



# Upper Mokelumne River Watershed Authority

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## Special Governing Board Meeting

### **Agenda**

Friday, August 25, 2023 – 10:00 a.m.

**Pardee Center, Valley Springs, CA 95252**

#### ROLL CALL

#### PLEDGE OF ALLEGIANCE

PUBLIC COMMENT: When responding to a matter not on the agenda, state law limits a Board member to providing a brief response, asking clarifying questions, and/or referring it to staff.

#### AUTHORITY BUSINESS:

#### Recommended Action

- |  |                            |
|--|----------------------------|
| 1. Board Meeting Minutes of July 28, 2023                | Approve by Motion          |
| 2. Forest Projects Plan - Phase 1 Implementation Project | Approve by Motion          |
| 3. FPP-1 Implementation Funding Strategy Follow-up       | Discussion/Possible Action |

#### BOARD MEMBER COMMENTS:

4. Board Member Comments

#### EXECUTIVE OFFICER REPORT:

5. Executive Officer's Oral Report

#### ADJOURNMENT:

- Next Regular Board Meeting: 10:00 a.m. October 6, 2023, at Pardee Center, Valley Springs

*Requests for disability-related modification or accommodation, including auxiliary aids or services, may be made to Lorna Barfield at 209.772.8286 or [Lorna.Barfield@ebmud.com](mailto:Lorna.Barfield@ebmud.com) no later than 24 hours before the meeting.*



# Upper Mokelumne River Watershed Authority

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Agenda No: **1**

Meeting Date: August 25, 2023

Title:

Meeting Minutes of July 28, 2023

Recommended Action:

Approve the meeting minutes of July 28, 2023.

Summary:

The summary minutes of the July 28, 2023, meeting are included for Board review and approval.

Friday, July 28, 2023 – 10:00 a.m.  
Governing Board Regular Meeting  
Upper Mokelumne River Watershed Authority  
Pardee Center, Valley Springs, CA 95252

**Summary Minutes**

**ROLL CALL**

Directors John Coleman, Chair, Terry Woodrow, Vice-chair, Jack Garamendi, Ed Gonzalez, Richard Farrington, Richard Blood, and Jeff Davidson were present. Brian Oneto joined the meeting at 10:12am (changing vote count to 8). Absent: Authority Counsel Greg Gillott. Also present were Executive Officer (EO) Richard Sykes, Administrative Officer (AO) Rob Alcott, Authority Deputy Counsel Glenn Spitzer, Authority Secretary Lorna Barfield and 12 visitors.

**PUBLIC COMMENT**

None

**AUTHORITY BUSINESS**

**1. Regular Meeting Minutes of April 28, 2023.**

The summary minutes of the April 28, 2023, meeting were provided to the Board for review.

**Motion 14-23** to approve the regular meeting minutes of April 28, 2023, was made by Director Davidson seconded by Director Farrington and carried by voice vote: Yea 7 – Nay 0 – Abstain 0.

**2. Treasurer's Report – Second Quarter FY 2023**

A copy of the Treasurer's Report for the Second Quarter of Fiscal Year 2023, which ended March 31, 2023, was presented to the Board.

**Motion 15-23** to accept the Treasurer's Report for filing was made by Director Davidson seconded by Director Woodrow and carried by voice vote: Yea 7 – Nay 0 – Abstain 0.

**3. Implementation Status - FPP Phase 1 Project**

The Executive Officer Richard Sykes provided the Board with an update on the Authority's Forest Projects Plan (FPP) Phase 1 Implementation Status. With the \$5M Cal Fire grant and ENF SPA agreements in hand, staff finalized the Request for Proposal (RFP) to perform the Forest Projects Plan - Phase 1 (FPP-1) treatment work and released it on July 3. Contractor proposals were due July 26 at noon and the Selection Review Committee will meet on July 31 to review and rank submitted proposals and follow-up with reference checks. A Notice of Recommended Award will then be transmitted to all proposers, with the bid protest period ending August 10. The Board will consider awarding a contract to the recommended contractor at the scheduled August 25 Special Meeting and were requested to confirm their attendance.

The EO reviewed the summary of proposals received with the Board and shared that one local bid was submitted. The Board asked for clarification regarding outside area bidders hiring local contractors, acreage amounts, control burns, and who comprises the selection review committee.

Director Coleman informed the group that he may not be available to attend the August 25 meeting, all other Directors confirmed attendance.

**Motion 16-23** to approve the August 25, 2023, Special Meeting was made by Director Farrington, seconded by Director Gonzales, and carried by voice vote: Yea 8 – Nay 0 – Abstain 0.

#### 4. **FPP - Phase 1 Implementation Work Plan Funding Strategy**

Administrative Officer (AO) Rob Alcott presented the Board with the framework for a Forest Projects Plan – Phase 1 (FPP-1) Funding Strategy that could allow UMRWA to execute and sustain the level of planning and implementation work necessary for increasing the pace and scale of forest restoration work in the Eldorado National Forest (ENF).

UMRWA is positioned to continue its leadership role in stewardship activities to protect and restore ENF lands in the Upper Mokelumne by assuming the lead for FPP-1 implementation. To do so in a systematic and efficient manner will require UMRWA to secure access to funding to complete FPP-1 treatments and expand and maintain UMRWA organizational capacities.

The AO discussed the key elements of a Funding Strategy that could facilitate the completion of the FPP-1 Work Plan. Two presentations were shown at this Board Meeting in conjunction with this agenda item. David Lach, Director of Environmental Products at Anew, provided an overview of the Avoided Wildfire Emissions credit market, and Matt Sjöholm and Nick Wobbrock of Blue Forest Conservation, presented an update on the progress being made towards a Forest Resilience Bond in support of UMRWA's forest work. Briefing materials related to these two presentations were provided to the Board.

The AO shared an overview of the proposed Funding Strategy organized into five basic elements: funding requirements, implementation schedule and cash flow, funding sources, bridge financing, and strategy execution.

##### Funding Requirements

The Phase 1 Implementation Work Plan anticipates fuel reduction treatments to about 26,256 acres at an estimated total cost of \$63,400,000. With \$11.4M in Cal Fire treatment funding in hand, a plan for securing \$52M in additional funding is needed.

##### Implementation Schedule and Cash Flow:

The Board was presented a table showing annual cash flow requirements ranging over the 8-year implementation period from \$2.5M in the first year and up to nearly \$10.4M in peak years.

##### Funding Sources:

To date, UMRWA's non-repayable funding sources have been state grants and the USFS. Cal Fire and Sierra Nevada Conservancy (SNC) have thus far been the primary providers of funding for UMRWA's forest work. For the prior treatment work UMRWA performed on Stanislaus NF lands, funding was also provided by the USFS.

Two other possible non-repayable funding sources are Avoided Wildfire Emissions (AWE) credits and Avoided Cost payments associated with a Forest Resilience Bond (see Bridge Financing section below). AWE credits represent a new potential revenue source to fund continuing forest treatments. The AO presented a table displaying the primary non-repayable sources of funding potentially available to UMRWA.

### Bridge Financing:

A Forest Resilience Bond (FRB) includes a feature that allows the FRB to borrow the funding needed to establish a line of credit for UMRWA. The associated financial instrument is an unsecured Loan and Services Agreement. The negotiated terms specify the maximum loan amount, disbursement procedures, interest (zero interest may be possible), and related matters. A Blue Forest memorandum that provided more detailed information about the FRB and associated elements accompanied the agenda packet.

Another potential source of bridge financing is a line of credit with an UMRWA member agency. EBMUD has extended a line of credit to UMRWA in the past to address cash flow limitations associated with DWR funded Implementation Grant projects. UMRWA paid a nominal interest rate pegged to state Local Agency Investment Fund (LAIF) interest rates.

To UMRWA, and specifically to its interest in executing a systematic and efficient FPP-1 implementation program, the fundamental value of an FRB or other line of credit arrangement is that it would allow UMRWA to maintain a steady pace in annually cycling projects, from treatment plans, to RFPs, to contract awards, to treatments performed, to project close-outs. It would fulfill an essential requirement of UMRWA's Funding Strategy as it prepares to award contracts to treatment contracts – cash flow certainty.

### Strategy Execution:

Carrying out the Funding Strategy to advance treatments to an average of 4,000 acres/year will require UMRWA to annually administer two recurring cyclic processes; (1) funding and contracting, and (2) treatment project implementation. The key activities associated with these two processes, organized by quarter, were presented to the Board.

**Motion 17-23** to (1) Authorize UMRWA to assume the lead role in overseeing Forest Projects Plan – Phase 1 implementation and set 4,000 acres as the annual forest treatments goal, (2) Direct staff to meet with Eldorado National Forest and USFS Region 5 Leadership to present UMRWA's Funding Strategy, seek input, and secure Forest Service support, (3) Authorize staff to further advance the following Funding Strategy tasks: (a) work with Authority Counsel and Blue Forest to develop Forest Resilience Bond and Loan agreements for Board consideration by January 26, 2024 (b) work with Authority Counsel and Anew to develop a Carbon Credit and Marketing Agreement for Board consideration on October 6, 2023 (c) work cooperatively with Eldorado National Forest to procure USFS funding commitments to implement Forest Projects Plan – Phase 1 projects was made by Director Davidson, seconded by Director Farrington and carried by voice vote: Yea 8 – Nay 0 – Abstain 0.

## **5. Forest Projects Report**

The EO presented updates on the Authority's Forest Projects Plan - Phase 1 (FPP-1) Implementation and Phase 2 Planning, along with a summary of a Tribal Engagement Plan prepared by staff. This report concluded with a table titled 'UMRWA Forest Project Grants' which summarized grants awarded and grant applications planned or pending.

### Forest Projects Plan - Phase 2 Planning:

The landscape-level Phase 2 FPP initiated in September 2022 will address forest health issues on up to 225,000 acres of Stanislaus and Eldorado NF lands within and flanking the Upper Mokelumne watershed. In addition to the large scale, the second phase of the FPP process will consider forestry activities not included in Phase 1 due to potentially more significant environmental impacts.

Stantec, the firm hired last August to undertake the Phase 2 program continues to perform: stakeholder outreach (including tribal engagement), specified NEPA/CEQA planning tasks (project initiation letter, draft purpose and need, determination of NEPA approach with USFS), and liaison activities with regulatory agencies regarding listed species, and support for grant applications. The most recent Cal Fire Grant Award of \$7M earmarks about \$500,000 for FPP-2 Planning which will help fund Stantec's future work plus other activities. As FPP-2 work continues, funding to complete the planning and related NEPA/CEQA documentation must still be secured.

On April 28, the Board approved the submittal of a Concept Proposal for the next round of SNC Wildfire Recovery & Forest Resilience Forest grant funding. Staff prepared and submitted that Concept Proposal on June 14, and on July 12 staff was notified that UMRWA was invited to submit a Final Proposal by the September 29, 2023, deadline. SNC is scheduled to announce grant awards next spring (March/April 2024).

The Wildlife Conservation Board's Prop 68 grant program is currently being evaluated by staff for potential FPP Phase 1 and Phase 2 support. This program provides funding for climate adaptation and forest resiliency projects (this program is supporting the Authority's ongoing Aspen Restoration project under a 2022 grant) and may be a viable funding source for Phase 1 or 2 FPP activities.

#### Tribal Engagement Plan:

With encouragement from UMRWA grant funders SNC and Cal Fire, staff have prepared a Tribal Engagement Plan which provides guidance to Authority staff regarding tribal outreach on Upper Mokelumne forestry matters. The plan itself aims to enhance UMRWA's forestry program by facilitating tribal participation in forest-related project planning and implementation. Formal consultation with Tribes remains the responsibility of the US Forest Service. UMRWA's facilitation role is intended to strengthen communication, build trust, and develop beneficial relationships with Tribes that have historical ties and ongoing interest in the management of Upper Mokelumne forest resources. With grant funding provided by agencies, UMRWA will engage a Tribal Liaison to serve as the Authority's central point of contact for Tribes to help ensure the outreach and communication efforts articulated in the plan are carried out.

#### UMRWA Forest Project Grants:

UMRWA is awaiting receipt of draft agreement documents related to the second Cal Fire grant (\$7M for Phase 1 implementation work). Additionally, UMRWA has two active SNC grants, one active Wildlife Conservation Board grant, and the one active Cal Fire Forest Health Grant. Full applications for two SNC Wildfire Recovery and Resilience grants are also currently in process. These grants were summarized and presented to the Board.

## **6. Fiscal Year 2024 Budget**

On April 28 the Board reviewed the proposed FY 2024 Budget and directed staff to transmit the proposed budget to Member Agencies for review. In May a memorandum presenting the FY 2024 budget and assessments was sent to Member Agency General Managers and County Administrative Officers with copies to UMRWA Board directors. Member agency staff had no comments on the proposed budget.

**Motion 18-23** to approve the Fiscal Year 2024 UMRWA budget and authorize staff to transmit invoices to Member Agencies requesting payment of FY 2024 assessments by October 31, 2023, was made by Director Davidson, seconded by Director Garamendi and carried by voice vote: Yea 8 – Nay 0 – Abstain 0.

## **7. Biomass Feasibility Investigation**

The Executive Officer shared with the Board information regarding the California Forest Residual Aggregation Market Enhancement (Cal FRAME) pilot project. The pilots are funded by the Governor's Office of Planning and Research as part of the State's Wildfire and Forest Resilience Action Plan. The purpose of the pilot projects is to evaluate and recommend approaches to increasing the utilization of forest biomass in support of multiple benefits to the state. Cal FRAME has completed a feasibility study for Northeast California and is currently working on a study for the Central Sierra including the Mokelumne River Watershed. The draft report for the Central Sierra region will be shared with the Board when it is available.

Director Garamendi and Director Davidson expressed support for a Cal FRAME presentation at the October 6, 2023, meeting.

## **8. Legislative Issues Update**

The EO provided information regarding several state bills of interest to UMRWA including AB 338 which would make specified forest health work subject to California prevailing wage law, potentially resulting in a substantial increase in cost for this type of work. At its April 28 meeting, the UMRWA board voted to oppose this bill and an opposition letter was sent to the author on May 8, 2023. Earlier this month the bill was re-referred to the committee on appropriations. If enacted, the bill would become law on January 1, 2025, with a one-year delay for non-profits. Also discussed were several bond bills that would provide forest health and infrastructure funding.

AB 1567, as amended on May 26, 2023, would enact the Safe Drinking Water, Wildfire Prevention, Drought Preparation, Flood Protection, Extreme Heat Mitigation, Clean Energy and Workforce Development Bond Act of 2024, which, if approved by the voters, would authorize the issuance of bonds in the amount of \$15.995B to finance projects.

SB 638, as amended on June 28, 2023, would enact the Climate Resiliency and Flood Protection Bond Act of 2024, and would authorize \$6B in bonds mostly for flood control measures in the Central Valley with \$1B of this amount earmarked to help local agencies fund dam repairs and improvements.

SB 867 as amended on June 22, 2023, would enact the Drought and Water Resilience, Wildfire and Forest Resilience, Coastal Resilience, Extreme Heat Mitigation, Biodiversity and Nature-Based Climate Solutions, Climate Smart Agriculture, and Park Creation and Outdoor Access Bond Act of 2023, which, if approved by the voters, would authorize the issuance of \$15.5B in bonds to finance projects.

The EO noted that the bond bills are still in development and are likely to be combined into one bill that will be substantially less than \$15B.

Director Farrington shared information regarding AB 998 (Connolly) in conjunction with biomass energy facilities and if this is of interest to UMRWA have it discussed at the next meeting.

### **Board Member Comments:**

Director Oneto stated the historical success of more open forest use, removal of larger diameter trees during thinning practices and larger control burn treatments.

Director Coleman asked for information regarding how long the forest treatment's useful life is in relation to fire mitigation.

Director Gonzales would like to invite Tahoe/Yuba representatives to share their reports on the experience, efforts, and results of the Forest Resilience Bond funding system.

Director Farrington requested that staff continue to seek an accounting from the Eldorado NF of the \$21M in PG&E Power Fire settlement funds unspent as of early 2021. The EO noted that the Eldorado Forest Supervisor indicated there was only \$700,000 remaining. The EO will draft a letter to the ENF Supervisor requesting information on how these funds were spent. Director Farrington also requested a review of the UMRWA contribution formula for member agency annual assessments in the Joint Powers Agreement.

**Executive Officer Comments:**

The EO informed the Board that the 3<sup>rd</sup> amended JPA is awaiting the final signature and should be completed after the CPUD August meeting.

**ADJOURNMENT:** Director Coleman adjourned the meeting at 12:19 p.m. A Special Meeting will be held on August 25, 2023, and the next regular meeting will be held on October 6, 2023, at Pardee Center.

**SUBMITTED BY:**

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Lorna Barfield, Authority Secretary

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John Coleman, Chair of the Board

APPROVED: August 25, 2023





# Upper Mokelumne River Watershed Authority

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Agenda No: **2**

Meeting Date: August 25, 2023

Title:

Forest Projects Plan - Phase 1 Implementation Project

Recommended Actions:

Approve and authorize the Executive Officer to sign the General Services Agreement with BurnBot in the amount of \$3,672,000.

Summary:

On January 27, 2023, the Board approved the Forest Projects Plan (FPP) Phase 1 Plan and associated NEPA/CEQA clearances. This FPP Phase 1 fuels reduction implementation project, funded by a \$4,999,967 Cal Fire grant approved by the Board on April 22, 2022, will treat 2,295 acres in the Eldorado National Forest. On April 28, 2023, the Board authorized the release of Requests for Proposals for the general services work funded by Cal Fire (grant agreement 8GG21607).

FPP – Phase 1 Project:

This Phase 1 Project is the first in a series of fuel reduction implementation projects included in the FPP – Phase 1 Plan. The project area lies entirely within the Eldorado National Forest, Amador Ranger District, and parallels Highway 88. The Authority is implementing this project under a June 2023 Supplemental Project Agreement with Eldorado National Forest pursuant to Master Stewardship Agreement #16-SA-11052000-065 between the Authority and the Forest Service.

The 2,295 acres of treatment work to be performed by the contractor includes 2,262 acres mastication and 33 acres of hand thinning. The recommended contract allows for additional treatment acres based on yet-to-be determined budget availability.

Discussion:

Authority staff administered a request for proposals process for the FPP Phase 1 work. Prospective bidders on UMRWA's contractor list were each sent RFPs, and the RFP was also posted on UMRWA's website. Additionally, a pre-proposal contractor briefing was held July 18 at the Amador County Administration Building and was attended by approximately 25 contractor representatives.

Eight proposals were received for the project and were reviewed and rated by the Authority Selection Committee (comprised of UMRWA and USFS staff). BurnBot, Inc. (BurnBot) was determined by the committee to be the best-qualified proposer. Staff is recommending the Board approve a general services agreement with BurnBot.

The Selection Committee rated BurnBot highly in Approach and Technical Criteria, Experience, and References. Their proposal demonstrated an understanding of the requirements, scope, and project specifications, with provisions that exceed safety and fire precaution requirements. BurnBot plans to deploy eight masticators and support equipment with a work schedule indicating project completion by mid-August 2024.

According to its references, BurnBot performs quality work, often completes work ahead of schedule, and is considered an outstanding contractor and very cooperative to work with. BurnBot's proposal is within the UMRWA budget and equal to UMRWA's cost estimate. BurnBot is not a local service provider and is headquartered in South San Francisco. In summary, the Committee recommends awarding the FPP-Phase 1 general services agreement to BurnBot, Inc. based on affordability and work service delivery.

The table below summarizes the eight proposals received. Cal Forestry (Calaveras County) was the sole local contractor to submit a proposal.

Forest Projects Plan – Phase 1 (RFP 23-02):

Contractor	Local	Cost Mandatory Acres	Additional Per Acre Option
BurnBot	No	\$3,672,000	\$1,600
Markit!	No	\$3,626,100	\$1,720
GTS Forestry	No	\$4,475,250	\$1,950
High Sierra Timber	No	\$4,991,625	\$2,450
Double Tree	No	\$4,996,215	\$2,345
Sierra Valley Enterprises	No	\$5,960,115	\$2,897
Cal Forestry	Yes	\$6,253,875	\$2,700
West Forest	No	\$10,442,250	\$4,550

*NOTE: A draft copy of the recommended General Services Agreement is included in the Supplemental August 25, 2023, Agenda Materials Packet (provided separately).*



# Upper Mokelumne River Watershed Authority

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Agenda No: **3**

Meeting Date: August 25, 2023

Title:

FPP - Phase 1 Implementation Funding Strategy Follow-up

Recommended Actions:

For information and discussion; possible action.

Summary:

At the July 28 meeting the Board was presented a Funding Strategy designed to allow UMRWA to implement fuel reduction projects to treat the 26,000+ acres addressed in the Forest Projects Plan – Phase 1 (FPP-1). Two supporting presentations were also made to the Board that day, each addressing a specific funding element. These supporting presentations were:

- David Lach, Director of Environmental Products at Anew, provided an overview of the Avoided Wildfire Emissions carbon credit market.
- Matt Sjöholm and Nick Wobbrock, of Blue Forest Conservation, presented an update on progress being made towards a Forest Resilience Bond in support of UMRWA's forest work.

Following the Board's Funding Strategy discussion, staff was asked to schedule follow-up conversations with staff from other agencies that have experience with two of the key Funding Strategy elements – the Anew carbon credit market program, and Blue Forest's Forest Resilience Bond.

Arrangements are presently being made for the Board to host on-line conversations with staff members from Yuba Water Agency and Tahoe National Forest (for Forest Resilience Bond experiences) and Pit Resource Conservation District (an Anew carbon credit client).



# Upper Mokelumne River Watershed Authority

## *Supplemental Agenda Materials Packet - August 25, 2023 -*

### Table of Contents

<b>Agenda #</b>	<b>Agenda Item Title</b>	<b>Document Name</b>
2	Forest Projects Plan – Phase 1 Implementation Project	Draft General Services Agreement for Forest Projects Plan (Phase 1) in response to RFP No. 23-02 between UMRWA and BURNBOT, INC.

#### Members

Alpine County • Alpine County Water Agency • Amador County • Amador Water Agency • Calaveras County • Calaveras County Water District •  
Calaveras Public Utility District • East Bay Municipal Utility District • Jackson Valley Irrigation District

# UPPER MOKELUMNE RIVER WATERSHED AUTHORITY

## GENERAL SERVICES AGREEMENT

### for Forest Projects Plan (Phase 1) (In response to RFP No. 23-02)

THIS GENERAL SERVICES AGREEMENT ("Agreement") is entered into by and between the UPPER MOKELUMNE RIVER WATERSHED AUTHORITY, a joint powers agency formed pursuant to the laws of the State of California ("Authority") and BURNBOT, INC. ("Contractor").

Authority desires to obtain fuel treatment services ("the Services") which are more fully described in Exhibit A to this Agreement and;

Contractor is professionally and legally qualified to provide the Services and is willing to provide them to the Authority.

Now therefore it is agreed that Authority retains Contractor to provide the Services, and Contractor accepts such engagement, on the General Requirements specified in this Agreement, the attached Additional Provisions, and the following described exhibits, all of which are incorporated into this Agreement by this reference:

Exhibit A	Scope of Work and Project Map
Exhibit B	General Requirements
Exhibit C	Insurance Certificates (i.e. Workers Comp; Commercial Liability, Auto)
Exhibit D	Payment Terms and Procedures
Exhibit E	Specifications for Operations
Exhibit F	Contractor's RFP Response

The maximum compensation payable to the Contractor shall not exceed three million six hundred seventy-two thousand dollars (\$3,672,000) as shown below for the term of this Agreement.

Description	Unit of Measure	Estimated Quantity <sup>1</sup>	Unit Cost	Extended Cost
Item 1. Mastication & Hand Treatment	acre	2295	\$1,600	\$3,672,000
Item 2. Mastication and Hand Treatment; Optional Areas <sup>2</sup>	acre	0	\$ 1,600	\$ 0
<b>TOTAL COST ALL ITEMS</b>	<b>acre</b>	<b>2295</b>	<b>\$ 1,600</b>	<b>\$3,672,000</b>

<sup>1</sup>Quantities listed herein are an estimated quantity and are not to be construed as guarantees. No minimum or maximum is guaranteed or implied.

<sup>2</sup>Item 2 Optional Areas is not awarded at this time but may be awarded at a future date depending on available budget and Contractor performance. Any additional awarded acres and associated additional compensation shall be mutually agreed upon in writing by the Authority and Contractor.

Each party executing this Agreement warrants that he or she has authority to enter into this Agreement on behalf of the party for whom he or she signs. This Agreement shall become effective as of the date of the second signature below.

Term of Agreement: The term of this agreement begins on the date this agreement is executed by the Upper Mokelumne River Watershed Authority and terminates on October 31, 2025.

Notices: All notices herein provided to be given, or which may be given, by either party to the other, shall be deemed to have been fully given when made in writing, signed by an authorized representative, and hand delivered to a designated representative or deposited in the United States Postal Services, certified with return receipt requested, with postage prepaid and addressed as follows.

To Contractor: BurnBot, Inc.  
Blake Cadigan, Director of Operations  
310 Shaw Road, Suite D  
South San Francisco, CA 94080

To Authority: Upper Mokelumne River Watershed Authority  
Richard Sykes, Executive Officer  
15083 Camanche Parkway South  
Valley Springs, CA 95252

With a copy to:  
  
Gregory Gillott, Authority Counsel  
810 Court Street  
Jackson, CA 95642

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year below written.

UPPER MOKELUMNE RIVER WATERSHED  
AUTHORITY

CONTRACTOR: BURNBOT, INC.

BY: \_\_\_\_\_  
Richard Sykes, Executive Officer

BY: \_\_\_\_\_  
Blake Cadigan, Director of Operations

DATE: 08/25/2023

DATE: \_\_\_\_\_

Federal Tax I.D. No.: 87-1643555

Approved as to form:

BY: \_\_\_\_\_  
Greg Gillott, Authority Counsel

## EXHIBIT A

### SCOPE OF WORK

This project lies entirely within Eldorado National Forest Lands, on the Amador Ranger District and parallels Highway 88. The Authority is implementing this project under a Supplemental Project Agreement pursuant to Master Stewardship Agreement #16-SA-11052000-065 between the Authority and the Forest Service.

The project consists of natural forested stands, plantations, and aspen stands. In all areas, live and dead brush, dead trees, and live coniferous trees generally less than 10" diameter breast height (DBH) would be treated in order to reduce fuel loading which is leading to increased wildfire severity, intensity, and frequency.

### SPECIFIC REQUIREMENTS

Item Number	Description	Unit of Measure	Quantity <sup>1</sup>
1	Mastication and Hand Treatment	Acres	2295
<b>Total Project</b>		<b>Acres</b>	<b>2295</b>

<sup>1</sup>Quantities listed herein are an estimated quantity and are not to be construed as guarantees. No minimum or maximum is guaranteed or implied.

#### Item 1. Mastication and Hand Treatment

- Unit boundaries are identified virtually or as flagged on the ground with blue flagging.
- Contractor shall be required to navigate virtual boundary using GPS.
- Contractor shall be required to utilize a georeferencing software such as Avenza Maps or Esri FieldMaps to conduct all treatments. GPS units shall be capable of downloading unit location data from provided Geographic Information Systems, either in shapefile (.shp) or keyhole markup language (.kml).
- Contractor shall be required to have a GPS enabled device on each piece of equipment capable of 30 ft (9.1 meter) accuracy.

#### Mastication Specifications

- In natural forested stands masticate all live and dead brush, and live coniferous trees less than 10 inches diameter at breast height (dbh). In areas where trees are sparse thin trees less than 10 inches DBH to a spacing of 25 feet between stems. Non-merchantable trees and lodgepole pine up to 14 inches dbh shall also be masticated. Additional trees up to 14" dbh may be masticated if such removal is necessary to facilitate machinery movement within the stand.
- In aspen stands shown on the Project Map, masticate all live and dead brush, and live coniferous trees less than 12 inches dbh. Trees up to 14 inches dbh may be masticated if such



removal is necessary to facilitate machinery movement within the stand or to remove lodgepole pines.

- c. In plantations masticate all live and dead brush and live coniferous trees up to 10 inches dbh to a 25 x 25 foot spacing. Trees up to 14 inches dbh may be masticated when necessary to facilitate machinery movement within the stand. Trees are to be retained within the spacing described above in the following priority: 1) giant Sequoia, 2) sugar pine (free of white pine blister rust), 3) Douglas fir, 4) incense cedar, 5) ponderosa pine, 6) white fir. Retained trees shall be free of damage and defect. If all trees inside the spacing have defect or damage, retain the healthiest tree with highest species priority. Damage includes but is not limited to broken tops, broken branches, trunk scars and previous mechanical damage. Defect includes but is not limited to forked tops, crooks, conks, cankers, mistletoe and blister rust.
- d. Masticate all dead coniferous trees up to 15 inches dbh. In addition, all dead trees (snags) and unstable live trees tall enough to reach travelled roadways shall be felled to abate hazard. Such material shall be masticated unless otherwise agreed to be left in place.
- e. Existing surface fuels shall be masticated, mulched or crushed to a depth of less than 10".
- f. Within all units all leave trees shall be pruned to 12 feet above ground level, while retaining a minimum of 50% of the canopy. Machine pruning shall be permitted in mastication units provided the boles of leave trees are not damaged (e.g., retain approximately 6-inch stob).
- g. All masticated brush and coniferous trees shall be cut below the lowest live branch and have a stump height no higher than 8 inches above ground level on the uphill side or obstacles (i.e., large rocks, down logs).
- h. Debris resulting from the operation shall lie flat on the ground and not exceed 10 inches in depth. No masticated or cut material shall lean against or be suspended by a leave tree.
- i. To the extent practicable, no individual piece of slash or vegetative debris shall be greater than 3 feet in length.
- j. Protection of the residual trees shall be the highest priority in all operations.
- k. Soil displacement shall be minimized by working the masticating equipment in as straight a line as possible, up and down slopes, given the known limitations of residual trees and terrain.
- l. Hardwoods (black oak, aspen, willow, dogwood) and whitebark pine shall not be masticated, shredded, or damaged.
- m. To the extent practicable do not masticate existing down logs greater than 10 feet long and 16 inches diameter at the small end.
- n. Equipment shall be kept free of debris accumulations that may result in fire starts.
- o. The masticated/shredded material shall be evenly distributed over the treated areas so as to not leave large accumulations of slash. Concentrations of brush, slash, and small dead trees may need repeated treatment in order to satisfy desired work standards.
- p. Vegetative debris shall not be pushed into leave trees and left unshredded.
- q. Soils in the operating area must be dry enough to prevent rutting by a single pass of the equipment.
- r. Equipment shall not operate on slopes exceeding 40%.
- s. Mastication adjacent to Highway 88 must be conducted in a safe manner that does not result in debris onto the highway right-of-way.

## **Hand Thinning Plus Lop and Scatter or Chipping Specifications**

- a. In treatment units where mastication is unsuited or prohibited (too rocky, streamcourse buffers, too steep, wildlife exclusion areas, etc.) hand thinning shall be required in accordance with specifications herein.
- b. All brush and live conifer trees over 1 foot in height and up to 10 inches dbh shall be felled, lopped and scattered or chipped. Non-merchantable trees and lodgepole pine up to 14 inches dbh shall also be felled, lopped and scattered or chipped. In aspen stands shown on the Project Map where slopes exceed 40%, hand cut all live and dead brush, and live coniferous trees less than 12 inches dbh.
- c. Within wildlife areas designated on the Project Map (CA-5) and flagged on the ground with pink and black striped flagging, hand cutting of conifer trees shall be limited to conifer trees less than 6 inches dbh.
- d. Hand cut all dead coniferous trees up to 15 inches dbh. In addition, all dead trees (snags) tall enough to reach travelled roadways shall be felled to abate hazard.
- e. All trees shall be cut below the lowest live limbs, except when prevented by natural obstacles. All live limbs below the cutting point shall be removed. Trees shall be completely severed from the stump.
- f. Within all hand treatment areas, all leave trees shall be pruned to 8 feet above ground level, while retaining a minimum of 50% of the canopy.
- g. Lop and Scatter or chip all vegetative material associated with cut trees and pruning to a maximum slash depth of 10 inches.
- h. Piece length shall be less than or equal to 8 feet and scattered at least 4 feet away from residual trees.
- i. Cut trees shall be felled away from unit boundaries, roads, telephone lines, established trails, stock driveways, fence lines, established land corners and streams. Any trees falling on such areas shall be removed, or left standing if damage to improvement would result.
- j. All stump heights shall be no higher than 8 inches above ground level on the uphill side.

## **Equipment Requirements**

- a. Contractor shall provide machinery that is suitable for the job and minimizes soil disturbance.
- b. All equipment and power tools shall comply with Fire Precautions and Control (Exhibit C).

## **Resource Protection Measures**

- a. Tracks or wheels of equipment shall not operate within 50 feet of perennial or intermittent streams, within 50 feet of wet areas, meadows, or fens, nor within 15 feet of ephemeral streams, unless a larger exclusion area is flagged on the ground and/or noted on the Project Area Map (e.g., 100-foot stream buffers in units 7 and 68). An articulating masticating head may operate within exclusion areas, except as noted below for Dufrene Pond. Equipment shall not cross meadows, wet stream channels, or other non-work areas. Riparian vegetation shall not be shredded, cut or damaged.
- b. Tracks or wheels of equipment shall not operate within 50 feet of the exclusion fencing around Dufrene Pond. Mechanical equipment operations shall not occur along the north side of Road 08N18 in front of Dufrene Pond (from where the outlet stream meets the roadside ditch to approximately Latitude 38.576155 Longitude -120.252513). An articulating masticator head is

not allowed within the exclusion zone for Dufrene Pond, but hand thinning, pruning, and hazard tree falling are allowed.

- c. Unless otherwise agreed, no operations shall be permitted within areas identified as CA-1 or CA-2 on the Project Map and/or flagged with pink plus green, pink and black checkered, or orange "Noxious Weed" flagging and/or behind "Area Controlled" signs.
- d. Should any Threatened, Endangered or Eldorado National Forest Sensitive species be detected during any phase of the project, the UMRWA Project Inspector shall be notified, and adjustments to the project will be evaluated and may be made accordingly.
- e. When working above 7,000 feet, areas with potential habitat for whitebark pine shall be assessed for stand-health and delineated for avoidance by UMRWA. Hand-thinning or mastication shall not occur within delineated stands of whitebark pine.
- f. Lava cap plant communities shall be protected from motorized equipment and vehicles. All project related equipment and vehicles shall remain on existing road corridors within lava caps; including no parking off road, heavy equipment travel, etc.
- g. Storage of fuel or other toxic materials and maintenance of equipment shall not occur within Riparian Conservation Areas defined as 300 feet on each side of perennial streams and from the edge of special aquatic features (lakes, wet meadows, bogs, fens, wetlands, vernal pools, and springs), and 150 feet from each side intermittent and ephemeral streams. For streams, the RCA is measured from the bank full edge of the stream.
- h. Refer to Exhibit C Specifications for Operations for additional Protection Measures.

#### **Limited Operating Periods and Schedule for Completion**

- a. Work undertaken during the 2023 field season shall only occur in areas where archeological survey and botanical surveys for Forest Service Sensitive Species and invasive plants have been completed. The survey work will be ongoing during the 2023 field season through approximately the end of August. The UMRWA Operations Manager or his designee shall assist the Contractor in coordinating its plan of operations with the botanical and archeological survey progression.
- b. A minimum of **60%** of project acres shall be completed by **November 30, 2024** unless otherwise agreed.
- c. Limited operating periods (LOPs) described in Exhibit C. item 4. apply to the operations within all project areas as designated on the Project Map, unless waived by the Forest Service. CA-3: No Operations between March 1 and August 15, inclusive. CA-4: No Operations between February 15 and September 15, inclusive. Contractor should not rely on LOPs being waived and is encouraged to work in LOP areas following award in 2023 to ensure their timely completion.

#### **Road and Trail Use Applicable to All Items**

- a. All roads leading into each project area and trails within units are to be kept open and cleared of any debris that may occur as a result of the work. When accessing treatment units by means of State Route Highway 88, Contractor shall park their vehicles and/or equipment entirely off of the roadway in areas of low vegetative growth, bare mineral soil or rock, or in designated pullouts. Contractor shall exercise extreme caution and awareness of surroundings when entering or leaving the highway. Contractor shall access units in a manner that protects the safety of themselves and their employees, as well as, the general public.

- b. Road signs indicating warning of work in progress are required at the beginning of any road and/or OHV trail while the operator is working in the vicinity and material from operator's work might cause a hazard to the general public using these trails/roads.

**Project units are listed in the treatment table below and included on the Project Map. Units were identified using Geographical Information System data from various sources.**

<b>Item 1: Mandatory Units</b>	<b>Mastication Acres (units may include unmapped areas requiring hand treatment)</b>	<b>CA-5 Acres Hand Treatment &lt;6"</b>
P1PP_Unit_1	119	
P1PP_Unit_2	18	
P1PP_Unit_23	94	
P1PP_Unit_24	13	
P1PP_Unit_25	100	
P1PP_Unit_26	61	
P1PP_Unit_27	14	
P1PP_Unit_3	56	
P1PP_Unit_37	23	
P1PP_Unit_38	40	
P1PP_Unit_39	15	
P1PP_Unit_4	95	
P1PP_Unit_40	30	
P1PP_Unit_41	119	
P1PP_Unit_42	126	
P1PP_Unit_43	55	
P1PP_Unit_44	102	
P1PP_Unit_45	53	
P1PP_Unit_46	31	
P1PP_Unit_48	109	
P1PP_Unit_49	54	
P1PP_Unit_5	67	
P1PP_Unit_52	87	
P1PP_Unit_53	58	
P1PP_Unit_54	71	
P1PP_Unit_54_CA-5		12
P1PP_Unit_55	57	
P1PP_Unit_55_CA-5		6
P1PP_Unit_56	106	
P1PP_Unit_57	26	
P1PP_Unit_58	91	
P1PP_Unit_59	64	
P1PP_Unit_59_CA-5		15
P1PP_Unit_63	98	
P1PP_Unit_65	74	
P1PP_Unit_66	36	

<b>Item 1: Mandatory Units</b>	<b>Mastication Acres</b> (units may include unmapped areas requiring hand treatment)	<b>CA-5 Acres Hand Treatment &lt;6"</b>	
P1PP_Unit_67	17		
P1PP_Unit_70	31		
P1PP_Unit_71	31		
P1PP_Unit_72	21		
<b>Total:</b>	<b>2262</b>	<b>33</b>	<b>2295</b>

### **Required Reporting**

Contractor shall submit the following employment information monthly during periods when operations are ongoing.

Job Classification	Total Work Hours This Invoice Period	Average Hourly Wage	No. Workers Trained in Industry-Recognized Credential
Ag/Forestry/Fishing/Hunting			
Transportation/Warehouse			

Employer Paid Health Insurance: Y / N (circle one)

Paid Leave: Y / N (circle one)

Retirement Plan: Y / N (circle one)

### **Additional Specifications for Operations: Applies to all items.**

- a. Refer to Exhibit E Specifications for Operations.

**PROJECT AREA MAP is attached as a separate document; areas identified on the Project Area Map as Optional are not currently awarded under this contract.**

## EXHIBIT B

### GENERAL REQUIREMENTS

#### CONTENTS

1. DEFINITIONS
2. CONTRACTOR'S FINANCIAL OBLIGATION
3. MATERIAL AND WORKMANSHIP
4. DEFECTIVE WORK
5. SAFETY AND ACCIDENT PREVENTION
6. CHARACTER OF WORKFORCE
7. CHANGES
8. EFFECT OF EXTENSIONS OF TIME
9. DELAYS
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19. RIGHTS AND REMEDIES OF THE AUTHORITY
20. WAIVER OF RIGHTS
21. CONFIDENTIALITY

#### **1. DEFINITIONS**

The following terms shall be given the meaning shown, unless context requires otherwise or a unique meaning is otherwise specified.

- a. **"Authority"** means the Upper Mokelumne River Watershed Authority, its employees acting within the scope of their authority, and its authorized representatives.
- b. **"Change Order"** A Change Order is a written instrument used for modifying the contract with regards to the scope of Work, contract sum, and/or Contract Time. An approved Change Order is a Change Order signed by the Authority. An executed Change Order is a Change Order signed by both the Authority and the Contractor.
- c. **"Contract"** means the agreement between the Authority and Contractor as memorialized in the Contract Documents.
- d. **"Business Entity"** means any individual, business, partnership, joint venture, corporation, sole proprietorship, or other private legal entity recognized by statute.
- e. **"Buyer"** means the Authority's authorized contracting official.
- f. **"Contract Documents"** comprise the entire agreement between the Authority and the

Contractor and can include the Authority's contract form if used, any purchase order, RFP, RFQ or Contractor response packet, and any addenda, appendices and Authority approved changes or amendments. The Contract Documents are intended to be complementary and include all items necessary for the Contractor's proper execution and completion of the Work. Any part of the Work not shown or mentioned in the Contract Documents that is reasonably implied, or is necessary or usual for proper performance of the Work, shall be provided by the Contractor at its expense.

- g. **"Contractor"** means the Business Entity with whom the Authority enters into a contractual agreement. Contractor shall be synonymous with "supplier", "vendor", "consultant" or other similar term.
- h. **"Day"** unless otherwise specified, days are calendar days, measured from midnight to the next midnight.
- i. **"Goods"** means off the shelf software and all types of tangible personal property, including but not limited to materials, supplies, and equipment.
- j. **"Project Manager"** shall be the Authority designated individual responsible for administering and interpreting the terms and conditions of the Contract Documents, for matters relating to the Contractor's performance under the Contract with the Authority, and for liaison and coordination between the Authority and Contractor.
- k. **"Work"** means all labor, tasks, materials, supplies, and equipment required to properly fulfill the Contractor's obligations as required in the Contract Documents.
- l. **"Work Day"** Unless otherwise specified, work day includes all days of the year except Saturdays, Sundays and Authority holidays.

## **2. CONTRACTOR'S FINANCIAL OBLIGATION**

The Contractor shall promptly make payments to all persons supplying labor and materials used in the execution of the contract.

## **3. MATERIAL AND WORKMANSHIP**

- a. All work shall be done and completed in a thorough, workmanlike manner, notwithstanding any omission from these specifications or the drawings, and it shall be the duty of the Contractor to call attention to apparent errors or omissions and request instructions before proceeding with the work. The Project Manager may, by appropriate instructions, correct errors and omissions, which instructions shall be binding upon the Contractor as though contained in the original Contract Documents.
- b. All work must be satisfactory to the Project Manager. Work not in accordance with the Contract Documents, in the opinion of the Project Manager, shall be made to conform.

## **4. DEFECTIVE WORK**

The Contractor shall replace at its own expense any part of the work that has been improperly executed, as determined by the Project Manager. If Contractor refuses or neglects to replace such defective work, it may be replaced by the Authority at the expense of the Contractor, and its sureties shall be liable therefore.

**5. SAFETY AND ACCIDENT PREVENTION**

In performing work under the Contract on Authority premises, Contractor shall conform to any specific safety requirements contained in the Contract or as required by law or regulation. Contractor shall take any additional precautions as the Authority may reasonably require for safety and accident prevention purposes. Any violation of such rules and requirements, unless promptly corrected, shall be grounds for termination of this Contract or Contractor's right to preceed in accordance with the default provisions of the Contract Documents.

**6. CHARACTER OF WORKFORCE**

The Contractor shall employ none but skilled competent qualified personnel to perform the Work, and shall maintain discipline and order in the conduct of the Work at all times.

**7. CHANGES**

- a. Changes in the Work can only be made in writing signed by an authorized employee of the Authority. If the change causes an increase or decrease in the contract sum, or a change in the time for performance under the Contract, an adjustment may be made as determined by the Project Manager.
- b. The Authority reserves the right to make changes in the design of materials, equipment, or machinery, to make alterations or additions to or deviations or subtractions from the Contract and any specifications and drawings, to increase or decrease the required quantity of any item or portion of the Work or to omit any item or portion of the Work, as may be deemed by the Project Manager to be necessary or advisable and to order such extra work as may be determined by the Project Manager to be required for the proper execution and completion of the whole Work contemplated. Any such changes will be ordered in writing by the Project Manager. The determination of the Project Manager on all questions relating to changes, including extra work, shall be conclusive and binding.
- c. Prior to issuing an amendment or change to the Contract, the Project Manager may request that the Contractor submit a proposal covering the changes. Within 10 business days of receiving the request, the Contractor shall submit its proposal to the Project Manager of all costs associated with the proposed amendment or change and any request for an extension of Contract time. Contractor's proposal shall include detailed estimates with cost breakdowns, including labor, material, equipment, overhead, and profit. Labor shall be broken down into hours and rate per hour. If applicable, the proposal shall include a breakdown for off-site labor (including factory labor, engineering, etc.). The Contractor's proposal shall include an analysis of schedule impact when the Contractor is requesting an adjustment in contract time. The Contractor shall be responsible for any delay associated with its failure to submit its change proposal within the time specified. If the Project Manager decides not to issue an amendment or change after requesting a proposal from the Contractor, the Contractor will be notified in writing. The Contractor is not entitled to reimbursement for Change Order preparation costs if the Contractor's proposal is not accepted by the Project Manager.
- d. If the Contractor agrees with the terms and conditions of the approved Change Order,



the Contractor shall indicate its acceptance by signing the original copy and returning it to the Project Manager within 10 Work Days after receipt or with reasonable promptness and in such sequence as to not delay the Work or activities of the Authority or of separate contractors, whichever is sooner. If notice of any change is required to be given to a surety by the provisions of any bond, the Contractor shall provide notice and the amount of each applicable bond shall be adjusted separately. Payment in accordance with the terms and conditions set forth in the executed Change Order shall constitute full compensation for all Work included in the Change Order and the Authority will be released from any and all claims for direct, indirect, and impact expenses and additional time impact resulting from the Work. If the Contractor disagrees with the terms and conditions of the approved Change Order, the Contractor shall indicate specific areas of disagreement and return the approved Change Order to the Project Manager with a detailed written dispute. No payment will be made on the disputed work until the approved Change Order is returned to the Project Manager. However, whether or not the Contractor agrees with the terms and conditions of an approved Change Order, the Contractor shall immediately revise its sequence of operations as required to facilitate timely completion of the changed work and shall proceed with the revised work sequence.

- e. The Project Manager may, after having received a written cost quotation from the Contractor, order the Contractor, in writing, to proceed with the work prior to issuance of an approved Change Order through a change directive. The change directive will authorize the Contractor to proceed with the work subject to the cost quotation submitted by the Contractor. Within five days following receipt of the change directive, the Contractor shall submit a detailed change proposal documenting the amount of compensation. The Project Manager will review the change proposal and, at its option, will either issue an approved Change Order for the work or direct the Contractor to perform the work through Force Account. Until the method of compensation is determined and the approved Change Order is received, the Contractor shall keep full and complete time and material records of the cost of the ordered work and shall permit the Project Manager to have access to such records. An approved Change Order shall supersede any previously issued written change directive covering the same Work.

## **8. EFFECT OF EXTENSIONS OF TIME**

The granting, or acceptance, of extensions of time to complete the Work or furnish the labor, supplies, materials or equipment, or any one of the aforementioned, will not operate as a release of Contractor or the surety on Contractor's faithful performance bond.

## 9. DELAYS

- a. The Contractor shall take reasonable precautions to foresee and prevent delays to the Work. When the Contractor foresees a delay event, and upon the occurrence of a delay event, the Contractor shall immediately notify the Project Manager of the probability or the actual occurrence of a delay, and its cause. With respect to all delays (compensable, excusable or inexcusable), the Contractor shall reschedule the Work and revise its operations, to the extent possible, to mitigate the effects of the delay. Within 15 days from the beginning of a delay the Contractor shall provide the Project Manager with a detailed written description of the delay, its cause, its impact and the Contractor's mitigation plans. Failure to provide the notification required above waives the Contractor's right to any additional time or compensation resulting from the delay for whatever cause. The Project Manager will investigate the facts and ascertain the extent of the delay, and the Project Manager's findings thereon shall be final and conclusive, except in the case of gross error. An extension of time must be approved by the Project Manager to be effective, but an extension of time, whether with or without consent of the sureties, shall not release the sureties from their obligations, which shall remain in full force until the discharge of the contract.
- b. For inexcusable delays (delays caused by circumstances with in the Contractor's control, the control of its subcontractors or supplies of any tier, or within the scope of the Contractor's contract responsibilities) the Contractor shall not be entitled to an extension of time or additional compensation for any loss, cost, damage, expense or liability resulting directly or indirectly from the inexcusable delay.
- c. For excusable delays (delays to completion of the Work within the time limits set forth in the Contract Documents directly caused by events beyond the control of both the Contractor and the Authority, which delay is not concurrent with an inexcusable delay and which could not have been avoided by the Contractor through reasonable mitigation measures).
- d. For compensable delays (delays to completion of the Work within the time limits set forth in the Contract Documents that could not be avoided by Contractor mitigation, caused directly and solely by the Authority or by causes within the exclusive control of the Authority, and which were not concurrent with any other type of delay) the Project Manager will grant the Contractor an extension of the time to perform under the Contract and compensation in an amount that represents the Contractor's actual direct costs incurred as a direct result of the compensable delay. The Contractor may recover its direct costs only and may not recover (and waives) all other types of indirect, consequential, special and incidental damages.
- e. For concurrent delays (two or more independent causes of delay directly preventing the Contractor from completing the Work within the time limits set forth in the Contract Documents where the delays occur at the same time during all or a portion of the delay period being considered, and where each of the delays would have caused delay to the Contractor even in the absence of any of the other delays, and none of the delays could have been avoided by Contractor mitigations) the following rules apply:

- i. One or more of the concurrent delays are excusable or compensable, then the period of concurrent delay will be treated as an excusable delay; and
- ii. All of the concurrent delays are inexcusable, then the period of concurrent delay will be inexcusable.

## 10. TERMINATION

### a. Termination by the Authority for Cause:

- i. Authority may terminate the Contractor's right to proceed under the Contract, in whole or in part, for cause at any time after the occurrence of any of the following events, each of which constitutes a default:
  1. The Contractor becomes insolvent or files for relief under the bankruptcy laws of the United States.
  2. The Contractor makes a general assignment for the benefit of its creditors or fails to pay its debts as the same become due.
  3. A receiver is appointed to take charge of the Contractor's property.
  4. The Contractor fails to supply skilled supervisory personnel, an adequate number of properly skilled workers, proper materials, or necessary equipment to prosecute the Work in accordance with the Contract Documents.
  5. The Contractor fails to make progress so as to endanger performance of the Work within the contractually required time.
  6. The Contractor disregards legal requirements of agencies having jurisdiction over the Work, the Contractor, or the Authority.
  7. The Contractor fails to provide the Authority with a written plan to cure an Authority identified default within five business days after the Authority's request for a plan to cure; the Authority does not accept the Contractor's plan for curing its default; or the Contractor does not fully carry out an accepted plan to cure.
  8. The Contractor abandons the Work. Abandonment is conclusively presumed when the Authority requests a written plan to cure a default and the Contractor does not submit the plan within five business days of the Authority's request.
  9. The Contractor materially fails to meet its obligations in accordance with the Contract Documents.
  10. The Contractor is in default of any other material obligation under the Contract Documents.
- ii. If any of the above events occur, the Authority may, in its discretion, require that the Contractor submit a written plan to cure its default, which plan must be

provided to the Authority within 5 business days of the request and must include a realistic, executable plan for curing the noted defaults.

- iii. Upon any of the occurrences referred to in Article 18.a.i. above, the Authority may, at its election and by notice to the Contractor, terminate the Contract in whole or in part; accept the assignment of any or all of the subcontracts; and then complete the Work by any method the Authority may deem expedient. If requested by the Authority, the Contractor shall remove any part or all of the Contractor's materials, supplies, equipment, tools, and machinery from the site of the Work within seven days of such request; and, if the Contractor fails to do so, the Authority may remove or store, and after 90 days sell, any of the same at the Contractor's expense.
- iv. No termination or action taken by the Authority after termination shall prejudice any other rights or remedies of the Authority provided by law or by the Contract Documents.
- v. Conversion: If, after termination for other than convenience, it is determined that the Contractor was not in default or material breach, or that the default or material breach was excusable, the rights and obligations of the parties shall be the same as if the termination had been issued for convenience pursuant to Article 18.b. below.

b. Termination by the Authority for Convenience:

- i. The Authority may, at its option, and for its convenience, terminate the Contract at any time by giving written notice to the Contractor specifying the effective date of termination. Upon such termination, the Contractor agrees to comply with the notice and further agrees to waive any claims for damages, including loss of anticipated profits, on account of the termination; and, as the sole right and remedy of the Contractor, the Authority shall pay the Contractor as set forth below.
- ii. Upon receipt of a notice of termination for convenience, the Contractor shall, unless the notice directs otherwise, do the following:
  - 1. Immediately discontinue its performance of the Contract to the extent specified in the notice.
  - 2. Place no further orders or subcontracts for materials, equipment, services, or facilities, except as may be necessary for completion of a portion of the Work that is not discontinued or that is necessary for an orderly cessation of the Work.
  - 3. Promptly cancel, on the most favorable terms reasonably possible, all subcontracts to the extent they relate to the performance of the discontinued portion of the Work.
  - 4. Thereafter, do only such Work as may be necessary to preserve and protect

Work already in progress and to protect materials, plants, and equipment in transit to or on the site of performance.

- iii. Upon such termination for convenience, the Authority will pay to the Contractor the sum of the following:
    - 1. The amount of the contract sum allocable to the portion of the Work properly performed by the Contractor as of the effective date of termination, less sums previously paid to the Contractor.
    - 2. Previously unpaid costs of any items delivered to the project site that were already fabricated for subsequent incorporation into the Work.
    - 3. Any proven losses with respect to materials and equipment directly resulting from the termination.
    - 4. Reasonable demobilization costs.
  - iv. The above reimbursement is the sole and exclusive remedy to which the Contractor is entitled in the event the contract is terminated for convenience; and the Contractor expressly waives any other claims, damages, demands, compensation or recovery related to this contract or project. The Contractor agrees to sign a general release incorporating this waiver.
- c. Effect of Termination: Upon termination, the obligations of the Contract shall continue as to portions of the Work already performed and, subject to the Contractor's obligations under Article 18.b.ii, as to bona fide obligations assumed by the Contractor prior to the date of termination.
- d. Force Majeure: If the contract is suspended or terminated by the Authority because Contractor's performance is prevented or delayed by an event including an irresistible, superhuman cause, or by the act of public enemies of the State of California or of the United States ("Force Majeure"), the Contractor will be paid for Work performed prior to the Force Majeure event at either (i) the unit prices named in the Contract; or (ii) in the event no unit prices are named, a sum equal to the percentage of the total contract amount that matches the percentage of the total contract Work performed prior to the Force Majeure event.

## **11. DAMAGES**

All losses or damages to material or equipment to be furnished pursuant to the Contract Documents occurring prior to receipt and final acceptance of the Work shall be sustained by the Contractor. The Contractor shall sustain all losses arising from unforeseen obstructions or difficulties, either natural or artificial, encountered in the prosecution of the Work, or from any action of the elements prior to final acceptance of the work, or from an act or omission on the part of the Contractor not authorized by the Contract Documents.

## **12. ORDER OF PRECEDENCE**

- a. In the case of conflicts, errors, or discrepancies in any of the Contract Documents, the

order of precedence is as follows. Within the same order of precedence, specific requirements shall take precedence over general requirements.

- i. Approved Change Orders.
- ii. Addenda.
- iii. RFQ or RFP.
- iv. Referenced Standard Specifications and Drawings.
- v. Contractor's Response Packet

### **13. INDEMNIFICATION/RESPONSIBILITY**

- a. Contractor shall indemnify, keep and save harmless the Authority and each of its directors, officers, agents and employees against any and all suits, claims or actions arising out of any of the following:
  - i. Any injury to persons or property that may occur, or that may be alleged to have occurred, arising from the performance or implementation of this Contract; or
  - ii. Any allegation that materials or services developed, provided or used for this Contract infringe or violate any copyright, trademark, patent, trade secret, or any other intellectual-property or proprietary right of any third party.
- b. Contractor further agrees to defend any and all such actions, suits or claims and pay all charges of attorneys and all other costs and expenses of defenses as they are incurred. If any judgment is rendered, or settlement reached, against the Authority or any of the other agencies or individuals enumerated above in any such action, Contractor shall, at its expense, satisfy and discharge the same.
- c. This indemnification shall survive termination or expiration of the Contract.

### **14. PROHIBITION OF ASSIGNMENT**

The Contractor shall not assign, transfer, or otherwise dispose of any of its rights, duties or obligations under this Contract.

### **15. NEWS RELEASES**

The Contractor, its employees, subcontractors, and agents shall not refer to the Authority, or use any logos, images, or photographs of the Authority for any commercial purpose, including, but not limited to, advertising, promotion, or public relations, without the Authority's prior written consent. Such written consent shall not be required for the inclusion of the Authority's name on a customer list.

### **16. TRANSFER OF INTEREST**

Contractor shall not assign, transfer or otherwise substitute its interest in the Contract or any of the contract obligations without prior written consent from the Authority.

### **17. SEVERABILITY**

Should any part of the Contract be declared by a final decision by a court or tribunal of competent jurisdiction to be unconstitutional, invalid or beyond the authority of either party to

enter into or carry out, such decision shall not affect the validity of the remainder of the Contract, which shall continue in full force and effect, provided that the remainder of the Contract can be interpreted to give effect to the intentions of the parties.

**18. COVENANT AGAINST GRATUITIES**

The Contractor warrants that no gratuities (in the form of entertainment, gifts, or otherwise) were offered or given by the Contractor, or any agent or representative of the Contractor, to any officer or employee of the Authority with a view toward securing the Contract or securing favorable treatment with respect to any determinations concerning the performance of the Contract. For breach or violation of this warranty, the Authority shall have the right to terminate the Contract, either in whole or in part, and any loss or damage sustained by the Authority in procuring on the open market any items which Contractor agreed to supply shall be borne and paid for by the Contractor. The rights and remedies of the Authority provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or in equity.

**19. RIGHTS AND REMEDIES OF THE AUTHORITY**

The rights and remedies of the Authority provided herein shall not be exclusive and are in addition to any other rights and remedies provided by law or under the Contract.

**20. WAIVER OF RIGHTS**

Any action or inaction by the Authority or the failure of the Authority on any occasion, to enforce any right or provision of the Contract, shall not be construed to be a waiver by the Authority of its rights and shall not prevent the Authority from enforcing such provision or right on any future occasion. Rights and remedies are cumulative and are in addition to any other rights or remedies that the Authority may have at law or in equity.

**21. CONFIDENTIALITY**

Contractor agrees to maintain in confidence and not disclose to any person or entity, without the Authority's prior written consent, any trade secret or confidential information, knowledge or data relating to the products, process, or operation of the Authority. Contractor further agrees to maintain in confidence and not to disclose to any person or entity, any data, information, technology, or material developed or obtained by Contractor during the term of the Contract. The covenants contained in this paragraph shall survive the termination of this Contract for whatever cause.

## EXHIBIT C

### INSURANCE CERTIFICATES

CONTRACTOR shall take out and maintain during the life of the Agreement all the insurance required in this section, and if requested shall submit certificates for review and approval by the Authority. The Notice to Proceed shall not be issued, and CONTRACTOR shall not commence work until such insurance has been approved by the Authority. Acceptance of the certificates shall not relieve CONTRACTOR of any of the insurance requirements, nor decrease the liability of CONTRACTOR. The Authority reserves the right to require CONTRACTOR to provide insurance policies for review by the Authority.

#### A. Workers Compensation Insurance

CONTRACTOR shall take out and maintain during the life of the Agreement Workers Compensation Insurance for all of its employees on the project. In lieu of evidence of Workers Compensation Insurance, the Authority will accept a Self-Insured Certificate from the State of California. CONTRACTOR shall require any subcontractor to provide it with evidence of Workers Compensation Insurance.

#### B. Commercial General Liability Insurance

CONTRACTOR shall take out and maintain during the life of the Agreement Automobile and General Liability Insurance that provides protection from claims which may arise from operations or performance under this Agreement. If CONTRACTOR elects to self-insure (self-fund) any liability exposure during the contract period above \$50,000, CONTRACTOR is required to notify the Authority immediately. Any request to self-insure must first be approved by the Authority before the changed terms are accepted. CONTRACTOR shall require any subcontractor or Professional Service Provider to provide evidence of liability insurance coverages.

The amounts of insurance shall be not less than the following:

\$1,000,000/Occurrence, Bodily Injury, Property Damage -- Automobile.

\$1,000,000/Occurrence, Bodily Injury, Property Damage -- General Liability.

The following coverages or endorsements must be included in the policy(ies):

1. The Authority, its Directors, officers, and employees are Additional Insureds in the policy(ies) as to the work being performed under the contract.
2. The coverage is *Primary and non-contributory* to any other applicable insurance carried by the Authority.
3. The policy(ies) covers *contractual liability*.
4. The policy(ies) is written on an *occurrence* basis.



5. The policy(ies) covers the Authority's Property in Consultant's care, custody, and control.
6. The policy(ies) covers *personal injury* (libel, slander, and wrongful entry and eviction) liability.
7. The policy(ies) covers explosion, collapse, and underground hazards, fire suppression expense, property damage to forest land due to fire, and property damage to non-owned automobiles and equipment due to fire.
8. The policy(ies) covers *products and completed operations*.
9. The policy(ies) covers the use of *owned, non-owned*, and hired automobiles.
10. The policy(ies) and/or a separate pollution liability policy(ies) shall cover pollution liability for claims related to the release or the threatened release of pollutants into the environment arising out of or resulting from Consultant's performance under this agreement.

The policy(ies) will not be canceled nor the above coverages/endorsements reduced without 30 days written notice to Authority at the address above.

## EXHIBIT D

### PAYMENT TERMS AND PROCEDURES

Contractor shall submit monthly invoices for work performed during the preceding period. Invoices shall contain, at a minimum, the job name and Authority agreement number, invoice number, remit to address, and itemized description of the work completed or the basis for payment.

Prior to making any payment, the Project Manager may require Contractor to furnish lien releases conforming to the requirements of California Civil Code section 8120, *et seq.*, receipts or other evidence of payment from all persons performing work and supplying material to Contractor.

Payment of all undisputed charges shall be made by the Authority within 30 days of receipt of the invoice. Disputed charges, along with supporting documentation that demonstrates the reasonableness of the dispute, must be communicated by Authority to the Contractor within 20 days of receipt of the invoice. Payments shall not be considered as acceptance by Authority of the whole or any part of the Work done up to that payment or to relieve Contractor from any of its obligations under the Agreement.

The Authority may withhold or nullify the whole or part of any payment as set out in this Agreement to protect the Authority from loss on account of any of the following:

- (a) Defective work not remedied.
- (b) Third party claims filed.
- (c) Failure of Contractor to make payments properly owed to subcontractors.
- (d) Reasonable evidence that the Work cannot be completed for the unpaid amount of the Contract.

The Authority will pay amount due Contractor not to exceed the maximum amount referenced on page one of this agreement.

## EXHIBIT E

### SPECIFICATIONS FOR OPERATIONS

The following Specifications for Operations apply to activities under this Contract.

1. **Project Map (Map).** This is the boundary of the Treatment Units as shown on the Map and designated on the ground. The following are identified on the Map as applicable:
  - a) Identified patented claims.
  - b) Boundaries of all treatment units.
  - c) Areas where leave trees are marked to be left uncut.
  - d) Roads where use is prohibited or restricted.
  - e) Roads and trails to be kept open.
  - f) Improvements to be protected.
  - g) Locations of known wildlife or plant habitat and cave resources to be protected.
  - h) Locations of areas known to be infested with specific invasive species of concern.
  - i) Streamcourses to be protected.
  - j) Locations of meadows requiring protection.
  - k) Locations of wetlands requiring protection.

2. **Control of Operations.** Under this Contract, “Contractor’s Operations” shall include activities of or use of equipment of the Contractor, the Contractor’s employees, agents, subcontractors, or their employees or agents, acting in the course of their employment in operations hereunder on national forest lands or within U.S. Forest Service protection boundary (unless acting under the immediate supervision of U.S. Forest Service).

Contractor’s Operations shall be conducted in a workmanlike and orderly manner. The timing of any required UMRWA designation of work on the ground and the performance of other U.S. Forest Service work shall not be such as to cause unnecessary delay to Contractor.

3. **Project Operations Schedule.** Contractor shall schedule and conduct operations so that they do not conflict with operations being conducted under existing contracts within the Project Area. Contractor shall reach agreement on operations with other contractors or adjust operations to eliminate the conflict.
4. **Wildlife Restrictions.** All units that fall within wildlife Controlled Areas as designated on the Project Map:
  - a) Controlled Area CA-3: No Operations between March 1 and August 15, inclusive.
  - b) Controlled Area CA-4: No Operations between February 15 and September 15, inclusive.
  - c) Controlled Area CA-5: Areas flagged with pink and black striped flagging where Hand Thinning up to maximum 6 inches dbh required.
5. **Use of Roads by the Contractor.** Contractor is/are authorized to use existing National Forest system roads when such use will not cause damage to the roads or National Forest resources. UMRWA and the Forest Service will determine if such use will not cause damage to the roads or National Forest resources.
6. **Snow Removal.** If Contractor removes snow from roads, such work shall be done with UMRWA 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 6-inch snow depth must be left to protect roadway. If the road surface is damaged, Contractor shall replace lost surface material and repair structures damaged in blading operations.

7. **Protection of Residual Trees.** Contractor's operations shall not unnecessarily damage young growth or other trees to be reserved.
8. **Protection of Buried Utilities.** Contractor shall contact the Underground Service Alert of Northern California and Nevada at 811 or 800-642-2444 prior to operations to request the known locations of buried utilities be marked to avoid unintentional damage.
9. **Safety.** Contractor's operations shall facilitate UMRWA's safe and practical inspection of Contractor's operations and conduct of other official duties on the Project Area. Contractor has/have all responsibility for compliance with safety requirements for Contractor's employees.

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

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

## PROJECT OPERATIONS SIGNING STANDARDS

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

### SIGN STANDARDS

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

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

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

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

## SIGN PLACEMENT

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

### LATERAL CLEARANCE

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

### HEIGHT

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

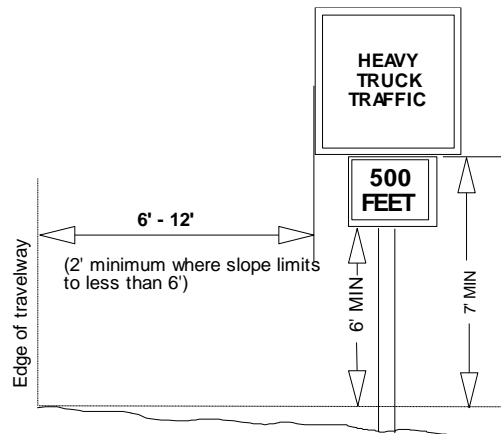


Figure 1: Sign Placement Dimensions

### PLACEMENT DISTANCE

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

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

Figure 2: A Portion of MUTCD TABLE II-1

## SIGN SUPPORTS

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

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

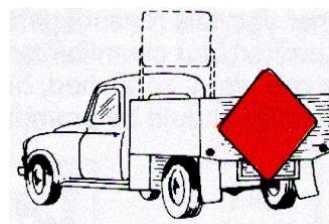
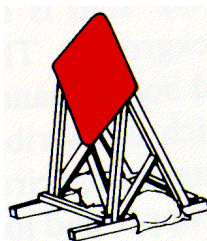
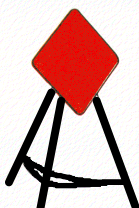
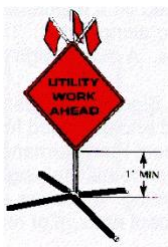
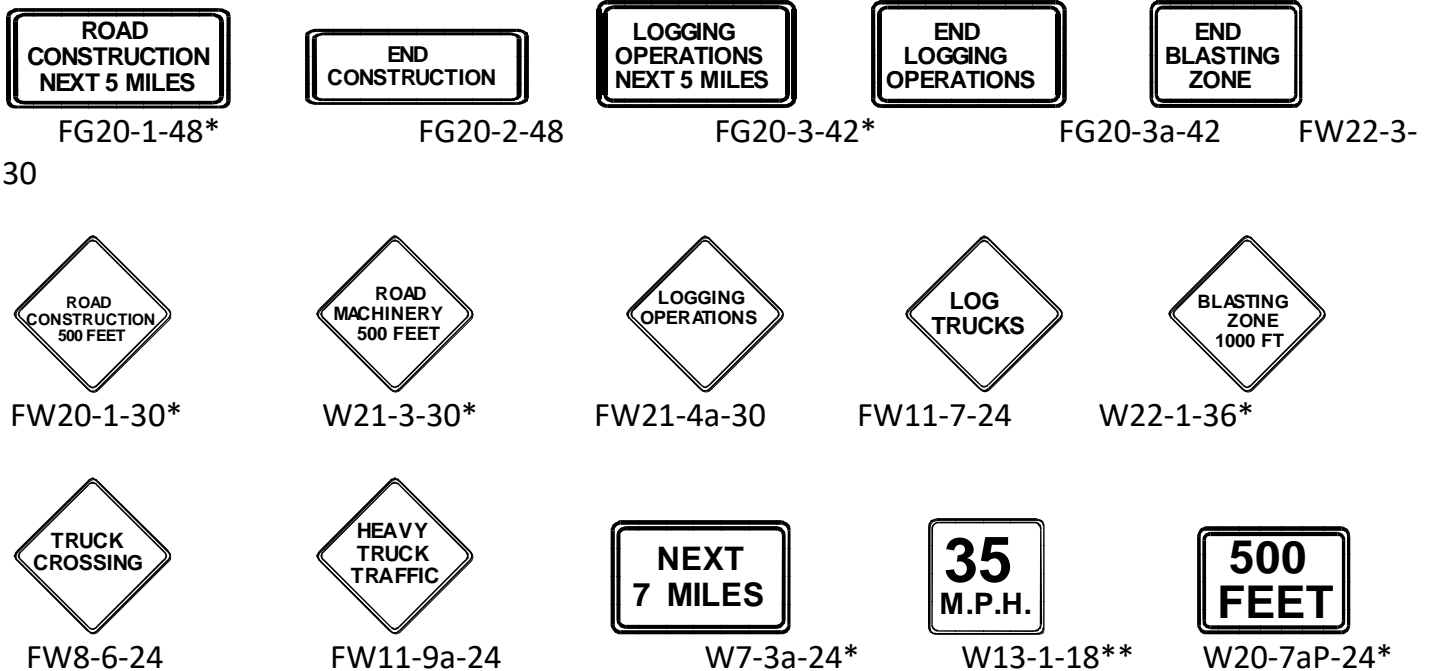


Figure 3: Examples of Temporary/Portable Supports

## SIGNS

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



\* Specify Distance

\*\* Specify Speed



Barricade Markers (See MUTCD for length and stripe size)

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

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

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

- 11. Sanitation and Servicing.** Contractor shall take all reasonable precautions to prevent pollution of air, soil, and water by Contractor's operations. Precautions shall include if facilities for employees are established on the Project Area, they shall be operated in a sanitary manner. The parties shall agree to the cleanup

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

12. **Prevention of Oil Spills.** If Contractor maintain(s) storage facilities for oil or oil products on the Project Area, Contractor shall take appropriate preventive measures to ensure that any spill of such oil or oil products does not enter any stream or other waters of the United States or any of the individual States. If the total oil or oil products storage exceeds 1,320 gallons in containers of 55 gallons or greater, Contractor shall prepare a Spill Prevention Control and Countermeasures Plan. Such plan shall meet applicable EPA requirements (40 CFR 112), including certification by a registered professional engineer. Contractor shall notify the UMRWA and appropriate agencies of all reportable (40 CFR 110) spills of oil or oil products on or in the vicinity of the Project Area that are caused by Contractor's employees, agents, contractors or their employees or agents, directly or indirectly, as a result of Contractor's operations. Contractor will take whatever initial action may be safely accomplished to contain all spills.
13. **Hazardous Substances.** Contractor shall notify the National Response Center, UMRWA, and Forest Service principal contact of all releases of reportable quantities of hazardous substances on or in the vicinity of the Project Area that are caused by Contractor's employees, agents, contractors or their employees or agents, directly or indirectly, as a result of Contractor's operations, in accordance with 40 CFR 302.
14. **Cleaning Equipment.** In order to prevent the spread of noxious weeds into the Project Area, Contractor shall be required to clean all off-road equipment **prior** to entry on to the Project Area. This cleaning shall remove all soil, plant parts, seeds, vegetative matter, or other debris that could contain or hold seeds. Only equipment so cleaned and inspected by UMRWA will be allowed to operate within the Project Area. All subsequent move-ins of equipment to the Project Area shall be treated in the same manner as the initial move in. "Equipment" includes all logging, mastication, and construction machinery, except for log trucks, chip vans, service vehicles, water trucks, pickup trucks, cars, and similar vehicles.

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

As agreed, upon, UMRWA shall inspect equipment at cleaning location.

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

15. **Protection of Streamcourses.** Contractor's Operations shall be conducted to prevent debris from entering streamcourses, except as may be authorized under paragraph (d). In event Contractor cause(s) debris to enter streamcourses in amounts that may adversely affect the natural flow of the stream, water quality, or

fishery resource, Contractor shall remove such debris as soon as practicable, but not to exceed 2 days, and in an agreed manner that will cause the least disturbance to streamcourses.

- a) Culverts or bridges shall be required on Temporary Roads at all points where it is necessary to cross Streamcourses. Such facilities shall be of sufficient size and design and installed in a manner to provide unobstructed flow of water and to minimize damage to streamcourses. Trees or products shall not be otherwise hauled or yarded across streamcourses unless fully suspended.
- b) Wheeled or track-laying equipment shall not be operated in streamcourse buffers, except at crossings agreed to by Contractor and UMRWA or as essential to construction or removal of culverts and bridges.
- c) Flow in streamcourses may be temporarily diverted only if such diversion is necessary for Contractor's planned construction and UMRWA 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.

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

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

Unless otherwise agreed in writing, Contractor shall complete erosion prevention and control work, including streamcourse protection, within 15 calendar days after completion of skidding and/or yarding operations for each landing.

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

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

**17. Protection of Land Survey Monuments.** Contractor shall protect all known survey monuments, and bearing trees against avoidable destruction, obliteration, or damage during Contractor's operations. If any known monuments are, 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.

**18. 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, and



- b) Determined to have a continuing need or use.

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

19. **Meadow Protection.** Reasonable care shall be taken to avoid damage to the cover, soil, and water in meadows shown on the Map. Vehicular or other equipment shall not be used on meadows, except where roads, landings, and tractor roads are approved. Unless otherwise agreed, trees felled into meadows shall be removed by hand. Resulting slash shall be removed where necessary to protect cover, soil, and water.
20. **Wetlands Protection.** Wetlands requiring protection under Executive Order 11990 are shown on the Map. Vehicular or other equipment shall not be used in such wetlands, except where roads, landings, and tractor roads are approved.
21. **Current Operating Areas.** Where project work is in progress but not completed, unless agreed to otherwise, Contractor shall, before operations cease annually, remove all temporary log culverts and construct temporary cross drains, drainage ditches, dips, berms, culverts, or other facilities needed to control erosion. Such protection shall be provided, for all disturbed, unprotected ground that is not to be disturbed further prior to end of operations each year, including roads and associated fills, tractor roads, skid trails, and fire lines. When weather permits operations, Contractor shall keep such work on any additional disturbed areas as up to date as practicable.
22. **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 one year after their construction.
23. **Fire Precautions and Control**
  - a) **Plans.** Prior to initiating Contractor's operations during Fire Precautionary Period, Contractor shall file with UMRWA a Fire Prevention and Control Plan providing for the prevention and control of fires on the Project Area and other areas of Contractor's Operations. Such plan shall include a detailed list of personnel and equipment at Contractor disposal for implementing the plan. This requirement may be met by preparing a single plan for more than one Contract.
  - b) **Fire Precautions.** Specific fire precautionary measures listed in this Appendix shall be applicable during Contractor's Operations in "Fire Precautionary Period" described. The dates of Fire Precautionary Period may be changed by agreement, if justified by unusual weather or other conditions. Required tools and equipment shall be kept in serviceable condition and immediately available for fire fighting at all times during Contractor's operations in Fire Precautionary Period.
  - c) **Substitute Precautions.** UMRWA may authorize substitute measures or equipment, or waive specific requirements by written notice, if substitute measures or equipment will afford equal protection or some of the required measures and equipment are unnecessary.
  - d) **Emergency Precautions.** UMRWA or Forest Service may require the necessary shutting down of equipment on portions of Contractor's Operations, as specified by the emergency fire precautions schedule. Under such conditions, after Contractor cease(s) active operations, Contractor shall release for hire by Forest Service, if needed, Contractor's shutdown equipment for fire standby on the Project Area or other areas of Contractor's Operations and personnel for fire standby or fire patrol, when such personnel and equipment are not needed by Contractor for other fire fighting or protection from fire.

Equipment shall be paid for at fire fighting equipment rates common in the area or at prior agreed rates and, if Contractor request(s), shall be operated only by personnel approved by the Contractor. Personnel so hired shall be subject to direction and control by Forest Service and shall be paid by Forest Service at fire fighting rates common in the area or at prior agreed rates.

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

The following requirements shall apply during the period May 1- December 1 and during other such periods as specified by UMRWA.

- i. *See FIRE PLAN below*

**24. 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 Project Area. Contractor's independent initial fire suppression action on such fires shall be immediate and shall include the use of all necessary personnel and equipment at Contractor's disposal on Project Area or within the distance of Project Area: **(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 Project Area or any other forest fire on Project Area, has not been suppressed by initial action and appreciable reinforcement strength is required, UMRWA 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:
- b) **Suspend Operations.** To suspend any or all of Contractor's Operations.
- c) **Personnel.** To release for employment by Forest Service any or all of Contractor's personnel engaged in Contractor's Operations or timber processing within the distance of Project 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.
- d) **Equipment.** To make available for Forest Service rental at fire fighting equipment rates common in the area or at prior agreed rates any or all of Contractor's equipment suitable for fire fighting and currently engaged in Contractor's Operations within the distance of Project Area: **(100 Road miles).** Equipment shall be operated only by personnel approved by Contractor, if so requested by Contractor.
- e) **Operations Fire.** An "Operations Fire" is a fire caused by Contractor's Operations, in the course of fulfilling the Contract, other than a Negligent Fire.

Contractor agrees to reimburse UMRWA for the cost for each Operations Fire, subject to a maximum of the dollar amount stated herein. The cost of Contractor's actions, supplies, and equipment on any such fire provided pursuant to this Contract, or otherwise at the request of UMRWA or Forest Service, shall be credited toward such maximum. If Contractor's actual cost exceeds its fire liability limit stated herein, Forest Service, through UMRWA, shall reimburse Contractor for the excess.

Maximum Amount of Contractor's Obligation per Operation's Fire.

**Contractor's Obligation per Operations Fire,  
Maximum  
Amount:** \$35,000

- f) **Negligent Fire.** A "Negligent Fire" is a fire caused by carelessness 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 service, or during rest or lunch periods; or if Contractor's failure to comply with the requirements of **17. Fire Precautions and Control** results in a fire starting or permits a fire to spread. Damages and the cost of suppressing Negligent Fires shall be borne by Contractor.

## **FIRE PLAN**

### **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. UMRWA**

UMRWA 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 personnel 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.

### 3. DEFINITIONS:

**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.**

**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 firefighting 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.

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

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

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

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

**C. Spark Arresters and Mufflers:** Contractor shall equip each 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. 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.

**E. Tank Truck or Trailer:** Unless waived in writing by the Forest Service, 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 unit. See Section 6 for specific Contract requirements.

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

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

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

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

- (2) 300 feet of 3/4-inch inside diameter rubber-covered high-pressure hose mounted on live reel attached to pump with no segments longer than approximately 50 feet, when measured to the extreme ends of the couplings. Hose shall have reusable compression wedge type 1-inch brass or lightweight couplings (aluminum or plastic). One end of hose shall be equipped with a coupling female section and the other end with a coupling male section. The hose shall, with the nozzle closed, be capable of withstanding 200 PSI pump pressure without leaking, distortions, slipping of couplings, or other failures.
- (3) A shut-off combination nozzle that meets the following minimum performance standards when measured at 100 P.S.I. at the nozzle:

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

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

**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 Forest Service 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. 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, UMRWA 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. UMRWA 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 UMRWA and any of the following Forest Service facilities and/or personnel listed below, but not necessarily in the order shown:

	Name	Office Address	Office telephone
<b>Dispatch Center</b>	<b>Office 24 Hour</b>	<b>N/A</b>	<b>530-644-0200</b>
Nearest FS Station	Amador R.D	26820 Silver Drive, Pioneer, CA 95666	209-259-3774
Inspector	TBD		
UMRWA	Richard Sykes	Valley Springs	510-390-4035
District Ranger	Linda Helm	26820 Silver Drive, Pioneer, CA 95666	209-295-5910

**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.
- 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, UMRWA may accept a reasonable alternative location. The communication system shall provide prompt and reliable communications between Contractor's headquarters (or agreed to alternative) and UMRWA via commercial or telephone.
- 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 UMRWA and 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.

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





<b>Level</b>	<b><i>Project Activity Minimum Requirements and Restrictions. Restrictions at each level are cumulative.</i></b>
<b>Ev</b>	<ol style="list-style-type: none"> <li>1. The following activities may operate all day:               <ol style="list-style-type: none"> <li>a) Loading and hauling logs decked at approved landings.</li> <li>b) Loading and hauling chips stockpiled at approved landings.</li> <li>c) Servicing equipment at approved sites.</li> <li>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).</li> <li>e) Chainsaw and log processing operations associated with loading logs or other forest products at approved landings.</li> </ol> </li> <li>2. Hot Saws or Masticators may operate until 1:00 PM; provided that:               <ol style="list-style-type: none"> <li>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.</li> <li>b) Any additional restrictions specified by the Forest.</li> </ol> </li> <li>3. All other conventional Mechanical Operations are permitted until 1:00 PM.</li> <li>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:               <ul style="list-style-type: none"> <li>• Rubber Tire Skidding</li> <li>• Chipping on Landings</li> <li>• Helicopter Yarding</li> <li>• Fire Salvage</li> </ul> </li> </ol> <p>When approved by UMWRA and a Forest Service 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 UMWRA and the Forest Service for an additional ten (10) days. Variance approval can be withdrawn at the sole discretion of UMWRA or 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.</p>
<b>E</b>	<p>The following activities may operate all day:</p> <ol style="list-style-type: none"> <li>1. Loading and hauling logs decked at approved landings.</li> <li>2. Loading and hauling chips stockpiled at approved landings.</li> <li>3. Servicing Equipment at approved sites.</li> <li>4. Dust abatement, road maintenance (chainsaw use prohibited) or loading stock piles and rock aggregate installation (does not include pit or quarry development).</li> <li>5. Chainsaw operation associated with loading at approved landings.</li> </ol> <p>All other activities are prohibited.</p>

## **Exhibit F**

### **Contractor's RFP Response- Attached Pages**