Table C2.111# - Additional Payment for Additional Sawtimber Trees
($ / Tree)

DBH:	PP	SP	WF	DF	IC	LP
10 inch						
12 inch						
14 inch						
16 inch						
18 inch						
20 inch						
22 inch						
24 inch						
26 inch						
28 inch						
30 inch						

32 inch and greater – for any hazard/danger trees marked of this size, volume will be determined from the R5 Cubic Foot Volume Tables (9/97) and the rate of $5.00/ccf for PP, $3.00/ccf for WF, $3.00/ccf for DF, and $5.00ccf for IC, will be applied to that volume for the additional payment for that tree.

C2.21# - UTILIZATION AND REMOVAL OF NON-SAWTIMBER PRODUCTS

Table A

Unit/Subdivision	Products to be Removed
All Units	1. All limbs and tops that are attached after skidding to whole trees and portions of trees meeting specifications for Non-Sawtimber Products. Limbwood from Sawtimber is considered Logging Slash and shall be treated under C6.7#.
All Units except Units 15 and 16	2. All tops that are attached after skidding to whole trees and portions of trees meeting specifications for Sawtimber products.

C2.35# DESIGNATION OF TIMBER, CUTTING UNIT BOUNDARIES, AND SUBDIVISION/PAYMENT UNIT BOUNDARIES

SPECIFICATIONS PURSUANT TO C2.35# - DESIGNATION OF TIMBER. CUTTING UNIT BOUNDARIES, AND SUBDIVISION/PAYMENT UNIT BOUNDARIES

Timber Designation Table A

Cutting Unit/ Subdivision/Area/ Payment Unit	Tree Paint Color	Designation or Specification
Sale Area	Green	Hazard Tree. Notwithstanding B2.32 all dead and unstable live trees which are leaning towards a road or are otherwise hazardous to a road, and are sufficiently tall to reach Purchaser's landings or the roadbed of National Forest System roads within Sale Area, shall be felled by Purchaser when Marked in the specified paint color above and below stump height by Forest Service in advance of felling any other timber in the vicinity. Pieces meeting Utilization Standards from such dead and unstable live trees shall be removed unless Purchaser is notified in writing that removal would cause unacceptable damage to areas requiring special protection such as residual timber, roads, administrative sites, streamside management zones, and areas identified on Sale Area Map or on the ground.
Units 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, and 14	Blue	Individual Tree Mark. Individual trees are designated for cutting only if Marked above and below stump height with the specified paint color.
N/A		Leave Tree Mark. All live < > are designated for cutting unless Marked as leave trees. Leave trees are Marked above and below stump height with the specified paint color. Sale Area Map indicates areas plainly identified on the ground where leave trees are Marked to be left uncut.
Sale Area		Wildlife Trees. Notwithstanding the designation for cutting under B2.31, B2.33, B2.34,or B2.35, trees which are identified by standard Forest Service metal wildlife tree sign or painted with the specified paint color on the uphill and downhill side, shall be left uncut. In event such trees are destroyed in Purchaser's Operations, Forest Service may designate alternate trees to be saved.
N/A		Marked Out Trees. When it is necessary to delete previously marked trees, an unique tree marking paint color will be Marked over or adjacent to the original mark, but will not obscure the original marking. Trees Marked with the original marking

		paint color and the unique tree marking paint color are not Included Timber.
All Units		Designation by Spacing C2.351#
All Units		Designation by Species and Diameter, C2.352#
N/A		Designation by Damage Class, C2.353#
N/A		Designation by Row Spacing, C2.354#

Subdivision/Payment Unit and Cutting Unit Boundary Designation Table

Cutting Unit	Boundary Paint Color	Boundary Designation
All Units	Orange	-Boundary line trees are Marked at eye level with three (3) slanted slash marks and a spot at ground level with the eye level marks facing into the interior of the subdivisions. -Yellow boundary posters with sale name and Subdivisions are stapled to boundary trees and face outward at locations where the Subdivision boundary intersects or coincides with roads.

C2.352# - DESIGNATION BY SPECIES AND DIAMETER. Table A.

Tree Designation Table

Subdivision(s) or Designated Cutting Units(s)	Species	More Than Stump Diameter (inches)	Less Than Stump Diameter (inches)
All Units	Ponderosa pine Incense Cedar White Fir	6	14
All Units	Western juniper	6	30

C5.31# - ROAD MAINTENANCE REQUIREMENTS. Table A

Contract Road Maintenance Requirements Summary

Applicable Road Maintenance Specifications

Road	Termini		Miles	Prehaul		During Haul			Post Haul
	From	To		T803		T803	T806		T803
44N01Y	44N12.2	UNIT 9	0.2			P	P		P
44N12.1	5Q002	44N90	0.6			P	P		P
44N12.2	44N90	44N01Y	0.8			P	P		P
44N12.3	44N12.2	44N12.4	0.5			P	P		P
44N12.4	44N12.3	44N12.5	0.4			P	P		P
44N12.5	44N12.4	44N12.6	0.5			P	P		P
44N12.6	44N12.5	UNIT 8	0.1			P	P		P
44N12.8	44N10	44N13.4	0.1			P	P		P
44N13.1	5Q002	44N13.2	0.3			P	P		P
44N13.2	44N13.1	UNIT 10	0.3			P	P		P
44N13.4	44N12.8	44N87Y.3	0.4			P	P		P
44N32Y.1	44N10	44N32Y.2	0.9			P	P		P
44N32Y.2	77	44N32Y.1	1.4			P	P		P
44N87.1	5Q002	44N88	1.1			P	P		P
44N87.2	44N87.1	44N87Y.1	0.7			P	P		P
44N88	44N87Y.3	44N87.2	0.5			P	P		P
44N90.1	44N13.1	44N90.1	0.3			P	P		P
44N90.2	44N90.1	44N90.3	0.5			P	P		P
44N90.4	44N91.2	44N90.5	0.3			P	P		P
44N91.1	5Q002	44N91.2	0.6			P	P		P
44N91.2	44N91.1	44N90.4	0.8			P	P		P
77	44N32Y	MP 0.6	0.6			P	P		P

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

Maximum volume of Purchaser's responsibility for T-801 slide and slump repair is 0 CY for all roads to be maintained.

Dust Abatement Plan (T-806)

Material Type: WATER | Frequency of application

Abate dust to promote safe use of road and to prevent excessive loss of road material (fines). Dust abatement is required throughout the day while hauling is in progress near residences, camping areas, or the like. Dust abatement is required as shown below when dust is present during haul:

1. Complete, thorough watering is required once per day over full traveled width of road surface when truck volume is 10 round trips per day or less.
example: 1 truck makes 10 round trips, or 10 trucks make 1 round trip each.

2. Complete, thorough watering is required throughout the day over full traveled width of road surface when truck volume exceeds 10 round trips per day.

3. Dust abatement other than water must be approved by the Forest Service prior to use.

Preparation Method: Compaction not required.

Roads to be abated with WATER

See C5.31 Table A for list of roads. All roads listed shall be abated with water.

44N01Y
44N12.1
44N12.2
44N12.3
44N12.4
44N12.5
44N12.6
44N12.8
44N13.1
44N13.2
44N13.4
44N32Y.1
44N32Y.2
44N87.1
44N87.2
44N88
44N90.1
44N90.2
44N90.4
44N91.1
44N91.2

C5.35# - ROAD AND WATER SUPPLY USE. Table A

Load Limitations	Purchaser shall notify Forest Service in writing of the planned size and load distribution for equipment which exceeds the State of California Vehicle Code legal size and weight, and the National Forest System roads to be used. Such notice may be part of plan of operation under B(T)6.311. Within 15 days after receipt of the written notice Forest Service shall notify Purchaser in writing of any regulations or restrictions that may be needed to protect National Forest Transportation Facilities. A written permit shall be required for moving any vehicle which is in excess of the established legal size and weight which is not listed in the above plan, except as may be authorized in prior written agreements.
Existing Non-National Forest System Roads	Roads not shown on Sale Area Map may be used as Temporary Roads if there is agreement before use is started.
Snow Removal	If Purchaser removes snow from roads, such work shall be done with Forest Service 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 4-6 inch snow depth must be left to protect the roadway. If the road surface is damaged, Purchaser shall replace lost surface material and repair structures damaged in blading operations prior to hauling, unless climatic conditions prevent necessary work from being accomplished or as otherwise agreed in writing. Single lane roads shall be plowed full width including turnouts. In event double lane roads are not plowed to full width, warning signs shall be required and plowing shall be no less than single lane (12 feet) with intervisible turnouts.
Water Supply Deposits	N/A
Surface Replacement Deposits	N/A

C6.315# - SALE OPERATIONS SCHEDULE. Table A

Subdivision/ Area/Unit	**Conditions of Operation**	**Purpose**
All Units	All Green Biomass felled in the woods or decked at landings must be removed within 12 months of cutting.	Captures the value of product before it deteriorates.

C6.41# – FELLING, BUCKING, AND LIMBING. Table A

Treatment Method and Applicable Map Symbol	Felling, Bucking and Limbing Specifications
Limbing	Outside of construction clearings, Clearcutting Units and regeneration units, unless otherwise provided by B6.414, Purchaser shall, prior to skidding/yarding operations, cut exposed limbs from products which are to be skidded/yarded. Such limbing of stems shall be done to a top diameter of approximately N/A inches, at which point the top shall be cut from the remainder of the stem.
No Lop “No Lop”	Within units or subdivisions designated NO LOP on Sale Area Map, trees shall be skidded/yarded to agreed landing locations prior to lopping.
Whole Tree Yarding “Whole”	Notwithstanding the requirements above, within units or subdivisions designated “Whole” on Sale Area Map, trees smaller than 24 inches DBH shall be skidded/yarded to agreed landing locations prior to limbing, bucking, and lopping. Trees larger than or equal to 24 inches DBH shall be bucked into two or more pieces with the butt portion being no longer than 41 feet prior to skidding/yarding. The butt log shall be limbed prior to skidding/yarding.
Directional Felling “DF”	Within areas designated DF on Sale Area Map, Included Timber shall be directionally felled away from other ownership, streamcourse, wildlife leave islands, cattleguards, cave, fenceline, survey monument, and pon with the use of specialized equipment. Such directional felling shall not be required when in the faller’s judgment it is unsafe to do so, and shall be left standing.
Treatment of Stumps “TS”	Within areas shown on Sale Area Map, Purchaser shall treat stumps of all live conifer trees equal to or greater than 14 inches stump diameter, (measured inside bark) unless otherwise agreed in writing. Treatment shall be with a borate compound registered by EPA in the State of California for prevention of annosus root disease. Treatment shall consist of removal of sawdust and other loose debris from the cut surface of the stump and application of a thin layer of the borate compound uniformly over the entire cut surface, including exposed wood surfaces on the stump sides, at the rate specified on the product label. Any surface irregularities on the stump preventing application of a uniform layer of borate compound shall be cut level prior to treatment. Unless waived in writing, Purchaser shall also apply an approved

<table>
<tr><td></td><td>colorant mixed with the borate compound to insure complete coverage. Treatment should be done as soon as possible but shall be completed no later than 24 hours after felling, otherwise stumps shall be re-cut and treated.

Purchaser shall not apply borate compound during heavy rain fall or when such precipiation rate is predicted within 5 hours of application to cause borate compound to be flushed off the stump and become ineffective, in that case treatment shall be reapplied. Application shall be completed within 24 hours of the precipitation having ceased. Borate compound also shall not be applied to stumps located within 5 feet of live streamcourses and meadows/wetlands shown on Sale Area Map and/or 5 feet of sensitive plant location boundaries as flagged on the ground.

Purchaser shall provide the borate compound and colorant and apply it in compliance with the State of California laws and regulations pertaining to pesticides and pest control operations. Borate compound storage shall be located such that any spillage will not contaminate water. All spills shall be promptly cleaned up and spilled material disposed of according to the product label. All spills occuring in water or over 3 pounds shall be reported to Forest Service within 24 hours.

Purchaser shall submit at the end of each month a “Monthly Summary of Pesticide Use Reports” to the appropriate County Agricultural Commissioner with a copy to the District Ranger.</td></tr>
<tr><td>Maximum Log Length</td><td>N/A</td></tr>
<tr><td>Minimum Stump Height</td><td><table>
<tr><th>Unit/Subdivision</th><th>Minimum Stump Height (inches)</th><th>Purpose or Reason</th></tr>
<tr><td>All Units</td><td>4 inches</td><td>Facilitate timber accountability</td></tr>
</table></td></tr>
</table>

C6.42# - GROUND BASED SKIDDING. Table A

Map Symbol	Requirements
TRAC	Skid road pattern shall be agreed in advance of felling and main skid roads shall be flagged on the ground in advance of felling. Purchaser shall stage-log by felling and skidding Included Timber in two or more separate operations when necessary to prevent undue damage to the resources or residual stand. Needed tractor trails shall be constructed in advance of skidding. Products shall be end-lined as needed to protect resources or residual timber from unnecessary damage. The number of chokers shall be limited as necessary to avoid unnecessary damage to resources or residual timber. By agreement, tractors may be used to separate products to prevent stain.
SUSP	Products shall be skidded with leading end clear of ground.
SPACE	Skid roads will average 120 feet from center to center, except where converging.
ENDL	N/A
MAX	N/A.
MH	Purchaser shall cut Included Timber and move it to designated skid trails using equipment with a boom having an operating radius of at least 20 feet for bunching trees, capable of severing, lowering and placing trees up to 22 inches diameter at stump height on the ground prior to skidding. Such equipment must be capable of operating on slopes up to 35%. Notwithstanding above, hand felling using chainsaws may be required in or adjacent to sensitive areas to protect resources from unnecessary damage. Trees which exceed capability of specified equipment may be felled, bucked and skidded in a manner consistent with the requirements of B(T)6.41 - Felling and Bucking, C(T)6.41# - Felling, Bucking, and Limbing Requirements and the above "TRAC", "SUSP", "SPACE", "ENDL", and "MAX" requirements.
CTL	N/A
PB	N/A
HCTL	N/A.

C6.6# - EROSION PREVENTION AND CONTROL. Table A

Vegetative Soil Stabilization N/A

Special Erosion Prevention Measures N/A

Soil Scarification. N/A

Backblading N/A

Tillage N/A

C6.7# - SLASH TREATMENT .

Slash Treatment Methods

Symbol	Method	Definition
Buck-L	"Bucking Large Logging Slash"	N/A
Buck-P	"Bucking and Piling"	
Bury	"Burying"	
Chip	"Chipping"	N/A
Deck	"Decking" large material	Logging Slash 10 inches or larger in large end d.o.b. and 10 feet or more in length shall be Decked for disposal by Forest Service by piling pieces parallel to each other.
Mach	"Machine Piling"	Concentrations of Logging Slash, excluding scattered individual pieces, shall be Machine Piled by tractor equipped with brush rake for disposal by Forest Service.
Pile	"Piling" small material	Logging Slash smaller than 6 inches in large end d.o.b. and 10 feet long shall be hand Piled for disposal by Forest Service.
Remove	"Removing"	N/A
Scat 18" Scat 30"	"Scattering"	Logging Slash shall be scattered to reduce slash concentrations with slash being generally left within 18 or 30 inches of the ground as shown on Sale Area Map. Logging Slash shall be scattered into openings away from and without unnecessary damage to residual trees. All scattered logs shall be limbed, placed away from trees and positioned so they will not roll. When Scattering is specified, another method may be used by agreement.
Stack	"Stacking" small material	N/A
View	"Visible Slash Treatment"	Designated on Sale Area Map with boundaries posted on the ground are View Areas with distance limitations for visible slash treatment. Within such units and the area of visible Logging Slash adjacent thereto, Logging Slash shall be treated by Purchaser. Primary treatment shall be by Removing, Burying, Chipping, Piling, Machine Piling, or a combination of these means unless a method is specified or prohibited on Sale Area Map. Logging Slash not readily treated by the selected or specified method shall be removed to designated areas or treated as agreed.
YUMD	"Yarding Unutilized	N/A

	Material-Decking"	
YUME	"Yarding Unutilized Material-Exterior Boundary"	N/A
YUML	"Yarding Unutilized Material-Landing"	N/A
YUMR	"Yarding Unutilized Material-Removal"	N/A
Cover	"Covering Piles"	N/A
Fell	"Damaged Small Tress"	N/A
Fire-L	"Firelines"	N/A
Fuel-B	"Fuelbreaks"	N/A

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

UNIT AND SUBDIVISION.SLASH TREATMENT SPECIFICATIONS.

	SLASH TREATMENT	
Subdivision or Unit No	Specified Method	Prohibited Method
All Units	Scat 18 inches	N/A

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

		SLASH TREATMENT	
	Subdivision or Unit No.	Specified Method	Maximum Height of Decks

Landings	All Units	Mach, Deck	10 feet

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

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

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

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

TREATMENT ALONG TEMPORARY ROADS. Outside of Clearcutting Units or regeneration units, all trees felled or pushed over and trees damaged beyond recovery by Temporary Road construction shall be felled, limbed to a stem d.o.b. of approximately 3 inches, at which point the top shall be cut from the remainder of the stem, and stem shall be bucked into lengths not exceeding 20 feet. Such slash shall be Scattered free of soil to reduce concentrations unless treatment is required by another specified method.

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

Subdivision, Payment Units, Roads and or Road Segments	Additional Slash Treatment Requirements
	N/A

ASSISTANCE IN SLASH BURNING. If Forest Service requests, Purchaser shall furnish equipment and equipment operators to assist in preparation for slash burning at agreed times prior to the normal slash burning season in the area.

Purchaser shall furnish equipment and equipment operators for burning and mop-up when requested. The amount and kind of equipment requested shall be that normally used in slash treatment work and reasonably available under the existing equipment organization of Purchaser. Forest Service shall reimburse

Purchaser for such work at rates common in the area or at previously agreed rates.

C7.2# - SPECIFIED FIRE PRECAUTIONS. Table A (06/2012)

Specific equipment requirements and fire precautionary measures are shown in the following table and in C7.22#:

A. Fire Tools and Equipment	Purchaser shall meet applicable parts of Section 4428 of the CPRC. Unless agreed otherwise, Fire tools kept at each Active Landing shall be sufficient to equip all employees in the felling, yarding, loading, chipping, and material processing operations associated with each landing. Fire equipment shall include two tractor headlights for each tractor dozer used in Purchaser's Operations. Tractor headlights shall be attachable to each tractor and served by an adequate power source. Fire tools shall be kept in a sealed fire tool box adjacent to the Active Landing and readily accessible in event of fire. Where cable yarding is used, Purchaser shall provide a size 0 or larger shovel with an overall length of not less than 46 inches and a serviceable 5 gallon backpack pump filled with water or a fire extinguisher bearing a label showing at least a 4-A rating must be within 25 feet of each tail and corner block. 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. All required fire tools shall be maintained in suitable and serviceable condition for fire fighting purposes.
B. Fire Extinguishers	Purchaser shall equip each internal combustion yarder, fuel truck, and loader with a (4-A:60-B:C) fire extinguisher for oil and grease fires. Skidders and tractors shall be equipped with a minimum 5-BC fire extinguisher. Fire extinguishers shall be mounted, readily accessible, properly maintained and fully charged. Purchaser shall equip all mechanized harvesting machines and log processors with hydraulic systems, powered by an internal combustion engine (e.g. masticator, chipper, feller/buncher, harvester, forwarder, Hot Saw, stroke delimber, etc), with at least two 4-A:60-B:C fire extinguishers or an acceptable CAFS substitute identified in Section K.
C. Spark Arresters and Mufflers	Except for tractors and other equipment with exhaust-operated turbochargers, Purchaser shall equip each operating tractor and any other internal combustion engine with an approved spark

arrester. There shall be no exhaust bypass on any system.

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

Every motor vehicle subject to registration shall at all times be equipped with an adequate exhaust system meeting the requirements of the California Vehicle Code.

D. Power Saws

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

A size 0 or larger shovel with an overall length of not less than 38 inches shall be kept with each gas can, but not more than 300 feet from each power saw when used off cleared landing areas.

E. Fire Supervisor & Fire Patrolperson

Purchaser shall designate in the fire plan required by B(T)7.1 and furnish on Sale Area during operating hours a fire supervisor, named in writing and authorized to act on behalf of Purchaser in fire prevention and suppression matters.

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

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

F. Seasonal Permits

Purchaser shall obtain written permits from Forest Service before allowing welding, warming fires or burning, subject to C(T)7.22# – Emergency Precautions.

G. Clearing of Fuels

Purchaser shall clear away, and keep clear, fuels and logging debris as follows:

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

H. Smoking

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

I. Reporting Fires

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

J. Tank Truck

Purchaser shall provide a water tank truck or trailer on or in proximity to Sale Area during Purchaser's Operations hereunder during Fire Precautionary Period unless otherwise agreed.

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

(1) Pump, which at sea level, can deliver 23 gallons per minute at 175 pounds per square inch measured at the pump outlet. Pumps shall be tested on Sale Area by Forest Service using a 5/16 inch orifice with a one inch in line test kit and shall meet or exceed the pressure values identified in the following table for nearest temperature and elevation:

Temp	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
	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM

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

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

(3) A shut-off combination nozzle that meets the following minimum performance standards when measured at 100 P.S.I. at the nozzle:

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

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

~~(5)~~ When Purchaser is using Hot Saws or Masticators an additional 250 feet of light weight hose, approved by Forest Service, shall be immediately available for use and be capable of connecting to the 300 feet of hose and appurturances in (2) and (3) above.

~~(6)~~ This equipment and accessories shall be deliverable to a fire in the area of operations and is subject to the requirements for each specific activity level identified in C(T)7.22#.

K. Compressed Air A fire suppression system where compressed air is added to

Foam System (CAFS)

water and a foaming agent. By agreement, Purchaser may substitute a CAFS or functional equivalent in lieu of the tank truck, trailer or fire extinguishers, provided it meets or exceeds the following specifications and requirements:

1. Variable foam expansion ratio – 10:1 to 20:1.
2. Units shall be kept fully charged with air; water and foam concentrate as recommended by the manufacturer and have the appropriate tools to service the system.
3. The unit shall contain enough energy to empty tank and clear hose prior to exhausting propellent.
4. The unit shall be capable of being completely recharged within 10 minutes.
5. When used on cable yarding landings, the unit shall be outfitted for immediate attachment to carriage and transported without damage to the unit.

Fire extinguishers required for Hot Saws, Masticators and similar equipment identified in Section 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 C(T)7.22#.

L. Communications

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

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

M. Cable Yarding Tank Unit

When all or part of Included Timber will be harvested by a long span (over 1,500 feet)cable yarding operation, Purchaser shall provide at each active cable yarding landing a tank truck, trailer or acceptable CAFS substitute which can be lifted and transported by the carriage.

The unit shall meet the same requirements as specified for the tank truck, trailer or approved CAFS substitute.

N. Helicopter Yarding Fire Precautions

Purchaser shall provide and maintain fire equipment as follows:

1. The fire tool box required under this provision shall be equipped for attachment to the helicopter long line so that

it may be hauled to needed locations. Such attachment device shall not interfere with access to fire tools. Unless agreed otherwise, the fire tool box shall be located at the Active Landing ready for immediate dispatch.

2. An external helibucket readily attachable to the helicopter, with a capacity of at least 500 gallons, and having a remote control door mechanism adequate for rapid dropping of water. The helibucket shall be located at the helicopter service landing and shall be filled with water ready for immediate dispatch unless otherwise agreed.

3. All aircraft used in conjunction with Purchaser’s Operations shall be equipped with an operable radio system capable of meeting Region Five avionics requirements.

4. For protection of fuel servicing operations, fire extinguishers which have the following ratings based on the open hose discharge capacity, i.e., "broken hose," of the aircraft fueling system shall be readily available:

   a. Where said capacity does not exceed 200 gallons per minute, at least one approved extinguisher having a minimum rating of 20-B;

   b. Where said capacity is in excess of 200 gallons per minute, but not over 350 gallons per minute, one approved extinguisher having a minimum rating of 80-B;

   c. Where said capacity is in excess of 350 gallons per minute, two approved extinguishers, each having a minimum rating of 80-B.

5. By agreement, a suitable CAFS may also be used in lieu of the above extinguishers.

6. Extinguishers of over 50 pounds gross weight shall be of wheeled type or be mounted on carts to provide mobility and ease of handling.

C7.22# - EMERGENCY PRECAUTIONS.

PROJECT ACTIVITY LEVEL (PAL) – C7.22# - EMERGENCY PRECAUTIONS

PROJECT ACTIVITY LEVEL TABLE A (06/2012)

Level	***Project Activity Minimum Requirements and Restrictions. Restrictions at each level are cumulative.***
A	Minimum required by C7.2#.
B	1. Tank truck, trailer, or approved CAFS substitute shall be on or adjacent to the Active Landing.
C	1. When Hot Saws or Masticators are operating, a tank truck, trailer or approved CAFS substitute shall be within ¼ mile of these operations. Effective communications shall exist between the operator and the Active Landing. 2. Immediately after Mechanical Operations cease, Fire Patrol is required for two hours.
D	1. Immediately after Hot Saw or Masticator operations cease, Fire patrol is required for three hours. 2. No Dead Tree felling after 1:00 PM, except recently dead. 3. No Welding or cutting of metal after 1:00 PM, except by special permit.
Ev	1. The following activities may operate all day: a) Loading and hauling logs decked at approved landings. b) Loading and hauling chips stockpiled at approved landings. c) Servicing equipment at approved sites. d) Dust abatement, road maintenance (Chainsaw use prohibited), culvert installation within cleared area, chip sealing, paving, earth moving or rock aggregate stock pile loading and installation (does not include pit or quarry development). e) Chainsaw and log processing operations associated with loading logs or other forest products at approved landings. 2. Hot Saws or Masticators may operate until 1:00 PM; provided that: a) A tractor or other equipment with a blade capable of constructing fireline is on or adjacent to the active landing or within ¼ mile of the operating equipment. This piece of equipment shall have effective communication with the Hot Saw or Masticator. b) Any additional restrictions specified by the Forest. 3. All other conventional Mechanical Operations are permitted until 1:00 PM. **4. Some operations may be permitted after 1:00 PM, on a case-by-case basis, under the terms of a PAL Ev Variance Agreement. Activities for which a Variance may be issued are:**

	• **Rubber Tire Skidding** • **Chipping on Landings** • **Helicopter Yarding** • **Fire Salvage** When approved by a Line Officer, a Variance Agreement can be implemented when the criteria specified in the agreement are met and mitigation measures are in place. This approval is good for ten (10) days unless cancelled sooner or extended by the Contracting Officer for an additional ten (10) days. Variance approval can be withdrawn at the sole discretion of Forest Service. Variance approval is contingent on the 7-day fire weather forecast, fuel conditions, site characteristics, current fire situation, state of Purchaser's equipment for prevention and suppression readiness, type of operation and social and community considerations etc. (See attached Project Activity Level Variance Agreement).
E	The following activities may operate all day: 1. Loading and hauling logs decked at approved landings. 2. Loading and hauling chips stockpiled at approved landings. 3. Servicing Equipment at approved sites. 4. Dust abatement, road maintenance (chainsaw use prohibited) or loading stock piles and rock aggregate installation (does not include pit or quarry development). 5. Chainsaw operation associated with loading at approved landings. All other activities are prohibited.

SPECIFICATIONS PURSUANT TO C7.22# – EMERGENCY PRECAUTIONS. (10/2010)

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

Project Name: _____
Contract Number: _____
Purchaser/Contractor Name: _____
Request #__, for period: _____
Units/Subdivisions Affected: _____

Location of operation:	
Slope	
Aspect	
Elevation	
Fuels on site	
Fuels in surrounding area	
7 Day PAL Outlook	
Short range predictions (Red Flags)	

Fuel Moistures	
Response time of suppression resources	
Potential for ignition	
RAWS location	
Current Fire Situation:	
Draw down information	
National Readiness Level	
Contractual considerations:	
Normal Operating Season	
Frequency of recent contract fires in area	
Type of operation	
Purchaser/Contractors past/current performance & equipment readiness	
Other site specific mitigation or precaution (i.e. Purchaser/Contractors proposals)	
Social & Community Considerations:	
Proximity of high value resources	
Sensitivity of location	
Remarks:	

Ev Proposed Actions

- [ ] **Rubber Tired Skidding**
- [ ] **Chipping on Landings**
- [ ] **Helicopter Yarding**
- [ ] **Fire Salvage**

Description of Mitigation Measures

Fire Management Officer Concurrence _____ Date _____

Line Officer Approval _____ Date _____

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.

Contracting Officer _____ Date _____

Purchaser/Contractor Rep. _____ Date _____