet above the ground)

Detailed Prescription

Unit: 02

Acres: 9

Timing Restrictions: None

Boundary: Unit boundaries will be provided via georeferenced PDF map and/or shapefiles. Boundaries are not painted/flagged on ground. Any sites requiring avoidance within unit boundaries will be painted white.

Prepared by: /s/ Mark Nabel **Date:** 4/29/2024

Tree Cutting

- Hand fall most live and dead conifers between 2 feet tall and 9" dbh, except leave up to 5 live conifers per acre <9" dbh at an approximate 100x100 foot spacing, ensuring retained trees have full healthy crowns, no major form defects, no dwarf mistletoe infection, and are not located directly under the crowns of larger trees. Species preference is ponderosa pine > SW white pine > Douglas-fir > white fir.
- Cut stumps as low as possible (maximum allowable height is 6") and ensure cut surface is flat (<30° angle)

Slash Treatment

- Hand pile all activity slash (including boles) and ***portions of reasonably sound pre-existing logs between 4" and 9" diameter and greater than 4' long*** (bucking these sections out of larger logs as needed). Smaller portions of pre-existing logs may also be piled but it is not required.
- Minimum pile size is 9' wide x 8' tall (larger piles preferred).
- Piles shall be built and compacted by distributing limbs, tops, boles <5" diameter at the large end, and other slash so there are very few air spaces. Smaller material shall generally be concentrated towards the bottom and center of the pile. Boles >5" diameter at the large end shall be placed towards the top of the pile or leaning tightly against the edge of the pile (gumdrop-shaped), with <6" of air space between the bottom of each bole and the general contour of the pile. Material leaning against the pile shall be >4' long. No piece of material shall protrude more than 2' beyond the general contour of the pile. Ensure a 2' log and slash-free buffer around the base of each pile (cutting and removing material as needed to clear space for each pile). See example photo in Figure 1.
- Piles shall be located outside the dripline of standing live trees where possible and in openings where available. No portion of a pile shall be constructed within 25' of live trees >24" dbh or snags >18" dbh. No portion of a pile shall be constructed within 50' of a road or trail, or 15' of any other improvement (fences, signs, land survey monuments).

Definitions

- ***Activity slash*** – tree tops, limbs, and boles created from current thinning work
- ***Pre-existing logs*** – logs that were already laying on the ground prior to current thinning work
 - ***Reasonably sound*** – intact wood that does not crumble or easily fall apart while picking up and moving by hand

DBH - diameter at breast height (4.5 feet above the ground)

Detailed Prescription

Unit: 80, 85, 86A, 86C

Acres: 111 (total)

Timing Restrictions: None

Boundary: Unit boundaries are painted on the ground with faded orange horizontal bands, except for the boundaries between Units 86A, 86B, and 86C, which will be provided via georeferenced PDF map and/or shapefiles. Any sites requiring avoidance within unit boundaries will be painted white.

Prepared by: /s/ Mark Nabel **Date:** 4/29/2024

Tree Cutting

- Hand fall most unpainted live and dead conifers between 2 feet tall and 9" dbh, except leave up to 5-10 live conifers per acre <9" dbh at an approximate 75x75 foot spacing, ensuring retained trees have full healthy crowns, no major form defects, no dwarf mistletoe infection, and are not located directly under the crowns of larger trees. Species preference is ponderosa pine > SW white pine > Douglas-fir > white fir.
- Cut stumps as low as possible (maximum allowable height is 6") and ensure cut surface is flat (<30° angle)

Slash Treatment

- Hand pile all activity slash (including boles).
- Minimum pile size is 7' wide x 7' tall (larger piles preferred).
- Piles shall be built and compacted by distributing limbs, tops, boles <5" diameter at the large end, and other slash so there are very few air spaces. Smaller material shall generally be concentrated towards the bottom and center of the pile. Boles >5" diameter at the large end shall be placed towards the top of the pile or leaning tightly against the edge of the pile (gumdrop-shaped), with <6" of air space between the bottom of each bole and the general contour of the pile. Material leaning against the pile shall be >4' long. No piece of material shall protrude more than 2' beyond the general contour of the pile. Ensure a 2' log and slash-free buffer around the base of each pile (cutting and removing material as needed to clear space for each pile). See example photo in Figure 1.
- Piles shall be located outside the dripline of standing live trees where possible and in openings where available. No portion of a pile shall be constructed within 25' of live trees >24" dbh or snags >18" dbh. No portion of a pile shall be constructed within 50' of a road or trail, or 15' of any other improvement (fences, signs, land survey monuments).
- In rare instances, activity slash that would need to be dragged more than 150 feet to make a pile meeting minimum pile specs may be lopped and scattered to <2 feet in height

Definitions

- **Activity slash** – tree tops, limbs, and boles created from current thinning work
- **DBH** - diameter at breast height (4.5 feet above the ground)

Detailed Prescription

Unit: 82, 83, 84, 86B

Acres: 159 (total)

Timing Restrictions: None

Boundary: Unit boundaries are painted on the ground with faded orange horizontal bands, except for the boundaries between Units 86A, 86B, and 86C, which will be provided via georeferenced PDF map and/or shapefiles. Any sites requiring avoidance within unit boundaries will be painted white.

Prepared by: /s/ Mark Nabel **Date:** 4/29/2024

Tree Cutting

- Fall (with a masticator or by hand) most unpainted live and dead conifers between 1 foot tall and 9" dbh, except leave up to 5 live conifers per acre <9" dbh at an approximate 100x100 foot spacing, ensuring retained trees have full healthy crowns, no major form defects, no dwarf mistletoe infection, and are not located directly under the crowns of larger trees. Species preference is ponderosa pine > SW white pine > Douglas-fir > white fir.
- Cut stumps as low as possible (maximum allowable height is 6") and ensure cut surface is flat (<30° angle)

Slash Treatment

- Masticate all activity slash (including boles), spreading chips to ensure chip depth never exceeds 4" and is less than 2" across at least 95% of the project area. Individual chip piece size shall not exceed 2" diameter or 4 feet in length. Minimize damage to residual trees.
- Masticated chips shall be promptly removed from established trails (no later than the end of the same day).

Constraints

- Areas inaccessible to a masticator shall be hand felled and hand piled, with piling specs the same as those described in other prescriptions above.
- Mastication shall only occur when the ground within the unit is visible with <3 inches of snow.
- Masticator shall cross established trails at designated crossings running perpendicular to the trail to minimize trail impacts. Trails should be crossed as few times as possible.

Definitions

- **Activity slash** – tree tops, limbs, and boles created from current thinning work
- **DBH** - diameter at breast height (4.5 feet above the ground)



Figure 1. Example of well-constructed hand pile meeting all specifications.

APPENDIX D GUIDELINES FOR OPERATIONS

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

D.1. STEWARDSHIP PROJECT AREA MAP (PAM)

This is the boundary of the Stewardship Project Area as shown in Appendix 1 and designated on the ground by NFF and/or the Forest Service to meet the anticipated needs of the parties. The following are identified on the Map:

- a) Boundaries of all harvest and stewardship treatment units.
- b) Areas where leave trees are marked to be left uncut.
- c) Specified roads.
- d) Sources of base course, surface rock, and rock riprap listed in the Schedule of Items: **N/A**
- e) Roads where log hauling or use is prohibited or restricted.
- f) Roads and trails to be kept open.
- g) Improvements to be protected.
- h) Locations of known wildlife or plant habitat and cave resources to be protected.
- i) Locations of areas known to be infested with specific invasive species of concern.
- j) Skidding methods.
- k) Streamcourses to be protected.
- l) Locations of meadows requiring protection.
- m) Locations of wetlands requiring protection.
- n) Locations of temporary roads to be kept open.
- o) Payment units, if required

D.2. USE OF ROADS BY THE CONTRACTOR

Contractor is 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.

D.3. PLAN OF OPERATIONS FOR ROADS

Annually, prior to start of operations, Contractor 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. Contractor 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.

D.4. PROTECTION OF RESIDUAL TREES

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

D.5. SAFETY

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

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

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

D. 5.1. 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).

D.5.2. 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 MUTCD. 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.

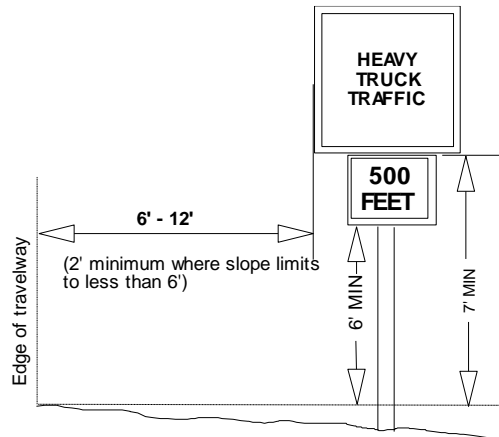


Figure 1: Sign Placement Dimensions

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

D.5.3. 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.

D.5.4. 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.

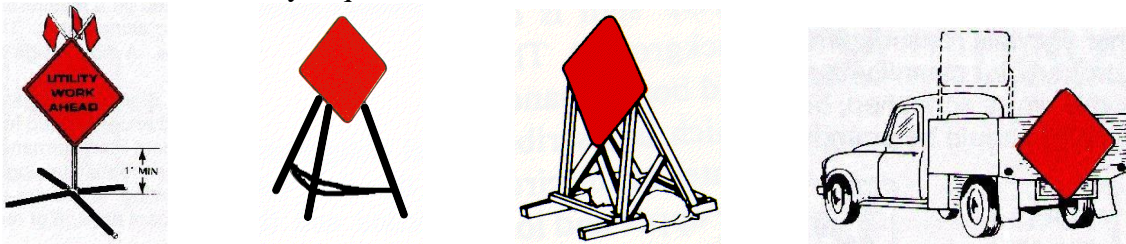


Figure 9: Examples of Temporary/Portable Supports

D.5.5. SIGNS

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

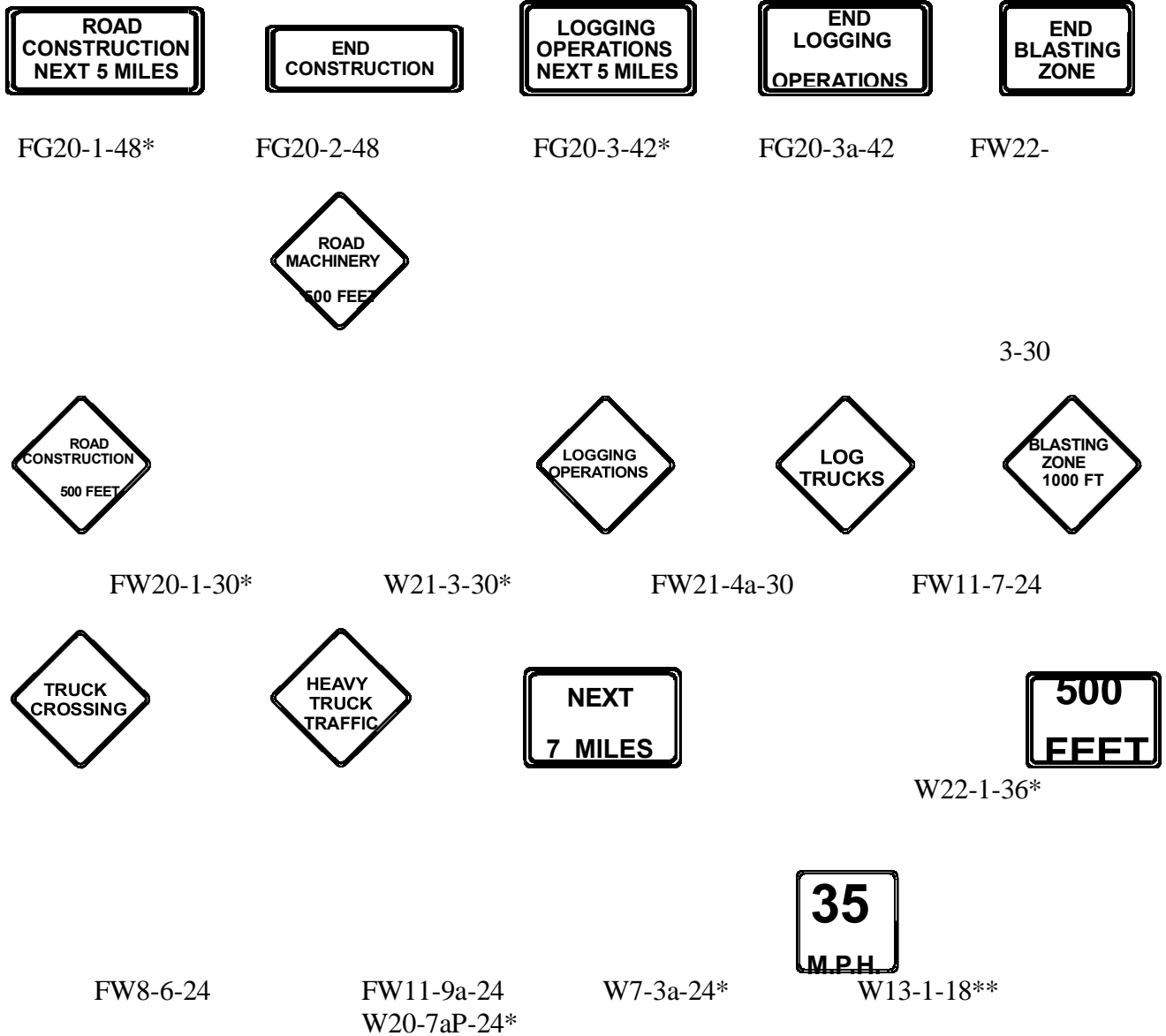


Figure 10: Signs

* Specify Distance

** Specify Speed



BM-L-O



BM-R-O

Figure 11: Barricade Markers (See MUTCD for length and stripe size)

D.5.6. SAFETY (TIMBER HAULING.)

Contractor 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.

D.5.7. ACCIDENT AND INJURY NOTIFICATION

Contractor 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 Contractor's Operations.

Contractor shall notify Forest Service within 8 hours of any personal injury accident. For vandalism and personal property accidents, Contractor shall notify Forest Service at the same time notification is given to the state and local law enforcement authorities.

Contractor 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.

D.6. SANITATION AND SERVICING

Contractor shall take all reasonable precautions to prevent pollution of air, soil, and water by Contractor'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. Contractor shall maintain all equipment operating on Stewardship Project Area in good repair and free of abnormal leakage of lubricants, fuel, coolants, and hydraulic fluid. Contractor shall not service tractors, trucks, or other equipment on National Forest lands where servicing is likely to result in pollution to soil or water. Contractor shall furnish oil-absorbing mats for use under all stationary equipment or equipment being serviced to prevent leaking or spilled petroleum-based products from contaminating soil and water resources. Contractor shall remove from National Forest lands all contaminated soil, vegetation, debris, vehicle oil filters (drained of free-flowing oil), batteries, oily rags, and waste oil resulting from use, servicing, repair, or abandonment of equipment.

D.7. PREVENTION OF OIL SPILLS

If Contractor maintain(s) storage facilities for oil or oil products on the Stewardship Project Area, Contractor shall take appropriate preventive measures to ensure that any spill of such oil or oil products does not enter any stream or other waters of the United States or any of the individual States. If the total oil or oil products storage exceeds 1,320 gallons in containers of 55 gallons or greater, Contractor 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. Contractor 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 Contractor's employees, agents, contractors or their employees or agents, directly or indirectly, as a result of Contractor's operations. Contractor will take whatever initial action may be safely accomplished to contain all spills.

D.8. HAZARDOUS SUBSTANCES

Contractor 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 Contractor's employees, agents, contractors or their employees or agents, directly or indirectly, as a result of Contractor's operations, in accordance with 40 CFR 302.

D.9. WASHING EQUIPMENT

In order to prevent the spread of noxious weeds into the Stewardship Project Area, Contractor 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 Contractor 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.

Contractor 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, Contractor 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 Contractor, NFF or Forest Service, on the Stewardship Project Area or on the haul route, shall be promptly reported to the other party. Contractor, NFF and/or 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.

D.10. CONDUCT OF LOGGING

Unless otherwise specifically provided herein, Contractor 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. NFF and/or 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.

D.11. 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. Contractor 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, Contractor shall make sample saw cuts or wedges.

D.12. 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.

D.13. STUMP HEIGHTS

Stumps shall not exceed, on the side adjacent to the highest ground, the maximum heights set forth in C.4. except that occasional stumps of greater heights are acceptable when Contractor determine(s) that they are necessary for safe and efficient conduct of logging. Unless otherwise agreed, Contractor shall re-cut high stumps so they will not exceed heights specified in C.4. and shall dispose of severed portions in the same manner as other logging debris. The stump heights shown in C.4. 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.

D.14. BUCKING LENGTHS

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

D.15. PROTECTION OF STREAMCOURSES

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

D.16. EROSION PREVENTION AND CONTROL

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

Prior to periods of accelerated water runoff, especially during the spring runoff and periods of heavy rainfall, Contractor 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, Contractor 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.

When operations are active, erosion control work will be kept current and will be completed as soon as practicable.

D.17. PROTECTION OF IMPROVEMENTS

So far as practicable, Contractor shall protect specified roads and other improvements (such as roads, trails, telephone lines, ditches, and fences):

- i. Existing in the operating area,
- ii. Determined to have a continuing need or use, and
- iii. Designated on the PAM.

Contractor 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 Contractor's operations. Contractor shall make timely restoration of any such improvements damaged by Contractor's operations and, when necessary because of such operations, shall move such improvements.

D.18. 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.

D.19. 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.

D.20. TEMPORARY ROADS

As necessary to attain stabilization of roadbed and fill slopes of temporary roads, Contractor shall employ such measures as outsloping, drainage dips, and water-spreading ditches. After a temporary road has served Contractor's purpose, Contractor shall give notice to NFF and/or 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.

D.21. 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 PAM. All drainage structures shall be left in functional condition.

D.22. LANDINGS

After landings have served Contractor's purpose, Contractor 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.

D.23. SKID TRAILS AND FIRE LINES

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

D.24. CURRENT OPERATING AREAS

Where logging, road construction, or other stewardship project work is in progress but not completed, unless agreed to otherwise, Contractor 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, Contractor shall keep such work on any additional disturbed areas as up to date as practicable.

D.25. EROSION CONTROL STRUCTURE MAINTENANCE

During the period of this SPA, Contractor shall provide maintenance of soil erosion control structures constructed by Contractor until they become stabilized, but not for more than one year after their construction.

D.26. SLASH DISPOSAL

Contractor's timing of product removal and preparatory work shall not unnecessarily delay slash disposal. Specific slash disposal measures to be employed by Contractor are stated in E.4.

D.27. FIRE PRECAUTIONS AND CONTROL

- a) **Plans.** Prior to initiating Contractor's operations during Fire Precautionary Period, Contractor shall file with Forest Service a Fire Prevention and Control Plan providing for the prevention and
- b) control of fires on the Stewardship Project Area and other areas of Contractor's Operations. Such plan shall include a detailed list of personnel and equipment at Contractor disposal for implementing the plan. This requirement may be met by preparing a single plan for more than one SPA.
- c) **Fire Precautions.** Specific fire precautionary measures listed in this Appendix shall be applicable during Contractor's Operations in "Fire Precautionary Period" described. The dates of Fire Precautionary Period may be changed by agreement, if justified by unusual weather or other conditions. Required tools and equipment shall be kept in serviceable condition and immediately available for fire fighting at all times during Contractor's operations in Fire Precautionary Period.
 - i. **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 Contractor's Operations, as specified by the emergency fire precautions schedule. Under such conditions, after Contractor cease(s) active operations, Contractor shall release for hire by Forest Service, if needed, Contractor's shutdown equipment for fire standby on the Stewardship Project Area or other areas of Contractor's Operations and personnel for fire standby or fire patrol, when such personnel and equipment are not needed by Contractor for other fire fighting or protection from fire. Equipment shall be paid for at fire fighting equipment rates common in the area or at prior agreed rates and, if Contractor request(s), shall be operated only by personnel approved by the Contractor. Personnel so hired shall be subject to direction and control by NFF and/or the Forest Service and shall be paid by NFF and/or Forest Service at fire fighting rates common in the area or at prior

agreed rates.

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

The following requirements shall apply during the period of 4/15 – 11/30 and during other such periods as specified by Forest Service.

Industrial Fire plan

Contractor will restrict operations in accordance with the following Emergency Fire Precaution Schedule. When there is a predicted change, Forest Service shall inform the Contractor by 6:00 pm, Mountain Standard Time (7:00 pm MDT), of the predicted change in the Industrial Fire Precaution Plan. The procedure for the Forest Service to notify the Contractor of a change shall be stated in the contract fire plan. The Contracting Officer may, after consultation with the Forest Supervisor, adjust the predicted Industrial Fire Precaution Plan for local weather conditions on Sale Area. Changes in the predicted Industrial Fire Precaution Plan shall be agreed to in writing.

EMERGENCY FIRE PRECAUTION SCHEDULE	
FIRE RESTRICTION/CLOSURE “STAGE”	
“STAGED” RESTRICTION LEVELS	INDUSTRIAL FIRE RECAUTION PLAN
NO RESTRICTIONS	A
STAGE I	B
STAGE II	C
STAGE III (PARTIAL FOREST CLOSURE) **	C or D
STAGE IV (TOTAL FOREST CLOSURE)	D
RED FLAG WARNING (Issued by National Weather Service)	D

**** Partial Forest Closure:** Contract areas which are outside the boundaries of the partial forest closure may continue to operate under Industrial Fire Precaution Plan “C” operating criteria as agreed upon between the CO and Contractor in writing. Contract areas within the boundaries of the proclaimed partial forest closure area are to operate under Industrial

Precaution Plan “D”. Staged restriction levels are determined by the Line Officer in conjunction with Fire Management Officer(s) and Contracting Officer(s). The process is a mix of quantitative and subjective measures which allows Line Officers a broad level of discretion considering local conditions and issues when deciding to implement fire restrictions and/or area closures.

Industrial Fire Precaution Plan – Description

A - Normal Fire Precautions: No fire guard required.

B - Normal Fire Precautions except designated areas for smoking and warming or cooking fires require a written permit. Contractor will provide fire guard.

C - All power saws and mechanical fellers except for mechanical fellers equipped with hydraulic shears will shut down from 9:00 am until 8:00 pm Mountain Standard Time (10:00 am to 9:00 pm MDT), except chainsaws may be used from 9:00 am until 2:00 pm Mountain Standard Time (10:00 am to 3:00 pm MDT), for limbing on landings cleared to mineral soil. Loading is authorized to continue from 12:00 noon until 2:00 pm, Mountain Standard Time (1:00 pm to 3:00 pm MDT), on landings cleared to mineral soil. Product removal vehicles must be out of the Sale Area to a surfaced road by 2:00 pm, Mountain Standard Time (3:00 pm MDT). Shutdown from 12:00 noon until 8:00 pm Mountain Standard Time (1:00 pm to 9:00 pm MDT); all machine treatment of slash; mechanical equipment used for shearing, bunching, or delimiting; skidding; cable yarding; blasting; welding; metal cutting; and clearing. Operations on mineral soil involving road excavation, watering, grading, surfacing, rock crushing, and/or other equipment maintenance may continue. No smoking, warming or cooking fires are permitted at any time. Contractor will provide fire guard.

D - Shutdown all operations; except operations on mineral soil involving road excavation, watering, grading, gravel surfacing, and rock crushing may continue with special Forest Service permit. Contractor will provide fire guard.

Fire Precautions and Control

Contractor shall provide the personnel, tools and equipment to take the following precautionary measures:

Smoking and Lunch Fire Restrictions: Contractor shall prohibit smoking and building of camp and lunch fires by persons engaged in Contractor's operations, except at established camps or in areas that Forest Service may designate. Smoking may be permitted at these designated areas only after all flammable material has been cleared to mineral soil. All fires and smoking materials shall be completely extinguished at end of lunch or smoking period.

Fire Tools: Contractor shall furnish and maintain; i.e., cutting edges sharp, handles sanded and tightly fitted, clean of rust and foreign material; fire tools to be used only for suppressing forest fires. Each logging operation shall be provided with one firefighting tool per man to equip 100 percent of the personnel engaged in Contractor's operations. Approved firefighting tools are: double-bit axe; brushhook; pulaski; McLeod; and round-pointed, size 0 or larger lady shovel. The proper tool mix will be stipulated in the contract Fire Plan. These tools are required separate from, and in addition to, the tools required in the section, "Fire Tools on Equipment," and for Fire Guards. Fire tools for firefighting purposes for use of personnel engaged in all phases of the logging operations shall be located in the active operating area of the sale or as stated in the fire plan.

Burning of Refuse: No camp refuse of slash or other debris, such as that resulting from clearing

around camps or on right-of-way, shall be burned without the written consent of the Forest Service.

Spark Arresters and Mufflers: Each internal combustion engine shall be equipped with a spark arrester qualified and rated under USDA Forest Service Standard (Spark Arrester Guide) 5100-1a or the latest revision of Society of Automotive Engineers "medium size engine, SAE recommended practice J350" unless it is:

- (a) Equipped with a turbine-driven exhaust supercharger such as the turbocharger. There shall be no exhaust bypass.
- (b) A multi-position engine, such as on power saws purchased after 6/30/77 which must meet the performance levels set forth in the Society of Automotive Engineers "multi-positioned small engine exhaust fire ignition standard, SAE recommended practice J335B" as now or hereafter amended. Those purchased prior to the above date shall be equipped with an approved spark arrester/muffler containing a 0.023 inch mesh screen in good condition.
- (c) A passenger carrying vehicle or light truck, or medium truck up to 40,000 GVW, used on roads and equipped with a factory designed muffler and an exhaust system in good working condition.
- (d) A heavy duty truck, such as a dump or log truck, or other vehicle used for commercial hauling, used only on roads and equipped with a factory designed muffler and with a vertical stack exhaust system extending above the cab.

Exhaust equipment described in this Subsection, including spark arresters and mufflers, shall be properly installed and constantly maintained in serviceable condition.

Powersaws: During periods of use, each powersaw operator shall have readily available for use one long-handled round-pointed shovel and one chemical-pressurized fire extinguisher of not less than 8-ounce capacity by weight. Muffler, extinguisher, and shovel shall be maintained in good working order at all times. Any fueling or refueling of a powersaw shall be done in an area which has been cleared of material which will carry fire. Powersaws shall be moved at least 10 feet from the place of fueling or refueling before starting.

Fire Tools on Equipment: Each internal combustion fuel carrying truck, loader, skidder, heavy truck, and tractor shall be provided with one long-handled round-pointed shovel, and one 5-pound capacity ABC dry chemical fire extinguisher. Passenger carrying vehicles, including light pickup trucks shall be equipped with one (1) long-handled round-pointed shovel and one (1) ABC chemical fire extinguisher not less than 2 1/2 pounds capacity. Shovels and fire extinguishers shall be so mounted as to be readily reached from the ground.

Inspection Requirements for Internal-Combustion Engines: Each internal-Combustion motor vehicle or item of equipment shall be inspected and approved in advance of use by Forest Service. Contractor shall require that all persons engaged in Contractor's operations submit all internal-combustion motors and equipment for inspection and approval prior to use in Contractor's operations on National Forest lands. Vehicles and equipment not approved for use shall be repaired to meet existing standards, reinspected, and approved by Forest Service prior to use.

Blasting: Use of fuses in blasting shall not be permitted. A long-handled round-pointed shovel and 5-gallon backpack pump with attached handpump filled with water shall be available at all times. During periods when Fire Precaution Plan B or C is in effect, a fire guard shall remain on

duty for at least one hour after blasting is finished and shall be equipped with a shovel and backpack. Blasting is prohibited under Fire Precaution Plan D.

Tractor Lights: All crawler tractors and rubber-tired skidders suitable for fire suppression work, and with power source, shall be equipped with two (2) factory type headlights and one (1) backup light, or brackets mounted for portable self-contained battery operated lights. These portable lights shall be furnished and maintained by the Contractor at a location agreed by the Forest Service.

Cable Yarding: Tail and corner blocks shall be located to prevent cables from rubbing against trees, snags, and down logs. Areas adjacent to tail and corner blocks shall be cleared of flammable material within a 5-foot radius. One 5-gallon standard backpack water container (filled at all times and with handpump attached), one shovel, and one pulaski, shall be maintained within 10 feet of each block.

Gas and Oil Storage and Service Areas: The location of equipment service areas and gas and oil storage areas shall be approved in writing by Contracting Officer. All areas shall be cleared of brush, litter, grass or other flammable debris for a radius of 50 feet.

Welding: An area within a 10 foot radius shall be cleared down to mineral soil before welding operations are started. Prior to welding, Contractor shall have available a round-pointed long-handled shovel, a 5-gallon backpack pump filled with water with attached hand pump, and a 5-pound fire extinguisher at each welding site. A fire guard will remain on duty for at least one (1) hour after welding is completed during periods when Fire Precaution Plan B or C is in effect. Welding is prohibited under Fire Precaution Plan D.

Fire Guards: Contractor shall designate at least one representative to train and supervise each woods-working group of men in fire prevention, detection, and suppression. Each such representative shall be named in the fire plan. To prevent, detect, and suppress fire, Contractor shall provide a trained fire guard at each operating area where power-driven equipment has been operated during the day. The fire guards shall constantly perform their duties during operating hours and for three (3) hours after the woodwork stops for the day, when the Fire Precaution Plan is Plan B, C, or D. Fire guard service on one operating area shall satisfy the requirements on adjacent areas if the travel time with available transportation is not in excess of ten (10) minutes to any of the other areas requiring such service. Each fire guard shall be physically able, vigilant, and trained to prevent, detect, and report any fires and to promptly and efficiently take suppression action with available required firefighting equipment and men on any fire that starts on project area. Each fire guard shall be equipped with a vehicle and a fire tool cache consisting of a cache box, 2 four-to-five gallon backpack pumps filled with water, 2 size 0 shovels, 2 Pulaskis, and 2 McLeod tools maintained in serviceable condition.

RED FLAG EVENTS

A “Red Flag Event” by definition, is a combination of environmental factors that can lead to extreme wildland fire behavior. The criteria for a Red Flag Event include a combination of sustained high winds, low relative humidity, and dry fuels. The thresholds for Red Flag Events are established by the local National Weather Service office. Red Flag Events are categorized in the following order:

- FIRE WEATHER WATCH is issued to alert the possibility of the development of

conditions that would lead to a Red Flag Alert.

- RED FLAG WARNING is issued to warn of a predicted, impending or ongoing event that will meet the criteria of a Red Flag Alert within the next 24 hour period. This warning will generally precede a full alert.
- RED FLAG ALERT is the most critical stage and implemented when conditions are extreme

When a Red Flag Alert is issued by the National Weather Service, all authorized user operations will adhere to Industrial Fire Precaution Plan “D” and will shut down operations until the Red Flag Alert is rescinded.

b. FIRE CONTROL

Contractor shall, both independently and in cooperation with NFF and/or Forest Service, take all reasonable and practicable action to prevent and suppress fires resulting from Contractor’s Operations and to suppress any forest fire on Stewardship Project Area. Contractor’s independent initial fire suppression action on such fires shall be immediate and shall include the use of all necessary personnel and equipment at Contractor’s disposal on Stewardship Project Area or within the distance of Stewardship Project Area: **10 miles**.

- **Contractor’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, NFF and/or Forest Service may require further actions by Contractor until such fire is controlled and mopped up to a point of safety. Such actions may include any or all of the following as necessary to fight such fire:
 - a. **Suspend Operations.** To suspend any or all of Contractor’s Operations.
 - b. **Personnel.** To release for employment by Forest Service any or all of Contractor’s personnel engaged in Contractor’s Operations or timber processing within the distance of Stewardship Project Area: **50 miles**. Any organized crew so hired shall include Contractor’s supervisor, if any. Personnel so employed shall be paid at Forest Service standard emergency fire fighting rates.
 - c. **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 Contractor’s equipment suitable for fire fighting and currently engaged in Contractor’s Operations within the distance of Stewardship Project Area: **50 miles**. Equipment shall be operated only by personnel approved by NFF, if so requested by NFF.

D.28. Timing of Contract Operations

Unless otherwise agreed to in writing, CONTRACTOR’s Operations shall be performed in accordance with the following table and as designated on the PAM:

TIMING OF SALE OPERATIONS

TABLE-A

Sub Division/ Units	Operation Condition	Purpose
All	<p>No operations allowed on holiday weekends or weekdays (calendar year dependent) for the following holidays:</p> <p>*Memorial Day (5 PM Friday- 4 PM Monday)</p> <p>*Fourth of July (5 PM Thursday- 4 PM Monday)</p> <p>If the legal holiday falls on Tuesday, Wednesday or Thursday, no operations will be permitted the day before beginning at 5 PM through the day after the legal holiday ending at 4PM</p> <p>*Labor Day (5 PM Friday- 4 PM Monday)</p>	Protect high use recreation area.
All	<p>No operations allowed during opening weekend for 6A Bull Elk Hunt.</p> <p>September 15 to September 28 and November 17 to November 23. Typically, the same weekend in Sept/Oct and Nov/Dec annually.</p> <p>*(Opening weekend 7 AM Friday - 5 PM Monday))</p>	Opening weekend for 6A bull elk hunt. Safety and high use recreation.

D.29. Conduct of Activity

CONDUCT OF ACTIVITY	
TABLE-A	
Project Area	Conduct of Activity
All Project Area	The skid trail pattern shall be designated and approved by Forest Service in advance of felling and major trails, including go-back trails, shall be flagged on the ground in advance of felling.
All Project Area	Trees designated for cutting and/or logs will be left as rub trees along skid trails/skyline corridors as needed to protect young growth and leave trees.
All Project Area	U.S. Forest Service will agree on felling lead at the time of approval of skid trails corridors.
All Project Area	Trees shall be felled, insofar as safety permits, to angle in the direction of skidding.
All Project Area	Logs shall be skidded with partial or full suppression.
All Project Area	All vehicles/machinery traveling off road inside the stewardship project area shall be free of soil, plant parts, seeds, vegetative matter, or other debris that could contain of hold seeds.
All Project Area	Known protected resources are marked on the ground by white bands and/or pink flagging around trees on the perimeter of the site and shall be protected in accordance with archaeological surveys.
All Project Area	Protected improvements: so far as practicable, Contractor shall protect specific roads and other improvements such as trails, trailheads, transect markets, utility lines, telephone lines, ditches, culverts, fences, etc. <ul style="list-style-type: none"> • Existing in operating area • Designated on PAM • Partner shall keep all roads and trails needed for fire protection or other purchase reasonably free of equipment and products slash, and debt-is resulting from Contractors Operations. Contractor shall make timely restoration to any improvements damaged by contractors’ operations.
All Project Area	Any mechanized skidding must be agreed to by all parties.
All Project Area	Crews shall make best efforts to pile activity slash within 15 days of cutting in accordance with slash requirements set forth in this agreement. All logs shall be skidded to tagging areas along roads within 15 days of cutting unless otherwise agreed upon. Logs may be left in staging areas up until the following fuelwood collection season to help cure the wood over time. Staging logs in natural or created openings to mitigate possible beetle activity and fuels concerns.
All Project Area	Processing firewood and hauling firewood are subject to change throughout the project.

D.30. EROSION CONTROL

Where other erosion control measures described in G.23 will not result in satisfactory control of soil movement, CONTRACTOR will seed areas of exposed soil on skid trails, landings, firebreaks, and Temporary Roads. Seed bed preparation shall consist of surface scarification on roads and landings sufficient for retention of seed

Where applicable, seed shall be broadcast evenly at the rate of 10 pounds of seed per acre. Application shall be during the period April 15th – November 30th unless otherwise approved. No application work shall be done during extremely windy or rainy weather, or when the ground is frozen or otherwise unsuitable.

The kinds and amounts of seed to be sown in terms of live pure seed shall be:

TABLE C: EROSION CONTROL SEEDING	
Species of Seed*	Lbs. per Acre
Arizona Fescue <i>Festuca arizonica</i>	4.00
Western Wheatgrass <i>Elymus smithii</i>	2.00
Bottlebrush Squirreltail <i>Elymus elimoides</i>	4.00
Total	10.00

*Seed mix must be state certified weed free live seed and free of all Penstemon Spp.

D.31. PROTECTION MEASURES NEEDED FOR PLANTS, ANIMALS, CULTURAL RESOURCES, AND CAVE RESOURCES

1. Areas, known by U.S. Forest Service prior to implementation, needing special measures for the protection of plants, animals, cultural resources, and/or cave resources are shown on the PAM and/or identified on the ground, and shall be treated as follows:
 - a. Unless agreed otherwise, wheeled or track laying equipment shall not be operated in areas identified as needing protection except on roads, landings, tractor roads, or skid trails. CONTRACTOR may be required to back blade skid trails and other ground disturbed CONTRACTOR's Operations within such areas in lieu of cross ditching.
 - b. Unless agreed otherwise, trees will not be felled into areas identified as needing protection.
 - c. CONTRACTOR shall conduct Operations in a manner that does not damage or disturb identified areas. If protective measures identified by the U.S. Forest Service are for any reason inadequate, Contracting Officer may delay or interrupt CONTRACTOR's Operations, under this agreement, and/or modify this agreement.
 - d. CONTRACTOR shall immediately notify the U.S. Forest Service if its Operations disturb or damage any area identified as needing protection and shall immediately halt its Operations in the vicinity of such area until the U.S. Forest Service authorizes continued Operations. If CONTRACTOR's Operations disturb or damage an area identified as needing protection, then CONTRACTOR shall reimburse the U.S. Forest Service for the full cost and expense of any evaluative and remedial measures undertaken by the U.S. Forest Service in connection with such disturbance or damage. Such payment shall not relieve CONTRACTOR from civil or criminal liability under applicable law.
2. Nothing contained in this clause shall establish or be deemed to establish any express or implied warranty on the part of the U.S. Forest Service that the U.S. Forest Service has identified all areas within the Project Area requiring protection, or that measures prescribed by the U.S. Forest Service for protection of such areas are adequate.
3. Following contract solicitation, additional areas needing special measures for protection may be discovered or identified; protective measures may be revised or newly prescribed; and, additional species of plants and/or animals may be added to federal lists of protected species. In such event, Contracting Officer may delay or interrupt CONTRACTOR's Operations, under this agreement, and/or modify this agreement.
4. Discovery, by either CONTRACTOR personnel or the U.S. Forest Service, of additional areas,

resources, species, or members of species needing protection shall be promptly reported to the other party.

D.32. PROTECTION OF LAND SURVEY MONUMENTS

CONTRACTOR shall protect all known survey monuments, witness corners, reference monuments, and bearing trees against avoidable destruction, obliteration, or damage during Operations. If any known monuments, corners, or accessories are destroyed, obliterated, or damaged by Operations, CONTRACTOR shall hire the appropriate county surveyor or a registered land surveyor to reestablish or restore at the same location the monuments, corners, or accessories at no additional cost to the Government. Such surveyors shall use procedures in accordance with the Bureau of Land Management “Manual of Instructions for the Survey of the Public Lands of the United States” for General Land Office surveys and in accordance with State law for others. CONTRACTOR shall record such survey in appropriate county records.

D.33. LIABILITY

Limited Liability for Operations Fires.

Maximum Amount of CONTRACTOR’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_____/Hr. x 12 hours = \$_____252_____

(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.

_____2_____ Pieces of equipment

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

\$_____225_____/Hr. x 12 hours = \$_____2700_____/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.

_____4_____ days

**Cooperator's Obligation per Operations Fire,
Maximum**

Amount: \$ 25,632

Appendix E
Flowdown Provisions

NFF Funding Code: 1596097, 1596098

NFF Funding Name: SA SPA WFL Fuelwood Partnership (IRHF), SA SPA WFL Fuelwood Partnership (NFSO)

Funder Agreement ID: 24-SA-11030400-033

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