

Delleker T Timber Project

Question and Answer

Q: Do we need a purchase order to bid on the project?

A: No, a purchase order is not required to bid on the project. A purchase order should be presented within 3 weeks of contract award.

Q: If a purchase order cannot be obtained before bidding and a best guess is needed for predicted timber revenue used to lower work item cost, is it ok if this number changes before final contracting?

A: Yes, if a purchase order cannot be obtained prior to bidding, bidders should use their best estimate for predicted timber revenue used to lower work item cost. Once a purchase order is received, these estimates can be renegotiated.

Q: Who pays the State of California Yield Tax?

A: NFF will be responsible for paying the State of California Yield Tax. Successful bids must allow NFF to collect funds to cover the appraised rate AND the yield tax.

Q: What are the hours in which we can operate?

A: There are no current time restrictions on logging operations, but operators are encouraged to keep in mind neighboring homeowners and coordinate with them as needed. If complaints are made, hours of operations will be revisited.

For safety, hauling is to be avoided during school pick-up and drop-off hours of the neighboring C Roy Carmichael Elementary School during days when school is in session.

Q: Are watercourses flagged?

A: Watercourses are not currently flagged on the ground. The contractor is responsible for ensuring they are keeping an appropriate equipment exclusion buffer in line with the project specs. If there is difficulty with discerning the

watercourse buffer on the ground, the timber admin may flag the watercourse buffer ahead of operations.

Q: Can we camp on site?

A: Yes, camping is allowable on site after the contractor obtains a signed permit from the USFS.

Q: How many days can we expect between work item completion and NFF/USFS review of the work item?

A: The NFF will allow up to 10 days between notification of work item completion and review of the work item by NFF and USFS personnel.

Q: Will a bid be less competitive if we propose more work on the roads to achieve a higher quality of work?

A: Road work and maintenance should be consistent with what is in Appendix K – Roads Package. Additional work should not be proposed unless required for Contractor's operations. If preferred, Contractors may propose multiple solutions and cost options for a work item in order to offer a lower cost solution.

Q: What water sources are available for road maintenance?

A: There is a drafting site identified on the Contract Area Map and in the project specs found in Appendix E. This site requires some access improvements and a street-legal truck to drive to the water drafting site.

The Contractor can look into other water sources if they would prefer. Contractor may potentially be able to purchase water from City of Portola via municipal hydrant (Contact: Todd Roberts, Director of Public Works - (530) 832-6809, troberts@cityofportola.com). This would be for the Contractor to negotiate.

Q: Will the U.S. Forest Service provide input on the selected Contractor?

A: Yes.

Q: Do bidders need to attend the bid tour to submit a bid?

A: No. The bid tour was optional, but it is encouraged that interested bidders go and see the project site. Georeferenced maps are included in the RFP package.

Q: What is the plan for public outreach, site closures, and similar mitigations?

A: The RPF will be on-site regularly and will assist with possible interactions with the public. The Contractor is responsible for posting traffic control signage in accordance with Appendix G.

Q: Would installing a gate be preferable to barricading the internal Kids Creek road?

A: Close out measures should be in accordance with Appendix K. The internal Kids Creek road should be barricaded upon close out.

Q: There are trees along the PSRE powerlines marked with a blue "H". Does this indicate anything to the Contractor on this project?

A: The Contractor should plan to follow the project specs as laid out in Appendix E along the powerlines. If the Contractor is removing any trees that may strike the utility easement or overhead power infrastructure, they should reach out to the appropriate contacts listed in Appendix E.

Additional Materials:

Full cruise data may be accessed here: [CLICK LINK](#)

Request for Proposals
Delleker T Designation by Prescription Timber Project
Plumas National Forest, California

NFF Background:

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

Project Background:

The NFF and the USDA Forest Service (USFS) are working together to protect and restore the Plumas National Forest through targeted efforts on the Community Protection – Central and West Slope Project (2025). The NFF and the Beckwourth Ranger District (BKRD) of the Plumas National Forest are collaborating on the 255-acre Delleker T Timber Project. The Delleker T Timber Project is a ground-based commercial thinning project designed to reduce wildfire risk by thinning over-stocked forest stands near the city of Portola and improve forest health and resilience.

Bidders must be registered with the State of California as a Licensed Timber Operator (LTO).

Statement of Work:

The selected contractor will be responsible for a variety of service work and timber removal items including mechanical biomass treatment, commercial thinning, and road reconstruction. Any necessary road maintenance needed to facilitate operations will be the responsibility of the contractor. Securing county road encroachment permits for reconstruction, maintenance, hauling, or other operations within the Delleker T Timber Project is the responsibility of the awarded Contractor. The attached project appendices contain maps, detailed project specifications, and guidelines.

Timeline:

This Request for Proposals will close and all proposals will be due on August 26, 2026. The NFF anticipates being able to enter a contract with any selected bidder(s) by September 25, 2026. Changes in the closing date for this Request for Proposals will be updated on the NFF website at <https://www.nationalforests.org/rfp> under the link for this project's Request for Proposals. All contract related dates are estimates and subject to change at the NFF's sole discretion.

I. PROJECT OVERVIEW AND REQUIREMENTS

General Specifications

(a) Description of Work – This Request for Proposals is for services related to the Delleker T Timber Project, located on the Plumas National Forest. Work on this project will include cutting, skidding, decking, and hauling of sawtimber, as well as removal of biomass and road reconstruction. Full list of work items and specifications can be found in Appendix E. The selected contractor(s) will be responsible for performing the following deliverables:

1. Sawtimber cut, skid, deck
2. Biomass cut, skid, deck
3. Sawtimber haul
4. Biomass chip/haul
5. Road Reconstruction

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

1. Appendix C – Contract Area Map
2. Appendix E – Schedule of Items and Specifications
3. Appendix F – Timber Removal Specifications
4. Appendix G – Guidelines for Operations
5. Appendix H – Fire Plan
6. Appendix J – Harvest Cards
7. Appendix K – Roads Package

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

(c) Project Location – The Delleker T Timber Project is located on the Beckwourth Ranger District of the Plumas National Forest in Plumas County, California. The project area is just west of the city of Portola and is next to C Roy Carmichael Elementary School. The popular Kid's Creek Forest and associated trail run through part of the project area, so special care must be made to restrict public access during operations and to protect the trail. Appendix C includes a map of the project displaying the entire project area within which treatments will occur.

- (d) Work Schedule – Work will commence as early as September 2026 and finish by **December 31, 2027**. The NFF and Successful Bidder will negotiate a schedule of operations upon award.

Other Project Requirements

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

Deposit for Sale of Timber –The contractor will be responsible for securing purchase orders for timber and biomass/chips generated from this project. The selected contractor will be responsible for making appropriate deposits and payment for timber before cutting or removal of any forest products.

Insurance Requirements

Upon being notified of bid selection, Bidder agrees that it has, or will procure, and shall maintain the 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 selected Bidder 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, Bidders also agree to 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 Bidder or by subcontractors on behalf of the Bidder, 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.

Payment/Performance Security

If selected to contract with the NFF, Bidder(s) shall post cash, a letter of credit, bond, or other financial security that is easily convertible into cash in a form acceptable to the

NFF, in its sole determination. The security will be used to ensure completion of the work required under any subsequent agreement and payment of all amounts lawfully due to all persons. All persons shall include, but not be limited to, those supplying or furnishing to the Bidder or Bidder's subcontractors with labor, laborers, materials, rental machinery, tools or equipment used or to perform the work. Bidders may incorporate required associated costs into mobilization costs or other approved expenses. Payment or Performance security will be required in the following amounts as applicable:

- a. For work that is classified as construction in accordance with the Miller Act or Little Miller Act or if required per conditions of the funding source, payment and performance bonding will be required in the full amount of any Agreement. For the purposes of this Request for Proposal, construction is defined as "any contract greater than \$100,000 for the construction, alteration, or repair of any public building or public work where the federal government is the owner"; or
- b. If Contractor is subcontracting 15% or more of the total contract value, or if the cost of materials is in excess of the larger of \$100,000 or 50% of the contract total, payment and performance bonding will be required in the full amount of the agreement; or
- c. If the value of the agreement is in excess of \$250,000, Contractor will be required to post financial security in a form acceptable to the NFF in the amount of 5% of the total agreement value up to \$250,000 in total financial security.

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

Prohibited Telecommunications Services and Equipment

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

Federal Exclusion Verification

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

Federal Flowdown Provisions

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

not be removed or edited.

Identified Flowdown Provisions

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

Appendix B: Federal Flowdowns

II. REQUIRED COMPONENTS

Technical Proposal

Bidders shall submit a technical proposal for the work described in this RFP. At a minimum, each proposal **must** include the following:

1. An overview and description of the services provided by the Bidder that align with the requests in this RFP.
2. A description of the project management or administration approach that will be followed by the Bidder to ensure that the identified work is completed on time and within budget.
3. A project work plan and schedule that lists in detail the stages of work expected to be completed in this project, all identifiable deliverables, and the dates on which the Bidder would anticipate being able to complete delivery of the work.
4. A project personnel overview identifying key personnel to be utilized if selected to perform the work described in this RFP and any relevant or required credentials or certifications held by the key personnel.

Bidders may also include the following items in proposals as applicable:

1. A purchase order for all sawtimber.
2. Any change or risk management approaches utilized by the Bidder when completing projects of the type described in this RFP.
3. Proof of registration as a California LTO.

Bidder Qualifications

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

1. Experience –
 - i. Please provide a brief explanation of previous work experience with land management agencies, noting specifically any work performed on National Forests or Grasslands.
 - ii. Please provide a listing of relevant projects of similar size, scope, and total value performed by the Bidder within the past 5 years.
2. References –
 - i. Please provide three professional references, identifying as applicable any government or conservation nonprofit references.
 - ii. Provide the name, email address, and telephone number for each reference, as well as the dates of the projects during which the Bidder worked with each reference.

Failed Projects or Legal Actions

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

Pricing Schedule

Bidders shall price work according to the schedule below. If Bidders believe that an alternative method of pricing is more applicable, they may also provide an alternative pricing schedule in addition to the format requested below. The NFF, in its sole discretion, reserves the right to utilize any alternative pricing schedule proposed by any Bidders.

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

All quantities and measurements identified in this RFP are based upon the best knowledge available to the NFF and are subject to change. Payment will only be made for actual work completed. If the opportunity to add additional funding to the work described in this RFP arises, the NFF may increase the quantities of work to be performed as part of this project, as agreed upon by the NFF and the selected Bidder.

1. Sawtimber Removal

The selected Contractor agrees to purchase timber removed from the project. The selected Contractor agrees to pay the NFF the following timber rates for product removed:

Product	Species	Estimated Quantity	Unit of Measure	Minimum Acceptable Offer	Offer	Total Offer
Sawtimber	Combined Softwoods	10,372	Tons	\$0.27		
Non-Sawtimber	Combined Softwoods	742	Tons	\$0.01		
					Total Offer Products	
Deposit for Timber Yield Tax (\$0.55 /Ton – this is a rounded per ton estimate; total tax estimate is shown under “Total Offer”).						\$5,609.15
Products and Timber Yield Tax Total						

Species and Net Volumes						
Species	PP/JP	SP	WF	DF	IC	Total
Percent by Species	91.50	0	0	0.7	7.80	100.00
CCF- Sawtimber	2,839.04	0	0	16.27	244.44	3,099.75
MBF -sawtimber	1,441.06	0	0	8.45	104.75	1,554.26
Green Ton- Sawtimber	9,612	0	0	50	710	10,372
Green Ton non-saw primary product						742

2. Work Items

Item Number	Item Description	Unit	# Units	Cost Per Unit	Extended Cost
1.	Sawtimber cut, skid, deck	Acre	255	N/A	N/A
2.	Sawtimber haul	GT	10,371.80	N/A	N/A
3.	Biomass cut, skid, deck	Acre	255		
4.	Biomass chip/haul	GT	1,627.50		
5.	Road Reconstruction	Lump Sum	N/A		
Total					

GT value listed for Biomass cut, skid, deck includes both primary and secondary product

Work Item 1 and 2:

Work items 1 and 2 are not payable items. Based on the Plumas National Forest appraisal process, the estimated maximum product value is at least equal to or exceeds the costs associated with completing work items 1 and 2. Contractors cannot bid on nor receive additional cash payment from the National Forest Foundation for these items. By responding to this RFP and bidding on this project, the contractor expressly acknowledges and agrees that the value and benefit the contractor receives from this project constitute full, adequate, and acceptable legal consideration for the performance of all work required under work items 1 and 2. The Contractor waives any right to seek additional compensation, monetary reimbursement, or separate payment for the completion of these items.

Work Items 3, 4, and 5:

These work items are payable items. These work items were not included in the timber appraisal process, and the contractor may place a bid on the work.

III. SUBMISSION, EVALUATION, AND CONTACTS

Bidder Selection Process:

Bid Submission

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

Submission Address: scornacchia@nationalforests.org

Submission Deadline: 5:00 PST on August 26, 2026.

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

Notification

If a proposal is selected by the NFF to advance to the contracting stage, the NFF will notify the successful Bidder via email by September 16, 2026. Once the selected Bidder has been notified, the NFF project representative will coordinate the drafting and negotiation of an NFF agreement outlining the terms and conditions of the work to be performed.

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

Request for Proposals Only

This is a request for proposals only and bids furnished do not bind the NFF in any way. Selection of a bid will result in the opportunity to contract with the NFF but will not guarantee a resulting contract or any amount of work. The NFF reserves the right to disqualify any incomplete or improper proposal submitted as non-responsive. The NFF may also decide not to select any proposals submitted to this RFP for advancement to contract negotiations. This request does not commit the National Forest Foundation to pay any costs incurred in the preparation or submission of the proposal or to contract for supplies or services.

Evaluation Factors and Scoring

The following factors will be used to evaluate any responsive submitted proposals. The factors, as listed, are ordered from highest priority (Level 3) to lowest priority (Level 1). Each factor can receive a score from 1 point to 3 points. The number of points awarded

will be multiplied by the priority level to determine the total score for each factor. (Example: If Price/Cost (level 3) is awarded 2 points, the total score for price would be 6 points.)

Level 3 Criteria

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

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
- California LTO qualification

Point of Contact

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

Sumner Cornacchia
National Forest Foundation, Northern Sierra Project Coordinator
scornacchia@nationalforests.org

Bid Submission

Submit bids via email to scornacchia@nationalforests.org by August 26, 2026.

Equal Opportunity Provider

In accordance with Federal law and U.S. Department of Agriculture policy, the National Forest Foundation is prohibited from discriminating on the basis of race, color, national origin, sex, age, religion, political beliefs, or disability.

Appendix B

NFF Funding Code: 1596055

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

Funder Agreement ID: 23-SA-11051100-020

Flowdown Provisions

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

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

COPYRIGHTING.

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

This provision includes:

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

T23N R13E S34, 35 & 36 MDBM (Mt. Diablo Base Meridian)

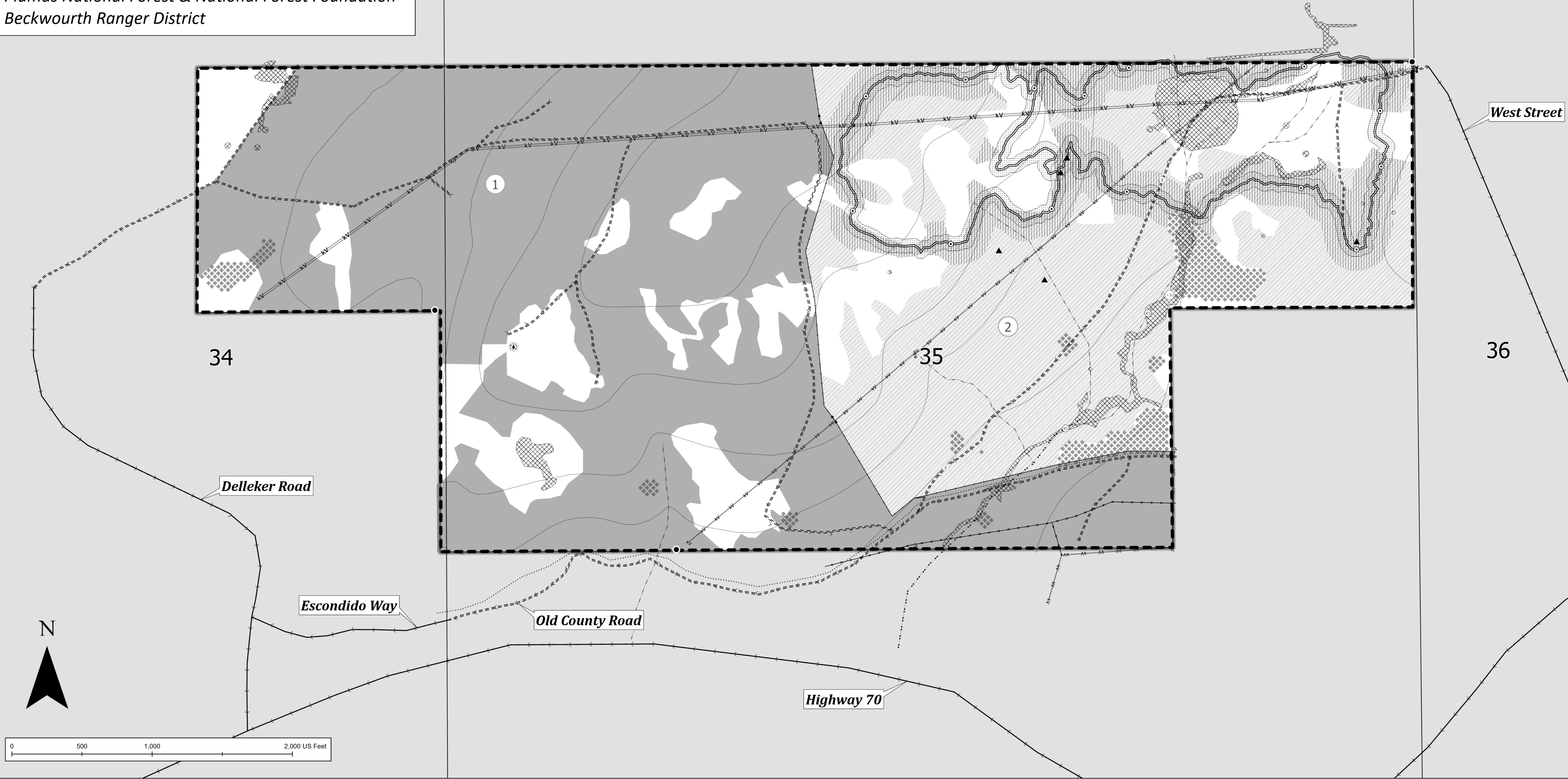
Delleker T

Contract Area Map

Plumas National Forest & National Forest Foundation

Beckwourth Ranger District

Appendix C – Contract Area Map



- 1

Cutting Unit Numbers
- Protect Improvement- Gate
- Protect Improvement- CRC Student Trees
- Protect Improvement- Water Tank
- Hazard Trees >30
- Watercourse and Botany Crossing location
- Skid Crossing Locations for CRC Walking Trail
- Survey Monuments
- Protect Streamcourse- Ephemeral (15' exclusion from bank)
- Protect Streamcourse- Intermittent (25' exclusion from bank)
- Protect Improvement- Fence
- Protect Improvement- Powerline Distribution
- Protect Improvement- Powerline Transmission
- Protect Improvement- Comm line
- Protect Improvement- Buried Fiber Optic
- Protect Improvement- CRC Walking Trail
- Non-System Access Road
- Paved Road
- 40' Contour Intervals
- Haul Permitted
- Haul Prohibited

- Contract Area
- Cutting Unit 1
- Cutting Unit 2
- Protect Improvement- CRC Walking Trail Buffer
- Protect- Control Areas
- Noxious Weeds/Botany Restrictions
- Borate Treatment required on >6" stumps within 150' of Walking Trail
- Borate Treatment required on >14" stumps within Cutting Unit 2
- Non-Forest Service Ownership

Cutting Units		Requirements			
All Units		DF, DxP, Fell, MH, SUSP, TRAC, Whole			

Diameter Limits					
Unit		Sawlogs		Biomass	
1 & 2		10.0"-29.9" DBH		3.0"-9.9" DBH	

Units	Acres	CCF	MBF	Sawtimber Tons	Biomass Tons
Total	255	3,099	1,554	10,371.82	1,627.58

Project Activity Level (PAL)- Plumas

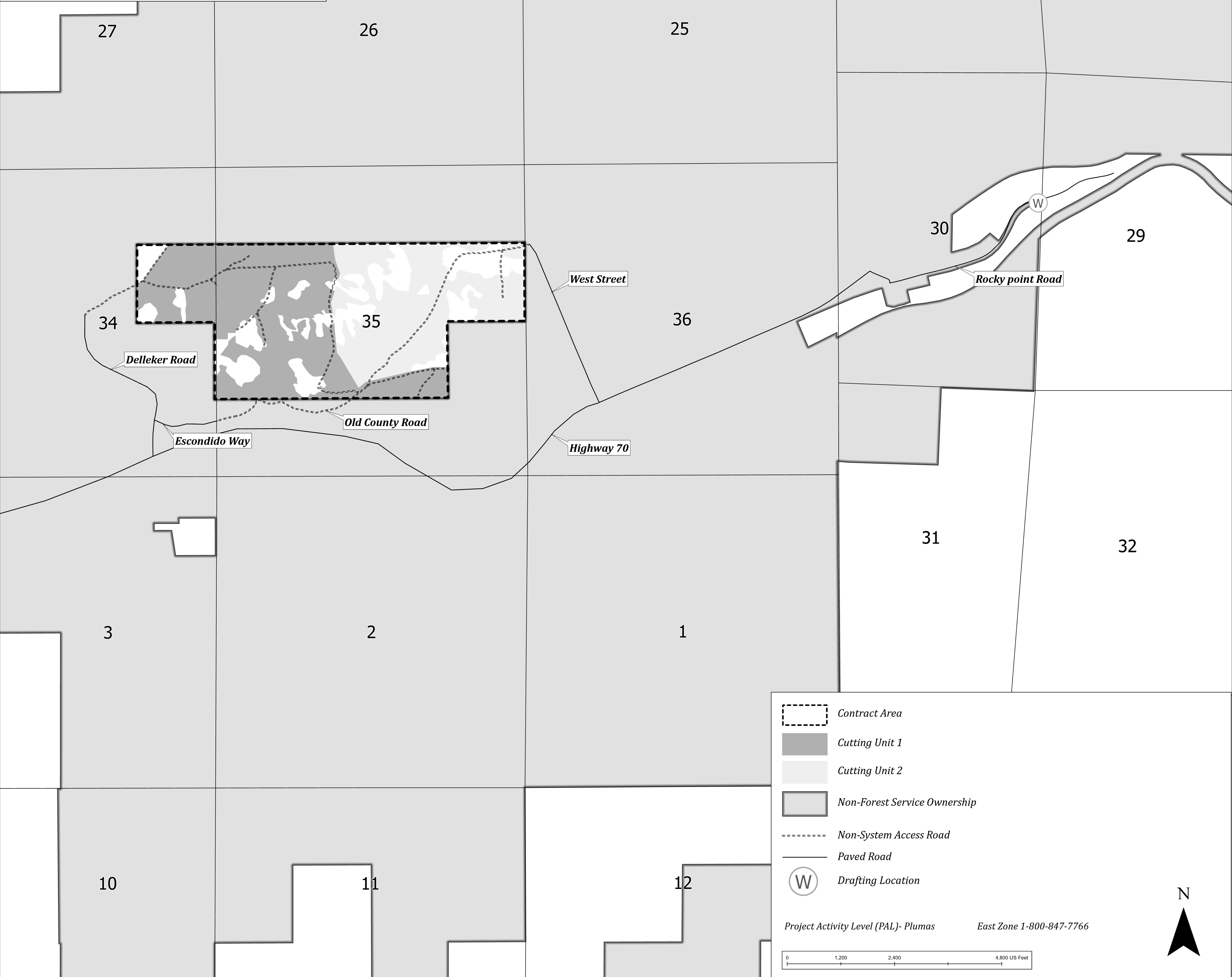
East Zone 1-800-847-7766

Feature	Flagging Code
Property Lines	Solid Red
Cutting Units	Solid Blue
Control Areas	Black/Red Striped
CRC Student Trees	Orange/Silver Striped
Sensitive Plant	Blue/Black Striped
Noxious Weed	Solid Orange

Requirement	Explanation
DxP	DxP = Designation by Prescription - E.3: Item 1, F.1, F.2., F.3, G.2.35.1
DF	Directional Felling - E.4: 1 - Cultural, E.4: 2 -Hydrology, E.4: 3 - Botany, G.6.42.2
ENDL	Ground Based Skidding & Endlining - G.6.42.8, G.6.61
MAX	Ground Based Skidding, rubber tired transport, Max Width = 12 Feet. - G.6.42.7
MH	Mechanical Harvesting - E.3: Item 1, F.1, F.2, F.3, G.6.42.6
SPACE	Ground Based Skidding = 100 Feet skid road spacing unless converging - G.6.42.5
SUSP	Ground Based Skidding = One-end suspension - E.4: 1 - Cultural, E.4: 2 - Hydrology, G.6.42.4, G.6.5.b
TRAC	Ground Based Skidding = Skid Trail Layout - G.6.42.3
WHOLE	Whole tree yarding = Leave tops attached - G.6.42.1
TILLAGE	Tillage = Landing, Main Skid Roads, Main Skid Trails and Temporary Roads - G.6.6, G.6.63, G.6.64, G.6.65
EROSION CONTROL	Water Bars and Backblading - G.6.6, G.6.63, Appendix K
FELL	Fell = fall small damage trees, follow with SCAT 18 - G.6.7
SCAT 18	Scat 18 = Scattering of logging slash not to exceed 18 inches - G.6.7

T23N R13E S34, 35 & 36; T23N R14E S29 & 30 MDBM (Mt. Diablo Base Meridian)

Delleker T
Vicinity & Water Resources Map
Plumas National Forest & National Forest Foundation
Beckwourth Ranger District



Appendix E

Schedule of Items and Specifications

Delleker T Timber Project

E.1 Project Location and Description

Location: The Delleker T Project is located west of the City of Portola, north of Highway 70. The project is accessible from Delleker Dr on the west end of the unit, West St to the east of the unit, and Old County Rd to the southeast of the unit. Appendix C contains maps showing the location of the project area.

Description: Property Lines are flagged with solid red. Unit boundary is designated with orange paint. Unit boundaries have been flagged in solid blue. Control areas have been flagged for avoidance with black and red striped flagging, and no equipment is allowed within these areas. Virtual boundaries will be utilized for watercourse buffers. Within Unit 2, trees that have significance for the school and community will be flagged with orange and silver striped flagging, and these trees will not be cut. There will be no cut tree mark for this project; all cutting will be done by Designation by Prescription (DxP). The target basal area (BA) for this project is an average of 70ft²/acre with a range of 60-80 ft²/acre.

E.2 Schedule of Items

Table E.2.1 Timber Volume

Species and Net Volumes						
Species	PP/JP	SP	WF	DF	IC	Total
Percent by Species	91.50	0	0	0.7	7.80	100.00
CCF- Sawtimber	2,839.04	0	0	16.27	244.44	3,099.75
MBF -sawtimber	1,441.06	0	0	8.45	104.75	1,554.26
Green Ton- Sawtimber	9,612	0	0	50	710	10,372
Green Ton non-saw primary product						742

Table E.2.2 Stumpage Rates

Product	Species	Estimated Quantity	Unit of Measure	Minimum Acceptable Offer	Offer	Total Offer
Sawtimber	Combined Softwoods	10,372	Tons	\$0.27		
Non-Sawtimber	Combined Softwoods	742	Tons	\$0.01		
					Total Offer Products	
					Deposit for Timber Yield Tax (\$0.55 /Ton – this is a rounded per ton estimate; total tax estimate is shown under “Total Offer”).	\$5,609.15
					Products and Timber Yield Tax Total	

Table E.2.3 Work Item Rates

Item Number	Item Description	Unit	# Units	Cost Per Unit	Extended Cost
1.	Sawtimber cut, skid, deck	Acre	255	N/A	N/A
2.	Sawtimber haul	GT	10,371.80	N/A	N/A
3.	Biomass cut, skid, deck	Acre	255		
4.	Biomass chip/haul	GT	1,627.50		
5.	Road Reconstruction	Lump Sum	N/A		
Total					

GT value listed for Biomass cut, skid, deck includes both primary and secondary product

Work Item 1 and 2:

Work items 1 and 2 are not payable items. Based on the Plumas National Forest appraisal process, the estimated maximum product value is at least equal to or exceeds the costs associated with completing work items 1 and 2. Contractors cannot bid on nor receive additional cash payment from the National Forest Foundation for these items. By responding to this RFP and bidding on this project, the contractor expressly acknowledges and agrees that the value and benefit the contractor receives from this project constitute full, adequate, and acceptable legal consideration for the performance of all work required under work items 1 and 2. The Contractor waives any right to seek additional compensation, monetary reimbursement, or separate payment for the completion of these items.

Work Items 3, 4, and 5:

These work items are payable items. These work items were not included in the timber appraisal process, and the contractor may place a bid on the work.

E.3 Specifications of Work Items

Item 1: Sawtimber cut, skid, deck

All timber meeting the specifications in Appendix F is to be removed to landings utilizing the methods and requirements in Appendix E, Appendix F, Appendix G, and Appendix K.

1. Remove live conifers 10.0"- 29.9" DBH retaining a target BA of 70ft²/acre with a range of 60-80 ft²/acre. Variability can be created by some areas having a slightly lower or higher average basal area, as long as the overall stand average meets 60-80 ft²/acre.
 - a. Take existing openings into account when achieving target basal area.
 - b. Retain all trees with signs of wildlife habitation (visible nests, active cavities).
 - c. Thin from Below. Reduce stand densities beginning with the smallest diameter classes, retaining the best formed, most vigorous trees.
 - i. Suppressed and intermediate trees that serve as ladder fuels are preferred for removal. Some vigorous, shade intolerant, intermediate trees may be retained for structural diversity or canopy cover/basal area retention, but only in situations where it does not act as a ladder fuel to overstory trees. Individuals with poor vigor (<40% live crown ratio) or showing signs of insect/disease infestation will usually be preferred for removal.
 - ii. Trees growing closely together (clusters) or displaying half, partial, or lopsided crowns shall be considered either all cut or all retained.
 - iii. In general, most trees <10" DBH will be removed. Desired species <10" DBH can be retained to fill openings or achieve desired basal area retention but should not act as a ladder fuel.
 - d. Crown Thin. After thinning from below, thin codominant trees if needed to reach basal area target. Increase crown spacing between residual trees comprised generally of the largest, most vigorous shade intolerant species.
 - i. Retain desirable species (as described in species preference) with the best vigor and generally >40% live crown ratio for pines, or >50% for firs with nice pointy crowns.
 - ii. Individuals showing signs of insect or disease infestation are preferred for removal.
 - e. Focus on thinning diseased, suppressed, intermediate, then co-dominant conifers until basal area target has been met.
 - f. Remove conifers with dead or broken tops, conks, stem rot, sign of bark beetle infestation, or where dwarf mistletoe is affecting more than 40% of tree's canopy. Retain all trees ≥ 30" DBH.
 - g. Do not unnecessarily damage young growth or other trees to be retained.
2. When all else is equal (vigor, form, crown class, crown position) species retention preference is as follows:
 - a. Jeffrey Pine > Douglas Fir > Incense Cedar > White Fir

- b. Sugar pine shall not be removed unless retention of tree(s) constitutes a safety hazard or interferes with operational feasibility; or are otherwise identified by NFF or Forest Service.
 - c. Within Unit 2, Incense Cedar shall not be removed unless retention of tree(s) constitutes a safety hazard or interferes with operational feasibility; designated by utility for removal or are otherwise designated by NFF or Forest Service.
 - d. Do not remove Black Oak or Juniper.
 - e. Thin smaller conifers competing with vigorous Black Oak within the dripline of the oak.
- 3. Retain remnant and 'character' trees for wildlife habitat. Wildlife trees include three or more of the following features: cavities, forked tops, broken tops, granary trees, and larger DBH snags that do not pose a hazard. Retain up to three such trees per acre where present.
- 4. Structure - Variable Density Thinning
 - a. Where clumps of 0.1 to .25 acre in size with groupings of large trees over 30" DBH are present:
 - i. Thin live conifers up to 16" DBH.
 - ii. Up to 5% of treated stand.
 - iii. Clumps are identified on the ground and flagged with orange/silver striped flagging in Unit 2, and marked with a band of white paint in Unit 1.
- 5. There is a hazard tree located in Unit 2 which must be removed. The tree is a >30" DBH snag abutting private property. This tree is shown on the map in Appendix C. The tree must be hand felled within the contract boundaries.
- 6. Recreation/Aesthetic value - Unit 2
 - a. Retain a residual average of 80-120 ft²/acre within the 50' buffer zone of mapped walking trail, with a target of 100 ft²/acre.
 - b. Do not remove trees with orange and silver striped flagging located in Unit 2. These trees are part of the student forest adjacent to C Roy Carmichael Elementary school.
 - i. Some cut stumps will require borate application after cutting. See borate specs outlined in '**Borate Specifications**' below.
- 7. Minimum saw log specifications
 - a. Saw timber shall be decked separately from biomass decks. Saw timber decks shall be placed and built to facilitate efficient loading of log trucks for haul.
 - b. Trees shall be cut and removed from Project Area to landings. Minimum sawlog tree DBH is 10.0 inches with a minimum piece length of 10.0 feet. Minimum top diameter inside bark (d.i.b.) of 6 inches.
 - c. If sound, existing downed trees are to be transported to identified landings following the above specifications.
 - d. Saw timber trees will be bucked into commercial lengths, see Appendix F.2 and FSH 2409.11 (Forest Service Scaling Handbook).
 - e. Saw timber shall be decked separately from non-saw timber and biomass piles.

8. Additional and incidental volume may be added to the contract to meet desired on the ground conditions. "Incidental" volume may be from recent mortality, newly discovered hazard trees, trees missed during the first cutting that would result in exceeding the stated basal area target range, or trees cut for other operational purposes that were not cruised. Such addition must be approved by NFF prior to cutting.
9. Contractor shall perform or pay for road maintenance and watercourse crossing maintenance work, commensurate with Contractor's use, on roads controlled by Forest Service, and used by Contractor in connection with this contract. Road maintenance requirements are based on the predicted haul route. Any change in the contractor's actual haul route may necessitate a change in the roads to be maintained.
10. An approved water drafting site is located in Appendix C. This site will require improvements before use which may include:
 - a. Grading/clean-up approach
 - b. Loose gravel for approach and landing area
 - c. Straw jute wattles

There is a stream gauge near this site which belongs to the Department of Water Resources, and the gauge and all infrastructure must not be touched.

11. Borate Specifications

Borate is to be used within high and very high priority sites which include:

- Any cutting in roadside and powerline corridors including hazard removal.
- Recreation and Administrative sites.

Borate treatments are shown on Appendix C – Contract Area Map.

Within applicable sites, apply a borate compound by hand to cut stumps of all conifer species ≥ 14 inches stump outside bark diameter to prevent Heterobasidion Root Disease (approximately 63 acres of treatment). Apply a borate compound by hand to cut stumps of all conifer species ≥ 6 inches within 150' of the Kid's Creek Trail, CRC Elementary School, and amphitheater (approximately 38 acres of treatment).

No need to treat stumps of trees with no needles or stumps of trees killed by fire >18 months earlier. Applications of the borate compound would follow all State and Federal rules and regulations as they apply to pesticides.

Item 2: Sawtimber Haul

1. Haul routes will be identified by NFF prior to contract execution and may change throughout the lifetime of this contract. Hauling will adhere to the requirements in Appendix E, F, G and K.
2. Contractor shall perform and or pay for road maintenance work commensurate with

Contractor's use, on roads controlled by Forest Service, and used by Contractor in connection with this contract. Road maintenance requirements are based on the predicted haul route. Any change in the contractor's actual haul route may necessitate a change in the roads to be maintained.

Item 3: Biomass cut, skid, deck

1. Cut conifers 3.0"-9.9" DBH and remove whole trees to landings utilizing the methods and requirements in Appendix E, F, G and K.
2. Cut all live Biomass size conifers acting as ladder fuels within the dripline of co-dominant trees and dominant sawlog trees.
3. Thin remaining biomass size conifers to an average residual spacing of 25' X 25' (70 TPA) across the unit, taking into account live trees greater than 10.0". A 10% variance in spacing is allowable in order to leave the best trees.
4. Residual Biomass trees (leave trees) shall consist of healthy, dominant, and co-dominant trees with full crowns, greater than 40% live crown, free of defect, and the best phenotypes of the pre-harvest stand.
5. When all else is equal (vigor, form, crown class, crown position) species retention preference is as follows:
 - a. Jeffrey Pine > Douglas Fir > Incense Cedar > White Fir
6. Biomass Decks shall be separated from Sawlog decks. Decks shall be built to facilitate chipping operations.
7. Contractor shall perform or pay for road maintenance work and watercourse crossing maintenance work, commensurate with Contractor's use, on roads controlled by Forest Service, and used by Contractor in connection with this contract. Road maintenance requirements are based on the predicted haul route. Any change in the contractor's actual haul route may necessitate a change in the roads to be maintained.

Item 4: Biomass Chip/Haul

1. Haul routes will be determined by NFF prior to contract execution and may change throughout the lifetime of this contract. Hauling will adhere to the requirements in Appendix E, F, G and K.
2. All material left in landings (Tops, Branches, Cull Material and whole biomass trees) shall be chipped and removed from the project area (See Appendix F).
3. Material which cannot be chipped shall be piled in landing to facilitate burning. 25% of each residual pile shall be covered with plastic to facilitate burning.
4. Any chips left in landings shall be spread no more than 6 inches deep.
5. Residual debris piles shall have fire lines surrounding them as specified in Appendix G.
6. Contractor shall perform and or pay for road maintenance work commensurate with Contractor's use, on roads controlled by Forest Service, and used by Contractor in connection with this contract. Road maintenance requirements are based on the predicted haul route. Any change in the contractor's actual haul route may necessitate a change in the roads to be maintained.

Item 5: Road Reconstruction

The Contractor is authorized to construct and maintain roads as needed for conducting treatments on National Forest lands. As used in this agreement, "construct" includes "reconstruct". Reconstruction plans consist of, but are not limited to, barricade installation, dip construction, culvert installation/repair, water bar construction, waterhole development and roadside tree clearing. Specified road and water crossing construction requirements are in Appendix F and Appendix K - Delleker T Roads Package. Securing County Road encroachment permits is the responsibility of the awarded contractor.

E.4 Protection Measures and Other Concerns

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

2. **Contractor-Furnished Equipment:** Equipment shall be furnished on a fully operational basis, of modern design, and in good operating condition, with a competent, fully qualified operator. The Contractor shall furnish all fuel, lubricants, and personnel necessary for the operation of the equipment. All repairs, service and replacements are the responsibility of the Contractor and shall be at the Contractor's expense. If, during the contract period, the equipment requires repairs before operations can continue, it shall be the responsibility of the Contractor to complete such repairs.

3. **Accident and Injury Notification:** Contractor shall notify NFF of any 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 OSHA/CalOSHA within the timeframe of their reporting requirements, and the NFF within 8 hours of any personal injury accident. For vandalism and personal property accidents, Contractor shall notify NFF 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 an NFF investigation.

Protected Sites and Exclusions:

1. Control Areas

- a) Control areas within the project are flagged with black and red striped flagging. No equipment can track through these sites.
- b) Most of the control areas are small enough that they can be treated by keeping equipment outside of the control area and reaching in to cut and pull

out material. Contractor must work with the oversight forester to identify these on the ground.

2. Heritage Sites

- a) If heritage resources are discovered during project implementation, the NFF and oversight forester must be contacted immediately. The heritage resources must be recorded, clearly delineated, and protected.

3. Hydrology

- a) No equipment will be permitted within the equipment exclusions zones (EEZs) listed in table E.4.2.2. This buffer is not flagged on the ground, boundaries are virtual.
- b) Mechanical equipment will be allowed to reach into EEZs with the extendable boom arm without disturbing the ground for the purpose of removing material.
- c) Fell trees away from streams.
- d) Within Riparian Conservation Areas (RCAs, listed in table E.4.2.1), one-end suspension will be used to remove felled timber, where feasible. If one-end suspension is not feasible, end-lining is permitted. Excessive soil displacement (i.e., 'furrowing') caused by end-lining will be mitigated or repaired following removal.
- e) To minimize soil displacement, equipment is not allowed to turn around off a skid trail in an RCA.
- f) Proposed stream crossings must be approved by the oversight forester, district hydrologist, and wildlife biologist.
- g) If NFF oversight forester or USFS determines that soil conditions are not sufficient for operations, operations must be halted until soil conditions are deemed sufficient.
- h) No bench skids will be used for new skid trails within RCAs.

Table E.4.2.1

RCA Designation Type	Width
Perennial Stream	300 feet measured from bank full edge
Seasonal Flowing Stream	150 feet measured from bank full edge
Streams in Inner Gorge (stream adjacent slopes >70% gradient)	Top of inner gorge if beyond 300 feet
Special Aquatic Features (lakes, wet meadows, bogs, fens, wetlands, vernal pools, and springs) or Perennial Streams with riparian conditions extending more than 150 feet from the edge of the streambank, or Seasonally Flowing Streams with riparian conditions extending more than 50 feet from the edge of the streambank.	300 feet from edge of feature or riparian vegetation, whichever is greater
Other hydrologic or topographic depressions without a defined channel	RCA width and protection measures determined through project-level analysis

Table E.4.2.2

Hydrologic Feature	Mechanical Thinning and Yarding EEZs	Active Landings
Perennial Streams	25 feet	150 feet
Intermittent Streams	25 feet	
Ephemeral Streams	15 feet	
Special Aquatic Features (ponds, lakes, wetlands, fens, and springs)	25 feet	
Other Riparian Features (dry meadows, seasonal wetlands)	0 to 25 feet depending on soil conditions	

4. Botany

- a) Sensitive plant avoidance areas are flagged with blue and black-striped flagging and are shown in Appendix C. These areas will not be treated and are to be completely avoided during all activities, including staging of equipment, materials and crew as well as tree felling activities. Crossings may be permitted with approvals from the oversight forester and district botanist.
- b) Noxious weed infestations are marked with orange flagging and are shown in Appendix C. These areas will not be treated and are to be completely avoided during all activities, including staging of equipment, materials and crew as well as tree felling activities.
- c) In the event any new populations of special-status species are discovered during the various phases of the project, the area will be flagged and avoided until the PNF botanist or designee determines Design Feature applicability.
- d) For treatments adjacent to populations of special-status plant species, trees will be directionally felled away from the controlled area to avoid disturbing the population.
- e) Application of magnesium chloride for dust abatement will not occur within 100 feet of roadside occurrences of special-status plants.
- f) Off-road equipment will be cleaned to ensure it is free of soil, seeds, vegetative matter, or other debris before entering National Forest System lands to prevent the introduction or spread of invasive plants. Equipment will be inspected by the NFF's oversight forester before initial entry and any subsequent re-entries onto the project area. It is required to clean all off-road equipment and undergo inspection prior to leaving areas infested with noxious weeds.
- g) If skid trails, landings, or stream crossings require soil stabilization, weed-free equipment, mulches, and seed sources will be used. On-site material will be chipped to use as mulch to the extent possible. If mulch is imported to the site, use weed free rice straw (preferred) or certified weed free straw. Avoid seeding in areas where revegetation will occur naturally unless noxious weeds are a concern. Save topsoil from disturbance and put it back to use in onsite revegetation, unless contaminated with noxious weeds.

5. Wildlife

- a) Incidental detections of federally listed and sensitive species prior to or during project implementation will be reported to the Forest or District Wildlife Biologist for protection in accordance with management direction for PNF.
- b) Amphibians
 - i. While there are no known occurrences of the following, if any foothill yellow-legged frogs or Sierra Nevada yellow-legged frogs are found at any time during implementation of the proposed project, operations will cease in the vicinity of the frog. The immediate area around the frog will be vacated and the frog will be left alone. No activity will occur in that area until such time as the frog has left the area on its own. Foothill yellow-legged frogs and Sierra Nevada yellow-legged frogs will not be handled. The occurrence will be reported as soon as possible to the District Biologist and communicated to the appropriate line officer. If any foothill yellow-legged frogs or Sierra Nevada yellow-legged frogs are found, an 82-foot equipment exclusion buffer will be implemented around any occupied streams.

6. Recreation and Infrastructure

- The CRC Walking Trail, which runs through Unit 2, will be temporarily closed during operations, and appropriate signage must be posted. Contractor must coordinate sign placement with oversight forester.
- a) Approved crossings through the Kid's Creek Trail will be identified by the oversight forester. These are shown in Appendix C. The trail may not be crossed with equipment outside of these points.
 - b) All recreational trails shown on contract maps shall be left in the original condition existing prior to the commencement of work on this contract. Slash and chips must be removed from roadways and recreational trails each day after operations. Roads and trails must be passable upon completion of work.
 - c) Survey monuments and bearing trees shall be protected and not damaged in any way.
 - d) Powerlines – There are three overhead powerlines that run through the project area. The two central powerlines are owned by Plumas Sierra Rural Electric (PSRE), and the southeast powerline is owned by Liberty Utilities. These are mapped in Appendix C. During the contract period, the Contractor must maintain the utility powerline corridors and all access roads leading to the powerline corridors passable by standard 2WD vehicles. Operations must not cause damage to the powerlines or associated infrastructure. The contractor is responsible for the assessment and risk of felling operations along the powerline corridor and near the powerlines. If the contractor identifies trees that are too difficult to fell along the powerline corridor, then the contractor will need to coordinate with the Utility contacts for felling support. The following points of contact must be notified prior to starting operations or if any powerline related concerns arise:
 - i. PSRE: (800) 555-2207 or (530) 832-4261
 - ii. Liberty Utilities: 1-800-782-2506

- e) Fiber Optic Line – There is a fiber optic line that runs along the road at the southeast end of the project area. This is mapped in Appendix C. The fiber optic company came out and installed marking whiskers in the ground along the line. Operations must not cause damage to the line.
- f) Fence – There is a fence that runs between the two units. This is mapped in Appendix C. Trees should be felled away from fence, and fence should be left in the original condition existing prior to the commencement of work on this contract.
- g) Water tank – There is a private water tank that lies within Unit 1. This is mapped in Appendix C. The area around the water tank and associated line have been removed from the contract area. Trees should be felled away from the water tank, and this feature should be protected.
- h) Comm Line – There is a telephone line located in the southeast corner of Unit 1. This is mapped in Appendix C. Trees should be felled away from the line, and this feature should be protected.
- i) Survey monuments – There are three survey monuments located around the project boundary. These monuments are mapped in Appendix C. Trees should be felled away from the monuments, and these features should be protected.

E.5 Monitoring and Acceptance

During contract administration, the NFF's consulting oversight forester will conduct periodic site inspections verifying residual basal area (using a 20 BAF prism), species retention, diameter limits, and other specifications listed above. If the residual basal area and all specs listed in Appendices E, F, G, and K are deemed acceptable by the oversight forester, the unit will be reviewed by USFS personnel for a final inspection to determine approval. If substantial variations from the project specifications are identified during operations, corrective action will be taken by the contractor as directed by NFF. Log hauling must remain concurrent with operations (within 30 days of cutting) and at the frequency desired by the end use facility. Cutting may not exceed two weeks lead time ahead of skidding.

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

Defect Caused by Abnormal Delay:

- a. Unless otherwise agreed, felled timber meeting utilization standards shall be removed by Contractor pursuant to Appendix E and F and shall be presented for scaling within 30 consecutive days of falling. Failure to remove and present such timber for scaling within the required time limits will be considered abnormal delay. Difference in log values as a result of scaling deductions made for rot, check, or other defect resulting from abnormal delays caused by contractor shall be recorded separately and contractor will be charged.

Appendix F Timber and Project Specifications

F.1 Project Location and Area.

This project area of 255 acres is located generally within: Township 23N, Range 13E, Sections 34 & 35, MDBM. The Delleker T Project is located west of the City of Portola, north of Highway 70. The project is accessible from Delleker Dr on the west end of the unit, West St to the east of the unit, and Old County Rd to the southeast of the unit.

F.2 Volume Estimates and Utilization Standards.

Species	Product	Estimate Quantity	Unit of Measure	Minimum Specifications				
				Merchantable Tree		Piece Required to be Removed		
				Diameter Breast High (d.b.h.) (inches)	Number of Minimum Pieces per Tree	Length (feet)	Diameter Inside Bark at Small End (inches)	Merch Factor
Combined softwoods	Sawtimber	10,372	Ton	10.0	1	10	6.0	12%
Combined softwoods	GrnBioCv biomass	742	Ton	3.0	1	N/A	1	N/A
Total Quantity		11,114						

All green ton quantities are estimates and are subject to change.

F.3 Timber Designations.

Unit Number	Timber Designation	Boundary Designation
1	DxP	Solid blue flagging
2	DxP	Solid blue flagging

F.4 Maximum Stump Heights.

Species	Product	Maximum Stump Height (inches)
All	All	12 inches from ground level as measured on uphill side.

F.5 Specified Roads: Road Reconstruction

Road Name	Road Type	Length (ft)	Work Description
Delleker	Seasonal	1,300	Reconstruction potholes, import soil, grade and water
Old County Road	Seasonal	2,600	Reconstruction potholes, import soil, grade and water
No Name	Seasonal	175	Improve S. turn out for chip vans, remove three trees and strumps
No Name	Seasonal	275	Move outside berm into road and fill ruts
No Name	Seasonal	400	Reconstruct segment for drainage and ruts

F.6 Scaling Specifications and Services.

Scaling Specifications					
Species	Product	Maximum Scaling Length (feet)	Trim Allowance		
			Diameter Range (inches)	Length Range (feet)	Trim Allowance (inches)

Scaling Services				
Species	Product	Unit of Measure	Site/Location	Method
All	Sawlog	Ton		Weight
All	Biomass	Green Tons		Weight

F.7 Minimum Scaling Volumes. The minimum delivered volume trucked to the approved scale location is xx loads per week.

F.8 Fire Precautionary Period. The fire precautionary period is from April 1 to December 1, applicable to G7.2.

F.9 Contractor Fire Suppression Responsibilities.

- The Contractor will provide initial fire suppression within 25 road miles of their active landings.
- The Contractor will provide fire suppression reinforcement within 100 road miles of their active landings.
- Contractor maximum obligation per operations fire: \$51,400.00
- Contractor will provide and execute a Fire Plan.

F.10 Normal Operating Season (applicable to 6.31, 6.66, 8.21, 9.3): April 1 – October 31

F.11 Performance Bond Amount: A Performance Bond is required as described in Terms and Conditions paragraph 2, Payment/Performance Security. The required bond amount is \$xxx,xxx.

Appendix G

Guidelines for Operations

1.0 Contract Area

1.1 Contract Map. The boundaries of the contract area and any subdivisions are as shown on the attached Appendix C - Contract Map. The location of the contract area and its approximate acreage are stated in F.1. Subdivisions and units may be revised and additional ones may be established only by written agreement. Subdivisions or cutting units may be eliminated from this contract upon request and agreement between parties after completion and acceptance of work to reduce contractors area of fire liability. Catastrophic damage, changed on the ground conditions, or changed Forest policies may also be grounds for reducing, changing, or eliminating areas of operation or work within the contracted area.

Operational areas and units may be changed or added by written agreement and without formal modification if the resulting change does not incur costs above the Not To Exceed amount.

2.0 Timber Specifications

2.1 Included Timber. Included timber consists of live and dead trees that are designated for cutting and meet minimum utilization standards described in F.2.

Undesignated trees within or directly adjacent to the contract area may be cut and removed by written agreement and with Forest Service approval if they are damaged either by natural cause or by Contractors operations, or if unintentionally cut by mistake of contractor. Approval must occur before cutting damaged trees or moving timber away from where it was cut.

2.2 Utilization and Removal of Included Timber. Utilization Standards for trees and minimum pieces are stated in F.2. To meet minimum tree specifications, trees must equal or exceed tree diameters listed in F.2 and contain at least one minimum piece. Except for timber required or authorized to be left, Contractor shall fell and buck such trees and shall remove from the contracted area and present for Scaling all pieces that:

- (a) Meet minimum piece standards or
- (b) Do not meet such standards but would have qualified as part of minimum pieces if bucking lengths were varied to include such material.

2.3 Timber Designations. Timber designated for cutting is confined to the contracted area, except for construction clearing, minor changes, and hazard trees.

The boundaries of units are plainly marked on the ground before timber sale advertisement and are shown on the contract map. Painted or tagged boundary trees will not be cut. Unit boundaries may use discernable or virtual boundaries in lieu of painted and tagged boundaries and in accordance with USDA Region 5 policies. The contract map shows how unit boundaries are designated.

2.32 Construction Clearing. All timber is designated for cutting that is within the clearing limits of roads constructed hereunder or is in other authorized clearings. All dead or unstable live trees are designated for cutting that are sufficiently tall to reach Contractor's landings or the roadbed of Specified and Temporary Roads when Marked in advance of felling of timber in the immediate vicinity. Pieces meeting Utilization Standards from such dead or unstable live trees shall be removed, unless there is agreement that to do so could damage the road.

2.35.1# Designation of Timber, Cutting Unit Boundaries. Trees are designated for cutting only as shown in the Timber Designation table below. The boundaries of Cutting Units are designated as shown in the Boundary Designation table below. Trees used for boundary designation are not to be cut.

SPECIFICATIONS PURSUANT TO 2.35.1# - DESIGNATION OF TIMBER, CUTTING UNIT BOUNDARIES,

Area Description	Tree Designation	Boundary Designation
Unit 1	DxP	Solid blue flagging
Unit 2	DxP	Solid blue flagging
Kids Creek Retention trees	Orange & Silver together	N/A
Property Lines	N/A	Red flagging/red painted blaze
Control Areas	N/A	Black/red stripe
Watercourse	N/A	Virtual boundaries
Clumps	Unit 1 = Band of white paint Unit 2 = Orange/silver striped flagging	N/A

2.35 Individual Trees. All trees to be cut, other than construction clearing and hazard trees, are Marked or designated by prescription. Trees are “Marked” when individually designated with blue paint marks above and below stump height.

When Designation by Prescription is the individual tree designation method, Contractor must cut and remove trees to achieve the lowest possible residual stocking target allowed in prescription.

2.37 Minor Changes. Within the contract area, minor adjustments may be made in boundaries of cutting units or in the timber designated for cutting by agreement between the Contractor and NFF. Forest Service approval is required for such changes, NFF will obtain the required approval.

2.4 Volume Estimate. The estimated volumes of timber designated for cutting and expected to be cut under Utilization Standards are listed in F2. The estimated volumes stated in F2 are not to be construed as guarantees or limitations of the timber volumes to be designated for cutting under the terms of this contract.

Contractor is responsible for analyzing units and work areas pre bid to determine operational requirements for implementation to remove all stated timber and/or biomass volume.

3.0 Rates of Payment

3.1 Integrated Resource Service Contract. Contractor agrees to purchase timber resulting from operations of this contract, disclose the value received to NFF, and trade an equal value of service work by agreement between both parties.

3.3 Rate Redeterminations. NFF reserves the sole right to negotiate and approve labor or timber rate redeterminations under this contract.

3.31 Rate Redetermination for Environmental Modification or Catastrophic Damage. During the performance period of this contract, should on the ground conditions or Forest Service policies change that would substantially modify the scope of work agreed to under this contract, Contractor or NFF may request a modification to the labor rate, performance items, or contract performance period that accounts for the changed condition. Any modification to the terms of performance shall be by agreement between the parties. If agreement cannot be reached, NFF reserves the right to terminate all or part of this contract as authorized in the Terms and Conditions.

4.0 Payments for Sale of Timber

4.1 Advance Deposits. Deposits for stumpage must be received by the NFF prior to felling any timber. Deposits must be paid for the 30-day projected cut or can be lump sum for the total value of timber on the project. Contractor shall make cash deposits to meet Contractor’s obligations within 15 days of billing.

4.2 Minimum Payment to be Collected. Even when the value of timber is less than the value of the work required under this contract, the NFF must collect sufficient monies to pay the required California Timber Yield Tax to the State of California. Estimated tax value may be disclosed to the Contractor upon request.

4.3 Payments for Timber. Prior to cutting or moving any timber, a payment plan must be negotiated and approved by the NFF and the Contractor. In no case may timber be cut or moved before full payment for the appraised value of stumpage is received from Contractor to the NFF.

5.0 Transportation Facilities

5.1 Authorization. Contractor is authorized to construct and maintain roads, bridges, and other transportation facilities, as needed for completing work on National Forest lands within the project area. As used in this contract "construct" includes "reconstruct."

Unless otherwise provided herein, construction may be progressive during this contract. The location and clearing widths of all facilities shall be agreed to in writing before construction is started. "Temporary Roads" are roads other than Specified Roads that are constructed by Contractor for the purpose of completing work.

Contractor is authorized to cut and use for construction without charge construction timber designated by agreement. Such use shall be approved in writing prior to clearing, cutting or use of timber for construction.

5.11 Requirements of Rights-of-Way. Contractor's road construction and use of rights-of-way shall be confined to rights-of-way and limited by the related easements and stipulations, if any, unless Contractor makes other arrangements that will not infringe upon or adversely affect the grantee's rights. Easements or right-of-way documents are available for inspection upon request. Contractor must request specific documents for viewing, NFF will have ten business days to furnish requested documents to Contractor.

5.12 Use of Roads by Contractor. Except as provided herein, Contractor is authorized to use existing National Forest system roads and Specified Roads listed in this contract, when NFF and Forest Service determines that such use will not cause damage to the roads or National Forest resources.

Limit haul to times when the base and subgrade are not saturated. Any damage to the road will be rehabilitated after haul, NFF oversight forester and FS sale administration staff are authorized to approve or shut down hauling based on ground and road conditions for the duration of the contract.

If Contractor's use of an existing temporary or National Forest system road that was not planned in the road assessment cannot be satisfactorily accommodated without reconstruction, Contractor shall be authorized to use such road upon agreement as to the minimum reconstruction work that Contractor shall perform before hauling. When appropriate, such road shall be included as an alternate facility under 5.26.

5.12.1 lists existing roads shown on Contract Map that for such reasons as limitations in structural capacity, safety, and protection of soil, water, and roads:

- (a) Cannot be used for log hauling or
- (b) May be used only under the restrictive limitations stated therein.

5.12.1 Restricted Roads. Roads listed in this provision have restricted use requirements as follows:

Road Number	Restriction Requirement	Segment/Terminus
N/A		

5.12.2 Public Safety Contractor has all responsibility for compliance with safety requirements for Contractor's employees. When operations are in progress adjacent to or on 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 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.

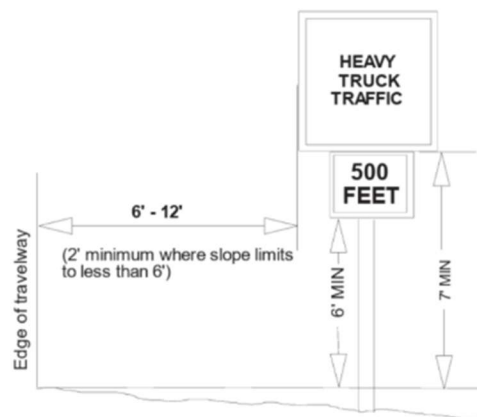
Logging and Maintenance Operations Signing Standards: All signs must be manufactured & installed as specified below. Submit a sign plan for approval.

LATERAL CLEARANCE

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

HEIGHT

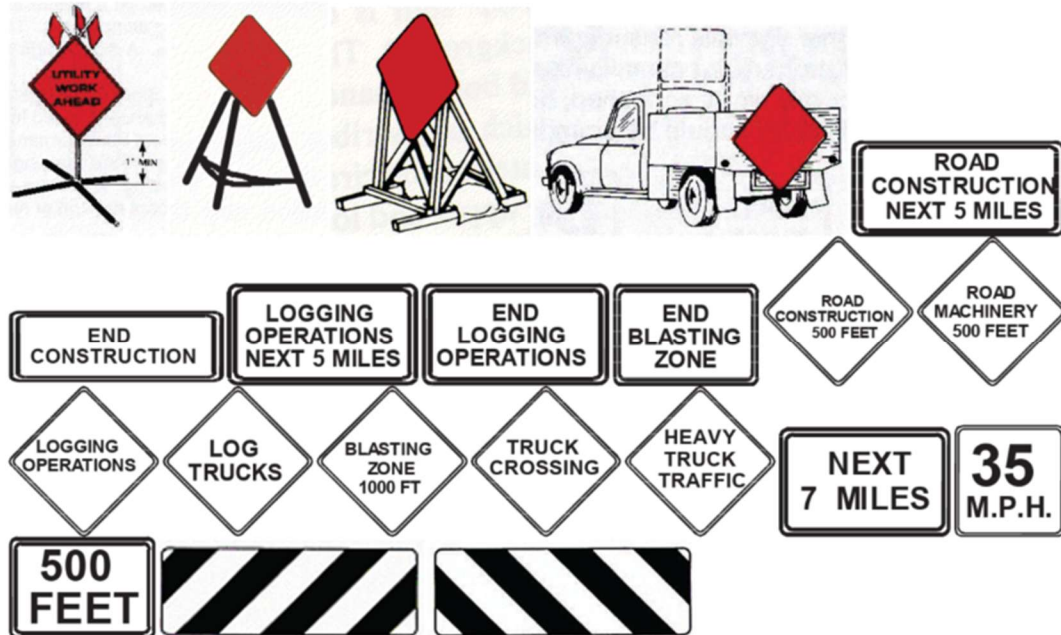
Minimum of 7 feet, measured from the bottom of the sign to the near edge of the travelway. The height to the bottom of a supplemental sign mounted below the primary sign will be 6 feet.



PLACEMENT DISTANCE

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

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



5.2 Specified Roads. "Specified Roads" are roads, including related transportation facilities and appurtenances, shown on the Contract Map and listed in F5. Contractor shall construct Specified Roads used under this contract. Construction initiated by Contractor on any such Specified Road shall be completed to an agreed terminus that meets Contractor's needs and prevents unnecessary impact on National Forest resources. Construction to such terminus shall be in full accordance with specifications attached hereto, except for agreed adjustments needed to accommodate such terminus.

A Temporary Road shall not be constructed substantially on the location for a Specified Road, except by agreement.

In event of agreed substitution or revision of construction design, specifications, or performance responsibility under shall be modified. If Contractor does not need a Specified Road or a portion of a Specified Road for completing work and the Specified Road is not constructed, the deletion of the road or road segment will be a mutually agreed design change and costs will be adjusted for the reduction.

References in the contract to specifications, standards, or test methods adopted by the American Association of State Highway and Transportation Officials (AASHTO), American Society for Testing and Materials (ASTM), General Services Administration (GSA), or other recognized national technical associations shall mean specifications, standards, or test methods, including interim or tentative issues, that are in effect on the date of timber sale advertisement.

5.21 Engineering. Contractor will perform survey, design, and construction staking of Specified Roads to be engineered if necessary by Contractor in accordance with specifications attached hereto.

Contractor shall furnish a schedule to NFF of specific dates for the start of construction. The schedule of construction shall be submitted to NFF for approval within 60 days after contract award and prior to beginning work.

5.23 Use of Partially Constructed Roads. Unless NFF determines that there is justification under existing conditions and ground conditions permit hauling without undue damage, portions of Specified Roads shall be Substantially Completed prior to their use for hauling timber. When necessary to facilitate construction and protect bridges and roads from damage, timber felled in construction and timber logged directly to the road from areas immediately adjacent thereto may be hauled before road construction is Substantially Completed. Such hauling shall be confined to periods when abnormal soil erosion and damage to National Forest lands will not result.

“Substantially Completed” means:

- a. Completion of grading and installation of drainage structures so they will function effectively and
- b. Laying the specified depth of base course, if any.

No more than half of Included Timber to be hauled over such portions of road shall be hauled until the base course has been applied.

Unless agreed otherwise, specified reconstruction shall be completed on any portion of road prior to hauling on that portion.

5.26 Alternate Facilities. If under Contractor’s Operating Schedule, roads needed for the completion of work differ substantially from identified Specified Roads, other roads may be added to F5. All such additions must be approved by Forest Service. Contractor shall provide survey, design, and construction staking for such other roads. Any additional compensation request resulting from adding work to new roads not identified in the road package to meet Forest standards shall be negotiated and approved by NFF and is not guaranteed.

5.3 Road Maintenance. Contractor shall maintain roads, commensurate with Contractor’s use, in accordance with Road Maintenance Requirements in 5.31 and the Road Maintenance Specifications. Performance of road maintenance work by Contractor may be required prior to, during, or after each period of use. The timing of work accomplishment shall be based on Contractor’s Operating Schedule under 6.31.

When two or more commercial users are simultaneously using the same road where NFF is not requiring maintenance deposits, the commercial users will develop maintenance responsibilities and arrangements for accomplishing the work. NFF must agree to this plan. If the commercial users cannot agree on maintenance responsibilities, NFF shall resolve the differences.

Unless agreed in writing, prehaul maintenance shall be completed on any portion of road prior to hauling on that portion. Maintenance, as used in this contract, does not include road reconstruction or repairs of extraordinary nature.

5.35.1 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.

Water Sources: National BMP Water Uses-3

Use an approved water source for obtaining water. Water drafting sites in the project area

will be established on permanently flowing streams that have sufficient flow to avoid depletion of pool habitat.

1. Install screens on water intake lines to prevent entrainment of biota.
2. Do not overfill tanks when collecting water as this can lead to increased sedimentation to the stream channel.
3. Do not back water trucks beyond the established access developed to access the water source.
4. If use of a water source creates sediment movement on access route, apply clean crushed gravel or other means to control sediment, and maintain water quality.
5. If a water drafting source within the 100-year floodplain is not currently rocked and added controls are needed to prevent sediment from washing into the water source, use straw bales, staked waddles or other methods to filter sediment.
6. Ensure that prohibited discharges to 100-year floodplains do not occur from the maintenance or repair of an existing waterhole within the original footprint.

For fish-bearing streams:

1. The water drafting rate should not exceed 350 gallons per minute for streamflow greater than or equal to 4.0 cubic feet per second (cfs);
2. Below 4.0 cfs, drafting rates should not exceed 20% of surface flows;
3. Water drafting should cease when bypass surface flows drop below 1.5 cfs.

For non-fish-bearing streams:

1. The water drafting rate should not exceed 350 gallons per minute for streamflow greater than or equal to 2.0 cfs;
2. Drafting rates should not exceed 50% of surface flows;
3. Water drafting should cease when bypass surfaced flows drop below 10 gallons per minute.

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 5.35.1# - REQUIREMENTS OF ROAD AND WATER SUPPLY USE

Load Limitations	Contractor shall notify NFF 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 6.311. Within 15 days after receipt of the written notice NFF, in consultation with the Forest Service, shall notify Contractor in writing of any regulations or restrictions that may be needed to protect National Forest Transportation Facilities. 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.
Existing Non-National Forest System Roads	Roads not shown on Contract Map may be used as Temporary Roads if there is agreement before use is started.
Snow Removal	If Contractor removes snow from roads, such work shall be done with NFF approval and in a manner that will protect roads and adjacent resources. 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. 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. 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.

5.4 Use by Others. Forest Service and NFF shall have the right to use any road constructed by Contractor under this contract for any and all purposes in connection with the protection and administration of the National Forest. Other parties, in connection with the logging of tributary National Forest timber, may use roads constructed by Contractor hereunder when NFF determines that such use will not materially interfere with Contractor's Operations. Third party use shall be contingent upon NFF or Forest Service determining, and third party agreeing to pay, a fair share of maintenance cost commensurate with such commercial use.

Unless otherwise provided herein, Forest Service shall authorize other uses of roads constructed by Purchaser hereunder only if:

- a. NFF makes appropriate arrangements to relieve Contractor of related maintenance costs commensurate with such other uses and
- b. Such other uses will not materially interfere with Contractor's Operations.

Where Contractor reconstructs a road having established use, Contractor's use during reconstruction and thereafter shall be such as to reasonably accommodate such established use. Contracting Officer shall ensure that other users do not materially interfere with Contractor's right to use such reconstructed road.

6.0 Operations

6.1 Representatives. Unless otherwise agreed, Contractor shall designate, in writing, a representative who is authorized to receive notices regarding performance under this contract and take related action. In no case shall Contractor designate any representative to this contract who is currently debarred, proposed for debarment, or suspended by the Federal Government. Contractor's representative shall provide a copy of the contract to Contractor's field supervisor and persons authorized to assume responsibilities in the field supervisor's absence. Prior to initial operations and after shutdowns of 10 days or more, Contractor's representative shall notify NFF 2 days in advance of resuming work, excluding weekends and Federal holidays, before any operations begin on Contract Area.

Contractor's representative shall designate, in writing, a field supervisor, one of whose responsibilities shall be on-the-ground direction and supervision of Contractor's Operations. The field supervisor shall be readily available to the area of operations when operations are in progress and shall be authorized to receive notices regarding performance under this contract and take related action. The responsibilities of the field supervisor shall include the safeguarding of National Forest resources and performance within the terms of the contract. Contractor representative will provide NFF with names of persons authorized to assume responsibilities in field supervisor's absence.

An NFF representative is designated in the contract. NFF representative shall:

- (a) Receive notices regarding performance under this contract,
- (b) Take action in relation to this contract, and
- (c) Be readily available to the area of construction and logging operations.

NFF representative shall designate other on-the-ground representatives in writing as needed along with their specific contractual responsibilities and authority. Representatives with authority delegated in writing are the only personnel authorized to provide notice or take related actions under the contract. Such delegation shall be made within 30 days of receipt of Contractor's Plan of Operations.

Representative	Contractual Responsibilities
NFF Program Manager	Acts as Contracting Officer, retains authority for all contractual modifications and approvals. Receives and reviews written notices to approve contractual actions.
NFF Program Coordinator	Manage and coordinate day to day work, receive, approve and process invoices for payment, coordinate FOREST SERVICE approvals, receive contractual notices and take action. May shut down operations for cause.
NFF Contract Registered Forester (NFF Agent)	Oversee field operations to ensure contractual compliance, correct operator performance issues, receive notices and forward to NFF for action, may shut down operations for cause.
Forest Service Representative	Approve requests and schedules relating to resource management and operational concerns, accept or reject work for payment, may shut down operations for cause.

6.11 Notices. Notices by either party as to action taken or to be taken by the other respecting this contract shall be made in writing to the other party's designated representative.

6.2 Improvements. Contractor is authorized to construct on National Forest land and other

improvements within the contract area needed to complete the scope of work. Such construction shall be located where approved in writing by NFF and shall be constructed and used in a manner that will protect National Forest values.

Contractor shall comply with the rules and regulations governing the operation of premises that are occupied and shall perform the contract in a manner that will not interrupt or interfere with the conduct of Forest Service business.

Forest Service shall grant written permission before any camp, quarry, borrow pit, storage, or service area, other than as shown on Plans, is opened or operated on National Forest land or administered lands. A camp is interpreted to include the campsite or trailer parking area of any employee agent, contractor, Subcontractor or their employees or agents working on the project for Contractor. Such permission, if granted, shall be without charge to Contractor.

6.21 Removal. Unless Forest Service authorizes continued use, Contractor shall remove or dispose of all improvements when no longer needed. Should Contractor fail to remove or dispose of improvements prior to the Termination Date, NFF may dispose of improvements at Contractor's expense.

6.22 Protection of Improvements. So far as practicable, Contractor shall protect Specified Roads and other improvements (such as roads, trails, telephone lines, ditches, and fences):

- (a) Existing in the operating area,
- (b) Determined to have a continuing need or use,

Contractor shall keep roads and trails needed for fire protection or other purposes 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 to an agreed upon location.

Contractor shall notify NFF at least 10 working days prior to any operations in the vicinity of improvements identified on Contract 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 Contractor. Improvements shall be returned to their original locations following Contractor's Operations.

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>
Fencing	USFS	N/A	Protect	N/A
CRC Walking Trail	USFS	N/A	Protect	N/A
Powerlines	Plumas Sierra Rural Electric & Liberty Utilities	N/A	Protect	N/A
Fiber Optic Line	Plumas Sierra Rural Electric	N/A	Protect	N/A

Water Tank	Grizzly CSD	N/A	Protect	N/A
Telephone Line		N/A	Protect	N/A
Survey Monuments	USFS	N/A	Protect	N/A

6.221 Protection of Improvements Not Owned by Forest Service. NFF Agent will notify all utility companies, or other parties affected, and make arrangements for all necessary adjustments of the public utility fixtures, pipelines, and other appurtenances likely to be affected by Contractor's Operations.

When Contractor's Operations are adjacent to properties of railway, telephone, or power companies, or other property, work shall not begin until Contractor has identified actions necessary to prevent damage.

Contractor shall cooperate with the owners of any underground or overhead utility lines in their removal and/or rearrangement operations in order that these operations may progress in a reasonable manner, utility duplication or rearrangement work may be reduced to a minimum, and services shall not be unnecessarily interrupted.

In the event of interruption to utility services because of accidental breakage or as a result of lines being exposed or unsupported, Contractor shall promptly notify the proper authority and shall cooperate with that authority in the restoration of service until the service is restored.

When materials are to be hauled across the tracks of any railway, NFFs Agent or Contractor will make arrangements with the railroad for the use of any existing crossing or for any new crossing required. All construction work to be performed by Contractor on the railroad right-of-way shall not damage railroad company's property.

6.222 Protection of Property. In construction and reconstruction of Specified Roads, Contractor shall not unnecessarily remove, deface, injure, or destroy trees, shrubs, or other natural features, unless specifically authorized. To the extent practicable, Contractor shall confine operations to within the clearing limit or other areas designated in the contract and prevent the depositing of rocks, excavated materials, stumps, or other debris outside these limits.

Material that falls outside these limits shall be retrieved, disposed of, or incorporated in the work to the extent practicable and necessary to protect adjacent resource values, unless otherwise agreed.

6.23 Protection of Land Survey Monuments. NFF shall appropriately designate on the ground all known survey monuments, section corners, and other corner accessories. NFF shall post identifying signs on two sides of each known bearing tree. NFF shall arrange protective or perpetuative action that does not cause unnecessary delay to Contractor in authorized clearings, such as Clearcutting Units and road construction, and in other instances where damage to monuments, section corners, and other corner accessories is unavoidable.

Contractor shall protect all known survey monuments, witness corners, reference monuments, and bearing trees against avoidable destruction, obliteration, or damage during Contractor's Operations. If any known monuments, corners, or accessories are destroyed, obliterated, or damaged by Contractor's 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. 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.

6.24 Protection Measures Needed for Plants, Animals, Cultural Resources, and Cave Resources.

Areas, known by NFF prior to contract advertisement, needing special measures for the protection of plants, animals, cultural resources, and/or cave resources are shown on Contract Map and/or identified on the ground, and shall be treated as follows:

- a) Unless agreed otherwise, wheeled or track laying equipment will not be operated in areas identified as needing special measures except on roads, landings, tractor roads, or approved skid trails. Contractor may be required to back blade skid trails and other ground disturbed by Contractor's Operations within such areas in lieu of cross ditching and as approved by Forest Service.
- b) Unless agreed otherwise, trees will not be felled into areas identified as needing special measures.
- c) Contractor must conduct operations in a manner that does not damage or disturb identified areas. If protective measures identified are for any reason inadequate, NFF may delay or interrupt Contractor's operations under this Contract, and/or modify this Contract.
- d) Contractor shall immediately notify the NFF if its operations disturb or damage any area identified as needing special protection and shall immediately halt its operations in the vicinity of such area until the NFF authorizes continued operations. If Contractor's operations disturb or damage an area identified as needing special protection, then Contractor shall reimburse the NFF for the full cost and expense of any evaluative and remedial measures undertaken by the NFF in connection with such disturbance or damage. Such payment shall not relieve Contractor from civil or criminal liability under applicable law.
- e) Nothing contained in this Subsection shall establish or be deemed to establish any express or implied warranty on the part of the NFF (i) that the NFF has identified all areas within the Contract Area requiring special protection, or (ii) that measures prescribed by the NFF for protection of such areas are adequate.
- f) Following contract advertisement, 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, NFF may delay or interrupt Contractor's operations, under this Contract, and/or modify this Contract.
- g) Discovery, by either the Contractor or the NFF, of additional areas, resources, species, or members of species needing special protection shall be promptly reported to the other party.

6.3 Control of Operations. Under this contract, "Contractor's Operations" shall include activities of or use of equipment of Contractor, Contractor's employees, agents, contractors, Subcontractors, or their employees or agents, acting in the course of their employment in operations hereunder on National Forest system lands.

Contractor's Operations shall be conducted in a workmanlike and orderly manner. The timing of required designation of work on the ground and the performance of other administrative work by NFF or their Agent shall not be such as to cause unnecessary delay to Contractor.

6.31 Operating Schedule. Contractor shall, before commencing operations, provide in writing an annual Operating Schedule of anticipated major activities and needs for project completion, such as logging, road maintenance, scaling, and road construction, including construction staking and material delivery as needed. Upon ten business days notice to NFF, such schedule shall be subject to modifications necessitated by weather or other unpredictable circumstances.

Subject to 6.6 and when the requirements of 6.66 are met, Contractor's Operations may be conducted out- side Normal Operating Season. "Normal Operating Season" is the period(s) beginning and ending on the dates stated in F.10 of any year.

6.315# Sale Operations Schedule. (8/2006) Unless otherwise agreed in writing, Contractor's operations shall be performed in accordance with the following schedule:

SCHEDULE PURSUANT TO 6.315# - SALE OPERATIONS SCHEDULE (8/2006)

<u>Area/Unit</u>	<u>Conditions of Operation</u>	<u>Purpose</u>
All Units	No known Limited Operating Periods.	Wildlife protection.
Unit 2	Operator must notify NFF and oversight forester prior to beginning operations in this unit due to proximity to the Elementary School.	Public Safety

6.32 Protection of Residual Trees. Contractor's Operations shall not unnecessarily damage young growth or other trees to be reserved.

6.33 Safety. Contractor's Operations shall facilitate safe and practical inspection and conduct of other official duties on Contract Area. Contractor has all responsibility for compliance with safety requirements for Contractor's employees.

If NFF identifies a conflict between the requirements of this contract or agreed upon methods of proceeding hereunder and State or Federal safety requirements, the contract shall be modified and Contractor may request a rate adjustment to compensate for the changed conditions.

Unless otherwise agreed in writing, when Contractor's Operations are in progress adjacent to 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 Contractor's Operations. Contractor and NFF shall agree to a specific Traffic Control Plan for each individual project prior to commencing operations. Devices shall be appropriate to current conditions and shall be covered or removed when not needed. Except as otherwise agreed, traffic control equipment and personnel will conform to industry standard and FOREST SERVICE accepted business practices.

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.

6.34 Sanitation and Servicing. Contractor shall take all reasonable precautions to prevent pollution of air, soil, and water by Contractor's Operations. If facilities for employees are established on Contract Area, they shall be operated in a sanitary manner. If Contractor's Operations or servicing of equipment result in pollution to soil or water, Contractor shall conduct cleanup and restoration of the polluted site to the satisfaction of NFF.

Contractor shall maintain all equipment operating on Contract 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.

6.341 Prevention of Oil Spills. If Contractor maintains storage facilities for oil or oil products on Contract 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 NFF and USFS of all reportable (40 CFR 110) spills of oil or oil products on or in the vicinity of Contract Area that are caused by Contractor's employees agents, contractors, Subcontractors, 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.

6.342 Hazardous Substances. Contractor shall notify the USFS and NFF of all releases of reportable quantities of hazardous substances on or in the vicinity of Contract Area that are caused by Contractor's employees, agents, contractors, Subcontractors, or their employees or agents, directly or indirectly, as a result of Contractor's Operations, in accordance with 40 CFR 302.

6.35 Equipment Cleaning. Areas, known by NFF prior to project advertisement, that are infested with invasive species of concern are shown on Contract Area Map. A current list of invasive species of concern and a map showing the extent of known infestations is available at the Forest Supervisor's Office. For purposes of this provision, "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 adhere to the following requirements regarding cleaning "Off-Road Equipment":

- a) Contractor shall not move any Off-Road Equipment onto Contract Area without having cleaned such equipment of seeds, soil, vegetative matter, and other debris that could contain or hold seeds.
- b) Prior to moving Off-Road Equipment from a cutting unit that is shown on Contract Area Map to be infested with invasive species of concern to, or through any other area that is shown as being free of invasive species of concern, or infested with a different invasive species, Contractor shall clean such equipment of seeds, soil, vegetative matter, and other debris that could contain or hold seeds, and shall notify the NFF, as provided in (iii).
- c) Prior to moving any Off-Road Equipment subject to the cleaning requirements set forth above, Contractor shall advise NFF of its cleaning measures and make the equipment available for inspection. NFF shall have 2 days, excluding weekends and Federal holidays, to inspect equipment after it has been made available. After satisfactory inspection or after such 2 day period, Contractor may move the equipment as planned. Equipment shall be considered clean when a visual inspection does not disclose seeds, soil, vegetative matter, and other debris that could contain or hold seeds. Contractor shall not be required to disassemble equipment unless so directed by the NFF after inspection.
- d) If Contractor desires to clean Off-Road Equipment on National Forest land, such as at the end of a project or prior to moving to, or through an area that is free of invasive species of concern, Contractor shall obtain prior approval from NFF as to the location for such cleaning and measures, if any, for controlling impacts.

Nothing contained in this Section shall be interpreted as creating any warranty on the part of the NFF that all locations of invasive species of concern have been described herein, elsewhere in this Contract, or designated on the ground. Following contract advertisement, additional locations may be described or designated, and other species may be added to the list of invasive species of concern. In such event, NFF may order delay, interruption, or modification of this Contract.

The parties shall promptly communicate with one another with respect to description or designation of additional locations; discovery of locations of new species or new infestation; and addition of species to the list of invasive species of concern.

6.36 Acceptance of Work. Upon Contractor's written request and assurance that work has been completed, NFF or their Agent shall perform an inspection within 5 days, excluding weekends and Federal holidays, so as not to delay unnecessarily the progress of Contractor's Operations. Such a request may be for acceptance of:

- a) Any reasonable portion of Specified Road listed in the Schedule of Items;
- b) Specific requirements on a subdivision of Contract Area (such as logging, slash disposal, erosion control, or snag felling); or
- c) All contract requirements on a subdivision of Contract Area.

NFF may perform such inspections without request from Contractor.

Within 2 days of inspection, excluding weekends and Federal holidays, NFF shall furnish Contractor with notice either of acceptance or of work remaining to be done.

If NFF is unable to make such inspection within 5 days of Contractor's request, Contractor shall be notified of necessity for postponement and time when inspection can be made. The same final approval procedure shall be used at the end of Contractor's construction period on any completed portion of road.

When all contractual work of Contractor has been accepted for any subdivision of Contract Area or cutting unit identified on Contract Area Map, subdivision or cutting unit may be eliminated from Contract Area on written notice of either party to this contract.

6.37.1 Substitute Methods. (8/2006) 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.

6.4 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. NFF 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.

6.41 Felling and Bucking. Felling shall be done to minimize breakage of Timber and damage to residual trees. 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, whichever is stated in F2. If necessary to assess extent of defect, Contractor shall make sample saw cuts

or wedges.

6.411 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 units or other authorized clearings,.

6.412 Stump Heights. Stumps shall not exceed, on the side adjacent to the highest ground, the maximum heights set forth in F4, except that occasional stumps of greater heights are acceptable when Contractor determines 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 F4 and shall dispose of severed portions in the same manner as other logging debris.

6.413 Bucking Lengths. Trees shall be bucked in various lengths to obtain the greatest utilization of material meeting Utilization Standards.

6.414 Limbing. When NFF determines it is necessary to minimize damage to the residual stand during skidding, Contractor shall cut exposed limbs from products prior to skidding. Contractor may leave uncut those limbs that cannot be cut with reasonable safety.

6.42 Skidding and Yarding. Methods of skidding or yarding specified for particular areas, if any, are indicated on Contract Area Map. Outside 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. The following requirements apply conduct of skidding and yarding:

1. WHOLE: Whole Tree Yarding.

- a) Notwithstanding the requirements above, within units or subdivisions designated "Whole" on Contract Area Map, trees smaller than <22> inches DBH shall be skidded/yarded to agreed landing locations prior to limbing, bucking, and lopping.
- b) Trees larger than or equal to <22> inches DBH shall be bucked into two or more pieces with the butt-portion being no longer than <41> feet prior to skidding/yarding.
- c) The butt log <shall> be limbed prior to skidding/yarding.

2. DF: Directional Felling.

- a) Within areas designated DF on Contract Area Map, Included Timber shall be directionally felled away from <private land, streamcourses, wetlands, control areas, area and survey monuments, and infrastructure including but not limited to fences, recreation structures, overhead lines, roads, parking lots> with the use of specialized equipment.
- b) Such directional felling shall not be required when in the faller's judgment it is unsafe to do so, and shall be left standing.

3. TRAC:

- a) Main skid pattern shall be agreed in advance of felling and main skid roads shall be flagged on the ground in advance of felling.
- b) 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.
- c) 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.

4. SUSP: Partial Suspension.

- a) Products shall be skidded with leading end clear of ground.

5. SPACE: Skid Roads and Skid Trails.

- a) Skid roads will **average <100> feet** from center to center, except where converging.

6. MH: Mechanical Harvesting

- a) Contractor shall cut Included Timber and move it to designated skid trails using equipment with a boom having an operating radius of at least **<20> feet** for bunching trees, capable of severing, lowering and placing trees up to **<24> inches** diameter at stump height on the ground prior to skidding.
- b) Such equipment must be capable of operating on slopes up to **35%**.
- c) notwithstanding above, hand felling using chainsaws may be required in or adjacent to sensitive areas to protect resources from unnecessary damage.
- d) Trees which exceed capability of specified equipment may be felled, bucked and skidded in a manner consistent with the requirements of G6.41 - Felling and Bucking, G6.41# - Felling, Bucking, and Limbing Requirements and the above "TRAC",
- e) "SUSP", "SPACE", "ENDL", and "MAX" requirements.

7. MAX: Maximum Width

- a) Tractors used for skidding, shall be of the type (rubber-tired or track-laying) shown on the Contract Area Map and shall not exceed **<12> -feet** width designated on Contract Area Map.

8. ENDL: Endlining

- a) Endlining shall not be required for distances in excess of **<80> feet uphill, and <100> feet downhill.**

6.421 Rigging. Insofar as practicable, needed rigging shall be slung on stumps or trees designated for cutting.

6.422 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.

6.423 Skidding on Roads. Products may be skidded on permanent roads authorized for hauling only by prior written agreement.

6.424 Arches and Dozer Blades. Unless otherwise specified herein, 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 stands, except on constructed tractor roads or landings, unless there is written agreement that residual timber will not be damaged materially by such use.

6.5 Streamcourse Protection. Unless otherwise agreed, the following measures shall be observed to protect Streamcourses:

- a) 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.
- b) 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.

- c) Wheeled or track-laying equipment shall not be operated in Streamcourses, except at crossings designated by NFF or as essential to construction or removal of culverts and bridges.
- d) Flow in Streamcourses may be temporarily diverted only if such diversion is necessary for Contractor's planned construction and NFF 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.
- e) 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 Sale 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.
- f) 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.
- g) 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.

6.6 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 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.

If Contractor fails to do seasonal erosion control work prior to any seasonal period of precipitation or runoff, NFF may temporarily assume responsibility for the work and utilize the Contractor's performance bond to do the work. If needed for such work, Contractor shall make additional deposits on request by NFF.

Erosion prevention and control work, including Streamcourse protection, shall be completed within 10 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 6.6# - EROSION PREVENTION AND CONTROL.

Vegetative Soil Stabilization Where soil has been disturbed by Contractor's Operations and the establishment of vegetation is needed to minimize erosion, Contractor shall take appropriate measures normally used to establish an adequate cover of grass or other vegetation acceptable to Forest Service or take other agreed stabilization measures. Forest Service shall designate on the ground such disturbed areas annually as logging and Temporary Road construction are completed.

NFF upon request shall provide advice as to soil preparation and the application of suitable seed mixtures, mulch and fertilizer and the timing of such work. In no event shall Contractor be required to treat more acres than that shown in the legend of Sale Area Map.

Contractor shall use the type of native seed mixtures, mulch, and fertilizer as listed below:

Seed Mix	Pounds/Acre	Type of Mulch	Fertilizer
Certified weed-free		Certified weed-free	
Native		Preference for on-site woody plant material	

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 Contractor be required to treat more acres than that shown in the legend of Sale 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.

Tillage. In addition to meeting the requirements of 6.64 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 of Tillage
*Landings	24	26
*Main Skid & Tractor Roads designated by partner rep.	18	2
Temporary Roads	18	1

* = Lift tillage equipment out of soil when within drip line of leave trees.

* = Lift tillage equipment out of soil when encountering rock mix greater then 20% .

OPTIONAL

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

Waterbars. Use these spacing guidelines for permanent roads when there is a need for drainage facilities for permanent roads.

Road, Skid Trail or Fire Line Gradient		Erosion Hazard Rating for Area 2/ 4-5			
		6-8	9-10	11-13	
		(Low)	(Medium)	(High)	(Very High)
%	(Feet)	(Feet)	(Feet)	(Feet)	(Feet)
1 - 6	400	350	300		250
7 - 9	300	250	200		150
10 - 14	200	175	150		125
15 - 20	150	120	90		60
21 - 40	90	70	50		30
41 - 60 3/	50	40	25		15

Minimize impact by draining water bars into slash, rocky areas, dense or low vegetation and so on, shorten up spacing where needed to take advantage of natural features to aid dispersion of water. When skid trails may drain onto a lower road, there may be a need to shorten water bar spacing.

- a) **Angle.** Determine the average gradient in percent slope of the roads being water barred. Add 5 to the average gradient. This approximates the angle in degrees for the water bar. Do not install water bars at an angle steeper than 45 degrees as this will increase water velocity rather than slow it down. Square water bars are not acceptable. They fill with sediment in the first winter or two. Thereafter, water flows over the top and increases erosion.
- b) **Height.** Height of water bar embankment should be equivalent to a compacted height of eighteen inches above the bottom of ditch.
- c) **Depth.** Construct water bars so that the bottom of the ditch is in solid soil. Do not accept water bars constructed out of dust accumulation. Normally, construct the bottom of the water bar to a depth of about six inches into solid soil.
- d) **Pitch.** Use the following guidelines to determine pitch which is the elevational difference between the highside of the water bar and the outlet:

Low erosion hazard rating. Use a pitch equal to the gradient of the road plus one to two percent. For example, a water bar with a gradient of 10% should have a pitch of about 11 or 12 percent.

Medium erosion hazard rating. Use a pitch equal to the road gradient plus 3 percent.

High erosion hazard. Use a pitch equal to the road gradient plus 5 percent.

Width of Channel. Width of water bar channels should be enough to handle expected water flows and to avoid plugging when a normal amount of sloughing occurs.

6.61 Meadow Protection. Reasonable care shall be taken to avoid damage to the cover, soil, and water in meadows shown on Contract Area Map or discovered during operations. Vehicular or skidding equipment shall not be used on meadows, except where roads, landings, and tractor roads are approved under 5.1 or 6.422. 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.

6.62 Wetlands Protection. Wetlands requiring protection under Executive Order 11990 are shown on Contract Area Map. Vehicular or skidding equipment shall not be used in such wetlands, except where roads, landings, and tractor roads are approved under 5.1 or 6.422.

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

After a Temporary Road has served Contractor's purpose, Contractor shall give notice to NFF and shall remove bridges and culverts, eliminate ditches, out-slope 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 marked on the ground by NFF. When bridges and culverts are removed, associated fills shall also be removed to the extent necessary to permit normal maximum flow of water.

If approved for use, Contractor shall locate Temporary Roads on locations approved by the NFF. Such location shall include the marking of road centerline or gradeline 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, Contractor shall employ such measures as outsloping, drainage dips, and water-spreading ditches.

6.631 Temporary Roads to Remain Open. To maintain short term access to portions of the Contract Area for post-sale treatments and other purposes after a Temporary Road has served Contractor's purpose, pursuant to 6.63, Contractor agrees, that on Temporary Roads designated on Contract Map as "Remain Open," to construct cross ditches and water bars, as designated, staked, or otherwise directed, that can be traversed by a normal two-wheel drive pickup truck. On "Remain Open" Temporary Roads, all bridges and culverts shall remain in place and ditches shall not be eliminated. All drainage structures shall be left in functional condition.

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

6.65 Skid Trails and Fire Lines. Contractor shall construct cross ditches and water-spreading ditches on tractor roads and skid trails, where staked or otherwise marked on the ground by NFF. NFF shall designate cross ditching on Contractor-built fire lines prior to or during construction. By agreement, Contractor may use other comparable erosion control measures, such as backblading skid trails, in lieu of cross ditching.

6.66 Current Operating Areas. Where logging or road construction is in progress but not completed, unless agreed 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, prior to end of a Normal Operating Season, 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 after

Normal Operating Season, Contractor shall keep such work on any additional disturbed areas as up to date as practicable.

6.67 Erosion Control Structure Maintenance. During the period of this contract, Contractor shall provide maintenance of soil erosion control structures constructed by Contractor until they become stabilized, but not for more than 1 year after their construction. Contractor shall not be responsible for repair of such structures damaged by other National Forest users whose activities are not a part of Contractor's Operations.

6.7 Slash Disposal. Contractor's timing of product removal and preparatory work shall not unnecessarily delay slash disposal. 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 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 Sale 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). The following slash treatments apply:

FELL: Small Damaged Trees

- a) Unless treated under other provisions, all trees smaller than the minimum d.b.h. in F2, 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.

SCAT 18": Scattering

- a) Logging Slash shall be scattered to reduce slash concentrations with slash being generally left within 18 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.

MACH: Machine Piling

Concentrations of Logging Slash, excluding scattered individual pieces, shall be Machine Piled by tractor equipped with brush rake or grapple pile for disposal by Forest Service.

Machine Piling Specifications:

- a) 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.

- b) Logging Slash shall be bucked into lengths not exceeding ten <10> feet prior to piling.
- c) Maximum width of tractor, with brush rake attached, shall not exceed <144> inches.
- d) Machine Piling is not required on areas where use of tractors would cause undue damage to residual timber or where slopes exceed <35> percent.
- e) Piles shall be located a distance of at least twice their height in feet from the outer edge of tree crowns or snags.
- f) Piles shall be no less than four feet in height or greater than <45> feet in height.
- g) Material extending three feet or more outside the edge of a pile shall be trimmed.
- h) An <8> 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.

6.331.1 Log Trucking. (8/2006) 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.

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.

B6.8 Scaling. "Scaling," as used herein, involves:

- 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; and
- c. Various geographic locations.

Contractor agrees to present fully loaded trucks for scale at the location(s) designated in F.6.

6.813 Delayed or Interrupted Scaling Services. In the event Scaling services are delayed or interrupted, Contractor shall discontinue hauling. Contractor agrees that in the event such a delay or interruption occurs for reasons not caused by Contractor, its sole and exclusive remedy shall be Contract Term Adjustment.

Contractor further agrees that no logs will be presented for Scaling outside agreed upon Scaling services schedule.

6.82 Presentation for Scaling. Contractor shall present products so that they may be Scaled in an economical and safe manner. Included Timber shall not be mixed with any other forest products for scaling or delivery to scaling services.

6.84 Accountability. When Scaling is performed away from Contract Area, products shall be accounted for in accordance with NFF written instructions or an Accountability Agreement between NFF and Contractor and as follows:

- a) Contractor shall plainly mark or otherwise identify products prior to hauling in accordance with 6.842;
- b) NFF or Forest Service will issue removal receipts to Contractor. Removal receipts are accountable property and must not be lost. Receipts must be used in chronological order and lost or damaged receipts will be accounted for.

- c) Contractor shall assign a competent individual at the landing to complete removal receipts and attach them to each load of products removed from Contract Area;
- d) Removal receipts shall be returned to NFF every 5 days or more frequently if requested;
 - i. MAILING: Every 5 days, the scaler shall mail copies of all the following to the appropriate Ranger District:
 - 1. Scale tickets
 - 2. Scaler's portion of the log load receipt
 - 3. Weight certificate
 - 4. A weight load listing sorted by sale and transportation permit number.
 - ii. ORIGINALS: Original weight certificates and other reports will be available to the Forest Service at the weigh station office at any time.
- 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 NFF; and
- g) Contractor shall notify NFF of lost or off-loaded logs and their location within 10 hours of such loss.
- h) Contractor shall not place products in storage for deferred Scaling until an accountability system has been agreed to in writing for a stated period.
- i) NFF 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.
- j) Contractor must require truck drivers to sign form R5-2400-242, product removal permit, assure permit is attached to the load prior to removal from the Sale Area and while in transit to load destination.
- k) 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
- l) Used books of product removal permits (stub portion) shall be returned to the Forest Service at least weekly, unless otherwise agreed.
- m) Require truck drivers to stop for transportation inspections, if requested by Forest Service, when products are in transit from Sale Area to Contractor's processing facility(s).
- n) 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.
- o) Require truck drivers to ensure 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 driver's 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 loaded chips unloaded the product removal permit shall be either destroyed or otherwise rendered unusable, unless otherwise agreed.

6.841 Route of Haul. As part of the annual Operating Schedule, Contractor shall furnish a map showing the route of haul over which unscaled products will be transported from Contract 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 Contract Area shall be transported over the designated routes of haul. Contractor shall notify Forest Service when a load of products, after leaving Contract Area, will be delayed for more than 12 hours in reaching Scaling location.

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

- a. For accountability checks when products are in transit from Contract 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.

The parties 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.

6.842 Product Identification. Before removal from Contract Area, unless NFF determines that circumstances warrant a written waiver or adjustment, Contractor 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.
- c) Forest Service shall assign brands and, if Contract Area is within a State that maintains a log brand register, brands shall be registered with the State. Contractor shall use assigned brand exclusively on logs from this contract until Forest Service releases brand. Contractor will furnish and apply highway-yellow paint of a lasting quality (oil-base or equivalent).
- d) All hammer brands and/or highway-yellow paint must remain on logs until they are domestically processed. Contractor shall replace identifying marks if they are lost, removed, or become unreadable. Contractor may remanufacture products into different log lengths. Except for logs remanufactured as part of the mill in-feed process immediately before processing, remanufactured products must be rebranded with the assigned timber sale brand and repainted with highway-yellow paint, unless otherwise agreed to in writing by NFF. For such remanufactured products, NFF may approve use of a brand to be used exclusively as a catch brand, in lieu of the assigned timber sale brand.

7.0 - Fire Precautions and Control

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

7.2 Fire Precautions. Specific fire precautionary measures listed herein shall be applicable during

Contractor's Operations in "Fire Precautionary Period" described in F.8. NFF may change the dates of Fire Precautionary Period by advance written notice, if justified by unusual weather or other conditions. Required tools and equipment shall be kept in serviceable condition and immediately available for firefighting at all times during Contractor's Operations in Fire Precautionary Period.

Contractor or a designated Representative will ensure compliance with specific Contract and California Public Resources Code (CPRC) fire precautionary measures contained in this contract. Inspection and testing of equipment will be conducted prior to starting operations during Fire Precautionary Period and will be repeated as needed.

Listing of specific fire precautionary measures in the following subsections is not intended to relieve Contractor in any way from compliance with State fire laws covering fire prevention and suppression equipment applicable to Contractor's Operations.

The following definitions shall apply to 7.2 and 7.22:

Active Landing: A location Contractor is skidding logs into, or performing other operations such as delimbing, log manufacturing, and chipping logs. Except for EV and E days, loading logs or stockpiled 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, piling, log processing and/or yarding which requires the use of motorized power which includes, chainsaws, chippers, motorized carriages, masticators, stroke delimbers, skidders etc.

Specific equipment requirements and fire precautionary measures are shown in the following table and in 7.22#:

A. Fire Tools and Equipment

Contractor shall meet applicable parts of Section 4428 of the CPRC.

Unless agreed otherwise, Fire tools kept at each Active 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. Fire tools shall be kept in a sealed fire tool box adjacent to the Active Landing and readily accessible in event of fire.

Trucks, tractors/skidlers, 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.

All required fire tools shall be maintained in suitable and serviceable condition for fire fighting purposes.

B. Fire Extinguishers

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

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

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

Contractor shall equip all mechanized harvesting machines and log processors with hydraulic systems, powered by an internal combustion engine (e.g. masticator, chipper, feller/buncher, harvester, forwarder, Hot Saw, stroke delimber, etc), with at least two 4-A:60-B:C fire extinguishers or an acceptable CAFS substitute identified in Section K.

C. Spark Arresters and Mufflers

Except for tractors and other equipment with exhaust-operated turbochargers, Contractor shall equip each operating tractor and any other internal combustion engine with an approved spark arrester. There shall be no exhaust bypass on any system.

Spark Arresters shall be a model tested and approved under Forest Service Standard 5100-1a as shown in the National Wildfire Coordinating Group Spark Arrester Guide, Volumes 1 and 2, and shall be properly mounted and maintained according to manufacturer's specifications.

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 and maintained in effective working order as identified in the Spark Arrester Guide in Section C. above and according to applicable parts of CPRC Section 4442 or 4443. An Underwriters Laboratories (UL) approved fire extinguisher containing a minimum 14 ounces of fire retardant shall be kept with each operating saw.

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.

E. Fire Supervisor & Fire Patrolperson

Contractor shall designate in the fire plan required by 7.1 and furnish on Contract Area during operating hours a fire supervisor, named in writing and authorized to act on behalf of Contractor in fire prevention and suppression matters.

Unless agreed otherwise, Contractor shall furnish and designate in writing, a Fire Patrolperson each operating day when Project Activity Level C or higher is in effect. When on duty, the Fire Patrolperson is required to patrol the operation for the prevention and detection of fires, to take suppression action where necessary and to notify Forest Service and NFF as required under Sections I. Reporting Fires and L. Communications. This Fire Patrol is required on foot, unless otherwise agreed.

By written agreement, one Fire Patrolperson may provide patrol on this and adjacent projects or sales. No Fire Patrolperson shall be required on Specified Road construction jobs except during clearing operations unless otherwise specified.

F. Seasonal Permits

Contractor shall obtain written permits from Forest Service before allowing welding, warming fires or burning, subject to 7.22# – Emergency Precautions.

G. 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 on a cable yarding operation shall be located in the center of an area that is 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.

H. Smoking

All smoking shall be confined within a car, truck, crew rig or other enclosed cab after 1:00 PM on Ev days and all hours on E days (7.22#). At other times, any smoking shall be done while sitting in an area at least 3 feet in diameter, cleared of flammable materials. Burning tobacco and matches shall be extinguished before they are properly disposed.

I. Reporting Fires

As soon as feasible, but no later than **15 minutes** after discovery, Contractor shall notify Forest Service of any fires on Contract Area or along roads used by Contractor.

J. Tank Truck

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 unless otherwise agreed.

Tank truck or trailer shall contain at least 300 gallons of water and comply with the following requirements:

(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 by Forest Service using a 5/16 inch orifice with a one inch in line test kit and shall meet or exceed the pressure values identified in the following table for nearest temperature and elevation:

T e m p	Sea Leve l	1000 Feet	2000 Feet	3000 Feet	4000 Feet	5000 Feet	6000 Feet	7000 Feet	8000 Feet	9000 Feet	1000 0 Feet
55	17	17	16	16	16	15	15	15	14	14	13
9	23	23	23	22	22	22	22	21	21	21	21
		4	9	5	1	7	3	0	6	2	9

70	17	23	17	23	16	22	16	22	15	22	15	22	15	21	14	21	14	21	13	21	13	20
	5		1		6		2		8		4		0		7		3		9		6	
85	17	23	16	23	16	22	15	22	15	22	15	21	14	21	14	21	14	21	13	20	13	20
	1		8		3		9		5		1		7		4		0		6		3	
10	16	23	16	23	15	22	15	22	15	22	14	21	14	21	14	21	13	20	13	20	13	20
0	8		4		9		5		2		8		4		1		7		3		1	
	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 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 pump at least 2 hours and necessary service accessories to facilitate efficient operation of the pump.

(5) When Contractor is using Hot Saws or Masticators an additional 250 feet of light weight hose, approved by 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.

(6) 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 7.22.1#.

K. Compressed Air Foam System (CAFS)

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 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 7.22#.

L. Communications

Contractor shall furnish a serviceable communications system such as a telephone, radio-telephone, radio system or satellite phone connecting each operating side within the Sale Area with Contractor's headquarters, and capable of notifying Forest Service within **15 minutes** of discovery of any fires on the Sale Area or along Contractor's haul route. When such headquarters is at a location which makes communication to it clearly impractical, Forest Service may agree to a reasonable alternative notification method.

A Citizen's Band (CB) radio is not acceptable communications.

7.21 Substitute Precautions. NFF 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.

7.22 Emergency Precautions. NFF 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 ceases active operations, Contractor shall release for hire by Forest Service, if needed, Contractor's shutdown equipment for fire standby on Contract 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 firefighting or protection from fire. Equipment shall be paid for by Forest Service at firefighting equipment rates common in the area or at prior agreed rates and, if Contractor requests, shall be operated only by personnel approved by Contractor. Personnel so hired will be subject to direction and control by Forest Service and will be paid by Forest Service at firefighting rates common in the area or at prior agreed rates.

7.22.1 Emergency Precautions Project Activity Level. Contractor's Operations shall conform to the limitations or requirements in the Project Activity Level (PAL) table below. Unless otherwise agreed in writing, Project Activity Levels applicable to this project shall be the predicted levels for the Fire Danger Rating Area(s), or fire weather station(s) stated in the Contract Area Map legend.

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 must obtain the predicted Project Activity Level from the appropriate Ranger District Office before starting work each day.

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 (PAL) – 7.22.1# - EMERGENCY PRECAUTIONS

PROJECT ACTIVITY LEVEL TABLE

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	1. The following activities may operate all day: a) Loading and hauling logs decked at approved landings. b) Loading and hauling chips stockpiled at approved landings. c) Servicing equipment at approved sites. d) Dust abatement, road maintenance (Chainsaw use prohibited), culvert installation within cleared area, chip sealing, paving, earth moving or rock aggregate stock pile loading and installation (does not include pit or quarry development). e) Chainsaw and log processing operations associated with loading logs or other forest products at approved landings. 2. Hot Saws or Masticators may operate until 1:00 PM; provided that: a) A tractor or other equipment with a blade capable of constructing fireline is on or adjacent to the active landing or within ¼ mile of the operating equipment. This piece of equipment shall have effective communication with the Hot Saw or Masticator. b) Any additional restrictions specified by the Forest. 3. All other conventional Mechanical Operations are permitted until 1:00 PM. 4. Some operations may be permitted after 1:00 PM, on a case-by-case basis, under the terms of a PAL Ev Variance Agreement. Activities for which a Variance may be issued are: • Rubber Tire Skidding • Chipping on Landings • Helicopter Yarding • Fire Salvage When approved by a Line Officer, a Variance Agreement can be implemented when the criteria specified in the agreement are met and mitigation measures are in place. This approval is good for ten (10) days unless cancelled sooner or extended by the Contracting Officer for an additional ten (10) days. Variance approval can be withdrawn at the sole discretion of the Forest Service. Variance approval is contingent on the 7-day fire weather forecast, fuel conditions, site characteristics, current fire situation, state of Contractor's equipment for prevention and suppression readiness, type of operation and social and community considerations etc. (See attached Project Activity Level Variance Agreement).
E	The following activities may operate all day: 1. Loading and hauling logs decked at approved landings. 2. Loading and hauling chips stockpiled at approved landings. 3. Servicing Equipment at approved sites. 4. Dust abatement, road maintenance (chainsaw use prohibited) or loading stock piles and rock aggregate installation (does not include pit or quarry development). 5. Chainsaw operation associated with loading at approved landings. All other activities are prohibited.

Fire Precautionary Period and Fire Precautions. Specific fire precautionary measures are set forth herein. Upon request of NFF, 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.

- a) The Fire Precautionary Period shall apply from **April 1- December 1** and during other such periods as specified by Forest Service.
- b) See Appendix H – Fire Plan.

7.3 Fire Control. Contractor shall, both independently and in cooperation with 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 Contract 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 Contract Area or within the distance of Contract Area stated in F.9. (Initial fire suppression within 25 road miles, and fire suppression re-inforcement within 100 miles).

- a) The Contractor's Reinforcement Obligations. Whenever an Operations Fire or Negligent Fire, whether on or off Contract Area or any other forest fire on Contract Area, has not been suppressed by initial action and appreciable reinforcement strength is required, NFF 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:
 - i. Suspend Operations. To suspend any or all of Contractor's Operations.
 - ii. Personnel. To release for employment by FS any or all of Contractor's personnel engaged in Contractor's Operations or timber processing within the distance of Contract Area: (25 Road 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.
 - iii. Equipment. To make available for FS 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: (100 Road miles). Equipment shall be operated only by personnel approved by Contractor, if so requested by Contractor.

7.31 Contractor's Reinforcement Obligations. Whenever an Operations Fire or Negligent Fire, whether on or off Contract Area, or any other forest fire on Contract Area, has not been suppressed by initial action and appreciable reinforcement strength is required, NFF 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) To suspend any or all of Contractor's Operations.
- b) 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 Contract Area stated in F.9. Any organized crew hired shall include Contractor's supervisor, if any. Personnel so employed will be paid at Forest Service standard emergency firefighting rates.
- c) To make available for Forest Service rental at firefighting equipment rates common in the area or at prior agreed rates any or all of Contractor's equipment suitable for firefighting and currently engaged in Contractor's Operations within the distance of Contract Area stated in F.9. Equipment shall be operated only by personnel approved by Contractor, if so requested by Contractor.

7.4 Fire Suppression Costs. Contractor's obligations for cost of fire suppression vary according to three classifications of fires described in 7.41, 7.42, and 7.43.

7.41 Operations Fire. An "Operations Fire" is a fire caused by Contractor's Operations other than a

Negligent Fire.

7.42 Negligent Fire. A “Negligent Fire” is a fire caused by negligence or fault of Contractor’s Operations, including, but not limited to, one caused by smoking by persons engaged in Contractor’s Operations during the course of their employment, or during rest or lunch periods; or if Contractor’s failure to comply with the requirements of B7.2 and B7.3 results in a fire starting or permits a fire to spread. Damages and the cost of suppressing Negligent Fires shall be borne by Contractor.

7.43 Other Fires on Contract Area. Forest Service shall pay Contractor, at fire fighting rates common in the area or at prior agreed rates, for equipment or personnel furnished by Contractor pursuant to 7.3, or otherwise at the request of Forest Service, on any fire on Sale Area other than an Operations Fire or a Negligent Fire.

7.5 State Law. Contractor shall not be relieved by the terms of this contract of any liability for fire suppression costs recoverable in an action based on State law, except for such costs resulting from Operations Fires. Amounts due Contractor for firefighting expenditures in accordance with 7.41 shall not be withheld pending settlement of any such claim or action based on State law.

7.6 Performance by Contractor. Where Contractor’s employees, agents, contractors, Subcontractors, or their employees or agents perform Contractor’s Operations in connection with fire responsibilities, Contractor’s obligations shall be the same as if performance was by Contractor.

8.0 - Other Conditions

8.2 Period of Contract. All obligations of Contractor shall be discharged not later than “Termination Date” stated herein, excepting only those obligations for which NFF has given written permission to delay performance.

8.21 Contract Term Adjustment. NFF reserves the right to make term adjustments to the performance period of this contract. Contractor may request term extension if operational delays beyond their control are experienced and documented to the satisfaction of NFF. Term adjustment is not guaranteed to be granted if requested, NFF expects the Contractor to perform in a workman like manner and with due diligence at all times.

8.22 Termination for Catastrophe. In event of Catastrophic Damage, this contract may be modified or terminated by NFF under this subsection. Contractor may request relief from or modification to contractual obligations under this section when it is demonstrated the catastrophe has substantially affected the safety, operability or feasibility of implementation of the scope of work described herein within the Contract Area.

8.3 Contract Modification. The conditions of this project are completely set forth in this contract. This contract can be modified only by written agreement between the parties. Only NFF may make contract modifications, with compensating adjustments to current contract rates where appropriate.

8.31 Changed Conditions. When it is agreed that the completion of certain work or other requirements hereunder would no longer serve the purpose intended because of substantial change in the physical conditions of Contract Area since the date of this contract, the requirements shall be waived in writing. If so waived, Contractor is not entitled to payment for such work.

8.33 Contract Suspension and Modification. NFF may, by written notice, delay or interrupt authorized operations under this contract or modify this contract, in whole or in part:

- a) To prevent environmental degradation or resource damage, including, but not limited to, harm to habitat, plants, animals, cultural resources, or cave resources;
- b) To ensure consistency with land and resource management plans or other documents prepared pursuant to the National Environmental Policy Act of 1969, 42 USC 4321-4347;

- c) To conduct environmental analysis, including, but not limited to, engaging in consultation pursuant to the Endangered Species Act of 1973, 16 USC 1531, et seq.; or
- d) Upon agreement of the Regional Forester, due to administrative appeal or litigation, regardless of whether this contract is named in such a proceeding.
- e) In the event of an order delaying or interrupting Contractor's Operations under this Subsection, Contractor's remedy shall be:
 - 1) Contract Term Adjustment,
 - 2) reimbursement for Out-of-Pocket Expenses,
 - 3) temporary credit for unamortized Specified Road construction cost, and
 - 4) temporary bond reduction.
- f) However, the foregoing remedies are available only to the extent that NFF's order was the sole and exclusive cause of the delay or interruption of Contractor's operations.
- g) Remedies awarded to the Contractor shall not be duplicative, and NFF shall have the right to structure remedies provided herein to avoid duplicative compensation.
- h) Contractor agrees that this Subsection, and the remedies provided herein shall apply regardless of any finding by any court or administrative body that the Forest Service or NFF failed to comply with any statute, regulation and/or policy in connection with awarding, advertising, or authorizing this contract.

8.4 Performance by Other than Contractor. The acquisition or assumption by another party, under an agreement with Contractor, of any right or obligation of Contractor under this contract shall be ineffective as to NFF, until NFF has been notified of such agreement and has given written approval. In no case shall such recognition or approval:

- a) Operate to relieve Contractor of the responsibilities or liabilities Contractor has assumed hereunder or
- b) Be given unless such other party:
 - i. Is acceptable to NFF as a Contractor and assumes in writing all the obligations to NFF under the terms of this contract as to the uncompleted portion thereof, or
 - ii. Acquires the rights in trust as security and subject to such conditions as may be necessary for the protection of the public interests.

9.0 - Performance and Settlement

9.22 Contract Documents. All contract documents are intended to be consistent with each other. In case of discrepancy, the following is the order of precedence:

- a) Special Provisions (Appendix G)
- b) Contract Area Map (Appendix C)
- c) Specific Conditions and Schedule of Items (Appendix E)
- d) Standard Provisions (Appendix G)
- e) Special project specifications
- f) Plans, such as slash, erosion control, and dust abatement
- g) Agreements between Contractor and NFF, as authorized under the contract
- h) Plans:
 - i. Figured dimensions over scaled dimensions.
 - ii. Large scale Plans over small scale Plans
- a) Standard specifications
- b) Lists and/or tables in Plans over any conflicting notations on Plans
- c) Shop Drawings

9.3 Breach. In the event Contractor breaches any of the material provisions of this contract, NFF will give Contractor notice of breach and, allowing reasonable time for remedy and of NFF election to suspend,

may give notice to suspend all or any part of Contractor's Operations. Such notice of breach and notice to suspend Contractor's Operations shall be written, except oral notices may be given if such breach constitutes an immediate threat to human life or a threat of immediate and irreparable damage to National Forest resources. Notwithstanding Section 6.1, such oral suspension notice may be given to Contractor's work supervisor or, in work supervisor's absence, to those performing the operation. An oral suspension notice shall be promptly followed by telephone notice and a written explanation from NFF to Contractor.

Suspension under this Section shall not entitle Contractor to any remedies arising under 8.33.

Upon receipt of oral or written notice of such breach, Contractor shall remedy the breach as follows:

- a) If remedying such breach requires on-the-ground action by Contractor, Contractor shall have 30 practicable operating days during Normal Operating Season to remedy the breach, except under emergency conditions when action should not be delayed to prevent major damage or
- b) If such breach does not require on-the-ground action by Contractor, such breach shall be remedied within 30 days.

Appendix H – Fire Plan

FIRE PLAN FOR CONSTRUCTION AND SERVICE CONTRACTS

8/2/2012

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 delimbing, log manufacturing, and chipping logs. Except for EV and E days, loading logs or stockpiling chips only, on a cleared landing, does not constitute an Active Landing.

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

Mechanical Operations: The process of felling, skidding, chipping, shredding, masticating, piling, log processing and/or yarding which requires the use of motorized power which includes, chainsaws, chippers, motorized carriages, masticators, stroke 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 set by the State of California which is April 1 through December 1 of any year.

- 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 delimber, etc), except tractors and skidders, with at least two 4-A:60-B:C fire extinguishers or equivalent.

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

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

• This contract ☒ 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 S I	G P M	P S I	G P M	P S I	G P M	P S I	G P M	P S I	G P M	P S I	G P M	P S I	G P M	P S I	G P M	P S I	G P M	P S I	G P M	P S I	G P 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 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	Plumas Dispatch	159 Lawrence, Quincy, CA	530-283-7838
Nearest FS Station	Beckwourth Ranger District	23 Mohawk Hwy Rd Blairsden, CA 96103	530-836-2575

When reporting a fire, provide the following information:

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

▪ This contract ☒ 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>
<u>Fire Supervisor</u>		
<u>Fire Patrolperson</u>		

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

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

6. **EMERGENCY PRECAUTIONS**

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

Fire Danger Rating Area/Fire Weather Station for Project

East Zone/Beckwourth RD

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

Phone Number or Website to obtain Predicted Activity Levels:

1-800-847-7766

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

PROJECT ACTIVITY LEVEL

Level	<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	1. The following activities may operate all day: a) Loading and hauling logs decked at approved landings. b) Loading and hauling chips stockpiled at approved landings. c) Servicing equipment at approved sites. d) Dust abatement, road maintenance (Chainsaw use prohibited), culvert installation within cleared area, chip sealing, paving, earth moving or rock aggregate stock pile loading and installation (does not include pit or quarry development). e) Chainsaw and log processing operations associated with loading logs or other forest products at approved landings. 2. Hot Saws or Masticators may operate until 1:00 PM; provided that: a) A tractor or other equipment with a blade capable of constructing fireline is on or adjacent to the active landing or within ¼ mile of the operating equipment. This piece of equipment shall have effective communication with the Hot Saw or Masticator. b) Any additional restrictions specified by the Forest. 3. All other conventional Mechanical Operations are permitted until 1:00 PM. 4. Some operations may be permitted after 1:00 PM, on a case-by-case basis, under the terms of a PAL Ev Variance Agreement. Activities for which a Variance may be issued are: • Rubber Tire Skidding • Chipping on Landings • Helicopter Yarding • Fire Salvage When approved by a Line Officer, a Variance Agreement can be implemented when the criteria specified in the agreement are met and mitigation measures are in place. This approval is good for ten (10) days unless cancelled sooner or extended by the Contracting Officer for an additional ten (10) days. Variance approval can be withdrawn at the sole discretion of the Forest Service. Variance approval is contingent on the 7-day fire weather forecast, fuel conditions, site characteristics, current fire situation, state of Contractor's equipment for prevention and suppression readiness, type of operation and social and community considerations etc. (See attached Project Activity Level Variance Agreement).
E	The following activities may operate all day: 1. Loading and hauling logs decked at approved landings. 2. Loading and hauling chips stockpiled at approved landings. 3. Servicing Equipment at approved sites. 4. Dust abatement, road maintenance (chainsaw use prohibited) or loading stock piles and rock aggregate installation (does not include pit or quarry development). 5. Chainsaw operation associated with loading at approved landings. All other activities are prohibited.

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

Project Activity Level Climatology							
Fire Danger Rating Area/ Weather Station					2012-2016		
Jarbo Gap/Pike County Lookout RAWS							
	A	B	C	D	EV	E	Days
Month	Exptected Days per Month at Each PAL Value						Analyzed
April	12.4	9.6	7	1	0	0	148
May	31.7	61.66	55	4.34	0	0	155
June	0.0	3.67	15.34	8	3	0	155
July	0.0	3	13.67	12	2.34	0	155
Aug	0.7	3	14.37	7.67	5	0	148
Sept	1.3	5.34	5.34	10	8	0	148
Oct	3.3	8.67	8.67	7	2.34	0	155
Total Days							1064
Rounded Up to the Hundreth							

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

Project Name: _____

Contract Number: _____

Contractor Name: _____

Request #__, for period: _____

Units/Subdivisions Affected: _____

Location of operation:	
Slope	
Aspect	
Elevation	
Fuels on site	
Fuels in surrounding area	
7 Day PAL Outlook	
Short range predictions (Red Flags)	
Fuel Moistures	
Response time of suppression resources	
Potential for ignition	
RAWS location	
Current Fire Situation:	
Draw down information	
National Readiness Level	
Contractual considerations:	
Normal Operating Season	
Frequency of recent contract fires in area	
Type of operation	

Contracting Officer

Date

Contractor Representative

Date

Community Protection - Central and West Slope Project

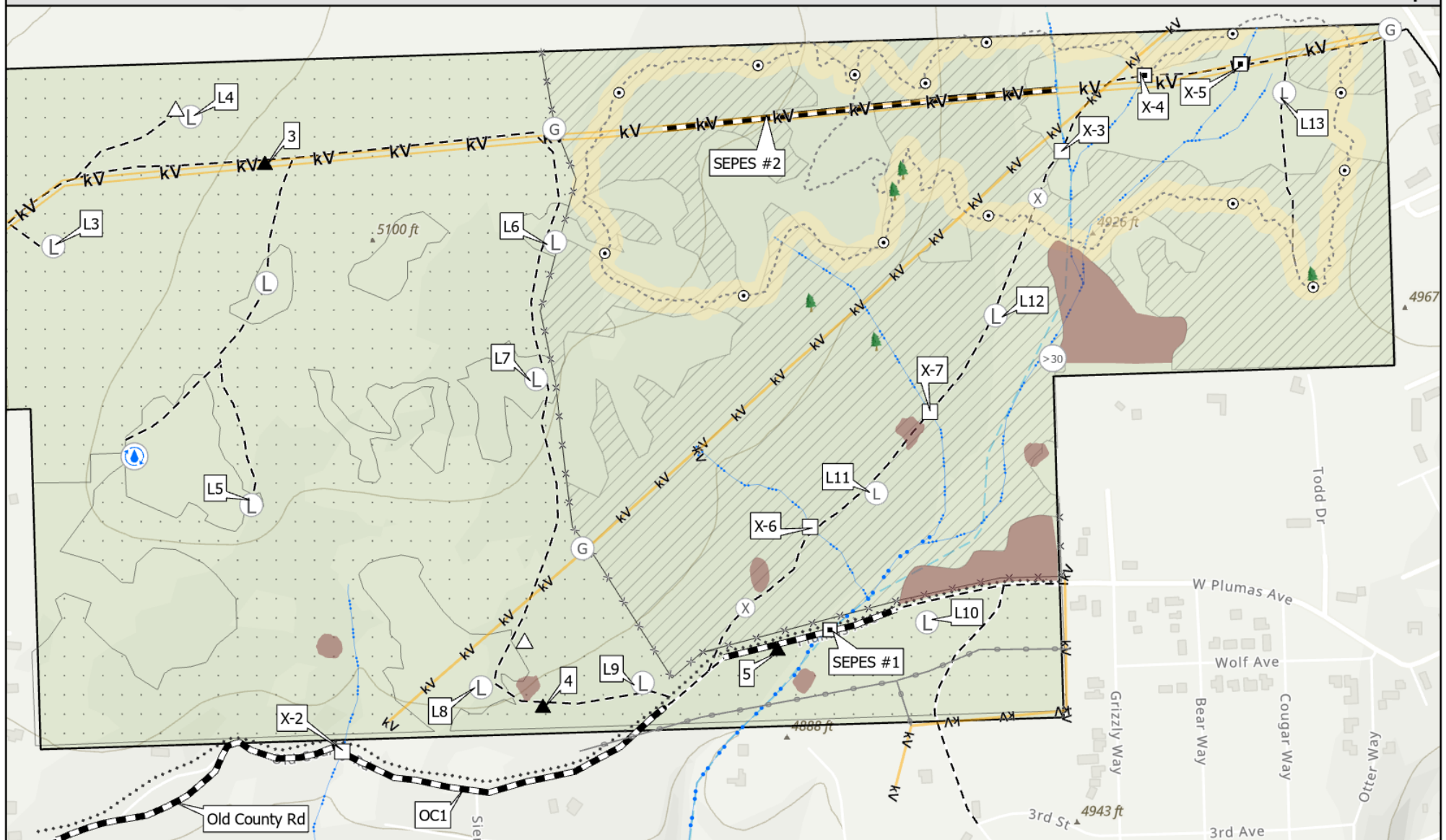
Delleker Tract Harvest Cards

Delleker West and Kids Creek Map T23N R13E S34 & 35 MDBM

Appendix J – Harvest Cards

Note: All areas SDI Max (23-28%), upper diameter limit of 29.9" DBH, average residual basal area of 60-80ft²/acre, except for within Kids Creek walking trail buffer (80-120ft²/acre)

0 250 500 1,000
Feet



Project Boundary

Kids Creek School Forest

Delleker West

Control Area

Kids Creek Trail Buffer

Watercourse

...

Ephemeral

•••••

Intermittent

Wet Area

Basemap (unverified)

—

Comm Line

—x—

Fence

kV—kV

Powerline Distribution

kVkV

Powerline Transmission

— — —

Seasonal Road

Roadwork Line

••••••

Buried Fiber Optic

Kids Creek Trail

————

Paved Road

L

Landing

▲

Road Work Point

□

Road Xing - unimp ford

⊗

Barricade after use

G

Gate

⦿

Skid Crossing

▣

Road Xing - rocked ford

🌲

Kids Creek Student Trees

△

Borrow Pit

💧

Water Tank

⦿>30

Hazard Trees >30

12/22/2025

12/22/2025

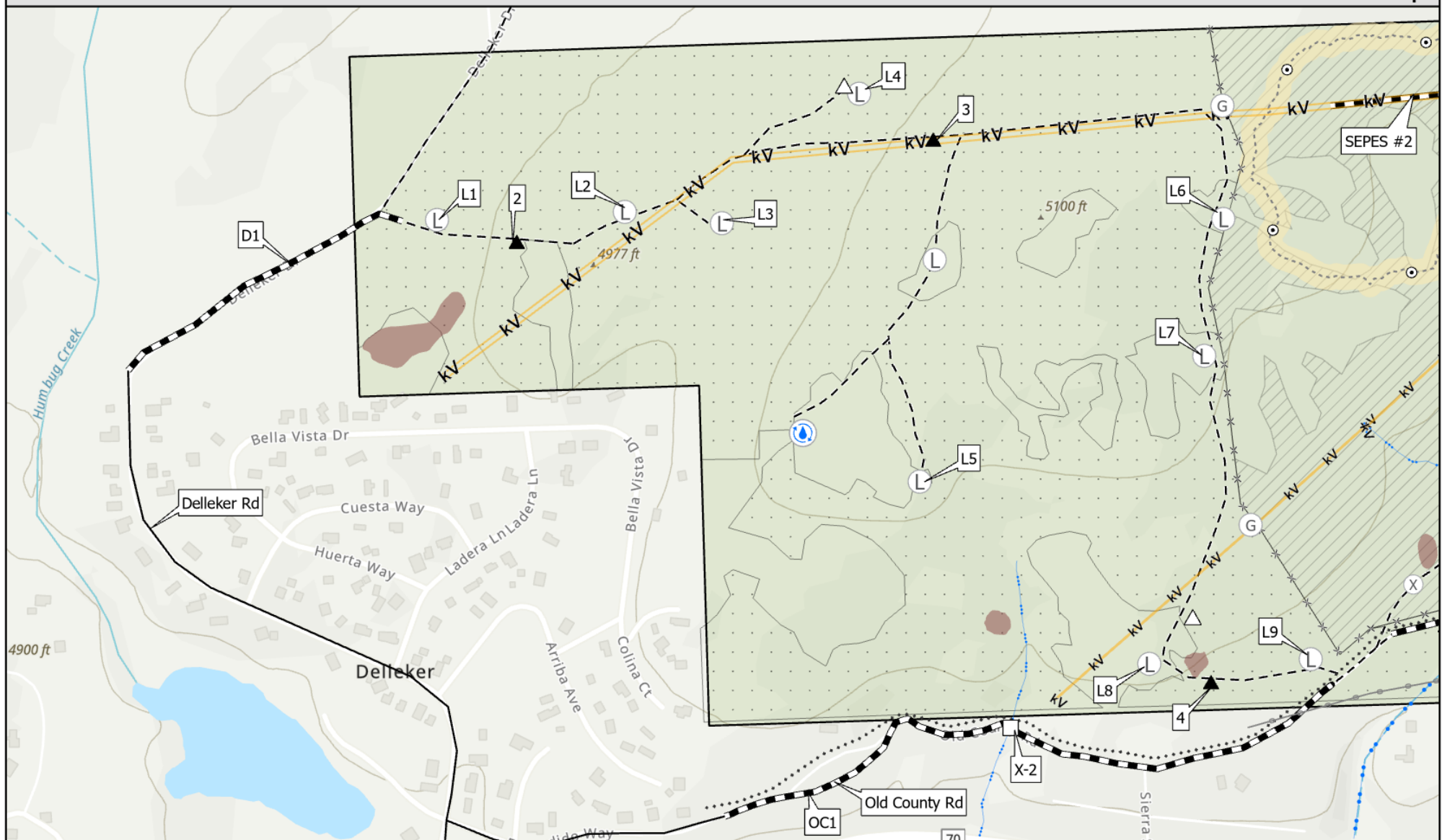
Community Protection - Central and West Slope Project

Delleker Tract Harvest Cards

Delleker West Map T23N R13E S34 & 35 MDBM

Note: All areas SDI Max (23-28%), upper diameter limit of 29.9" DBH, average residual basal area of 60-80ft²/acre, except for within Kids Creek walking trail buffer (80-120ft²/acre)

0 250 500 1,000
Feet



- Project Boundary
- Kids Creek School Forest
- Delleker West
- Control Area
- Kids Creek Trail Buffer

Watercourse

- Ephemeral
- Intermittent
- Wet Area
- Basemap (unverified)

Linear Features

- Comm Line
- Fence
- kV-kV Powerline Distribution
- kV-kV Powerline Transmission
- Seasonal Road

- Roadwork Line
- Buried Fiber Optic
- Kids Creek Trail
- Paved Road

Points

- L Landing
- Road Work Point
- Road Xing - unimp ford
- Barricade after use
- G Gate
- Skid Crossing
- Borrow Pit
- Water Tank

12/22/2025

Appendix K - Delleker T Roads Plan

Specifications

The implementation of all road activities shall follow applicable BMPs, Forest Service directives, mandated road maintenance standards, construction, and decommissioning specifications and standards, and project design features. In addition, road activities are subject to seasonal limitations due to wildlife activity, fire conditions, weather, temporary non-permanent crossings, and other restrictions.

USFS specifications for culvert maintenance and clean out, construction and maintenance of rolling dips, and construction and maintenance of water bars apply.

Transportation Plan & Routes

Material generated during Delleker project operations are expected to be hauled from the work areas via USFS non-system roads to Plumas County roads and Hwy 70. Non-System roads proposed for use are listed below.

Non-System Roads Proposed for use.

-Internal project roads

Plumas County Public Roads

Delleker Dr
Escondido Way
Old County Road
West St

Work Summary

Alert* Buried AT&T Fiber optic line is located immediately North of Old County Road from Eastern project boundary at W Plumas Road, to the western intersection of Escondido Way. The line has been identified with Orange whiskers and Orange pin flagging. No excavation shall occur North of Old County Road.

Below is a table of the reconstruction work length with the location shown on the maps. In addition, the detailed maps also show locations that require work.

Road Name	Road Type	Rd Point	Length (ft)	Work Type Description
Delleker	Seasonal	D1	1300	reconstruction potholes, import soil, rd grader and water
Old County Rd	Seasonal	OC1	2600	reconstruction potholes, import soil, rd grader and water
No name	Seasonal	#2	175	Take S turn out for chip vans, remove 3 trees and stumps
No name	Seasonal	#3	275	outside berm into road and fill ruts
No name	Seasonal	#4	400	reconstruct segment for drainage and ruts
Total			4750	

Delleker Drive (D1)

This road is native surface with potholes requiring work for hauling. Material may need to be imported from Forest Service onsite barrow pit to fill the potholes. Barrow pit has not been identified within project area. Road shall be graded, watered, and compacted with vibratory roller per Forest Service Specifications prior to hauling.

Old County Road (OC1)

This road is native surface with potholes requiring work for hauling. The road is a non-county maintained road but open to public use through easements attached to individual properties. For this reason, generating fill for potholes from private ownership cut banks is likely not authorized and buried AT&T fiber optic line is located immediately north of the road. Material will need to be imported from barrow pit on Forest Service controlled ownership. Barrow pit has not been identified within project area. Road shall be graded, watered, and compacted with vibratory roller per Forest Service Specifications prior to hauling.

Road Point #2

It is required to take the S turn out of 175' long segment of road for chip van access. 3 trees and stumps will need to be removed to straighten the road. Stumps shall be moved to nearest landing for disposal.

Road Point #3

Outside berm for some 275' shall be pulled into road to fill ruts.

Road Point #4

400' segment shall require grading for ruts and rolling dip installation.

Significant Existing Potential Erosion Site (SEPES)

Point	Description	Rx	SEPES?	Notes
SEPES #1	Watercourse crossing requiring straightening, grading, and base rock.	Grade; excavate and straighten channel, install drainage rock	Yes	Buried AT&T fiber optic line north of work site.

The watercourse crossing channel shall be excavated and straightened to direct the flow across the crossing. Within the channel and approaches shall be placed 4"-6" rock for some 52' in length and 52' in width. The eastern approach is a through cut requiring moderate grading to fill erosion points and removed southern berm for some 350' to the landing.

SEPES#2

Utility Right of Way Road shall be water barred to disconnect the road from delivering to the watercourse at the eastern end. This road segment is some 1540' in length. The administering forester shall identify water bar locations ahead of installation.

Please see the list below for watercourse crossings requiring maintenance. A detailed map will show the crossing locations along with required maintenance.

Crossing #	Creek Type	Crossing Type	Work Required	Unit
SEPES #1	Ephemeral	Truck Road	Installation of rolling dips west and base rock	Delleker West
X-2	Ephemeral	Truck Road	No work Required	Delleker West
SEPES #2	Ephemeral	ROW Road	Installation of waterbars	Kids Creek
X-3	Ephemeral	Eqp Ingress/Egress	Channel definition and mulching	Kids Creek
X-4	Ephemeral	Eqp Ingress/Egress	Installation of rocked ford	Kids Creek
X-5	Ephemeral	Eqp Ingress/Egress	Installation of rocked ford	Kids Creek
X-6	Ephemeral	Truck Road	Channel definition	Kids Creek
X-7	Ephemeral	Truck Road	Channel definition	Kids Creek

Road Maintenance Requirements

- Identify road maintenance requirements according to the PASER Manual for gravel roads: (https://interpro.wisc.edu/tic/wpcontent/uploads/sites/3/2019/12/Gravel-PASER_02_rep15.pdf), or the PASER Manual for unimproved roads (<https://interpro.wisc.edu/tic/documents/paser-manual-unimproved-roads-pubpas06/>), whichever is applicable
- The Plan shall identify and describe anticipated maintenance needs for each road surveyed.

Maintenance work listed below are for Non-system roads located within the project area. These include county non-maintained roads and internal roads. Roads listed for maintenance are Old County Road, Delleker extension, and internal roads.

Summary of Maintenance Work

					Maintenance Work Category (T800)			
USFS No.	Name	Maint Level	Surface	Haul Miles	Pre	During	Post	Notes
No#	Delleker	III	Native	0.23	804	803,806	803, 806	Surface repair conducted pre-haul, no water bars closeout
No#	Old County Road	III	Native	0.63	804	803,806	803 806	Surface repair conducted pre-haul, no water bars closeout

No#	Internal Roads	III	Native	1.8	803,806	803, 806	803, 806,809,810	Drivable water bars installed closeout. Kids Creek internal road barricade
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USFS Maintenance Codes

USFS Road Maintenance Code (T800)	Definition
T801	Slide & slump repair
T802	Ditch cleaning
T803	Surface blading
T804	Surface repair
T805	Drainage structures
T806	Dust abatement
T807	Roadway vegetation
T808	Misc. structures
T809	Waterbars
T810	Barriers
T811	Surface treatment

Dust Abatement Plan

Saw Logs MBF

C5.31# - ROAD MAINTENANCE REQUIREMENTS. (7/01)

TABLE B - DUST ABATEMENT PLAN

MATERIAL TYPE	WATER	MAGNESIUM CHLORIDE
ROAD SEGMENTS	All	Same as water
INITIAL APPLICATION RATE	During Purchaser's operations other than hauling, complete dust abatement after 40 accumulated T.U.	Same as water
	During hauling operations, complete dust abatement once a day before hauling.	During hauling operations, complete dust abatement before hauling at 0.5 Gal./S.Y.
SUBSEQUENT APPLICATION RATE AND FREQUENCY	During Purchaser's operations other than hauling, complete dust abatement after 40 accumulated T.U.	Same as water
	During hauling operations, complete dust abatement every 70 MBF hauled or as required to maintain complete dust abatement.	During hauling operations, complete dust abatement with water as required. Every 7,000 MBF hauled complete dust abatement at 0.5 Gal./S.Y.
PREPARATION METHOD	N/A	Method 1
WEIGHT VOLUME CONVERSION FACTOR	N/A	182 Gal./S.Y.

Notes: T.U. = Traffic Units as referenced in commensurate share calculations.

Pickup or automobile (1 way) = 1 T.U.

Semi Truck (2 way) = 15 T.U.

Complete Dust Abatement = Surface is firm, compacted and free of dust.
Other dust palliatives may be used when agreed to by the Forest Service.

Biomass

C5.31# - ROAD MAINTENANCE REQUIREMENTS. (7/01)

TABLE B - DUST ABATEMENT PLAN

Timber Sale

Name: _____

MATERIAL TYPE	WATER	MAGNESIUM CHLORIDE
ROAD SEGMENTS	All	Same as water
INITIAL APPLICATION RATE	During Purchaser's operations other than hauling, complete dust abatement after 40 accumulated T.U.	Same as water
	During hauling operations, complete dust abatement once a day before hauling.	During hauling operations, complete dust abatement before hauling at 0.5 Gal./S.Y.
SUBSEQUENT APPLICATION RATE AND FREQUENCY	During Purchaser's operations other than hauling, complete dust abatement after 40 accumulated T.U.	Same as water
		During hauling operations, complete

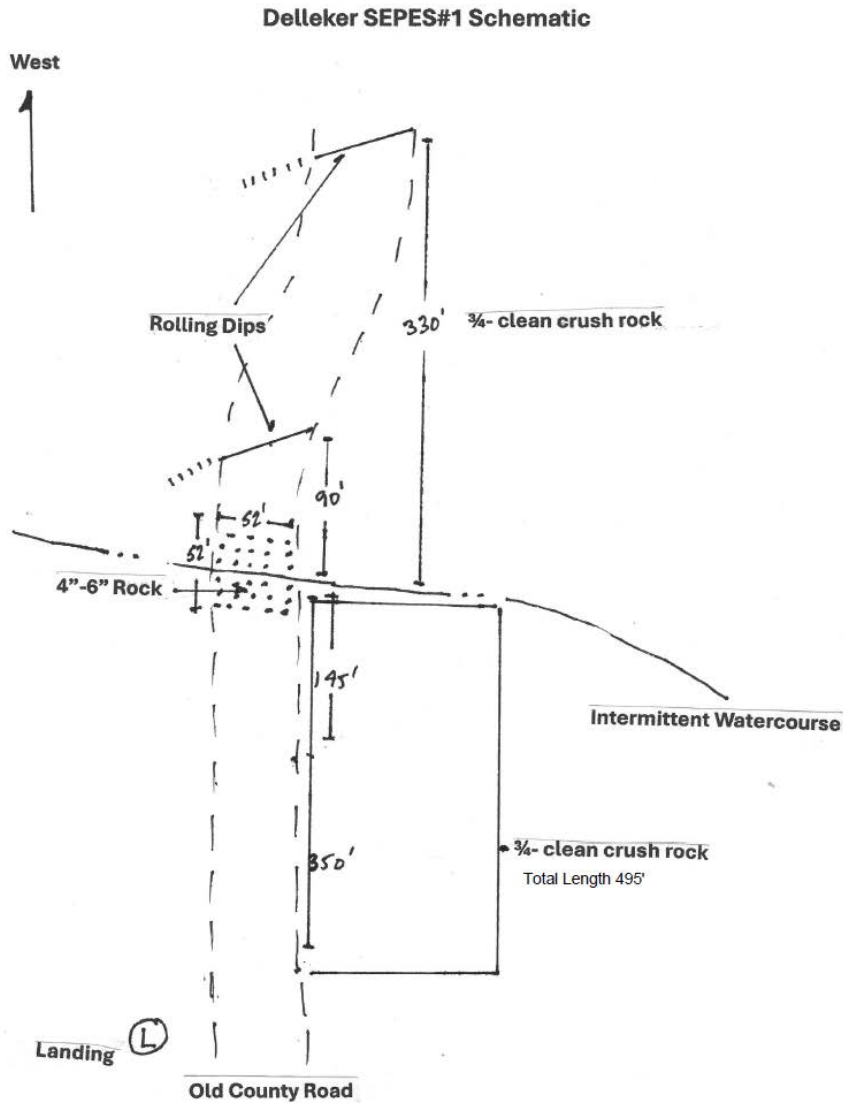
	During hauling operations, complete dust abatement every 350 tons hauled or as required to maintain complete dust abatement.	dust abatement with water as required. Every 35,000 tons hauled complete dust abatement at 0.5 Gal./S.Y.
PREPARATION METHOD	N/A	Method 1
WEIGHT VOLUME CONVERSION FACTOR	N/A	182 Gal./S.Y.

Notes: T.U. = Traffic Units as referenced in commensurate share calculations.

Pickup or automobile (1 way) = 1 T.U.

Semi Truck (2way)=15 T.U.

Complete Dust Abatement=Surface is firm, compacted and free of dust.
Other dust palliatives may be used when agreed to by the USFS.



Non-System Roads Recommended for Reconstruction

Below are Non-System Road locations that are recommended for reconstruction with work exceeding general pre-timber sale maintenance standards. This includes reconstruction due to erosion, potholes, SEPES locations, and curve radius for chip vans.

Road Name	Road Type	Rd Point	Length (ft)	Work Type Description
Delleker	Seasonal	D1	1300	reconstruction potholes, import soil, rd grader and water
Old County Rd	Seasonal	OC1	2600	reconstruction potholes, import soil, rd grader and water
No name	Seasonal	#2	175	Take S turn out for chip vans, remove 3 trees and stumps
No name	Seasonal	#3	275	outside berm into road and fill ruts
No name	Seasonal	#4	400	reconstruct segment for drainage and ruts
Total			4750	

Point	Description	Rx	SEPES?	Notes
SEPES #1	Watercourse crossing requiring straightening, grading, and base rock.	Grade; install RD's at mapped locations, excavate and straighten channel, install drainage rock	Yes	Addressed in project proposal.

System Road Recommended for Relocation

No system roads are recommended for relocation.

Notation for Geometry

Locations listed with geometry issues specifically related to curve radius for chips vans have been listed within the previous table "Roads Recommended for Reconstruction".

See Road Point #2

Traffic Control Devices

Signs alerting the public per Forest Service standards shall be posted at various locations. These may include log truck traffic with CB channel, trucks entering roadway, and caution logging operation.

Log Truck Traffic Ahead:

End of Pavement Escondido Way and Old County Road

End of Pavement West Plumas Avenue and Old County Road

End of Pavement Delleker Drive

Trucks entering roadway locations may include:

Internal road and intersection of Old County Road

Truck road access to West St.

Road Maintenance Specifications

C5.31# – ROAD MAINTENANCE REQUIREMENTS. (7/01)

TABLE C – MAINTENANCE T-800 SPECIFICATIONS

<u>Specification No.</u>	<u>Specification Title</u>
T-800	Definitions
T-801	Slide and Slump Repair
T-802	Ditch Cleaning
T-803	Surface Blading
T-804	Surfacing Repair
T-805	Drainage Structures
T-806	Dust Abatement
T-807	Roadway Vegetation
T-808	Miscellaneous Structures
T-809	Waterbars
T-810	Barriers
T-811	Surface Treatment

SPECIFICATION T-800 DEFINITIONS

Wherever the following terms or pronouns are used in Specifications T-801 through T-809, the intent and meaning shall be interpreted as follows:

800-1.1 - Agreement. Maintenance projects require a mutually acceptable method to resolve the problems which arise when incompatible situations arise between drawings and specifications and actual conditions on the ground to allow orderly and satisfactory progress of the maintenance.

These specifications have been developed in anticipation of those problem areas and have provided that such changes will be by agreement.

It is intended that drawings and specifications will govern unless "on-the-ground" conditions warrant otherwise, when specifications call for "agreement", "agreed", or "approval" such agreement or approval shall be promptly confirmed in writing.

800-1.2 - Annual Road Maintenance Plan. A plan prepared by various users of one or several roads. The plan is an agreement on maintenance responsibilities to be performed for the coming year.

800-1.3 - Base Course. Material used to reinforce subgrade or, as shown on drawings, placed on subgrade to distribute wheel loads.

800-1.4 - Berm. Curb or dike constructed to prevent roadway run-off water from discharging onto embankment slope.

800-1.5 - Borrow. Select material taken from designated borrow sites.

800-1.6 - Crown, Inslope and Outslope. The cross slope of the traveled way to aid in drainage and traffic maneuverability.

800-1.7 - Culverts. A conduit or passageway under a road, trail or other obstruction. A culvert differs from a bridge in that it is usually entirely below the elevation of the traveled way.

800-1.8 - Drainage Dip. A dip in the traveled way which intercepts surface runoff and diverts the water off the traveled way. A drainage dip does not block the movement of traffic.

800-1.9 - Drainage Structures. Manufactured structures which control the runoff of water from the roadway including culverts, overside drains, aprons, flumes, downdrains, downpipes, and the like.

800-1.10 - Dust Abatement Plan. A table which lists the road, dust palliative, application rates and estimated number of subsequent applications

800-1.11 - Lead-off Ditches. A ditch used to transmit water from a drainage structure or drainage dip outlet to the natural drainage area.

800-1.12 - Material. Any substances specified for use in the performance of the work.

SPECIFICATION T-800 DEFINITIONS

800-1.13 - Prehaul Maintenance. Road maintenance work which the Purchaser determines must be accomplished to maintain the roads to a satisfactory condition commensurate with the Purchaser's use, provided Purchaser's Operations do not damage improvements under BT6.22 or National Forest resources and hauling can be done safely. This work will be shown in the Annual Road Maintenance Plan as provided in CT5.31#.

Prehaul maintenance work the Purchaser elects to perform will be in compliance with the Road Maintenance T-Specifications.

800-1.14 - Roadbed. The portion of a road between the intersection of subgrade and sideslopes, excluding that portion of the ditch below subgrade.

800-1.15 - Road Maintenance Plan. A table which shows applicable road maintenance specifications to be performed by Purchaser on specific roads.

800-1.16 - Roadside. A general term denoting the area adjoining the outer edge of the roadway.

800-1.17 - Roadway. The portion of a road within the limits of excavation and embankment.

800-1.18 - Shoulder. That portion of roadway contiguous with traveled way for accommodation of stopped vehicles, for emergency use, and lateral support of base and surface course, if any.

800-1.19 - Slide. A concentrated deposit of materials from above or on backslope extending onto the traveled way or shoulders, whether caused by mass land movements or accumulated ravelling.

800-1.20 - Slough. Material eroded from the backslope which partially or completely blocks the ditch, but does not encroach on the traveled way so as to block passage of traffic.

800-1.21 - Slump. A localized portion of the roadbed which has slipped or otherwise become lower than that of the adjacent roadbed and constitutes a hazard to traffic.

800-1.22 - Special Project Specifications. Specifications which detail conditions and requirements peculiar to the individual project.

800-1.23 - Subgrade. Top surface of roadbed upon which base course or surface course is constructed. For roads without base course or surface course, that portion of roadbed prepared as the finished wearing surface.

800-1.24 - Surface Course. The material placed on base course or subgrade primarily to resist abrasion and the effects of climate. Surface course may be referred to as surfacing.

800-1.25 - Surface Treatment Plan. A table which lists the roads and surface treatments to be applied.

800-1.26 - Traveled Way. That portion of roadway, excluding shoulders, used for the movement of vehicles.

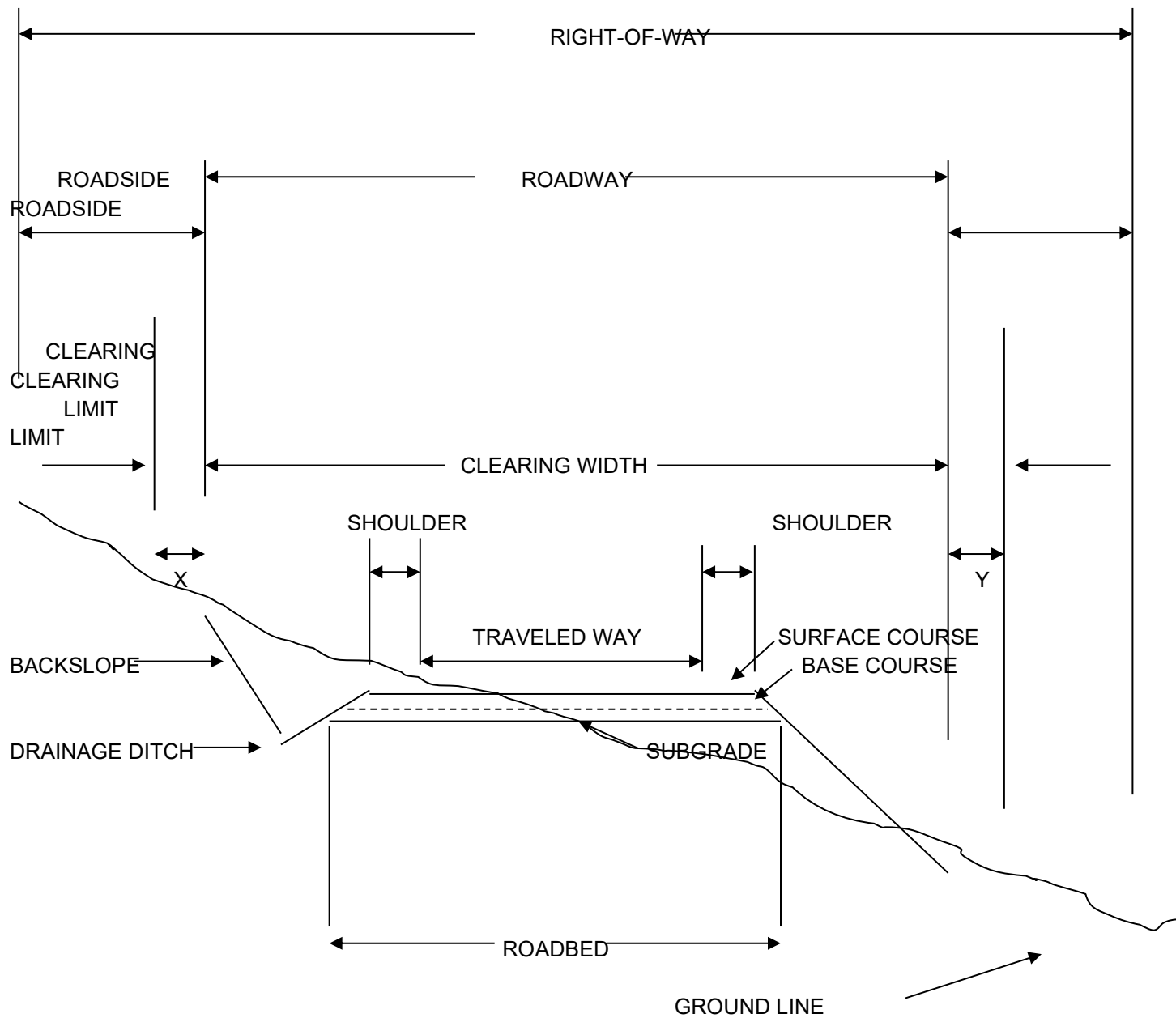
800-1.27 - Turnouts. That portion of the traveled way constructed as additional width on single lane roads to allow for safe passing of vehicles.

800-1.28 - Water Source. A place designated on the Road Maintenance Map for acquiring water for road maintenance purposes.

800-1.29 - Waterbar. A dip in the roadbed which intercepts surface runoff and diverts the water off the roadway. A waterbar is not designed to be traversable by logging trucks.

SPECIFICATION T-800 DEFINITIONS

FIGURE 800-2 ILLUSTRATION OF ROAD STRUCTURE TERMS



NOTE: X & Y Denote Clearing Limits Outside of Roadway

SPECIFICATION T-801 SLIDE AND SLUMP REPAIR

DESCRIPTION

1.1 Slide removal is the removal from Roadway and disposal of any material, such as soil, rock, and vegetation that cannot be routinely handled by a motor grader during Ditch Cleaning, T-802, and Surface Blading, T-803 Operations.

Slump repair is the filling of depressions or washouts in Roadway which cannot be routinely filled by a motor grader during Surface Blading, T-803 Operations.

Slide removal and slump repair includes excavation, loading, hauling, placing, and compacting of waste or replacement material and the development of disposal or borrow areas.

REQUIREMENTS

3.1 Slide material, including soil, rock and vegetative matter which encroaches into the Roadway, shall be removed. The slope which generated the slide material shall be reshaped during the removal of the slide material with the excavation and loading equipment. Slide material deposited on the fill slope and below the Traveled Way will not be removed unless needed for slope stability or to protect adjacent resources.

Surface and Base Courses shall not be excavated during slide removal operations.

Slide material which cannot be used for other beneficial purposes shall be disposed of at disposal sites SHOWN ON THE SALE AREA MAP. Material placed in disposal sites will not require compaction unless compaction is SHOWN ON THE ROAD MAINTENANCE PLAN.

3.2 When filling slumps or washouts, material shall be moved from agreed locations or borrow sites SHOWN ON SALE AREA MAP, placed in layers, and compacted by operating the hauling and spreading equipment uniformly over the full width of each layer.

Existing aggregate surfacing shall be salvaged when practical and relaid after depressions have been filled.

Damaged aggregate base, aggregate surfacing, and bituminous pavement shall be repaired under Specification T-804 Surfacing Repair.

The repaired areas of the slump shall conform to the cross section which existed prior to the slump and shall blend with the adjacent undisturbed Traveled Way.

3.3 The maximum volume of Purchaser responsibility for slide and slump repair is SHOWN ON ROAD MAINTENANCE PLAN. Greater volumes of slide and slump repair not qualifying as Catastrophic Damage are Forest Service responsibility.

SPECIFICATION T-802 DITCH CLEANING

DESCRIPTION

1.1 Ditch cleaning is removing and disposing of all slough material from roadway ditches to provide a free-draining waterway.

REQUIREMENTS

3.1 Ditch cleaning shall be repeated during the year as often as necessary to facilitate proper drainage.

3.2 All slough material or other debris which might obstruct water flow in the roadway ditch shall be removed. Material removed from the ditch, if suitable, may be blended into existing native road surface or Shoulder or placed in designated Berms in conjunction with Surface Blading T-803 operations.

Material removed from ditches that is not by agreement blended into existing roads or placed in Berms shall be loaded and hauled to the disposal site SHOWN ON THE SALE AREA MAP.

3.3 Roadway backslope or Berm shall not be undercut.

SPECIFICATION T-803 SURFACE BLADING

DESCRIPTION

1.1 Surface blading is keeping a native or aggregate Roadbed in a condition to facilitate traffic and provide proper drainage. It includes maintaining the crown, inslope or outslope of the Traveled Way, Turnouts, and Shoulder; repairing Berms; blending approach road intersections; and cleaning bridge decks, Drainage Dips, and Lead-off Ditches.

REQUIREMENTS

3.1 Surface blading shall be performed before, during, and after Purchaser's use as often as necessary to facilitate traffic and proper drainage.

3.2 The surface blading shall preserve the existing cross section. Surface irregularities shall be eliminated and the surface left in a free draining state and to a smoothness needed to facilitate traffic. Surface material which has been displaced to the Shoulders or Turnouts shall be returned to the Traveled Way. The blading operation shall be conducted to prevent the loss of surface material and to provide for a thorough mixing of the material being worked.

3.3 Water, taken from Water Sources DESIGNATED ON THE SALE AREA MAP, shall be applied during blading if sufficient moisture is not present to cut, mix, or compact the surface material.

3.4 On native surfaced roads, Material generated from backslope sloughing and ditch cleaning may be blended with the surface material being worked. On aggregate surfaced roads this Material shall not be blended with Surface or Base Course material unless agreed otherwise.

3.5 Roadway backslopes or Berms shall not be undercut nor shall new Berms be established unless agreed otherwise. Berms shall be repaired by placing Material as needed to restore the Berm to reasonably blend with existing line, grade, and cross section.

3.6 Drainage Dips and Lead-off Ditches shall be cleaned and maintained to reasonably blend with existing line, grade, and cross section.

3.7 Intersecting roads shall be bladed for a distance of 50 feet to assure proper blending of the two riding surfaces.

3.8 Rocks or other material remaining on the Traveled Way after the final pass that are larger than 4 inches in diameter or are larger than the maximum size of imported surfacing shall be removed from the Traveled Way. The oversized material shall be disposed of by sidecasting unless SHOWN OTHERWISE ON THE SALE AREA MAP. Sidecasting into streams, lakes or water courses will not be permitted.

3.9 Material resulting from work under this specification shall not remain on or in structures, such as Culverts, overside drains, cattleguards, ditches, Drainage Dips, and the like.

3.10 Material resulting from work under this specification plus any accumulated debris shall be removed from bridge decks and the deck drains opened.

SPECIFICATION T-804 SURFACING REPAIR

DESCRIPTION

1.1 Surfacing repair is repairing potholes or small, soft areas in the Traveled Way. It includes area preparation and furnishing and placing all necessary materials, and other work necessary to repair the surface.

MATERIAL

2.1 Material used in the repair of soft areas on aggregate or native surfaced roads may be acquired from approved commercial sources, Forest Service borrow areas SHOWN ON SALE AREA MAP or borrow sources agreed to. The quality and quantity of the imported Material used in the repair will be limited to that needed to provide a stable Traveled Way for hauling and to minimize damage to the road and adjacent resources. The quantity of imported surface repair material used in the appraisal estimate will be SHOWN ON THE ROAD MAINTENANCE PLAN. However, the magnitude of the work may vary depending on Purchaser's hauling schedule and ground conditions.

2.2 Material used in the repair of bituminous pavements may be acquired from local commercial sources. If a mixing table is required, the location shall be approved by the Forest Service. The bituminous mixture to be used by the Purchaser shall be approved by the Forest Service. The Purchaser's share of the quantity of bituminous mixture used in the appraisal estimate will be SHOWN ON THE ROAD MAINTENANCE PLAN. However, Purchaser's share of the work may vary depending on Purchaser's hauling schedule, ground conditions, other traffic, etc.

REQUIREMENTS

3.1 Work under this specification shall be performed in a timely manner to reduce further deterioration of the Traveled Way.

3.2 Soft spots on aggregate or native surfaces shall be repaired by placing the imported surface course on top of the soft spot. Layers of imported material shall be placed until a firm surface is produced.

3.3 Bituminous Pavement Repairs

The areas to receive bituminous pavement repairs will be marked on the road surface by the Forest Service just prior to Purchaser performing the work.

3.4 Potholes (deep patch)

Surface course and base course materials shall be excavated to a depth necessary to reach firm, suitable material. The minimum depth of excavation shall be two inches and the maximum depth of excavation shall be to the top of the Subgrade.

The edges of the prepared hole shall be extended to form a vertical face in unfractured asphalt surfacing. The prepared hole shall generally be circular or rectangular in shape, dry, and cleaned of all loose material.

Prepared potholes shall be patched or barricaded immediately.

The faces of the prepared hole shall be tacked with a slow-setting emulsified asphalt.

The bituminous mixture shall be placed in layers not exceeding a compacted depth of two inches. Each layer shall be compacted thoroughly with hand or mechanical tampers or rollers. Compaction shall not be done with equipment wheels.

Upon completion, the compacted patch in the pothole shall be flush, with a tolerance or approximately one-fourth inch to one-half inch above the level of the adjacent pavement.

3.5 Skin Patches

Prior to skin patching, potholes shall be patched, and the surface shall be cleaned of loose and deleterious material. Apply a tack coat with a slow-setting emulsified asphalt at the rate of 0.1 gallons per square yard.

SPECIFICATION T-804 SURFACING REPAIR

Bituminous mixture shall be distributed uniformly with feathered edges in layers not to exceed two inches compacted depth. When multiple layers are ordered, joints shall be offset at least six inches between layers.

Each layer shall be compacted by two passes with a 7-10 ton steel roller or comparable vibratory roller.

3.6 Asphalt Berm

Damaged segments of Berm shall be removed and the exposed ends beveled at approximately forty-five degrees from vertical. The Berm foundation shall be cleaned and patched as necessary. The foundation and joining surfaces shall be coated with a slow-setting emulsified asphalt. Asphalt mix shall be placed and compacted to conform with the shape and alignment of the undamaged segment.

3.7 Disposal

All materials removed from potholes, patches, and Berms shall be disposed of at disposal sites SHOWN ON THE SALE AREA MAP.

SPECIFICATION T-805 DRAINAGE STRUCTURES

DESCRIPTION

1.1 This work consists of maintaining Drainage Structures and related items such as inlet and outlet channels, existing riprap, trash racks and drop inlets.

MATERIALS

2.1 All materials used in the maintenance of Drainage Structures shall conform by type and specification to the material in the structure being maintained.

REQUIREMENTS

3.1 Drainage Structures and related items shall be cleared of all foreign material which has been deposited above the bottom of the structure and all vegetative growth which interferes with the flow pattern. Material removed that cannot be incorporated into maintenance work shall be hauled to a disposal site SHOWN ON THE SALE AREA MAP.

3.2 If outlet or inlet riprap was installed by Purchaser as a construction item or existed prior to Purchaser's haul, it shall be maintained in good condition including the replacement of riprap if necessary to previous line, grade, and cross section.

3.3 Perform maintenance to insure the proper functioning of the head walls, aprons, inlet assemblies, overside drains, riprap, trash racks, and other facilities related to the Drainage Structure.

SPECIFICATION T-806 DUST ABATEMENT

DESCRIPTION

1.1 This work shall consist of preparing Traveled Way and furnishing and applying materials to abate dust.

MATERIALS

2.1 The roads requiring dust abatement, type of dust abatement material to be used, the rates of application, and frequency of applications will be SHOWN ON THE DUST ABATEMENT PLAN. The Dust Abatement Plan may be changed by written agreement.

2.2 Water

Water sources: approved locations are SHOWN ON SALE AREA MAP.

2.3 Dust abatement materials shall meet the requirements of the following Subsections of Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects or ATTACHED SPECIAL PROJECT SPECIFICATIONS.

Bituminous Materials

Liquid Asphalts.	702.02
Bituminous Dust Palliatives.	725.02
Application Temperatures	702.04
Blotter Material.	703.13
Lignin Sulfonate.	725.20
Application Temperature.	306.04(b)
Water, for diluting.	306.04(b)
Magnesium Chloride.	725.02
Application Temperature.	725.01

2.4 Testing of Materials

Certification and sampling of bituminous materials lignin sulfonate, and magnesium chloride shall be in accordance with Subsection 105.04, 5-725.03, and 5-730.03, respectively, of Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects.

REQUIREMENTS

3.1 General

Dust abatement materials shall be applied to the road surface as necessary to control road surface loss, provide for road user safety, and minimize damage to adjacent resources.

3.2 Compaction

When the methods listed below specify compaction, Traveled Way shall be compacted by an 8 to 10 ton pneumatic, steel-wheeled or equivalent vibrating roller making 2 passes over the full Traveled Way and Shoulder width, unless compaction is not required on the DUST ABATEMENT PLAN.

SPECIFICATION T-806 DUST ABATEMENT

3.3 Preparation to Dust Abatement Materials Other Than Water.

The following applies to all methods of preparation:

Bituminous residue shall be scarified and pulverized to produce loosened material not exceeding 4 inches in greatest dimension.

Traveled Way shall be bladed in accordance with T-803.

Prior to applying DO-6BA, DO-6PA, or DO-8 the top 2 inches of Traveled Way shall contain not less than 80 percent nor more than 120 percent of optimum moisture as determined by AASHTO T-99, Method C. Prior to applying other bituminous material Traveled Way shall have a moisture content between 1 and 3 percent. If surface dusting prevents the bituminous material from penetrating, a light application of water shall be applied just prior to applying the bituminous material.

Lignin Sulfonate and magnesium chloride shall be applied when the top 1 inch of Traveled Way contains not less than 3 percent moisture nor more than 120 percent of optimum moisture as determined by AASHTO T-99, Method C.

Moisture content will be determined in accordance with AASHTO T-217 OR T-239.

One or more of the following methods shall be used as specified in the DUST ABATEMENT PLAN.

Method 1. Compact Traveled Way and apply the dust abatement material.

Method 2. Develop a layer of loose material approximately one inch in depth for the full width of Traveled Way. Apply the dust abatement material to this loose material and compact after penetration. If traffic makes maintenance of the loose material difficult, one inch of the material may be bladed into a windrow along the shoulder. The specified moisture content shall be maintained in the windrow and the top one inch of Traveled Way. The windrow shall be bladed to a uniform depth across Traveled Way just prior to applying the dust abatement material. When the dust abatement material has penetrated, Traveled Way shall be compacted.

Method 3. Blade one inch of material from Traveled Way into a windrow along the Shoulder. Maintain the specified moisture content in the windrow and the top inch of Traveled Way. Apply half the dust abatement material. When the dust abatement material has penetrated, the windrow shall be bladed to a uniform depth across dust abatement Traveled Way, and the remaining dust abatement material shall be applied. Traveled Way shall be compacted.

Method 4. Develop a layer of loose material approximately 2 inches in depth for the full width of Traveled Way. Apply half the dust abatement material to the loose material. Blade the top 2 inches

into a windrow along the Shoulder. Apply the remaining dust abatement material to Traveled Way and the Berm. Spread the Berm evenly across Traveled Way and compact.

3.4 Preparation for Dust Abatement with Water

Traveled Way shall be prepared in accordance with Specification T-803 Surface Blading when required.

3.5 Application Tolerance

Dust abatement materials other than water shall be applied within 0.05 gallons per square yard of the rate specified.

3.6 Mixing Requirements

DO-6BA, DO-6PA, and DO-8 shall be thoroughly circulated in the distributor within one hour of application.

SPECIFICATION T-806 DUST ABATEMENT

3.7 Weather Limitations

Dust abatement materials shall not be applied when it is raining.

Bituminous material shall be applied when the surface temperature of Traveled Way is 50 degrees Fahrenheit or higher.

Lignin sulfonate and magnesium chloride shall be applied when the atmospheric temperature is 40 degrees Fahrenheit or higher.

3.8 Blotter Material

Blotter material shall be spread in a sufficient quantity to prevent tire pickup.

SPECIFICATION T-807 ROADWAY VEGETATION

DESCRIPTION

1.1 This work includes removal of brush and trees from within the Roadway limits.

REQUIREMENTS

3.1 Vegetative matter within the Roadway which impedes vehicular travel or interferes with road maintenance operations, such as surface blading, ditch and culvert cleaning, shall be removed. Downed timber meeting utilization standards shall be cut in appropriate lengths and decked along the Roadside in locations where the Traveled Way or sight distances will not be impaired.

3.2 Vegetative matter removed from the Roadway shall be treated by the specified method SHOWN ON THE SALE AREA MAP and as required by contract provisions.

SPECIFICATION T-808 MISCELLANEOUS STRUCTURES

DESCRIPTION

1.1 Maintenance of miscellaneous structures includes cattleguards, gates, and other similar structures that have been previously installed to insure safe and efficient operation of the road.

MATERIALS

2.1 Any materials needed in the maintenance of miscellaneous structures shall be similar in type and quality to the material in the structure being maintained.

REQUIREMENTS

3.1 Cattleguards. Loose rails shall be welded or bolted back in place.

Excess material carried into the cattleguard shall be removed when drainage is blocked or when it reaches 6 inches from the bottom of the cattleguard frame. Drainage into and from the cattleguard shall be kept open.

3.2 Gates. Gates shall be kept in good repair and made to swing easily. Hinges or latches shall be repaired if not operating properly.

Brush and debris shall be removed from within the swinging radius.

SPECIFICATION T-809 WATERBARS

DESCRIPTION

1.1 This work consists of installing or removing Waterbars in the Roadbed.

REQUIREMENTS

3.1 Waterbars shall be installed on roads SHOWN ON THE ROAD MAINTENANCE PLAN in accordance with the ATTACHED DRAWING AND AT LOCATIONS DESIGNATED or STAKED ON THE GROUND.

All material excavated shall be used in the installation of the Waterbar. Bermed material shall be compacted by operating heavy equipment over the length and width of the Berm.

3.2 Waterbars shall be removed on roads SHOWN ON ROAD MAINTENANCE PLAN by blading the Berm into the adjacent depression to form a smooth transition along the Traveled Way. The length and width of the fill material shall be compacted by the equipment performing the work.

3.3 Waterbars may be required to be installed between seasons of use and then removed when haul is resumed. Waterbar installation may also be required when use of a road has been completed.

SPECIFICATION T-810 BARRIERS

DESCRIPTION

1.1 This work shall consist of furnishing, installing, or removing barriers. Gates are not included.

MATERIALS

2.1 Materials for Barriers shall meet the requirements AS SHOWN ON THE ATTACHED DRAWINGS.

REQUIREMENTS

3.1 Barriers shall be installed in accordance with the ATTACHED DRAWINGS.

The location of Barriers to be removed or installed is SHOWN ON THE SALE AREA MAP. Installation or removal may occur as often as road use is terminated and resumed.

SPECIFICATION T-811 SURFACE TREATMENT

DESCRIPTION

1.1 This work shall consist of applying a chip seal, sand seal, or fog seal to the Traveled Way.

Chip seals may consist of single or double applications of bituminous material and cover aggregate.

MATERIALS

2.1 The roads requiring Surface Treatment, the type of seal coat to be applied, the rate of application, and type and grade of bituminous material, and the rate of application and grading of cover aggregate will be SHOWN ON THE SURFACE TREATMENT PLAN (C5.4).

2.2 Emulsions used for fog seals shall be diluted with an equal amount of water and shall be applied at the diluted application rate SHOWN ON THE SURFACE TREATMENT PLAN (C5.4).

2.3 Seal coat materials shall meet the requirements of the following Sub-sections of Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects or ATTACHED SPECIAL PROJECT SPECIFICATIONS:

Bituminous Materials

Asphalt Cement.....	702.01
Liquid Asphalts.....	702.02
Emulsified Asphalt.....	702.03
Application Temperatures.....	702.05
Cover Aggregate.....	703.12
Blotter Material.....	703.13
Water for Diluting.....	712.01

2.4 The cover aggregate shall be surface damp at the time of application when using emulsified asphalt and dry when using an asphalt cement or liquid asphalt. Excess water on the aggregate surface will not be permitted.

3.1 Traffic

Traffic shall be maintained in accordance with C6.33.

3.2 Weather Limitations

Fog seal and chip seal shall not be applied when the weather is foggy or rainy.

Seal coats requiring cover aggregate shall not be applied when the temperature of the surface being treated is below 70 degrees Fahrenheit in the shade.

Fog seal coats shall not be applied when the surface temperature is below 40 degrees Fahrenheit in the shade.

3.3 Equipment

The following equipment or its equivalent shall be used:

A distributor truck equipped to spread the material uniformly at the designated rate, within the temperature range specified and within 0.04 gallons per square yard of the rate specified. The distributor shall be equipped with a thermometer and a hand hose with spray

A rotary power broom and/or blower.

When cover aggregates are applied: a pneumatic tire roller, 8 ton minimum weight with all tires equally inflated to a pressure of at least 90 pounds per square inch. Rollers shall be equipped with devices for applying water to the tires.

SPECIFICATION T-811 SURFACE TREATMENT

Self-propelled aggregate spreader supported by at least four wheels equipped with pneumatic tires on two axles, situated so that at no time will the tires contact the uncovered bituminous materials. The aggregate spreader shall be equipped with positive controls so that the required amount of materials will be deposited uniformly over the full width.

Trucks with spreading attachments shall not be used.

3.4 Preparation of surface

Immediately before applying the bituminous material, the surface to be sealed shall be cleaned of all foreign and loose material.

3.5 Application of bituminous material

Bituminous material shall be applied in an uniform, continuous spread. The distributor shall be moving forward at proper application speed, at the time the spray bar is opened. Skipped areas or deficiencies shall be corrected prior to the application of cover aggregate.

The spread of bituminous material shall not be more than 6 inches wider than the width to be covered by the cover aggregate. Operations shall not proceed if the bituminous material is allowed to cool, set up, dry, or otherwise impair retention of cover aggregate.

Fog seal shall be allowed to penetrate and dry before traffic is permitted on the sealed portion.

The surfaces of structures and trees adjacent to the area being treated shall be protected to prevent their being spattered or marred.

3.6 Application of Cover Aggregate and Blotter

Immediately following the application of the bituminous material, cover aggregate shall be spread at the specified rate. Joints between adjacent applications of cover aggregate shall be approximately in the center of two-lane roads.

The aggregate spreader shall not be operated at speeds which cause the aggregate to roll over after striking the bituminous material. The cut-off of aggregate shall be complete, and any excess aggregate shall be removed from the surface prior to resuming operations. Immediately after the cover aggregate has been spread, any piles, ridges, and uneven distribution shall be corrected.

Cover aggregates may be applied by hand in areas inaccessible to spreading equipment.

Rolling shall begin immediately after spreading the cover aggregate and shall consist of a minimum of two complete coverages.

The second treatment of a double chip seal shall not be applied until at least 24 hours after completion of a first treatment, when an emulsion or asphalt cement is used. If a medium cure liquid asphalt is used, 48 hours shall be allowed between applications. Prior to the second treatment, any loose cover aggregate remaining on the surface after the first treatment shall be removed in such a manner that the cover aggregate set in the bituminous material will not be displaced.

After rolling, traffic shall be controlled to a maximum speed of 15 miles per hour for a period of 4 hours.

The day following the final application of cover aggregate, any concentrations of loose cover aggregate shall be redistributed without disturbing the embedded aggregate. Four days after the final application of cover aggregate, all

excess cover aggregate shall be removed. During this period, any bituminous material that comes to the surface shall be covered with additional cover aggregate or approved blotter material.

3.7 Blotter material for fog seals shall be spread in sufficient quantity to prevent tire pickup.

SPECIAL PROJECT SPECIFICATION

SECTION 725 LIGNIN SULFONATE

725.01 LIGNIN SULFONATE. Lignin Sulfonate shall be the residue produced by the acid-sulfite pulping of wood. The base cation shall be ammonium, calcium or sodium. The lignin sulfonate shall be supplied as a water solution.

The lignin sulfonate shall be miscible with an equal volume of water. The undiluted material shall meet the following requirements:

pH (AASHTO T 200)	4.5 minimum
Viscosity at 77 degrees F (AASHTO T 202)	20.0 poise maximum
Total Solids (TAPPI T 629-M53)	48 percent minimum

The solids shall meet the following requirements:

Lignin Sulfonate	50 percent minimum
Reducing Sugars	25 percent maximum

725.02 TEMPERATURE. The temperature of the material from the time it is loaded until it is applied on the road shall not exceed 140 degrees Fahrenheit. The temperature of the material at application shall be between 40 and 140 degrees Fahrenheit.

725.03 CERTIFICATION. When each load of Lignin Sulfonate is delivered, the Contractor shall furnish the Engineer with a completed Certificate of Compliance conforming to the format below (see Figure 725-1). A separate Certificate of Compliance will not be required if the Bill of Lading contains the required information.

FIGURE 725-1 (sample)

CERTIFICATE OF COMPLIANCE

Consignee _____ Destination _____

Date _____ Net Weight _____

Identification (Truck No., Car No., Etc.) _____

Based Cation _____ Brand Name _____

This shipment of Lignin Sulfonate identified above and covered by this Certificate of Compliance, complies with Forest Service Standard Specifications as modified by Special Project Specifications applicable to this project.

Producer _____

Signed _____
Producers Representative

SPECIAL PROJECT SPECIFICATION

SECTION 730 MAGNESIUM CHLORIDE

730.01 MAGNESIUM CHLORIDE. Magnesium Chloride shall be a brine consisting of water and Magnesium Chloride. The chemical analysis* shall meet the following requirements:

<u>Chemical</u>	<u>Percent by Weight of Brine</u>
Magnesium	7.0 Minimum
Chloride	20.0 Minimum
Sulfate	4.3 Maximum
Nitrate	5.0 Maximum

The pH shall be between 4.5 and 10.0. The solids shall be at least 30 percent by weight of the brine.

730.02 TEMPERATURE. The temperature of the material shall be 40 degrees Fahrenheit or above when it is applied.

730.03 CERTIFICATION. When each load of Magnesium Chloride is delivered, the Contractor shall furnish the Engineer with a completed Certificate of Compliance conforming to the format as shown in Figure 730-1. a separate copy of test procedures* are available upon request from USDA Forest Service, Pleasant Hill Engineering Center, 2245 Morello Avenue, Pleasant Hill, CA 94523.

FIGURE 30-1 (sample)

CERTIFICATE OF COMPLIANCE

Consignee _____ Destination _____

Date _____ Net Weight _____

Identification (Truck No., Car No., Etc.) _____

Based Cation _____ Brand Name _____

This shipment of Magnesium Chloride identified above and covered by this Certificate of Compliance, complies with Forest Service Standard Specifications as modified by Special Project Specifications applicable to this project.

Producer _____

Signed _____
Producers Representative

Community Protection - Central and West Slope Project

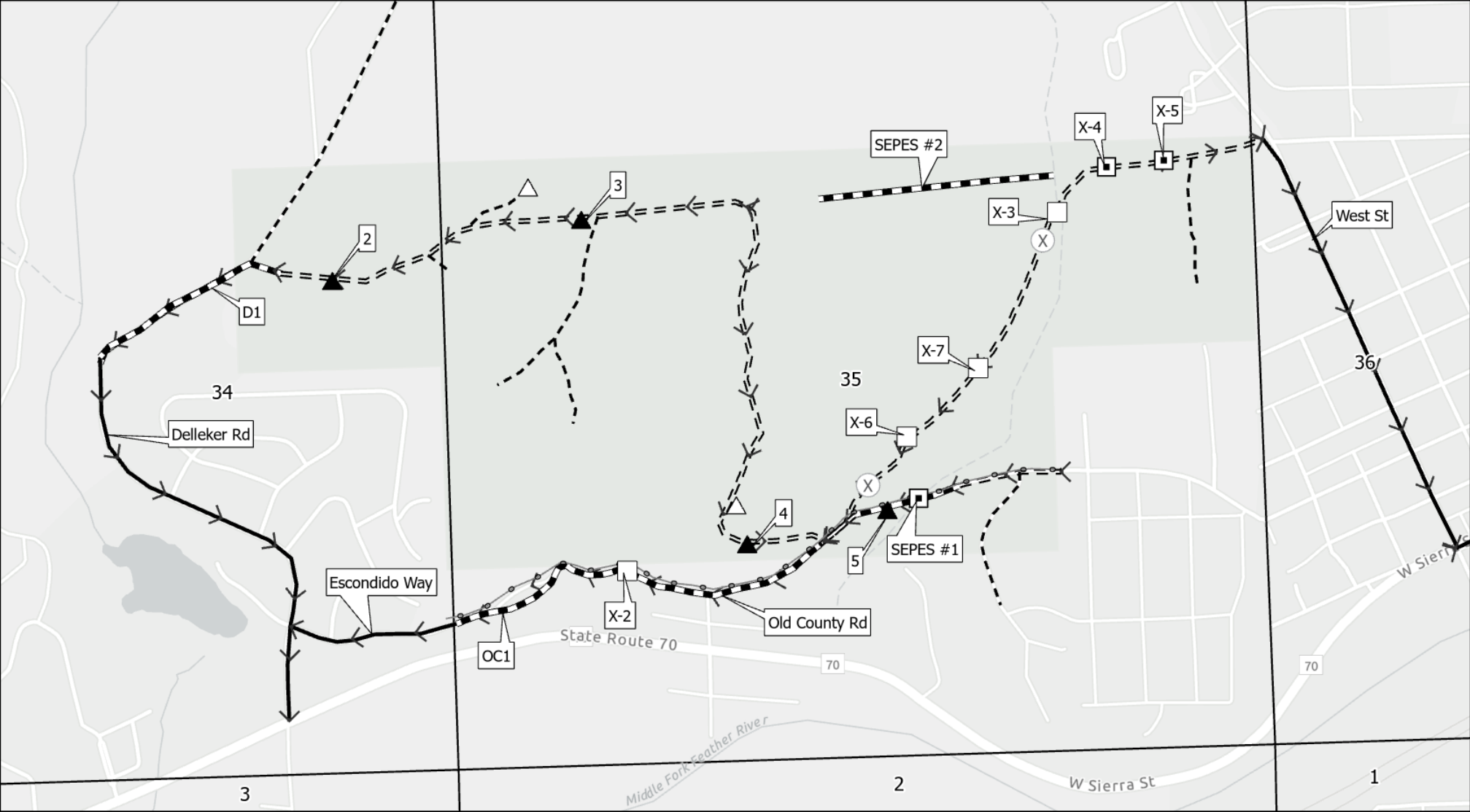
T23N R13E S34, 35 & 36 MDBM

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Delleker Road Assessment Overview

8/28/2025

0 1,000 2,000 Feet



Roads

- Existing Paved Road
- Existing Seasonal Road
- Haul Route Native
- Haul Route Paved
- Road Work Required



Haul Direction

Points

- Road Xing - unimp ford
- Road Work Point
- Barricade after use
- Borrow Pit
- Road Xing - rocked ford

Utilities

- Buried Fiber Optic

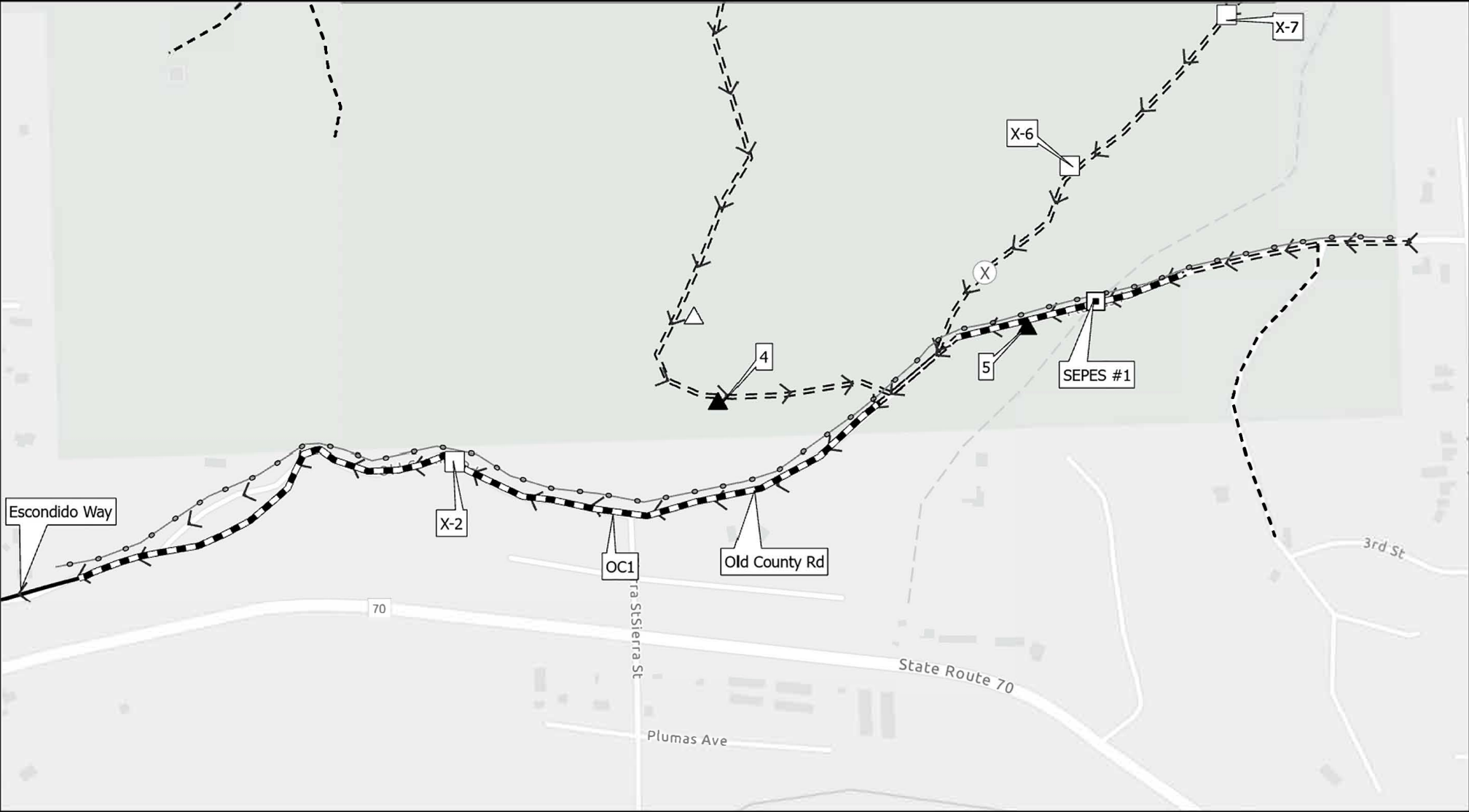
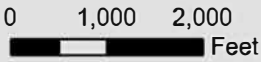
Community Protection - Central and West Slope Project

T23N R13E 34 35 & 36 MDBM

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Delleker Road Assessment Detail

8/28/2025



Roads

- Existing Paved Road
- Existing Seasonal Road
- Haul Route Native
- Haul Route Paved
- Road Work Required



Haul Direction

Points

- Road Xing - unimp ford
- Delleker Road Work
- Barricade
- Borrow Pit
- Road Xing - rocked ford

Utilities

- Buried Fiber Optic

Community Protection - Central and West Slope Project

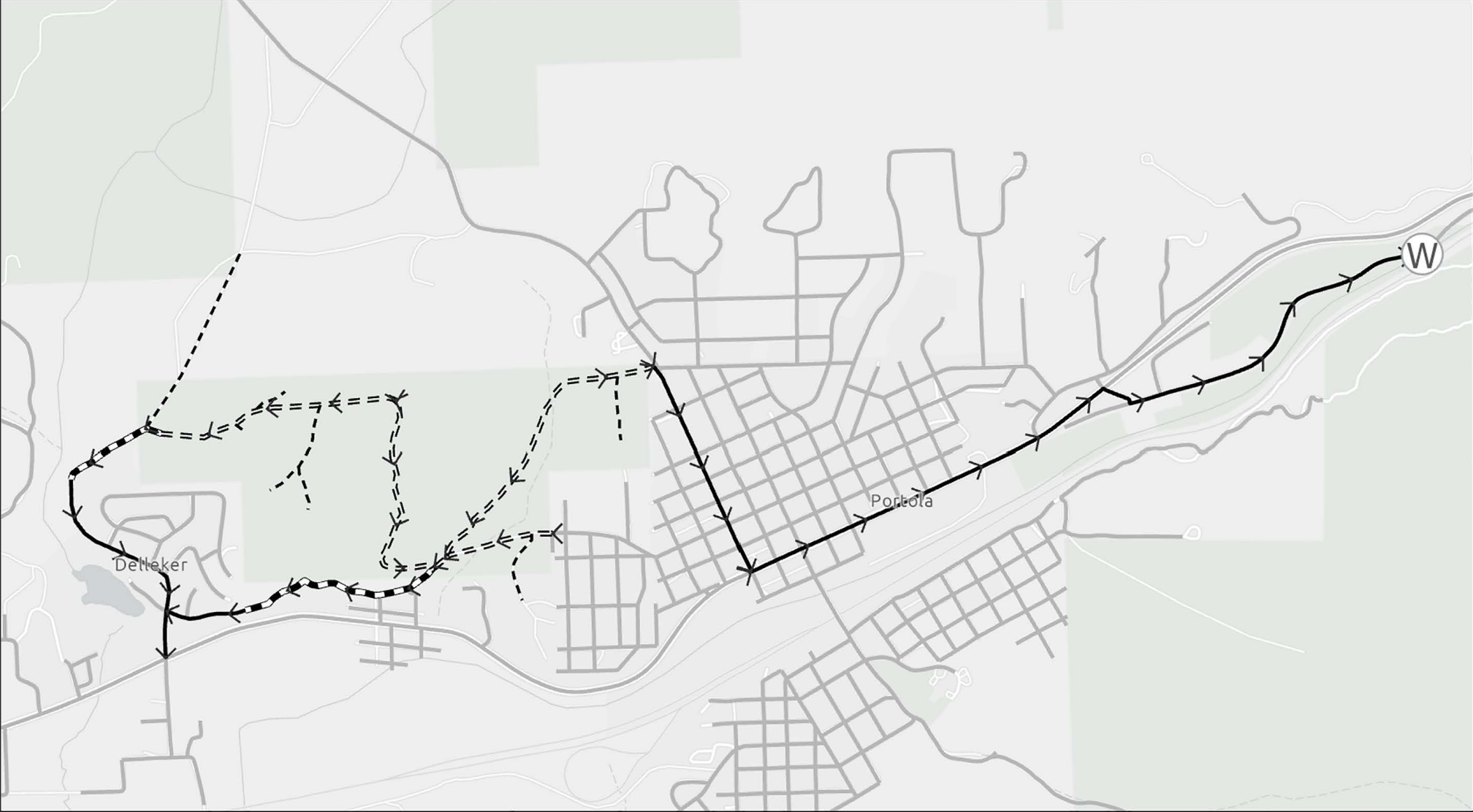
T23N R13E 34 35 & 36 MDBM

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Drafting Location Map

8/11/2025

0 1,000 2,000 Feet



Roads

- Existing Paved Road
- Existing Seasonal Road
- Haul Route Native
- Haul Route Paved
- Road Work Required



Haul Direction

Points



Drafting Location