

SPECIFICATIONS PURSUANT TO CT2.21# - UTILIZATION AND REMOVAL OF NON-SAWTIMBER PRODUCTS. (8/2006), Table A

Unit/Payment Unit	Products to be Removed
Payment Units 1 & 2	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 CT6.7#.
Payment Units 1 & 2	1. All limbs and tops that are attached after skidding to whole trees and portions of trees meeting specifications for Sawtimber Products.

SPECIFICATIONS PURSUANT TO CT2.35# - DESIGNATION OF TIMBER AND PAYMENT UNIT BOUNDARIES (8/2007), Timber Designation Table A

Unit/Payment Unit	Tree Paint Color	Designation or Specification
<p>Payment Units 1 & 2</p>	<p>Blue "C" or "X" or "H"</p>	<p><u>Roadside Hazard Tree</u>. Notwithstanding BT2.32 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.</p>
<p>Payment Units 1 & 2</p>	<p>Blue</p>	<p><u>Individual Tree Mark</u>. Individual trees are designated for cutting only if Marked above and below stump height with the specified paint color. Trees marked with the letters "NO" in Blue tracer paint and trees which have had black or brown tracer paint applied over white, blue or green paint are not designated for cutting.</p>
<p>Not Applicable</p>		<p><u>Leave Tree Mark</u>. 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.</p>
<p>Not Applicable</p>		<p><u>Salvage Area</u>. In addition to Roadside Hazard Trees, other dead and dying timber standing or down that meets the size specification in AT2, may be designated for cutting in Salvage Areas shown on the Sale Area Map when Marked with the specified paint color in advance of felling other timber in the vicinity.</p>

Sale Name: Casa (MP) Reoffer Timber Sale

Unit/Payment Unit	Tree Paint Color	Designation or Specification
Not Applicable		Wildlife Trees. Notwithstanding the designation for cutting under BT2.31, BT2.33, BT2.34, or BT2.35, 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.
Not Applicable		<u>Designation by Spacing CT2.351#</u>
Payment Units 1 & 2		<u>Designation by Species and Diameter, CT2.352#</u>
Payment Units 1 & 2		<u>Designation by Damage Class, CT2.353#</u>
Not Applicable		<u>Designation by Row Spacing, CT2.354#</u>

Payment Unit Boundary Designation Table A

<u>Payment Unit</u>	<u>Boundary Paint Color</u>	<u>Boundary Designation</u>
Sale Area	Orange	Cutting unit boundaries (except along roads) are designated with ORANGE tracer paint rectangular spots above DBH with at least two stump marks at ground level. Painted boundary trees are <u>not</u> designated for cutting. Boundary lines of cutting units are also flagged with white ribbon.

CT2.352# - Tree Designation Table

Payment Unit	Designated Species ^{1/}	More Than Stump Diameter (inches)	Less Than Stump Diameter (inches)
1 & 2	Live SP, DF, PP, IC & WF	4	13 14 ^{2/}

^{1/} Order of species preference for retention

^{2/} IC Only

CT5.12# - Restricted Road List

Road Number	Road Name	Termini		Map Legend	Description of Restrictions
		From	To		
2N07	2N07	1N04	2N93	U	Unsuitable for hauling prior to agreed reconstruction
2N93	2N93	2N07	EOP	U	Unsuitable for hauling prior to agreed reconstruction
2N07	2N07	Station 73+00	Station 89+00	R	<u>Hauling Restricted</u> – The road is log truck accessible, but is not wide to accommodate chip vans. Purchaser shall use alternate trucking methods to haul biomass material from Sale Area along this road segment. Any curve widening is prohibited.

CT5.31# - Contract Road Maintenance Requirements Summary Table

Road	Termini		Miles	Applicable Prehaul Road Maintenance Specifications									
	From	To		T-801	T-802	T-803	T-804	T-805	T-806	T-807	T-808	T-809	T-810
1N04	County Road	2N07	1.76	D	D	D	D	D	D	D	D	D	D
2N07	1N04	EOP	1.20		P	P		P		P			
2N93	2N07	EOP	0.65		P	P		P		P			
2N93A	2N93	EOP	0.03		P	P		P		P			

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

Road	Termini		Miles	Applicable During Haul Road Maintenance Specifications									
	From	To		T-801	T-802	T-803	T-804	T-805	T-806	T-807	T-808	T-809	T-810
1N04	County Road	2N07	1.76	D	D	D	D	D	D	D	D	D	D
2N07	1N04	EOP	1.20			P			P				
2N93	2N07	EOP	0.65			P			P				
2N93A	2N93	EOP	0.03			P			P				

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

Road	Termini		Miles	Applicable Post Haul Road Maintenance Specifications									
	From	To		T-801	T-802	T-803	T-804	T-805	T-806	T-807	T-808	T-809	T-810
1N04	County Road	2N07	1.76	D	D	D	D	D	D	D	D	D	D
2N07	1N04	EOP	1.20		P	P		P				P	P
2N93	2N07	EOP	0.65		P	P		P				P	
2N93A	2N93	EOP	0.03		P	P		P				P	

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

2/ See Drawings for Proposed Timber Sale Roads (High) for Locations and Maintenance/Reconstruction of drainage structures (dips, driveable waterbars and ditches)

Specifications Pursuant to CT5.35# - Requirements of Road and Water Supply Use Table A

<p>Load Limitations</p>	<p>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 BT6.311. 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.</p> <p>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.</p>																				
<p>Existing Non-National Forest System Roads</p>	<p>Roads not shown on Sale Area Map may be used as Temporary Roads if there is agreement before use is started.</p>																				
<p>Snow Removal</p>	<p>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.</p> <p>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.</p> <p>Snow must not be removed to the road surface. A minimum 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.</p> <p>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.</p>																				
<p>Water Supply Deposits</p>	<p>N/A</p>																				
<p>Surface Replacement Deposits</p>	<p>Purchaser shall make Required Deposits for deferred surface replacement (16 U.S.C. 537) for use of existing surfaced roads. If applicable, such deposits shall be based upon the volume and distance hauled on the roads and at the applicable rates listed in the table below titled Surface Replacement Deposit Schedule. If Purchaser uses surfaced roads under jurisdiction of Forest Service other than those listed, Forest Service may establish applicable rates for such surfaced roads.</p> <p style="text-align: center;"><u>SURFACE REPLACEMENT DEPOSIT SCHEDULE</u></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Road No.</th> <th style="width: 20%;">From</th> <th style="width: 20%;">To</th> <th style="width: 15%;">Miles</th> <th style="width: 30%;">Rate</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1N04</td> <td style="text-align: center;">End Co. Rd.</td> <td style="text-align: center;">2N07</td> <td style="text-align: center;">1.8</td> <td style="text-align: center;">\$0.37/CCF</td> </tr> <tr> <td style="text-align: center;">2N07</td> <td style="text-align: center;">1N04</td> <td style="text-align: center;">EOP</td> <td style="text-align: center;">1.2</td> <td style="text-align: center;">\$0.94/CCF</td> </tr> <tr> <td colspan="4" style="text-align: center;">Totals</td> <td style="text-align: center;">\$1.31/CCF</td> </tr> </tbody> </table>	Road No.	From	To	Miles	Rate	1N04	End Co. Rd.	2N07	1.8	\$0.37/CCF	2N07	1N04	EOP	1.2	\$0.94/CCF	Totals				\$1.31/CCF
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Totals				\$1.31/CCF																	

Sale Name: Casa (MP) Reoffer Timber Sale

SCHEDULE PURSUANT TO CT6.315# - SALE OPERATIONS SCHEDULE (8/2006), Table A

Payment Unit/ Area/Unit	Conditions of Operation	Purpose
Sale Area	<p>Included Timber must be removed from the Sale Area within:</p> <ol style="list-style-type: none"> 1. four weeks of felling from March 1 to June 30. 2. six weeks of felling from July 1 to September 30. 3. eight weeks of felling from October 1 to December 31 <p>If the Forest Service agrees in writing to allow Included Timber to remain on site from the end of the Normal Operating Season to March 1, material must be removed from the Sale Area before March 1. Logging slash must be treated in accordance with CT6.7# - Slash Treatment within:</p> <ol style="list-style-type: none"> 1. four weeks from March 1 to June 30. 2. six weeks from July 1 to Sept. 30. 3. eight weeks from Oct. 1 to Feb. 29 	Control of slash breeding insects.
Sale Area	All Included Products felled in the woods or decked at landings must be removed within 30 days of cutting from June 1 - September 30 inclusive. Outside of this time period, felling shall be limited to the amount of Included Products that can be removed from the Sale Area within 8 weeks or prior to March 1, whichever is sooner.	Fuels reduction during period of high fire danger.

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Specifications and Treatments Pursuant to CT6.41# -
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 BT6.413, 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 3 inches, at which point the top shall be cut from the remainder of the stem.		
No Lop	N/A		
Whole Tree Yarding "Whole"	Notwithstanding the requirements above, within units or payment units, designated "Whole" on Sale Area Map, trees smaller than 18 inches DBH shall be skidded/yarded to agreed landing locations prior to limbing, bucking, and lopping. Trees larger than or equal to 18 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 <u>boundary trees, survey monuments, controlled areas, streamcourses, meadows, fences, gates, cattleguards, roads, survey monuments, and dispersed campsites</u> 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	N/A		
Maximum Log Length	Cut trees shall be bucked prior to skidding so that resulting logs shall not exceed the maximum log length including trim allowance shown in following table:		
Minimum Stump Height	Payment Unit	Min. Stump Ht.	Purpose or Reason
	Sale Area	2.0 Inch	Facilitate timber accountability

CT6.42# - Ground-Based Skidding, Table A

Map Symbol	Requirements
TRAC	<p>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.</p> <p>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.</p>
SUSP	<p>Products shall be skidded with leading end clear of ground.</p>
SPACE	<p>Skid roads will average <u>132</u> feet from center to center, except where converging.</p>
ENDL	<p>Endlining shall not be required for distances in excess of <u>120</u> feet uphill, and <u>60</u> feet downhill.</p>
MAX	<p>Tractors used for skidding outside Clearcutting Units, regeneration units or other authorized clearings, shall be of the type (rubber-tired or track-laying) shown on the Sale Area Map and shall not exceed the overall width designated on Sale Area Map.</p>
MH	<p>Purchaser shall cut Included Timber and move it to designated skid trails using equipment with a boom having an operating radius of at least <u>20</u> feet for bunching trees, capable of severing, lowering and placing trees up to <u>24</u> inches diameter at stump height on the ground prior to skidding. Such equipment must be capable of operating on slopes up to <u>45</u> %.</p> <p>Notwithstanding above, hand felling using chainsaws may be required in or adjacent to sensitive areas to protect resources from unnecessary damage.</p> <p>Trees which exceed capability of specified equipment may be felled, bucked and skidded in a manner consistent with the requirements of BT6.41 - Felling and Bucking, CT6.41# - Felling, Bucking, and Limbing Requirements and the above “TRAC”, “SUSP”, “SPACE”, “ENDL”, and “MAX” requirements.</p>
CTL	<p>N/A</p>

Specifications Pursuant to CT6.6# - Erosion Prevention and Control, Table A

<u>Vegetative Soil Stabilization:</u> N/A		
<u>Special Erosion Prevention Measures:</u> N/A		
<u>Soil Scarification:</u> N/A.		
<u>Backblading:</u> N/A		
<p><u>Tillage:</u> In addition to meeting the requirements of BT6.64, unless otherwise agreed in writing, tillage shall be required on the areas listed in the following table.</p> <p>Tillage shall be accomplished by equipment that will lift and fracture the soil by vertical and lateral shattering, leaving soil loosened through the full width and depth of the compacted layer with the topsoil remaining substantially in place rather than being inverted.</p> <p>Tillage depth is shown in the following table. Agreement in writing may be made to a lesser depth if rocks or other limiting site conditions are encountered.</p> <p>Tillage shall be limited to periods when soil dryness will result in crumbled soil, avoiding the formation of large clods. Purchaser and Forest Service shall agree in writing on the timing of completion of such work to coordinate with desirable soil moisture conditions.</p>		
Areas to Till	Tillage Depth (Inches)	Maximum Acres to Treat
Landings	24"	6
Main Skid Roads and Tractor Roads designated by Forest Service (less than 20% gradient)	18"	4
Temporary Roads	24"	0.5

SPECIFICATIONS PURSUANT TO CT6.7# - SLASH TREATMENT (8/2006), Table A

Specified slash treatment methods shall be shown on Sale Area Map or listed in the following tables by the following symbols:

Slash Treatment Methods

<u>Symbol</u>	<u>Method</u>	<u>Definition</u>
CHIP	"Chipping"	Chippable Logging Slash up to 4 inches in d.o.b. shall be processed through a chipping machine. Chips shall be scattered to a loose depth not exceeding 6 inches.
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 10 inches in large end d.o.b. and 6 feet long shall be hand Piled for disposal by Forest Service.
REMOVE	"Removing"	Logging Slash shall be moved or hauled to locations shown on Sale Area Map and designated on the ground where it shall be piled for disposal by Forest Service.
SCAT 18"	"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.
COVER	"Covering Piles"	All piles shall be covered with a durable waterproof covering as approved by Forest Service. The material shall be at least six feet in width. Piles shall not be less than fifty percent covered, with the covering extending not less than half way down all sides. Pieces of burnable material shall be placed on top of the durable waterproof covering to keep the covering from blowing off the pile.
FELL	"Damaged Small Tress"	Unless treated under other provisions, all trees smaller than the minimum d.b.h. in AT2, over 5 feet in height, and damaged beyond recovery by Purchaser's Operations shall be felled. Such trees shall be limbed to a stem diameter outside bark of approximately 3 inches, at which point the top shall be cut from the remainder of the stem, and shall be

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		bucked into lengths not exceeding 20 feet.
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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 120 inches. Machine Piling is not required on areas where use of tractors would cause undue damage to residual timber or where slopes exceed 30 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 10 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 NUMBER. SLASH TREATMENT SPECIFICATIONS.

	<i>SLASH TREATMENT</i>	
<i>Unit No:</i>	<i>Specified Method</i>	<i>Prohibited Method</i>
Entire Sale Area	SCAT 18", FELL & COVER	

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.

	<i>SLASH TREATMENT</i>		
	<i>Unit No.</i>	<i>Specified Method</i>	<i>Maximum Height of Decks</i>
Landings	Entire Sale Area	MACH	10 Feet
Disposal Sites	Entire Sale Area	MACH	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.

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TREATMENT ALONG PERMANENT ROADS (cont.)

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	
<i>Road No.</i>	<i>Unit No.</i>	<i>Width of Required Disposal Strip</i>	<i>Specified Method</i>	<i>Slash Larger Than Treatment Size Requirements of Specified Method</i>
All F.S. Roads	241, 242 & 243	50 feet	PILE	REMOVE

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.

//////			ADDITIONAL SLASH TREATMENT REQ.	
<i>Disposal Strip (Adjacent to)</i>	<i>Unit No.</i>	<i>Width of Required Disposal Strip</i>	<i>Specified Method</i>	<i>Slash Larger Than Treatment Size Requirements of Specified Method</i>
Other Ownership	241, 242 & 243	100 feet	PILE (a minimum of 50 feet away from property line)	REMOVE

CT6.82# - Measuring – Opt. 2, Table A

Casa (MP) Reoffer Timber Sale
 Tree Volume (based on original cruise tree data)
 (Volume in Cubic Feet - CF)

PP, JP		DF		IC		SP	
DBH	Volume	DBH	Volume	DBH	Volume	DBH	Volume
10 in.	8.50	10 in.	9.72	10 in.	2.10	10 in.	7.86
11 in.	10.13	11 in.	12.45	11 in.	4.82	11 in.	10.43
12 in.	12.51	12 in.	15.61	12 in.	7.85	12 in.	13.50
13 in.	15.62	13 in.	19.22	13 in.	11.20	13 in.	17.13
14 in.	19.48	14 in.	23.30	14 in.	14.86	14 in.	21.34
15 in.	24.07	15 in.	27.87	15 in.	18.84	15 in.	26.20
16 in.	29.41	16 in.	32.96	16 in.	23.13	16 in.	31.73
17 in.	35.48	17 in.	38.58	17 in.	27.74	17 in.	37.99
18 in.	42.30	18 in.	44.76	18 in.	32.66	18 in.	45.02
19 in.	49.86	19 in.	51.51	19 in.	37.89	19 in.	52.87
20 in.	58.15	20 in.	58.85	20 in.	43.45	20 in.	61.57
21 in.	67.19	21 in.	66.80	21 in.	49.31	21 in.	71.17
22 in.	76.96	22 in.	75.38	22 in.	55.49	22 in.	81.71
23 in.	87.48	23 in.	84.60	23 in.	61.99	23 in.	93.25
24 in.	98.73	24 in.	94.49	24 in.	68.80	24 in.	105.81

CT7.2# - Specific Equipment Requirements and Fire Precautionary Measures, Table A

<p>A. <u>Fire Tools and Equipment</u></p>	<p>Purchaser shall meet applicable parts of Section 4428 of the California Public Resources Code (CPRC).</p> <p>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 weather proof fire tool box adjacent to the Active Landing and readily accessible in event of fire. The tool box shall be painted red and have "Fire Tools" written on the box in 3-4 inch letters.</p> <p>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 packpack 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.</p> <p>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.</p> <p>The fire patrol vehicle shall be equipped to fight fire with the following: 1) a serviceable 5 gallon packpack pump filled with water, 2) a shovel or McLeod fire tool, 3) either a double bit ax or serviceable chainsaw with a minimum 20-inch bar, and 4) serviceable communications equipment (CT7.2 Item O).</p> <p>All required fire tools shall be maintained in suitable and serviceable condition for fire fighting purposes.</p>
<p>B. <u>Fire Extinguishers</u></p>	<p>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.</p> <p>Log trucks, pickups and other similar mobile equipment, including skidders and tractors, shall be equipped with a minimum 5-BC fire extinguisher.</p> <p>Fire extinguishers shall be mounted, readily accessible, properly maintained and fully charged.</p> <p>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 delimeter, etc), with at least two 4-A:60-B:C fire extinguishers or equivalent. (CT7.2 Item M)</p>
<p>C. <u>Spark Arresters</u></p>	<p>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.</p> <p>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.</p> <p>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.</p>

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<p>D. <u>Power Saws</u></p>	<p>Each power saw shall be equipped with a spark arrester approved and maintained in effective working order as identified in the Spark Arrester Guide in C above and according to applicable parts of CPRC Section 4442 or 4443. An Underwriters Laboratories (UL) approved fire extinguisher containing a minimum 14 ounces of fire retardant shall be kept with each operating saw, unless provided otherwise in CPRC Section 4431.</p> <p>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.</p>
<p>E. <u>Fire Supervisor and Fire Patrolperson</u></p>	<p>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.</p> <p>Unless agreed otherwise, Purchaser shall furnish and designate in writing, a Fire Patrolperson each operating day when Project Activity Level B 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, to document the areas covered during the patrol with approximate times of the coverage in each area, and to notify the Forest Service as required under Items K. <u>Reporting Fires</u> and N. <u>Communications</u>.</p> <p>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.</p> <p>On operations utilizing mechanized harvesters with High Speed Rotary Saws (Hot saws) or Masticators, the patrol will conduct inspections using an approach capable of detecting small smoldering fires. The patrol must cover, on foot, the area worked that day. The patrol's vehicle shall be parked within or as closely as possible to the area being patrolled. The patrol shall carry a round point shovel with an overall length of at least 46 inches during the patrol.</p>
<p>F. <u>Seasonal Permits</u></p>	<p>Purchaser shall obtain written permits from Forest Service before allowing attended warming fires, burning, or blasting, subject to C(T)7.22# – Emergency Precautions. In addition, Purchaser shall obtain necessary Explosives Permits as required by California Health and Safety Code, Section 12101.</p>
<p>G. <u>Blasting</u></p>	<p>Purchaser shall use electric caps only unless otherwise agreed in writing. When blasting is necessary in slash areas, a watchperson 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.</p>

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<p>H. <u>Clearing of Fuels</u></p>	<p>Purchaser shall clear away, and keep clear, fuels and logging debris as follows:</p> <table border="1"> <tr> <td data-bbox="488 380 883 520"> <p>Welding equipment and stationary log loaders, yarders and other equipment listed in California State Law:</p> </td> <td data-bbox="883 380 1484 520"> <p>10 feet slope radius</p> </td> </tr> <tr> <td data-bbox="488 520 883 688"> <p>Tail or corner haulback blocks:</p> </td> <td data-bbox="883 520 1484 688"> <p>During the period when burning permits are required, all tail and side blocks on a cable setting shall be located in the the center of an area that is either cleared to mineral soil or covered with a fireproof blanket that is at least 15 feet in diameter.</p> </td> </tr> <tr> <td data-bbox="488 688 883 772"> <p>Lines near, between or above blocks:</p> </td> <td data-bbox="883 688 1484 772"> <p>Sufficient clearing to prevent line from rubbing on snags, down logs and other dead woody material.</p> </td> </tr> <tr> <td data-bbox="488 772 883 877"> <p>Skidders, Harvesters, Chippers, Masticators and other similar equipment:</p> </td> <td data-bbox="883 772 1484 877"> <p>Remove concentrations of wood dust and debris from such equipment daily.</p> </td> </tr> <tr> <td data-bbox="488 877 883 1016"> <p>Mechanized harvesters with High Speed Rotary Saws (Hot Saws)</p> </td> <td data-bbox="883 877 1484 1016"> <p>Equipment operators are required to assure that if wood debris or chips are accumulating in the cutting head, they clean out the blade guard no less frequently than every two hours during operations.</p> </td> </tr> </table>	<p>Welding equipment and stationary log loaders, yarders and other equipment listed in California State Law:</p>	<p>10 feet slope radius</p>	<p>Tail or corner haulback blocks:</p>	<p>During the period when burning permits are required, all tail and side blocks on a cable setting shall be located in the the center of an area that is either cleared to mineral soil or covered with a fireproof blanket that is at least 15 feet in diameter.</p>	<p>Lines near, between or above blocks:</p>	<p>Sufficient clearing to prevent line from rubbing on snags, down logs and other dead woody material.</p>	<p>Skidders, Harvesters, Chippers, Masticators and other similar equipment:</p>	<p>Remove concentrations of wood dust and debris from such equipment daily.</p>	<p>Mechanized harvesters with High Speed Rotary Saws (Hot Saws)</p>	<p>Equipment operators are required to assure that if wood debris or chips are accumulating in the cutting head, they clean out the blade guard no less frequently than every two hours during operations.</p>
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<p>I. <u>Oil Filters and Glass Jugs</u></p>	<p>Purchaser shall remove from National Forest lands oily rags and used oil filters and shall prohibit use of glass bottles and jugs in Purchaser's Operations.</p>										
<p>J. <u>Smoking</u></p>	<p>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 (CT7.22#). At other times, any smoking shall be done while sitting in an area at least 3 feet in diameter, cleared of flammable materials.</p> <p>Burning tobacco and matches shall be extinguished before they are properly disposed.</p>										
<p>K. <u>Reporting Fires</u></p>	<p>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.</p>										
<p>L. <u>Tank Truck</u></p>	<p>Purchaser shall meet minimum requirements of Section 4430 of the California Public Resources Code (C.P.R.C.).</p> <p>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.</p> <p>When Project Activity Level B or higher is in effect, a tank truck or trailer shall be on or within ten (10) roundtrip minutes to each Active Landing unless otherwise excepted when Hot Saw or masticator is being used. See CT7.22# for specific contract requirements.</p> <p>Tank truck or trailer shall contain at least 300 gallons of water and comply with the following requirements:</p> <ol style="list-style-type: none"> (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 using a 5/16 inch orifice in the Forester One Inch In-Line Gauge test kit or an equivalent water flow test kit. Pump shall meet or exceed the pressure value in the following table for nearest temperature and elevation: 										

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T e m p	Sea m 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
	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P
	I	M	I	M	I	M	I	M	I	M	I	M	I	M	I	M	I	M	I	M	I	M

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

(2) 300 feet of 3/4-inch inside diameter rubber-covered high-pressure hose mounted on live reel attached to pump with no segments longer than 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 pump at least 2 hours and necessary service accessories to facilitate efficient operation of the pump.

(5) Ample power and hitch shall be readily accessible for promptly and safely moving tank truck or trailer over roads serving Sale Area or terrain traveled by Hotsaws or masticators.

(6) When Purchaser is using Mechanized harvesters with High Speed Rotary Saws (Hot Saws) or Masticators, an additional 250 feet of comparable hose shall be immediately available for use and be capable of connecting to the 300 feet of hose and appurturances in (2) and (3) above. Additional hose lengths shall not exceed 100 feet in length.

When Purchaser is using Hot Saw Technology, an additional 500 feet of not less than one (1) inch outside diameter servicable hard rubber or rubber lined or fiber jacket rubber lined FJRL hose shall be immediately available for use and be capable of connecting to the 300 feet of hose and appurturances in (2) and (3) above. Syntheic hose may be used by aggrement.

M. Compressed Air Foam System (CAFS)

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.

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	<p>3. The unit shall contain enough energy to empty tank and clear hose prior to exhausting propellant.</p> <p>4. The unit shall be capable of being completely recharged within 10 minutes.</p> <p>5. When used on yarder landings, the unit shall be outfitted for immediate attachment to carriage and transported without damage to the unit.</p> <p>Fire extinguishers required for Hot Saws, masticators and similar equipment identified in B. above may be substituted with a CAFS that provides a minimum of 3 gallons of water and has a minimum discharge range of 20 feet. The system must have enough water, air and foam concentrate to recharge the system once.</p> <p>Tank truck, trailer, All Terrain Tank Truck or Equivalent may be substituted with a CAFS. Systems shall provide a minimum of 60 gallons stored energy with 500 feet of one inch hose, an adjustable one inch nozzle providing a minimum discharge range of 70 feet and must have enough water; air and foam concentrate for a minimum of two recharges or a system that provides a minimum of 30 gallons stored energy with enough water; air and foam concentrate for a minimum of five recharges. Systems shall be mobile, readily accessible and equipped so that it can be moved safely over Sale Area roads or terrain traveled by Hot Saws or masticators.</p> <p>If, in the opinion of the Contracting Officer, it becomes apparent that this equipment cannot provide fire protection equal to the tank truck or trailer listed above, the Contracting Officer will rescind this substitution of requirements.</p>
<p>N. <u>Portable Fire Tank</u></p>	<p>By agreement, Purchaser may substitute a Portable Fire Tank in lieu of the tank truck or trailer. A portable water tank, pump and accessories that meets all C(T) 7.2# Tank Truck minimum specifications, with the exception of the live reel, plus a charged hose lay within 200 feet of operations and enough additional hose on site to complete the hose lay to where the Hotsaw or masticator is working.</p>
<p>O. <u>Communications</u></p>	<p>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 <u>15 minutes of discovery of any fires</u> 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.</p> <p>The communication system shall provide prompt and reliable communications during all hours of operations, including fire patrol person, between Purchasers headquarters or the agreed to alternative notification method and Forest Service during the Fire Precautionary Period.</p> <p>A Citizen's Band (CB) radio is not acceptable communication for timber sale operations as FCC Regulations prohibit commercial use.</p>
<p>P. <u>Skyline Tank Unit</u></p>	<p>When all or part of Included Timber will be yarded by a long span (over 1,500 feet) skyline, Purchaser shall provide at each active skyline landing a suitable tank trailer, or tank unit or CAFS which can be lifted and transported by the skyline carriage.</p> <p>The unit shall meet the same requirements as specified for the water tank truck or trailer or approved substitute.</p> <p>The CAFS shall be located and outfitted for immediate use at the landing, and equipped for undamaged delivery to any portion of the operation by use of the rigging system.</p> <p>The tank unit or CAFS shall be deliverable to a fire, in the area of skyline operations, within 15 minutes of detection.</p>

**Q. 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.

PROJECT ACTIVITY LEVEL (PAL) - CT7.22# - EMERGENCY PRECAUTIONS

PROJECT ACTIVITY LEVEL TABLE

Level	Project Activity Minimum Requirements and Restrictions. Restrictions at each level are cumulative.
A	Minimum required by CT7.2#.
B	<ol style="list-style-type: none"> 1. Fire Patrolperson is required for at least one hour after operations cease, the Fire Patrolperson(s) must walk and visually inspect all areas operated that day.(CT7.2#) 2. Tank truck, trailer, or comparable CAFS, shall be on or within 10 roundtrip minutes road travel to each Active Landing. (CT7.2#) 3. Mechanized harvesters with High Speed Rotary Saws (Hot Saws) and Masticators: <ol style="list-style-type: none"> A. Fire patrol is required throughout the first two hours after cessation of felling, the Fire Patrolperson(s) must walk and visually inspect all areas operated that day(CT7.2#). B. Equipment operating within one quarter mile of the Active Landing. <ol style="list-style-type: none"> 1) All Terrain Tank Truck, trailer or comparable CAFS shall be on or within ten (10) roundtrip minutes to each Active Landing. 2) Serviceable Communications shall exist between the equipment operators, landing personnel, and designated Fire Supervisor. C. Equipment operating beyond one quarter mile of the Active Landing. <ol style="list-style-type: none"> 1) In addition to the above requirements, an approved CAFS with minimum requirements of 20 gallons stored energy, 100 feet of 1 inch hose and adjustable 1 inch nozzle, minimum discharge range of 60 feet(CT7.2#,Item M) or equivalent within the Immediate Vicinity of the equipment is required. D. Equipment operating independently without an Active Landing. <ol style="list-style-type: none"> 1) All Terrain Tank Truck or Equivalent shall be within the Immediate Vicinity of the equipment. 2) Serviceable Communications shall exist between the equipment operators, Purchaser's main office and designated Fire Supervisor (CT7.2#, Item O).
C	<p>The following operations are prohibited from 1:00 PM until 8:00 PM except as noted:</p> <ol style="list-style-type: none"> a. Mechanized harvesters with High Speed Rotary Saws (Hot Saws) and Masticators - except that Hot Saws and masticators may operate between 1:00 PM and 8:00 PM provided that an All Terrain Tank Truck or Equivalent or comparable CAFS shall be within the Immediate Vicinity of the equipment. b. Blasting c. Dead tree felling, except recently dead.

<p>D</p>	<p>The following restrictions apply:</p> <ol style="list-style-type: none">1. The following activities may operate when a Fire Patrolperson(s) walks all areas operated that day, starting at 1:00 PM, at least once per hour until sunset:<ol style="list-style-type: none">a) Track-laying equipment in skidding, erosion control, felling, and piling operations.b) Chipping outside of approved landings and roadbeds.c) Cable Yarding with Approved Motorized Carriages. Carriage shall remain a minimum of ten feet above the ground at all times, except while at the landing.d) Mechanical limbing and log manufacturing outside of approved landings and roadbeds.e) Ripping roads and landings, sub soiling and water barring.f) Chainsaw operations outside of approved landings and roadbeds.2. Mechanized harvesters with High Speed Rotary Saws (Hot Saws) and Masticators may operate; provided that:<ol style="list-style-type: none">a) An All Terrain Tank Truck or Equivalent shall be within the Immediate Vicinity of the equipment.b) Within the first hour of mechanized harvester operation and at least once per hour until sunset, the Fire Patrolperson(s) must walk and visually inspect all areas operated that day.3. No blasting after 10:00 AM.4. Welding or cutting of metal only by special permit.5. No burning.
<p>Ev</p>	<ol style="list-style-type: none">1. The following operations are prohibited:<ol style="list-style-type: none">a) Blasting.b) Welding or cutting metal.c) Burning.d) Smoking outside a vehicle.2. The following activities may operate all day:<ol style="list-style-type: none">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.3. Mechanized harvesters with High Speed Rotary Saws (Hot Saws) or Masticators may operate until 1:00 PM; provided that:<ol style="list-style-type: none">a) An All Terrain Tank Truck or Equivalent shall be within the Immediate Vicinity of the equipmentb) Within the first hour of mechanized harvester operation and at least once per hour until sunset, the Fire Patrolperson(s) must walk and visually inspect all areas operated that day.

4. All other Mechanical Operations are permitted until 1:00 PM when a Fire Patrolperson(s) walks all areas operated that day, starting at 9:00 AM, at least once per hour and continues until at least two hours after Mechanical Operations cease.
5. Some operations, on a case-by-case basis, may be permitted after 1:00 PM under the terms of a PAL Ev Variance Agreement. Activities for which a Variance may be issued are limited to the following operations:

- Rubber tire skidding
- Chipping on Landings
- Helicopter Yarding.

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 10-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. All other activities are prohibited.

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.