

Truckee River Watershed Council Fire Prevention 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 Project Area.

The Project Area is delineated by map in the contract between the contractor and the Truckee River Watershed Council (TRWC).

The provisions set forth below also specify conditions under which contract and permitted activities will be conducted, curtailed, or shut down.

Contracted and permitted activities include monitoring, surveying, construction, camping and all other activities described in the contracted scope of work.

2. **PROJECT DESCRIPTION:** briefly describe types of project activities, for monitoring, surveying, construction, particularly noting blasting, burning, welding, and/or use of metal tracked equipment.

3. **RESPONSIBILITIES:**

A. Contractor (site visits, surveying, monitoring, construction)

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

(2) Shall take all steps necessary with all employees, subcontractors, and all other personnel on site at any time:

- a. From setting fires not required in completion of the contract
- b. To prevent the escape of fires set directly or indirectly as a result of contract/permit operations,
- c. To extinguish all such fires which may escape.

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

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

B. TRWC

TRWC may conduct one or more inspections for compliance with the Fire Prevention Plan. The number, timing, and scope of such inspections will be at the discretion of TRWC employees responsible for contract/permit administration. Such inspections do not relieve the contractor of responsibility for correcting violations of the fire plan or for fire safety in general, as outlined above.

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4. DEFINITIONS:

The following definitions shall apply:

Project Area: A location the contractor may be conducting much of the project's work. Locations such as construction sites, staging areas, access routes, roads, right of ways, trails etc. These areas may or may not be devoid of vegetation.

Mechanical Operations: The process of felling, excavating, chipping, grading, shredding, piling, and jackhammering which requires the use of motorized power which includes, chainsaws, chippers, excavators, graders, dozers etc.

5. TOOLS AND EQUIPMENT:

Construction – with all scopes of work including Mechanical Operations (defined above)

The Contractor shall comply with the following requirements during the fire precautionary period is set by the State of California which is April 1 through December 1 of any year.

The Contractor shall maintain a Fire Box and associated Fire Tools according to CPRC Section 4428.

A. Fire Tools and Equipment: Contractor shall meet minimum requirements of Section 4428 of the California Public Resources Code (C.P.R.C.). Fire tools kept at each operating work area shall be sufficient to equip all employees in the felling, excavating, grading, loading, chipping, and material processing operations associated with each work area.

Fire equipment shall include two tractor headlights for each tractor dozer used in contractor operations. Tractor headlights shall be attachable to each tractor and served by an adequate power source. All required fire tools shall be maintained in suitable and serviceable condition for fire fighting purposes.

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

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).

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 machine with hydraulic systems, powered by an internal combustion engine (chipper, bull dozer, excavator, etc.), except tractors, 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 or tractors with exhaust-operated turbochargers. Spark Arresters shall be a model tested and approved under Forest Service Standard 5100-1a as shown in the. National Wildlife Coordinating Group Spark Arrester Guide, Volumes 1 and 2, and shall be maintained in good operating condition. Every motor vehicle subject to

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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 work areas.

E. Tank Truck or Trailer: Contractor shall provide a water tank truck or trailer on or in proximity to contract/permit area during contractor's operations. When Project Activity Level B or higher is in effect, a tank truck or trailer shall be on or immediately adjacent to each active work area. 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/permit 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/permit Area using a 5/16 inch orifice in the Forester One Inch In-Line Gauge test kit. Pump shall meet or exceed the pressure value in the following table for nearest temperature and elevation:

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

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:

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	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 are 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.

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.

6. GENERAL

- A. **State Law:** In addition to the requirements in this Fire Prevention Plan, the Contractor shall comply with all applicable laws of the State of California. In particular, see California Public Resource Codes.
- B. **Permits Required:** The Contractor must secure a special written permit from the District Ranger or designated representative before burning, welding or cutting metal or starting any warming fires. If contract/permit requires Blasting and Storing of Explosives and Detonators, an Explosives Permit may be required pursuant to the California Health and Safety Code, Section 12101.
- C. **Blasting:** Contractor shall use electric caps only unless otherwise agreed in writing. When blasting is necessary in slash areas, the Fire Patrolperson equipped with a size 0 or larger shovel with an overall length of not less than 46 inches and a filled backpack can (4 or 5 gallon) with hand pump shall remain in the immediate area for an hour after blasting has been completed.

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- D. **Smoking:** Smoking shall not be permitted during the fire precautionary period, except in a barren area or in an area cleared to mineral soil at least three feet in diameter. 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 the fire precautionary period 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. TRWC shall approve such sites in writing.
- F. **Reporting Fires:** As soon as feasible but no later than 15 minutes after initial discovery, contractor shall call 911 to notify Emergency Services of any fires on contract/permit area or along roads used by contractor. Contractor's employees shall report all fires as soon as possible.

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 TRWC may accept a reasonable alternative location. The communication system shall provide prompt and reliable communications between contractor's headquarters (or agreed to alternative) and TRWC via commercial or TRWC 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 911 as required. This fire patrol is required on foot, unless otherwise agreed. By agreement, one patrolperson may provide patrol on this and adjacent projects. No patrolperson shall be required on specified road construction jobs except during clearing operations unless otherwise specified.

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

Title	Name	Phone Number
Fire Supervisor		
Fire Patrolperson		

7. EMERGENCY PRECAUTIONS

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

Fire Danger Rating Area/Fire Weather Station for Project

Tahoe NF Eastside PAL Group

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

Phone Number or Website to obtain Predicted Activity Levels:

530-587-2158
or 530-478-6176

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

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PROJECT ACTIVITY LEVEL

Level	<i>Project Activity Minimum Requirements and Restrictions. Restrictions at each level are cumulative.</i>
A	Minimum requirements noted above in Sections 4 and 5.
B	1. Tank truck, trailer, or approved CAFS substitute shall be on site in an easily accessible location if required in section 4 and 5.
C	1. When tracked equipment is operating in vegetated areas, a tank truck, trailer, or approved CAFS substitute shall be within ¼ mile of these operations effective communications shall exist between operator and local Dispatch center. 2. Immediately after Mechanical Operations cease, fire patrol is required for two hours.
D	1. Immediately after Mechanical Operations cease, fire patrol is required for three hours. 2. No Dead Tree felling after 1:00 PM, except recently dead. 3. No burning, blasting, welding or cutting of metal after 1:00 PM, except by special permit.
Ev	<p>1. The following activities may operate all day:</p> <ul style="list-style-type: none"> a) Servicing equipment at approved sites. b) 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), within a construction site, roadbed, or clearing devoid of vegetation. <p>2. All conventional Mechanical Operations in naturally vegetated areas are permitted until 1:00 PM. Additional restrictions may be specified by the Forest</p> <p>3. Some operations may be permitted after 1:00 PM, on a case-by-case basis, under the terms of a PAL Ev Variance Agreement. Additional fire prevention precautions will be addressed. Activities for which a Variance may be issued are:</p> <ul style="list-style-type: none"> • Rubber Tire Skidding • Chipping • Excavation • Chainsaw Use <p>When approved by a Line Officer, a Variance Agreement can be implemented when the criteria specified in the agreement are met and mitigation measures are in place. This approval is good for ten (10) days unless cancelled sooner or extended by the Contracting Officer for an additional ten (10) days. Variance approval can be withdrawn at the sole discretion of the Forest Service. Variance approval is contingent on the 7-day fire weather forecast, fuel conditions, site characteristics, current fire situation, state of Contractor's equipment for prevention and suppression readiness, type of operation and social and community considerations etc. (See attached Project Activity Level Variance Agreement).</p>
E	<p>The following activities may operate all day:</p> <ol style="list-style-type: none"> 1. Mechanical equipment at approved roads, work areas, and construction sites. 2. Dust abatement, road maintenance (chainsaw use prohibited) or loading stock piles and rock aggregate installation (does not include pit or quarry development). 3. Chainsaw operation at approved roads, work areas, and construction sites. <p>All other activities are prohibited.</p>

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

Project Activity Level Climatology								
Station/SIG/Unit:	TNF Eastside Group				Years Analyzed		1979 - 2008	
	A	B	C	D	Ev	E	Days	
Month	Expected Days per Month at each PAL Value						Analyzed	
May	5.6	8.4	11.8	3.9	1.4	0.0	683	31
June	4.1	7.3	12.9	4.3	1.6	0.0	881	30
July	0.7	2.7	13.4	8.1	5.8	0.2	896	31
August	0.7	1.9	10.1	8.9	8.3	1.2	902	31
September	2.0	3.0	11.6	7.1	5.6	0.5	866	30
October	4.7	6.6	12.6	5.1	2.0	0.0	775	31
November	10.3	9.8	9.0	0.8	0.1	0.0	607	30
	28.0	39.6	81.4	38.2	24.8	1.9	5610	
	A	B	C	D	Ev	E		
Month	Percent of Days per Month at each PAL Value							
May	18.0	27.1	37.9	12.4	4.5	0.0	683	100
June	13.5	24.2	42.9	14.2	5.2	0.0	881	100
July	2.1	8.7	43.3	26.2	18.9	0.8	896	100
August	2.2	6.0	32.5	28.6	26.8	3.9	902	100
September	6.8	10.2	38.8	23.8	18.8	1.6	866	100
October	15.1	21.3	40.8	16.5	6.3	0.0	775	100
November	34.4	32.6	30.0	2.6	0.3	0.0	607	100
							5610	

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

Name
Contracting Company

Date

Name
Truckee River Watershed Council

Date