

Contract Name: Io Stewardship

K-C.1.1# - TIMBER SUBJECT TO AGREEMENT (09/2004)

In addition, there is within Contract Area an unestimated quantity of:

Species	Product
All Species Landing Piles	Grn Bio Cv

that shall be Included Timber upon written agreement.

K-C.3# - RESERVE TREES (09/2004)

Notwithstanding the designations for cutting under C.3.1, C.3.2, C.3.3, or C.3.4, live or dead genetic and bearing reserve trees or groups of reserve trees within such cutting units or clearings shall be left uncut. Reserve trees are identified by a wide orange paint band at DBH with at least one stump mark for genetic trees and an orange paint band at DBH with at least one stump mark with a bearing tree tag for bearing trees and shall be protected in accordance with K-G.3.2#. Units with reserve trees are shown on Contract Area Map.

K-C.3.5.5# - DESIGNATION BY PRESCRIPTION (09/2004)

Within Subdivision(s) or cutting unit(s) 1-28, as shown on Contract Area Map, the following criteria shall be used by Contractor to designate trees and other products for cutting and removal. Contractor shall Mark leave trees with Contractor's non-tracer orange paint. Forest Service shall inspect and approve Marking prior to cutting.

- (a) See pages 44a-44d for Designation Specifications.
- (b) Additional trees to be cut, if any, are Marked by Forest Service with green tracer paint.
- (c) Cutting unit boundaries and other trees that shall be left uncut are Marked by Forest Service with orange tracer paint.

K-C.3.5.5#- Designation By Prescription (09/2004):

THINNING SPECIFICATIONS FOR TREES 9.0 to 20.9 inches DBH :

Thin from below with variability in density, spacing and structure including irregular spatial arrangement representing horizontal and vertical variability of tree/crown position within the units. Strive for an irregular mosaic of clumps of trees. Do not cut dead trees.

Retain all trees ≥ 21.0 " DBH. Stump diameters for all trees shall not exceed 24 inches when measured at a stump height of 6.0 inches above the ground level on the uphill side of the tree.

Leave the largest, healthiest trees available with the least bole defect. Trees with bole defects can be left if needed to meet density or spatial arrangement specifications.

Smaller trees may be left if needed to meet spatial arrangement objectives of patchy and clumpy.

The selection of species to leave will be in the following order of preference (from the most desirable to least desirable): ponderosa pine, lodgepole pine, and white fir.

These stands are dominated by second growth ponderosa pine and are fairly uniform. Consequently, look for any opportunity to maintain and/ or enhance unique structural components that may be present. Work with the existing spatial arrangement at any particular location. Use the largest trees in any particular location as the focal point for building patches and clumps of trees.

For example, large old growth trees and patches of trees, clumps of second growth that is stratifying both horizontally and vertically, new/younger cohorts and opportunities where existing gaps that can be expanded or new gaps created.

Remove second growth trees from around old growth trees by leaving 30-50 square feet of basal area per acre around those old growth trees. The exception to this would be when the old growth tree appears very unhealthy (as defined by 2 or more of the following characteristics):

1. $<30\%$ live crown ratio
2. $\geq 50\%$ of foliage is chlorotic (yellowing/ browning)
3. Dead or broken top without a live terminal leader
4. Stem cankers or galls
5. Stem pitching or pitch tubes

Look for arrangements of trees in which the trees within clump have already started to stratify into different size trees similar to what you might find in historic old growth clumps. Leave trees <9.0 " DBH in these clumps if they appear a natural part of the clump.

Look for "natural" arrangements of trees in which the trees are starting to stratify vertically from which to build clumps, especially in the "mid-cohort" structural component.

Clump size can vary between 1 and 2 trees to as many as 10 to 20 or more trees.

Create separation between patches by deliberately removing trees between clumps to create small gaps. This would especially apply between clumps of trees with old growth characteristics and second growth or mid-cohort clumps. Try to make good separation 50'-100' + between old growth clumps and younger tree clumps.

Be sure to space clumps/trees to reach the overall average densities.

Density

Densities will be widely variable due to the nature of the variable and irregular spatial arrangement. However, the averages, especially in the areas dominated by second growth black bark trees, will be as follows:

Units	Size Class of Residual Trees (DBH)	Average Basal Area/Acre	Average Trees/Acre	Spacing	
				Average	Range
All	<9"	See below			
All	9"-12"	30-50	40-55	29'	27'-31'
All	13"-17"	50-70	36-51	33'	30'-36'
All	18"-21"	70-90	29-36	35'	33'-38'
All	21"+	80-100	29-36	40'	35'-45'

The overall stand averages for density should be between 60 and 80 BA.

THINNING SPECIFICATIONS FOR TREES 6.0 to 8.99 inches DBH:

Thin from below with variability in a density, spacing and structure. Strive for an irregular mosaic of patches/groups/clumps of trees.

Leave all old growth trees of any species regardless of size, condition, density or spatial arrangement.

Leave the healthiest dominant/co-dominant trees regardless of spacing. Leave clumps 25 feet from residual trees (greater than 9.0" DBH) that range between a few to 4-9 trees, with small gaps in between. Don't strive for uniformity of spacing, but rather an irregular mosaic of patches/groups/clumps/ of trees. Leave intermediate and suppressed trees if appropriate to creating a groups & clumps.

The density of trees <9" DBH will depend on the presence of trees ≥ 9" DBH. When trees ≥ 9" DBH are present, then leave trees < 9" DBH on a 25' to 35' spacing from trees ≥ 9" DBH. When no trees ≥ 9" DBH are present, then leave trees < 9" DBH on a 20' - 30' spacing. The spacings above are

just an average; be sure to strive for variability in density, spacing and structure. Trees <9.0" DBH can be left among trees ≥ 9.0" DBH if they are part of the natural arrangement of a clump.

The selection of species to leave will be in the following order of preference (from the most desirable to the least desirable): ponderosa pine, and white fir.

Please note:

Some areas of these units are dominated by trees < 9.0" DBH with scattered trees >9.0" DBH. In these areas, the density of trees >9.0" DBH is less than the target density and no trees >9.0" DBH will need to be cut.

Additionally, there are clumps of trees in these units that are dominated by Old Growth. In these old growth clumps, no trees >9.0" DBH will need to be cut. The only trees that could be cut in these old growth clumps are obvious second growth trees that have encroached into the clump.

In other words, there will be some areas in these units that will just be thinning <9.0" DBH trees and will more or less be "walk-through" areas.

Cutting Guidelines for trees less than 9.0 inches:

(a) Trees to Cut:

- (1) All live trees between 6.0 and 8.99 inches DBH not needed to meet variable spacing requirements, or not otherwise designated as a leave tree or a reserve tree.
- (2) All dead trees between 6.0 and 8.99 inches DBH.

(b) Cut trees shall be:

- (1) Cut below the lowest live limb. Live limbs are acceptable on a stump cut within 2 inches of the ground surface.
- (2) Cut so that stumps are no more than 12 inches above the ground level, preferably no more than 6 inches.
- (3) Completely severed from the stump. Stump angle shall be less than 30 degrees.
- (4) Felled away from all roads, established trails, streams, fence lines, utilities, etc.
- (5) Felled to remain within the contract unit boundary and not be hung up.
- (6) Whenever possible, felled away from leave trees, activity-created or existing slash brush, toward openings, skid trails and landings.

Definitions:

Clumps:

Clumps are groups of trees that can vary between 1 and 2 to as many as 10 to 20 trees or more. Generally, clumps have trees within 15-20ft of other trees and are separated by gaps from other clump and oftentimes include one or more healthy dominant trees.

Gaps:

Gaps are areas varying from 0.25 to 1 acre in size in which no trees occupy the area.

Old growth:

These are the oldest cohort of trees characterized by orange/yellow platey bark. The crowns are well developed with large droopy branches. The tops of the crowns have reached their full height and are generally flat to rounded. Trees in this cohort can be very large to fairly small. The trees in this cohort are generally over 200 years old with the oldest trees being 300 to 500 years old.

Second growth:

These are the smaller younger cohort of trees characterized by black bark, also known as black-bark trees. The crowns of these trees are not well developed and have pointed tops that have not reached their full height and have room to grow taller. Trees in this cohort are generally 3"-16" DBH. The trees in this size class are generally 40 to 100 years old.

Mid-Cohort:

These trees in which the tree characteristics are intermediate between the old growth and the second growth trees. The bark of these trees is developed beyond the characteristics of the black bark trees but do not quite have the deep yellow/orange color or plateyness of the old growth cohort. The crowns of these trees are also intermediate in that they are better developed than the second growth but not as well developed as in old growth trees. The trees in this size class are generally 100 to 200 years old

Young Growth:

These are the youngest and smallest trees in the stands. Trees in this cohort are generally <3" DBH and are generally <40 years old.

Contract Name: Io Stewardship

K-D.4.7# - ABNORMAL DELAY (05/2005)

Unless otherwise agreed, felled timber meeting Utilization Standards shall be removed by Contractor pursuant to C.2 and shall be presented for Scaling within the time period indicated in the following removal schedule. The number of days shown are consecutive calendar days.

Failure to remove and present such timber for Scaling within the required time limits will be considered abnormal delay, subject to D.4.7.

See attached removal schedule.

TABLE PURSUANT TO K-D.4.7# - ABNORMAL DELAY (05/2005)

<u>Included Timber</u>		<u>Time Limits</u>
ALL	60	days after felling is started.
All timber decked during construction clearing.	N/A	days after felling on each Specified Road constructed by Contractor is initiated.
Timber decked during road construction.	N/A	days after Forest Service authorizes Contractor to use roads pursuant to F.2.

Contract Name: Io Stewardship

K-E.2.2 - CHANGES IN STEWARDSHIP CREDITS (06/2008)

The Contracting Officer may at any time, by written order, make changes within the general scope of this contract in any one or more of the following:

- (1) Specifications for Stewardship Projects listed in K-G.9#.
- (2) Quantities of Stewardship Projects listed in A.4.3.
- (3) Prices for Stewardship Projects listed in A.4.3.
- (4) Place of performance of the Stewardship Projects as shown on the Contract Area Map.

In addition, by written agreement, new Stewardship Projects may be added to K-G.9# and A.4.3 as long as they are within the general scope of this contract. Contract Area may be expanded to add new stewardship projects.

If a written change order causes an increase in the time required for performing any part of the work under this contract, the Contracting Officer shall make an adjustment in the Contract Termination Date and shall modify the contract accordingly.

The Contractor must assert their right to equitable adjustments under this provision within 30 days from receipt of the written order. However, if the Contracting Officer decides that the facts justify it, the Contracting Officer may receive and act upon a proposal submitted before contract closure.

If the Contractor's proposal includes the cost of property made obsolete or excess by the change, the Contracting Officer shall have the right to prescribe the manner of the disposition of the property.

Failure to agree to an adjustment under this provision shall be considered a dispute under J.2. However, nothing in this provision shall excuse the Contractor from proceeding with the contract as changed.

In addition, by written modification of the contract, new Stewardship Projects may be added to K-G.9# and A.4.3, with or without expanding the Contract Area, as long as they are within the general scope of this contract.

Contract Name: Io Stewardship

K-E.4 - PAYMENTS NOT RECEIVED (08/2012)

(a) Payments are due and payable on the date of issue indicated on the bill for collection. When a payment for timber cut and other charges is not received at the location designated by Forest Service by the date specified in the bill for collection, Contracting Officer will suspend all or any part of Contractor's Operations until payment or acceptable payment guarantee is received. Other charges include, but are not limited to:

- (i) Slash disposal, road maintenance, and contract scaling deposits;
- (ii) Cooperative work at rates established by specific agreement under E.2.1.8;
- (iii) Damages pursuant to J.4;
- (iv) Road use fees;
- (v) Restoration of downpayment pursuant to E.2.2;
- (vi) Periodic payments pursuant to E.2.1.3;
- (vii) Extension Deposits pursuant to E.2.1.7; and
- (viii) Other mandatory deposits.

(b) Failure to pay amounts due by the date specified in the bill for collection shall be considered a breach under J.3. The 30-day notice period prescribed therein shall begin to run as of the end of business on the date specified for receipt of payments. If the performance or payment is guaranteed by surety bond, the surety will receive a copy of the written notification of breach. Demand will be made on the surety or other institution providing the guarantee or bond instrument for immediate payment 10 days after issuance of written notification of the breach.

(c) Pursuant to the Debt Collection Improvement Act of 1996, as amended, if payment is not received by Forest Service within 15 days after the date of issue indicated on the bill for collection:

- (i) Simple interest shall be assessed at the Current Value of Funds Rate as established by the Secretary of the Treasury. Interest will begin to accrue as of the date of issue indicated on the initial bill for collection.
- (ii) Debtors will be assessed administrative charges, in addition to the delinquent amount due. Administrative charges are those additional costs incurred by the Government in processing, handling, and collecting delinquent debts.
- (iii) A penalty charge of six (6) percent per annum will be assessed on any portion of a debt delinquent more than 90 days. This penalty charge is in addition to interest and administrative charges under paragraphs (c) (i) and (c) (ii). The penalty charge shall accrue from the date of issue indicated on the bill for collection and shall be assessed on all outstanding amounts, including interest and administrative costs assessed under paragraphs (c) (i) and (c) (ii).
- (iv) Payments will be credited on the date received by the Federal Depository or Collection Officer designated on the bill for collection.

(d) Forest Service remedies for Contractor's failure to make payment for timber cut and other charges when due, except for accrual of interest, suspension of all or any part of Contractor's Operations, and administrative offset, shall be stayed for so long as:

- (i) A bona fide dispute exists as to Contractor's obligation to make such payment and
- (ii) Contractor files and prosecutes a timely Claim.

Contract Name: Io Stewardship

K-F.1.2# - USE OF ROADS BY CONTRACTOR (09/2004)

Contractor's use of existing roads identified on Contract Area Map by the following codes is prohibited or subject to restrictive limitations, unless agreed otherwise:

Code	Use Limitations
X	Hauling prohibited
R	Hauling restricted
U	Unsuitable for hauling prior to completion of agreed reconstruction
P	Use prohibited
A	Public use restriction
W	Regulation waiver

Roads coded A will be signed by Forest Service to inform the public of use restrictions. Contractor's use of roads coded R, A, or W shall be in accordance with the following restrictions:

See Restricted Road List Table.

TABLE PURSUANT TO K-F.1.2# - USE OF ROADS BY CONTRACTOR (09/2004)

Restricted Road List

Road Number	Road Name	Termini		Map Legend	Description of Restrictions
		From	To		
1000260		1510430	Hwy 242	P	Use Prohibited

Title and Date of Governing Road Rules Document:

**Deschutes NF, Road Rules for
Commercial Users**

Commercial Road Rules

June 2009

Effective Date

Contract Name: Io Stewardship

K-F.3.1# - ROAD MAINTENANCE REQUIREMENTS (09/2004)

Contractor shall maintain roads in accordance with the following Contract Road Maintenance Requirements Summary:

See Contract Road Maintenance Requirements Summary Table.

K-F.3.1# - ROAD MAINTENANCE REQUIREMENTS. (9/04) Contractor shall maintain roads in accordance with the following Contract Road Maintenance Requirements Summary:

Contract Road Maintenance Requirements Summary

Road	Termini		Miles	Applicable Prehaul Road Maintenance Specifications										
	From	To		T-803	T-811	T-812	T-831	T-832	T-834	T-838	T-839	T-851	T-854	T-891
1000259	1500036	MP 0.34	0.34	P		P	P	P		P			P	P
1000330	1510400	1510490	0.31	P	P	P	P	P				P	P	P
1500000	Hwy 242	MP 1.8	1.8	P					P					
1500000	MP 1.8	MP 2.48	1.68	P	P	P	P	P	P			P	P	P
1500030	1500000	1500036	0.41	P		P	P	P		P			P	P
1500035	1500030	MP 0.14	0.14	P		P	P	P		P			P	P
1500036	1500030	MP 0.15	0.15	P		P	P	P		P			P	P
1500039	1500000	MP 0.07	0.07	P		P	P	P		P			P	P
1500041	1500000	MP 0.08	0.08	P		P	P	P		P			P	P
1500050	1500000	MP 0.2	0.2	P	P	P	P	P	P			P	P	P
1500200	1500000	MP 0.69	0.69	P		P	P	P		P			P	P
1500205	1500200	Unit 4	0.16	P		P	P	P		P			P	P
1500208	1500200	Unit 6	0.14	P		P	P	P		P			P	P
1500210	1500000	Unit 4	0.10	P		P	P	P		P			P	P
1500230	1500000	Unit 1	0.37	P		P	P	P		P			P	P
1500232	1500230	Unit 2	0.22	P		P	P	P		P			P	P
1500260	1500000	1500266	0.24	P		P	P	P		P			P	P
1500261	1500260	Unit 2	0.28	P		P	P	P		P			P	P
1500266	1500260	Unit 14	0.80	P		P	P	P		P			P	P
1510000	1500000	MP 1.29	1.29	P	P	P	P	P	P			P	P	P
1510100	1510000	MP 0.98	0.98	P	P	P	P	P	P			P	P	P
1510148	1510100	1510210	0.12	P		P	P	P		P			P	P
1510200	1510000	1510220	0.22	P		P	P	P		P			P	P
1510210	1510000	1510148	0.81	P		P	P	P		P			P	P
1510217	1510100	1510210	0.21	P		P	P	P		P			P	P
1510220	1500000	1510000	0.88	P	P	P	P	P	P			P	P	P
1510240	1510000	1510210	0.41	P		P	P	P		P			P	P
1510300	1510000	MP 0.80	0.80	P	P	P	P	P				P	P	P
1510310	1510300	1510430	0.45	P		P	P		P		P		P	P
1510400	1510000	Hwy 242	1.30	P	P	P	P	P	P			P	P	P
1510410	1510400	Unit 17	0.45	P	P	P	P	P				P	P	P
1510430	1510000	MP 0.43	0.43	P		P	P	P		P			P	P
1510430	MP 0.43	MP 0.65	0.22	P		P	P		P		P		P	P
1510430	MP 0.65	MP 1.35	0.70	P		P	P	P		P			P	P
1510450	1510400	MP 0.27	0.27	P	P	P	P	P	P			P	P	P
1510470	1510400	MP 0.33	0.33	P		P	P	P		P			P	P
1510490	1510400	1000330	0.55	P		P	P	P		P			P	P
1512000	1500000	MP 0.9	0.9	P	P	P	P	P	P			P	P	P
1512100	1512000	MP 0.76	0.76	P		P	P	P		P			P	P
1512120	1512100	MP 0.16	0.16	P		P	P	P		P			P	P
1512300	1512000	MP 0.10	0.10	P		P	P		P		P		P	P
1600100	1600105	1600000	.87	P		P	P	P		P			P	P
1600105	4606925	1600100	.48	P		P	P		P		P		P	P

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

CONTRACT ROAD MAINTENANCE REQUIREMENTS SUMMARY TABLE PURSUANT TO K-F.3.1# - ROAD MAINTENANCE REQUIREMENTS (09/2004)

Contract Road Maintenance Requirements Summary

Road	Termini		Mile s	Applicable During Haul Road Maintenance Specifications										
	From	To		T-803	T-811	T-812	T-831	T-832	T-834	T-838	T-839	T-851	T-854	T-891
	1000259	1500036		MP 0.34	0.34	P		P	P	P		P		
1000330	1510400	1510490	0.31	P	P	P	P	P	P			P	P	P
1500000	Hwy 242	MP 1.8	1.8	P					P					
1500000	MP 1.8	MP 2.48	1.68	P	P	P	P	P	P			P	P	P
1500030	1500000	1500036	0.41	P	P	P	P	P	P			P	P	P
1500035	1500030	MP 0.14	0.14	P		P	P	P		P			P	P
1500036	1500030	MP 0.15	0.15	P		P	P	P		P			P	P
1500039	1500000	MP 0.07	0.07	P		P	P	P		P			P	P
1500041	1500000	MP 0.08	0.08	P		P	P	P		P			P	P
1500050	1500000	MP 0.2	0.2	P	P	P	P	P	P			P	P	P
1500200	1500000	MP 0.69	0.69	P		P	P	P		P			P	P
1500205	1500200	Unit 4	0.16	P		P	P	P		P			P	P
1500208	1500200	Unit 6	0.14	P		P	P	P		P			P	P
1500210	1500000	Unit 4	0.10	P		P	P	P		P			P	P
1500230	1500000	Unit 1	0.37	P		P	P	P		P			P	P
1500232	1500230	Unit 2	0.22	P		P	P	P		P			P	P
1500260	1500000	1500266	0.24	P		P	P	P		P			P	P
1500261	1500260	Unit 2	0.28	P		P	P	P		P			P	P
1500266	1500260	Unit 14	0.80	P		P	P	P		P			P	P
1510000	1500000	MP 1.29	1.29	P	P	P	P	P	P			P	P	P
1510100	1510000	MP 0.98	0.98	P	P	P	P	P	P			P	P	P
1510148	1510100	1510210	0.12	P		P	P	P		P			P	P
1510200	1510000	1510220	0.22	P		P	P	P		P			P	P
1510210	1510000	1510148	0.81	P		P	P	P		P			P	P
1510217	1510100	1510210	0.21	P		P	P	P		P			P	P
1510220	1500000	1510000	0.88	P	P	P	P	P	P			P	P	P
1510240	1510000	1510210	0.41	P		P	P	P		P			P	P
1510300	1510000	MP 0.80	0.80	P	P	P	P	P	P			P	P	P
1510310	1510300	1510430	0.45	P		P	P		P		P		P	P
1510400	1510000	Hwy 242	1.30	P	P	P	P	P	P			P	P	P
1510410	1510400	Unit 17	0.45	P	P	P	P	P	P			P	P	P
1510430	1510000	MP 0.43	0.43	P		P	P	P		P			P	P
1510430	MP 0.43	MP 0.65	0.22	P		P	P		P		P		P	P
1510430	MP 0.65	MP 1.35	0.70	P		P	P	P		P			P	P
1510450	1510400	MP 0.27	0.27	P	P	P	P	P	P			P	P	P
1510470	1510400	MP 0.33	0.33	P		P	P	P		P			P	P
1510490	1510400	1000330	0.55	P		P	P	P		P			P	P
1512000	1500000	MP 0.9	0.9	P	P	P	P	P	P			P	P	P
1512100	1512000	MP 0.76	0.76	P		P	P	P		P			P	P
1512120	1512100	MP 0.16	0.16	P		P	P	P		P			P	P
1512300	1512000	MP 0.10	0.10	P		P	P		P		P		P	P
1600100	1600105	1600000	.87	P		P	P	P		P			P	P
1600105	4606925	1600100	.48	P		P	P		P		P		P	P

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CONTRACT ROAD MAINTENANCE REQUIREMENTS SUMMARY TABLE PURSUANT TO K-F.3.1# - ROAD MAINTENANCE REQUIREMENTS (09/2004)

Contract Road Maintenance Requirements Summary

Road	Termini		Mile s	Applicable Post Haul Road Maintenance Specifications								
	From	To		T-811	T-834	T-835	T-836	T-838	T-839	T-891		
1000259	1500036	MP 0.34	0.34		P			P		P		
1000330	1510400	1510490	0.31	P	P					P		
1500000	Hwy 242	MP 1.8	1.8		P							
1500000	MP 1.8	MP 2.48	1.68	P	P					P		
1500030	1500000	1500036	0.41		P			P		P		
1500035	1500030	MP 0.14	0.14		P			P		P		
1500036	1500030	MP 0.15	0.15		P			P		P		
1500039	1500000	MP 0.07	0.07		P			P		P		
1500041	1500000	MP 0.08	0.08		P			P		P		
1500050	1500000	MP 0.2	0.2	P	P					P		
1500200	1500000	MP 0.69	0.69		P			P		P		
1500205	1500200	Unit 4	0.16		P			P		P		
1500208	1500200	Unit 6	0.14		P			P		P		
1500210	1500000	Unit 4	0.10		P			P		P		
1500230	1500000	Unit 1	0.37		P			P		P		
1500232	1500230	Unit 2	0.22		P			P		P		
1500260	1500000	1500266	0.24		P			P		P		
1500261	1500260	Unit 2	0.28		P			P		P		
1500266	1500260	Unit 14	0.80		P			P		P		
1510000	1500000	MP 1.29	1.29	P	P					P		
1510100	1510000	MP 0.98	0.98	P	P					P		
1510148	1510100	1510210	0.12		P			P		P		
1510200	1510000	1510220	0.22		P			P		P		
1510210	1510000	1510148	0.81		P			P		P		
1510217	1510100	1510210	0.21		P			P		P		
1510220	1500000	1510000	0.88	P	P					P		
1510240	1510000	1510210	0.41		P			P		P		
1510300	1510000	MP 0.80	0.80	P	P					P		
1510310	1510300	1510430	0.45		P	P			P	P		
1510400	1510000	Hwy 242	1.30	P	P					P		
1510410	1510400	Unit 17	0.45	P	P					P		
1510430	1510000	MP 0.43	0.43		P			P		P		
1510430	MP 0.43	MP 0.65	0.22		P	P			P	P		
1510430	MP 0.65	MP 1.35	0.70		P			P		P		
1510450	1510400	MP 0.27	0.27	P	P					P		
1510470	1510400	MP 0.33	0.33		P			P		P		
1510490	1510400	1000330	0.55		P			P		P		
1512000	1500000	MP 0.9	0.9	P	P					P		
1512100	1512000	MP 0.76	0.76		P			P		P		
1512120	1512100	MP 0.16	0.16		P			P		P		
1512300	1512000	MP 0.10	0.10		P	P			P	P		
1600100	1600105	1600000	.87		P			P		P		
1600105	4606925	1600100	.48		P	P			P	P		

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

Description of work required by the above T-specs is shown in the following ROAD MAINTENANCE SPECIFICATION table, and included in the stewardship contract.

ROAD MAINTENANCE REQUIREMENTS SPECIFICATION TABLE PURSUANT TO
K-F.3.1# - ROAD MAINTENANCE REQUIREMENTS (09/2004)

1 Road No. and Termini	2 Special Project Specifi- cation	3 Travel Way		4 Brush And Log Out	5 Surfacing	6 Dust Abatement		7 Seasonal Mainte- nance	8 Snow Removal	9 Post Haul	
		Width	Slope			Product	Applic Rate			Block	Treat
1000259 1500036 to MP 0.34	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F			T-838		OPT		W	TS		PR
1000330 1510400 to 1510490	T-803-01F T-812-01F T-834-01F T-891-01F	EX	AI	Ex. Width		OPT		W	JU		PR
1500000 Hwy 242 to MP 1.8	T-803-01F T-834-01F			4 Ft. Lt. and Rt.					JU		
1500000 MP 1.8 to MP 2.48	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F	EX	AI	2 Ft. Lt. and Rt.		OPT			JU		PR
1500030 1500000 to 1500036	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F	EX	AI	2 Ft. Lt. and Rt.		OPT			JU		PR
1500035 1500030 to MP 0.14	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F			T-838		OPT		W	TS		PR

Road No. and Termini	Special Project Specification	Travel Way		Brush And Log Out	Surfacing	Abatement		Seasonal Maintenance	Snow Removal	Post Haul	
		Width	Slope			Product	Rate			Block	Treat
1500036 to 1500030 MP 0.15	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F			T-838		OPT		EX	W	TS	
1500039 to 1500000 MP 0.07	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F			T-838		OPT		EX	W	TS	
1500041 to 1500000 MP 0.08	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F			T-838		OPT		EX	W	TS	
1500050 to 1500000 MP 0.2	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F	EX	AI	2 Ft. Lt. and Rt.		OPT		EX		JU	
1500200 to 1500000 MP 0.69	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F			T-838		OPT		EX	W	TS	
1500205 to 1500200 Unit 4	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F			T-838		OPT		EX	W	TS	

Road No. and Termini	Special Project Specification	Travel Way		Brush And Log Out	Surfacing	Abatement		Seasonal Maintenance	Snow Removal	Post Haul	
		Width	Slope			Product	Rate			Block	Treat
1500208 to 1500200 to Unit 6	T-803-01F			T-838		OPT	EX	W	TS		PR
	T-812-01F										
	T-832-01F										
	T-834-01F										
	T-891-01F										
1500210 to 1500000 to Unit 4	T-803-01F			T-838		OPT	EX	W	TS		PR
	T-812-01F										
	T-832-01F										
	T-834-01F										
	T-891-01F										
1500230 to 1500000 to Unit 1	T-803-01F			T-838		OPT	EX	W	TS		PR
	T-812-01F										
	T-832-01F										
	T-834-01F										
	T-891-01F										
1500232 to 1500230 to Unit 2	T-803-01F			T-838		OPT	EX	W	TS		PR
	T-812-01F										
	T-832-01F										
	T-834-01F										
	T-891-01F										
1500260 to 1500000 to 1500266	T-803-01F			T-838		OPT	EX	W	TS		PR
	T-812-01F										
	T-832-01F										
	T-834-01F										
	T-891-01F										
1500261 to 1500260 to Unit 2	T-803-01F			T-838		OPT	EX	W	TS		PR
	T-812-01F										
	T-832-01F										
	T-834-01F										
	T-891-01F										
1500266 to 1500260 to Unit 14	T-803-01F			T-838		OPT	EX	W	TS		PR
	T-812-01F										
	T-832-01F										
	T-834-01F										
	T-891-01F										

Road No. and Termini	Special Project Specification	Travel Way		Brush And Log Out	Surfacing	Dust Abatement		Seasonal Maintenance	Snow Removal	Post Haul	
		Width	Slope			Product	Rate			Block	Treat
1510000 to 1500000 to MP 1.29	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F	EX	AI	A	2 Ft. Lt. and Rt.	OPT	EX		JU		PR
1510100 to 1510000 to MP 0.98	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F	EX	AI	A	Ex. Width	OPT	EX	W	JU		PR
1510148 to 1510100 to 1510210	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F				T-838	OPT	EX	W	TS		PR
1510200 to 1510000 to 1510220	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F				T-838	OPT	EX	W	TS		PR
1510210 to 1510000 to 1510148	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F				T-838	OPT	EX	W	TS		PR
1510217 to 1510100 to 1510210	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F				T-838	OPT	EX	W	TS		PR
1510220 to 1500000 to 1510000	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F	EX	AI	A	Ex. Width	OPT	EX	W	JU		PR

Road No. and Termini	Special Project Specification	Travel Way		Brush And Log Out	Surfacing	Abatement		Seasonal Maintenance	Snow Removal	Post Haul	
		Width	Slope			Product	Rate			Block	Treat
1510430 MP 0.65 to MP 1.35	T-803-01F T-812-01F T-834-01F T-835-01F T-891-01F			T-838		OPT	EX	W	TS		PR
1510450 1510400 to MP 0.27	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F	EX	AI	2 Ft. Lt. and Rt.		OPT	EX		JU		PR
1510470 1510400 to MP 0.33	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F			T-838		OPT	EX	W	TS		PR
1510490 1510400 to 1000330	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F			T-838		OPT	EX	W	TS		PR
1512000 1500000 to MP 0.90	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F	EX	AI	2 Ft. Lt. and Rt.		OPT	EX		JU		PR
1512100 1512000 to MP 0.76	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F			T-838		OPT	EX	W	TS		PR
1512120 1512100 to MP 0.16	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F			T-838		OPT	EX	W	TS		PR

ROAD MAINTENANCE REQUIREMENTS SPECIFICATION CODES TABLE PURSUANT TO
K-F.3.1# - ROAD MAINTENANCE REQUIREMENTS (09/2004)

Column No.	Heading	Entry	<u>Explanation</u>
	Any	Blank	Except as otherwise described, no entry indicates Contractor is not authorized or required to perform the work item(s).
	Any	RC	This work requirement applies only when haul of project related construction materials occurs.
2	Special Project Specification	Number	Entry indicates Special Project Specification which applies.
3	Travel Way	EX	Contractor shall maintain the traveled way to the width existing upon entry, or at the completion of Specified Road work.
		Numbers	Contractor shall maintain the traveled way to the standard width indicated by the entry, plus curve widening, in accordance with Section T-811. If required, the road template shall be shaped to this width and to the designated cross slope before haul and during recurring maintenance.
		IS, C, OS, F, or AI	Cross slopes are designated as: IS (Inslope), C (Crown), OS (Outslope), F (Flat), AI (As Is).
		A or B	If compaction is required.
4	Brush and Log Out	Numeric & R and or L	Contractor shall remove brush for specified width on either or both the right (R) side or left (L) side of road.
		As Staked	Limits of brushing are as staked or marked in the field.
		OPT	Contractor may use hand or mechanical means of brushing.
		H	Only hand brushing may be used.

ROAD MAINTENANCE REQUIREMENTS SPECIFICATION CODES TABLE PURSUANT TO
K-F.3.1# - ROAD MAINTENANCE REQUIREMENTS (09/2004)

Column No.	Heading	Entry	<u>Explanation</u>
5	Surfacing	Aggregate Grading	Contractor shall place surfacing on roads listed according to the grading indicated.
		D	
6	Dust Abatement	OPT	Product selection is Contractor's choice from those listed in Section T-812.
		Product Abbr.	Unless otherwise agreed, Contractor is restricted to product listed corresponding to the abbreviation shown in Section T-812; (i.e., LigS = Lignon Sulfonate) Application rates are estimated amounts.
		EX	Contractor shall abate dust on the existing width
		Numbers	Contractor shall abate dust to the width indicated by entry.
7	Seasonal Maintenance	W	Waterbars and/or crossditching shall be required prior to expected seasonal precipitation.
		B	Entrance barriers shall be installed by Contractor prior to nonuse periods.
8	Snow Removal	TS	Snowplowing authorized for Contractor's Operations without recreation access being provided per Section T-803 requirements.
		JU	Snowplowing authorized, but must provide for recreation joint use per Section T-803 requirements.
		Blank	Snowplowing is not authorized. Forest Service may authorize plowing by permit when not in conflict with other uses.
9	Post Haul	P	P denotes that work is Contractor's Responsibility to perform.

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K-F.3.2# - ROAD MAINTENANCE DEPOSIT SCHEDULE (09/2004)

Other provisions herein notwithstanding, when Forest Service requests payment in lieu of Contractor's performance of road maintenance, Contractor shall make Required Deposits (16 USC 537) for current and/or deferred road maintenance. Such deposits are based on the estimated volume and distance hauled and Contractor's commensurate use of each road listed in the Road Maintenance Plan in K-F.3.1#.

Contractor and Forest Service may agree in writing on adjustment of such rates. If Contractor uses roads under jurisdiction of Forest Service other than those listed in the Road Maintenance Plan, Forest Service shall establish rates commensurate with Contractor's use of such roads.

The Required Deposits for Forest Service work in lieu of Contractor performance and for deferred maintenance is: \$.19 per Ton.

The following table lists who Contractor will make deposits for road maintenance to, and the rate per unit of measure of the deposit. The Road Maintenance Agreement is available for inspection at the Forest Supervisor's Office.

Deposit Made To	Rate	Unit of Measure
N/A		

K-G.3.1.5# - PROJECT OPERATION SCHEDULE (05/2005)

Unless otherwise agreed to between Contractor and Forest Service, Contractor's Operations shall be performed in accordance with the following schedule.

See attached schedule.

Schedule Pursuant to K-G.3.1.5#- Project Operation Schedule (05/2005)

<u>Subdivision</u>	<u>OPERATING CONDITIONS</u>	<u>PURPOSE</u>
7, 11, 15, 18, 19, 22, 24, 25, and 27	Operations are prohibited from starting before 7 am each day, Monday- Friday. Operations are prohibited on weekends starting at 5 pm on Friday through 7 am on Monday. Operations are also prohibited on Federal, State and Local holidays.	To prevent conflicts with trail users, trail events and private residences.

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K-G.3.2# - PROTECTION OF RESERVE TREES (09/2004)

Contractor's damage or destruction of reserve trees described in K-C.3# will cause serious and substantial silvicultural or other damage to the National Forest. It will be difficult if not impossible to determine the amount of such damage. Therefore, Contractor shall pay as fixed, agreed, and liquidated damages \$ 100 for each wildlife reserve tree and \$ 500 for each Genetic reserve tree damaged or destroyed by Contractor's Operations, in addition to amounts payable under D.4.5 and D.4.6.

Damage, as used herein, includes any injury to the living crown, bole, or roots of reserve trees. If areas are marked on the ground around such reserve trees, operation of heavy equipment or skidding of products within the area shall be considered to be damage to the tree.

K-G.4.0.5 - ALTERNATE REMOVAL OF INCLUDED TIMBER (05/2005)

Contractor and Forest Service may agree to alternate removal requirements of Included Timber contained in A.2. Alternate removal requirements are to be set forth in an agreement signed by both Contractor and Contracting Officer. The terms of the agreement binds both parties and becomes part of the stewardship contract.

The development and execution of the agreement is based upon the determination by the Contracting Officer that removal of Included Timber is economically impractical if Contractor has no ready market for such logs in the tributary area. A tributary area is defined as the area in which the Contractor and competitors regularly deliver saw logs, or 200 miles from the Contract Area, whichever distance is greater.

The agreement for alternate removal requirements shall be executed prior to removing any timber from the Subdivisions included in the agreement. Alternate removal requirements shall apply only to whole units and not to portions of units. All material meeting alternate removal specifications shall be cut and removed to locations designated in the agreement.

Volumes of material with alternate removal requirements will be determined from the National Cruise report for the project. Contractor will be charged for the following:

- a) stumpage value at current contract rates of the alternatively removed timber;
- b) plus the cost of other work required by the Forest Service to dispose of alternatively removed material;
- c) plus the difference between the appraised transportation cost of the Sawtimber and/or Nonsawtimber material involved and the appraised transportation cost of the alternative;
- d) minus any work required to be completed by the Contractor associated with alternate removal requirements.

Charges will be debited to the Contractor's Integrated Resource Account.

Upon acceptance of the alternate removal requirements, the Subdivision will be removed from the Contract Area under G.3.6.

Title to material included in the alternate removal agreement shall remain with the Forest Service.

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K-G.4.1# - SPECIFIC REQUIREMENTS (05/2005)

Notwithstanding G.4.1, G.4.1.1, G.5 and G.6.1, felling objectives shall be accomplished by the type of felling methods and equipment listed herein. Methods or equipment other than those specified may be approved. For Subdivisions shown in the following table, Contractor shall submit a cutting plan for Forest Service acceptance, prior to the start of felling operations.

See attached Table.

TABLE PURSUANT TO K-G.4.1# - SPECIFIC REQUIREMENTS (05/2005)

FELLING METHODS

SUBDIVISIONS

If included in your Technical Proposal and accepted by the Forest Service, mechanized felling equipment will operate in a manner which will minimize detrimental soil disturbance .

ALL

Ground based equipment is prohibited on slopes greater than 30%

ALL

Keep equipment out of stream channel. Crossings shall be designated in advance by Forest Service.

26

Within 300' of the Metolius-Windigo Trail, stumps heights shall be less than 4 inches in height when measured on the uphill side of the tree.

5, 8, 11, 16,
and 17

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K-G.4.2# - YARDING/SKIDDING REQUIREMENTS (05/2005)

Contractor shall submit for Forest Service approval a Yarding/Skidding Plan prior to the start of felling operations. Requirements other than those specified in the following table may be approved. When appropriate, such approval shall include adjustments in Current Contract Rates and revision of the Contract Area Map. In no such case shall the adjustments result in Current Contract Rates less than Base Rates.

Location of all skid roads and trails, tractor roads, skyline corridors, mechanized harvester trails, forwarder roads, and other log skidding facilities, shall be approved prior to their use or construction.

See attached table for requirements.

TABLE PURSUANT TO K-G.4.2# YARDING/SKIDDING REQUIREMENTS (05/2005)YARDING/SKIDDING REQUIREMENTSSUBDIVISIONS

Leading end of log shall be suspended while being skidded on skid roads/trails

ALL

Distance between skid roads/trails shall be an average of 100 feet apart except where trails converge.

ALL

All Trails: Protect trail tread and clear logging debris from trails at the end of each operating day. Trail crossings shall be approved by the Forest Service prior to use.

5, 7, 8, 11
16, 17, 18, 19
21, 25, and 27

Keep equipment out of stream channel. Crossings shall be designated in advance by Forest Service.

26

Ground based equipment is prohibited on slopes greater than 30%.

ALL

Landings are not to be located along Road 1510. The purpose is to reduce the spread of noxious weeds and to protect the Metolius Windigo Trail.

8, 11, 15, and 16

K-G.6.0# - EROSION CONTROL AND SOIL TREATMENT BY CONTRACTOR (04/2014)

Erosion prevention and control work required by G.6, shall be completed within 15 calendar days after yarding/skidding operations related to each landing are substantially completed or after Forest Service designation on the ground of work where such designation is required hereunder. Said time limit shall be exclusive of full days lost in Contractor's Operations due to causes beyond Contractor's control. Such on the ground designation shall be done as promptly as feasible unless it is agreed that the location of such work can be established without marking on the ground. After September 15, and as long thereafter as operations continue, the work shall be done as promptly as practicable. Damage resulting from Contractor's Operations due to failure to perform required work shall be repaired by Contractor.

On slopes greater than 30 percent, erosion control measures will be done with methods other than mechanized equipment, unless otherwise agreed.

Where soil has been disturbed or displaced on Contract Area by Contractor's Operations and where measures described in G.6 will not result in satisfactory erosion control or where subsoiling is shown on Contract Area Map, the following shall be performed. If applicable, timing of the work shall be coordinated with required scarification or subsoiling.

(a) Where staked or otherwise marked on the ground by Forest Service, seed, fertilizer, and mulch will be applied as indicated in the attached seeding, fertilizing, and mulching schedule. All applications shall be current and done during the period from NA to NA, unless otherwise agreed to. Applications shall be done only during favorable conditions. If Contractor and Forest Service agree, seed can be applied and covered within 10 days of ground disturbance, and may be done outside the required periods.

(b) Where shown on Contract Area Map, landings, Temporary Roads and/or skidtrails/roads shall be scarified to a depth of 20 inches to provide a seedbed for grass seed, fertilizer, and mulch. Seed, fertilizer, and mulch shall be spread evenly at the rates shown in the table. When the seed, fertilizer, and mulch are applied in separate operations, the second or third operations shall be within 10 days of the first or second.

(c) Where shown on Contract Area Map, landings, Temporary Roads, and skid trails/roads used by Contractor shall be subsoiled to a minimum depth of 20 inches, except that Forest Service may agree to lesser depths. Each subsoiler shank shall be equipped with a shoe and wings which has a total width of at least 18 inches. The design of the shank and wings will be such that the treated, compacted soil is slightly lifted and well-fractured rather than plowed, mixed, or displaced. The distance between subsoiler shank passes shall not exceed 36 inches. Treated areas shall span the total width of compaction. Subsoiling shall be kept reasonably current and shall be done during Normal Operating Season unless otherwise agreed.

(d) When agreed to, Contractor may use alternate methods of erosion control.

Seed shall meet current Forest Service requirements, with the additional requirement that no seed containing any noxious weed seed in excess of established state limitations as listed in the current "State Noxious Weed Requirements Recognized in the Administration of the Federal Seed Act" publication will be used (commonly referred to as the "all states" noxious weed seed list). Seed shall be furnished separately or in mixture in standard containers clearly marked with: (1) seed name; (2) lot number; (3) net weight; (4) percentages of purity and of germination (in case of legumes, percentage of germination to include hard seed); (5) percentage of weed seed content; and (6) certification that no noxious weed seeds in excess of established state standards are present. The contractor shall furnish the Government duplicate signed copies of a certificate, signed by a Registered Seed Technologist or Seed Analyst (certified through either the Association of Official Seed Analysis or the Society of Commercial Seed Technologists), certifying that each lot of seed has been tested in accordance with the Association of Official Seed Analysts Standards within 12 months prior to date of application. This certificate shall include (1) name and address of laboratory, (2) date of test, (3) lot number for each kind of seed, (4) name of seed, (5) percentage of

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germination, (6) percentage of purity, (7) percentage of weed seed content, and (8) certification that no noxious weed seeds in excess of established state limitations are present in any kind of seed.

Legume seed shall be inoculated with approved cultures in accordance with the instructions of the manufacturer.

No seed may be applied without prior written approval by the government.

(e) Contractor may be required to seed areas disturbed by harvest activities to prevent the spread of noxious weeds, or the establishment of new areas.

See attached application schedule.

APPLICATION SCHEDULE PURSUANT TO K-G.6.0# - EROSION CONTROL AND SOIL TREATMENT BY CONTRACTOR (07/2008)

SUBDIVISION OR UNIT NUMBER	AREAS A) SKID TRAILS B) FIRELINES C) TEMP. ROADS D) LANDINGS E) OTHER	SEED		FERTILIZER		MULCH	
		APPLICATION		APPLICATION		APPLICATION	
		SPECIES 1/ MIXTURE	LBS/AC	TYPE 2/	LBS/AC	TYPE 3/	LBS/AC
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

The Contractor will be required to pay a co-op deposit of \$0.01/ton for the harvest and cultivation of replacement seed of native species for use on future contracts.

1/ For projects in Oregon, the seed shall meet the State certification specifications. Seed must be packaged in containers carrying official certification labels sewn in, glued to, or printed upon the container, with the following information:

1. Variety (if certified as to variety) and kind.
2. Quantity of seed (pounds or bushels).
3. Class of certified seed (blue tags for certified seed).
4. Inspection or lot number traceable to the certifying agency's records.

For projects in Washington, the seed shall be labeled as "Prohibited and Restricted Noxious Weed Free for the State of Washington." The Contractor shall furnish a copy of the seed analysis.

For state of California lands in Region 6, seed must be certified by the state of California, or by an independent agency or company that is approved by the state of California for "prohibited and restricted noxious weed free for the state of California."

For mixtures of seed, each ingredient in excess of 5 percent must be listed with its percentage by weight and its germination percentage.

Legumes must be inoculated with nitrogen fixing bacteria before planting. The label must show the expiration date of the inoculant.

All seed treated with a fungicide or pesticide must be labeled that it is "treated" giving the name of the chemical used, and an appropriate warning or a caution statement.

2/ Fertilizer shall be a standard commercial fertilizer with guaranteed analysis of contents clearly marked on containers.

3/ Mulch shall meet the appropriate State's certification specifications, with evidence of its certification traceable to the certifying agency's

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K-G.7 - SLASH DISPOSAL (06/2008)

As used in the following Subsections, the term "slash" is vegetative debris including, but not limited to, cull logs, blasted or pushed-out stumps, chunks, broken tops, limbs, branches, rotten wood, damaged brush, damaged or destroyed reproduction, saplings or poles, resulting from Contractor's Operations, including construction of roads or other improvements under this contract. Slash resulting from the construction of Specified Roads shall be disposed of as provided for in Section 201 of the Standard and Special Specifications and as shown in Drawings.

Any burning of slash or refuse by Contractor is subject to K-H.2.0.1.

Forest Service may enter into a written agreement with Contractor for the Contractor to remove slash from landings, subject to D.4.1. Brush disposal deposits paid by the Contractor for the Forest Service to burn landing piles will be credited to the Contractor's integrated resource account in the amount shown in the brush disposal plan, less the amount needed by the Forest Service for final cleanup of the landings following removal of the landing slash piles by the Contractor. The credit will be made following the final removal of all Included Timber, and slash piles, from the Contract Area.

K-G.7.4.2# - SLASH TREATMENT REQUIREMENTS (OPTION 2) (06/2008)

Contractor shall pile, burn, yard, construct firelines or otherwise treat slash defined in K-G.7, within designated areas. Work required of Contractor shall be in accordance with the following slash plan and specifications, and the Contract Area Map.

Unless otherwise agreed, or shown in the attached slash plan or specifications, when Included Timber is removed during Normal Operating Season, required slash work shall be completed within 30 days of removal of approximately three-quarters of the volume in the unit. When Included Timber is removed outside Normal Operating Season, required work will be completed within 30 days of the beginning of the next Normal Operating Season.

See following specifications.

SPECIFICATIONS PURSUANT TO K-G.7.4.2# -SLASH TREATMENT REQUIREMENTS (OPTION 2)
(06/2008)

1. Slash to be piled
 - a. All woody debris and slash generated from the construction of landings and temporary roads shall be piled in all Cutting Units. Partially pushed out stumps are considered to be slash as defined in K-G.7.
 - b. Residual material created from chipping/grinding operations is to be scattered across the entire area of the landing(s) to a depth of no more than 3 inches. This material is not considered "landing slash piles".
2. Construction and location of piles and/or decks
 - a. Slash piles shall be located at least 25 feet from the drip line of any dead or live tree or equal distance between standing dead or live trees, whichever is greater. These piles shall be a minimum of 6 feet in height and 12 feet in diameter, if sufficient slash is available.
 - b. All piles shall be compact and free of dirt and rocks.
 - c. All material extending beyond the general contour of the piled slash shall be trimmed off and added to the pile.
 - d. Do not pile slash in swales, washes, or depressions or anywhere that would interfere with natural drainage patterns.
 - e. Do not pile slash on punky or deteriorated logs.
3. Equipment Requirements

Machines used for piling slash is to be approved by the Forest Service prior to piling.

Contract Name: Io Stewardship

K-G.8.1.5 - THIRD PARTY SCALING SERVICES (09/2004)

Notwithstanding the requirement for Forest Service or parties under contract to Forest Service to provide Scaling services under G.8.1, Scaling designated in A.10 shall be conducted by a third party Scaling organization approved by Forest Service. Scaling shall be done in accordance with A.9 and Contractor shall bear costs for Scaling service.

In the event third party Scaling service is suspended for causes such as strikes, termination of third party's approval to Scale National Forest logs by Forest Service, or Contractor's failure to pay third party Scaling costs, hauling operations shall be suspended until agreed alternate Scaling services are provided or service by third party is resumed.

When an approved alternate Scaling location pursuant to G.8.1.1 does not have an approved third party scaling organization as a commonly used Scaling services provider, Forest Service or parties under contract to Forest Service shall provide Scaling services at the approved alternate location. In such an event, the cost of waived third party Scaling listed in A.10 shall be charged to Integrated Resource Account.

If Forest Service and Contractor agree in writing that another party under contract to Forest Service will perform Scaling, the contract will be modified to include K-G.8.1.6 and Integrated Resource Account will be charged for such Scaling.

K-G.8.4 - USE OF PAINT BY CONTRACTOR (OPTION 1) (06/2006)

Notwithstanding G.8.4.2, use of paint by the Contractor within the Contract Area in the same color(s) used by the Forest Service in the preparation and administration of the contract will be by written approval of the Forest Service.

K-G.8.4.0 - ACCOUNTABILITY (04/2014)

Notwithstanding G.8.4, when Weight scaled contracts offer products at different rates in A.4.2, each product must be completely removed from a landing or decking area before another product can be removed, unless otherwise agreed to in writing by the Contracting Officer.

K-G.8.5.1 - WEIGHT OF LOST LOADS (04/2014)

Contractor shall present all loads for weighing and shall furnish a weight ticket for each load pursuant to a weighing services agreement. Any load for which a weight ticket is not provided, or the weight ticket is incomplete or unreadable, or does not include the Forest Service load receipt number, shall be considered a lost sample load with a net weight equal to the load with the heaviest net weight presented during the billing period, as established by the Forest Service.

Contract Name: Io Stewardship

K-G.9# - STEWARDSHIP PROJECTS (09/2004)

Performance of stewardship projects shall be in accordance with the following specifications.

Stewardship Projects

Mandatory Projects:

Project Number 001: Leave Tree Marking.
See attached requirements and specifications.

Project Number 002: Mastication of brush and small trees up to 3.0 inches.
See attached requirements and specifications.

Project Number 003: Hand Thinning and Hand Piling trees <8.0 inches.
See attached requirements and specifications.

Optional Projects:

Project Number 004: Mastication of brush and small trees up to 4.0 inches.
See attached requirements and specifications.

Project Number 005: Mastication of brush and small trees up to 3.0 inches.
See attached requirements and specifications.

Project Number 006: Subsoiling of temporary roads, skid trails and landings.
A maximum of 10 miles will be needed. Actual miles will be determined post-harvest.
See attached requirements and specifications.

Project Number 007: Road decommissioning of approximately 2,440 feet of road.
See attached requirements and specifications.

Attachment 1

K-G.9#- Stewardship Projects

Unit	Acres	Optional/Mandatory	Description
14	5.00	Mandatory	Leave Tree Marking
30	52.00	Mandatory	Hand Thinning-Hand Piling
30	52.00	Mandatory	Mastication up to 3.0"
31	32.00	Mandatory	Hand Thinning-Hand Piling
31	32.00	Mandatory	Mastication up to 3.0"
32	62.00	Optional	Mastication up to 4.0"
33	27.00	Optional	Mastication up to 4.0"
34	12.00	Mandatory	Hand Thinning-Hand Piling
34	12.00	Optional	Mastication up to 3.0"
35	28.00	Mandatory	Hand Thinning-Hand Piling
35	28.00	Optional	Mastication up to 3.0"
36	7.00	Mandatory	Mastication up to 3.0"
36a	5.00	Optional	Mastication up to 3.0"
37	15.00	Mandatory	Mastication up to 3.0"
38	9.00	Mandatory	Hand Thinning-Hand Piling
38	9.00	Mandatory	Mastication up to 3.0"
Unit/Road	Miles	Optional/Mandatory	Description
All Units	10.0	Optional	Subsoiling
1600442 Rd	.50	Optional	Road Decommissioning

Project Number 001: Leave Tree Marking

Unit 14

Contractor will be required to mark leave trees on five acres in Unit 14 to demonstrate the prescription. Forest Service shall inspect and approve marking of the five acres prior to cutting (K-C.3.5.5#). The Contractor is to purchase and use orange paint to mark leave trees in a shade approved by the Forest Service. Black paint is to be used as a change color when the Contractor adjusts or changes a tree designation. Sufficient quantities of paint should be purchased by the Contractor to assure color consistency. Contractor shall mark leave trees by painting a slash of orange paint at or below DBH and a stump mark on the downhill side of the tree in the crevices of the bark. The Forest Service will pay for only 5 acres of marking.

Upon Forest Service approval of leave tree marking, Contractor will cut the marked area and will then have the opportunity to demonstrate the prescription on a 3-5 acre area by cutting to the prescription specifications without marking. Forest Service shall inspect and approve cutting of this area prior to continuation. If the Contractor does not feel that he/she can effectively implement the prescription from the machine, additional leave tree marking throughout the unit will be allowed at the Contractor's expense. Marking will be for sawtimber trees only. Non-sawtimber will be thinned to a spacing as outlined in K-C.3.5.5#.

If leave tree marking within 300 feet of the Metolius-Windigo Trail, all stump and bole marks shall be painted on the back side, away from the trail, so as not to be visible from the trail.

If at any time the Forest Service feels that the prescription is not being met, the Contractor may be required to leave tree mark before cutting. The Forest Service may waive the marking requirement at their discretion. Any additional marking in excess of the five acres will be a cost born by the Contractor. The Forest Service may also exercise the option to flag/mark cut or leave trees to aid in demonstrating the prescription.

Project Number 002: Mastication of brush and small trees up to 3.0 inches DBH

Units 30, 31, 36, 37 and 38

Mastication of brush and small trees up to 3.0 inches DBH:

Treatment includes all woody shrub material, small trees (up to 3.0 inches DBH), and slash, except as noted below.

Trees less than 4.0 inches DBH may be retained in openings as single trees or in clumps with other small trees. Generally, retention of small trees 3.0 inches or less shall be no closer than 25 feet from residual trees over 9.0 inches DBH.

Retention trees less than 3.0 inches DBH shall be of good form.

Standing brush and small diameter trees shall be cut or chopped off to no greater than 6 inches above the ground surface.

Existing slash and cut brush shall be chopped, chewed or ground up to no

greater than 6 inches above the ground surface.

Masticating operations will avoid damage to residual trees while treating as close as possible (12 inches) to the bole of the tree.

Mastication shall not occur within 6 feet of snags, rocky outcrops, logs greater than 12 inches in diameter, or on slopes greater than 30%.

Minimize the backing of equipment and leave brush and small trees found within groups of trees to avoid the "back and forth" motion that can cause excessive soil disturbance.

Equipment Specifications:

Equipment shall be of durable design and construction complete required work.

Project Number 003: Hand Thinning and Hand Piling of trees <8.0 inches DBH:
Units 30, 31, 34, 35, 38

THINNING SPECIFICATIONS FOR TREES 0 to less than 8.0 inches DBH :

- Thin from below with variability in density, spacing and structure. Strive for an irregular mosaic of patches/groups/clumps of trees.
- Leave all old growth trees of any species (primarily ponderosa pine and western juniper) regardless of size, condition, density or spatial arrangement.
- Leave the healthiest, largest trees regardless of spacing. Leave clumps 25 feet from residual trees (greater than 8.0" DBH) that range between a few to 4-9 trees, with small gaps in between. Don't strive for uniformity of spacing, but rather an irregular mosaic of groups/clumps of trees. Leave intermediate and suppressed trees if appropriate in creating groups & clumps.
- Leave between 100-170 tree per acre.
- The selection of species to leave will be in the following order of preference (from the most desirable to the least desirable): ponderosa pine, western juniper, and white fir.
- Slash shall be cleared from any trails at the end of each operating day.

Cut Tree Execution for trees less than 8.0" DBH:

(a) Trees to Cut:

- (1) All live excess and cull trees over the minimum height (2 feet) and less than 8.0 inches DBH that are not needed to meet variable spacing requirements, or not otherwise designated as a leave tree or a reserve tree.
- (2) All dead trees over the minimum height (2 feet) and less than 8.0 inches DBH.

(b) Cut trees shall be:

- (1) Cut below the lowest live limb. Live limbs are acceptable on a stump cut within 2 inches of the ground surface. Stumps taller than 2 inches and which contain live green limbs will be counted as an excess tree on the inspection summary.
- (2) Cut so that stumps are no more than 6 inches above the ground level.
- (3) Completely severed from the stump. A cut tree not completely severed from the stump will be counted as an excess tree on the inspection summary. Stump angle shall be less than 30 degrees.
- (4) Felled away from all roads, established trails, fence lines, utilities, etc.
- (5) Felled to remain within the contract unit boundary and not be hung up.
- (6) Whenever possible, felled away from leave trees, activity-created or existing slash brush, toward openings, skid trails and landings.

Location of Hand Piles

Piles shall be a minimum 10 feet from the crown or drip line of any tree or equal-distance between standing live trees, whichever is greater.

Piles shall be located a minimum of 15 feet from unit boundaries, physical improvements, (such as roads, trails and ditches) select genetic trees, wildlife trees, designated wildlife clumps, designated recreational trails, riparian vegetation and stream courses.

Piles shall be placed so they are not on top of logs, stumps, fire lines, or channels.

Slash on visible rock shall be pulled off the rock and placed at least 6 feet from the rock.

Construction and Size of Hand Piles

Piles shall be constructed in a manner which provides for rapid ignition and complete consumption of all piled material.

Piles will include all contractor generated slash greater than 1 inch in diameter and 2 feet in length. Slash less than 1 inch in diameter and less than 2 feet in length may be left on the ground. Slash left on the ground shall be scattered so as not to exceed 6 inches in depth.

Each pile shall be constructed by stacking limbs, stems, cut boles and other slash on the pile so as to be parallel with each other, and in such a manner that they are stable and will not fall over. Piles shall be as compact as possible with no slash laid against the pile. All bole wood shall be stacked parallel on piles, unless otherwise directed by contract administrator. Avoid 'teepee' style piling.

Minimum pile size shall be 5 feet in diameter by 5 feet in height, unless otherwise approved by the contract administrator.

All piles shall be trimmed, with trimmed pieces stacked parallel on each pile.

Each pile shall be covered with 6mm plastic sheeting measuring 6 feet x 6 feet when it is approximately 2/3 of the finished height. The remaining 1/3 of slash shall be piled on top of the plastic sheeting. Contractor shall furnish plastic sheeting.

Where slash produced by operations is too nominal to construct a pile of minimum size (i.e., low stand density, single trees), slash will either be dragged from within a 20-30 feet radius to create a pile or dragged and incorporated into an existing pile within the same radius. In cases where these standards cannot be met, the cut trees will be limbed, bucked, and scattered to a height of less than 18 inches above the ground.

Project Number 004: Mastication of brush and small trees up to 4.0 inches DBH
Units 32 and 33

Mastication of brush and small trees up to 4.0 inches DBH:

Treatment includes all woody shrub material, small trees (up to 4 inches DBH), and slash, except as noted below.

Trees less than 4.0 inches DBH may be retained in openings as single trees or in clumps with other small trees. Generally, retention of small trees 4.0 inches or less shall be no closer than 25 feet from residual trees over 9.0 inches DBH.

Retention trees less than 4.0 inches DBH shall be of good form.

Standing brush and small diameter trees shall be cut or chopped off to no greater than 6 inches above the ground surface.

Existing slash and cut brush shall be chopped, chewed or ground up to no greater than 6 inches above the ground surface.

Masticating operations will avoid damage to residual trees while treating as close as possible (12 inches) to the bole of the tree.

Mastication shall not occur within 6 feet of snags, rocky outcrops, logs greater than 12 inches in diameter, or on slopes greater than 30%.

Minimize the backing of equipment and leave brush and small trees found within groups of trees to avoid the "back and forth" motion that can cause excessive soil disturbance.

Equipment Specifications:

Equipment shall be of durable design and construction to withstand the stresses of natural obstructions within forest lands such as rocks, stumps, roots, slash, dust and the general unevenness of uncultivated land.

Project Number 005: Mastication of brush and small trees up to up to 3.0 inches DBH Units 30, 31, 34, 35, and 36a

Mastication of brush and small trees up to 3.0 inches:

Treatment includes all woody shrub material, small trees (up to 3.0 inches DBH), and slash, except as noted below.

Trees less than 4.0 inches DBH may be retained in openings as single trees or in clumps with other small trees. Generally, retention of small trees

3.0 inches or less shall be no closer than 25 feet from residual trees over 9.0 inches DBH.

Retention trees less than 3.0 inches DBH shall be of good form.

Standing brush and small diameter trees shall be cut or chopped off to no greater than 6 inches above the ground surface.

Existing slash and cut brush shall be chopped, chewed or ground up to no greater than 6 inches above the ground surface.

Masticating operations will avoid damage to residual trees while treating as close as possible (12 inches) to the bole of the tree.

Mastication shall not occur within 6 feet of snags, rocky outcrops, logs greater than 12 inches in diameter, or on slopes greater than 30%.

Minimize the backing of equipment and leave brush and small trees found within groups of trees to avoid the "back and forth" motion that can cause excessive soil disturbance.

Trail crossings will be kept to a minimum. Debris shall be removed from trails at the end of each day.

Equipment Specifications:

Equipment shall be of durable design and construction to withstand the stresses of natural obstructions within forest lands such as rocks, stumps, roots, slash, dust and the general unevenness of uncultivated land.

Project Number 006: Subsoiling:

Sub soiling may be necessary to loosen compacted soils where detrimental soil conditions exceed 20 percent of the unit, or as deemed necessary by the Soil Scientist, in order to mitigate effects of the Contractor's harvesting activities.

Subsoiling may be necessary to decommission temporary road beds, log landings and primary skid trails.

A standard subsoil mile is 5280 feet in length by 12 feet wide.

Equipment Specifications

A winged subsoiler is preferred, however, other tillage equipment will be considered and evaluated. If proposing an alternative other than a winged subsoiler the tillage implement must meet the following minimum specifications: (a) a tool bar with 4 shanks capable of tilling to a depth of 18 inches (b) a minimum shank length of 24 inches which allows tilling to a depth of 18 inches and an additional minimum six inches clearance between the top of the ground and the top of the tillage implement tool bar (c) a maximum shank spacing of 2 ½ feet between shanks (d) a minimum tillage width of 7 feet. Note: main trails average 12 feet in width, thus tillage equipment less than 12 feet wide will be required to make two passes to assure tillage of the full trail width.

Definition of Term: *Subsoiling.* To alleviate heavily compacted soils using an implement specifically designed to reduce soil strength, and restore intrinsic bulk density (i.e., weight per unit volume), macropore space, permeability, infiltration, and tilth of soil layers to depth. The depth of the compacted layers is treated using a multi-tined implement with angled, winged teeth of sufficient width and configuration, and which is actuated using heavy mechanized equipment. The implement effectively shatters horizontally and vertically the compacted layers in-place without turning the soil, pulling it up to the surface, or mixing it. Shattering occurs across the treated area, not just in the tine furrows. Typically, subsoiling is achieved to a depth of at least 24 inches, while creating fracture in greater than 90 percent of the compacted zone with one pass. Subsoiling is most effective when soils are moist.

General Description of a Winged Subsoiler Implement (note: either of a tool-bar mount or a fabricated mount on an excavator tool-head such as a bucket): Winged subsoilers, depending on the application typically consist of two to four shanks/tines that are approximately 3 to 5 feet long and spaced about 3 to 4 feet apart. Wings are approximately 20 inches wide attached to the tip of each shank, and are angled approximately 15 to 20

degrees from horizontal, with the lower edge pointing in the direction of travel. Subsoilers are usually controlled using hydraulic actuation so that they can be drafted to the maximum depth whereby the wing angle can be maintained through the length of the pull. Hydraulic actuation should provide the capability of maneuvering the implement up and down when obstacles are encountered and need to be avoided such as stumps and large rocks. Equipment is designed to allow adequate clearance, allowing smaller obstacles such as rocks, brush, or woody debris like logging slash to pass through and not build up.

Post-subsoiling condition: After subsoiling, the treated area will be in a fluffed state. A tile spade (i.e., similar to a shovel used for planting trees or clamming) can be pushed to its hilts into the treated area using minimal force, with slight if any foot assisted pressure. Shovel penetration can be achieved in-between the furrows as well as in them. When poured onto the subsoiled surface a standard 1-gallon coffee-can of water will infiltrate into the ground almost immediately with little if any pooling or puddling, even when the soil is already wet.

Project Number 007: Road Decommissioning

Road decommissioning of approximately 2,440 feet of Forest Road 1600442.

Obliterate the roadway by restoring to approximate original ground contours. Keep excavated material within the original construction limits. Finish slopes to provide gradual transitions in slope adjustments without noticeable breaks. Remove and slope embankment material at localized drainages to restore the natural drainage patterns. Eliminate all ruts and low spots that could hold water.

Scarify or rip the surface, base, and subbase material to a depth of 12-18 inches where possible. Mix the scarified or ripped material with the underlying soil.

Construct barriers to prevent vehicle access and waterbars as directed on the ground by contract administrator

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K-H.1 - PLANS (05/2005)

The plan shall state how Contractor's representative or alternates will be contacted in a fire emergency, both during periods of operation and at other times such as evenings or weekends. Contractor shall certify compliance with specific fire precautionary measures included as Subsections under K-H.2 - Specific Fire Precautions, before beginning operations during Fire Precautionary Period (closed season) and shall update such certification when operations change.

If helicopter yarding is required, the plan shall include a schedule of rates mutually agreed to for computing Contractor costs incurred toward meeting Contractor's obligations under A.14, or for paying for helicopters controlled by Contractor and used under Forest Service direction for suppressing Operations Fires or other fires on Contract Area, excluding Negligent Fires.

K-H.2 - SPECIFIC FIRE PRECAUTIONS (05/2005)

When the industrial fire precaution level is I or higher, unless waiver is granted under K-H.2.2, specific required fire precautionary measures are as follows:

A. Fire Security.

Contractor shall designate in writing a person or persons who shall perform fire security services listed below on Contract Area and vicinity. The designated person will be capable of operating Contractor's communications and fire fighting equipment specified in the contract, excluding helicopters, and of directing the activities of Contractor's personnel on Forest fires. Such person must report any fire detected to Forest Service within 15 minutes of detection. In lieu of having the designated person perform the required supervisory duties, Contractor may provide another person meeting the qualifications stated above to direct the activities of Contractor's personnel and equipment during all fire fighting activities.

Services described shall be for at least 1 hour from the time Contractor's Operations are shut down. For the purposes of this provision, personnel servicing equipment, and their vehicles, who are not engaged in cutting or welding metal are excluded.

Fire security services shall consist of moving throughout the operation area or areas constantly looking, reporting, and taking suppression action on any fires detected. Where possible, the designated person shall observe inaccessible portions of helicopter operating areas from vantage points within or adjacent to Contract Area.

Contractor shall furnish fire security services based on the predicted industrial precaution level, obtained by Contractor from the appropriate Ranger District Headquarters. If predictions made after 6:00 p.m. local time, are significantly different than originally estimated, Forest Service will inform Contractor when changes in fire security services are indicated.

B. Fire Extinguisher and Equipment (on Trucks, Tractors, Power Saws, etc.).

(a) Each yarder or loader equipped with an internal combustion engine or other spark emitting source shall be equipped with a readily accessible fire extinguisher, with an Underwriter's Laboratory (UL) Rating of at least 5 B,C.

(b) All power-driven equipment operated by Contractor on National Forest land, except portable fire pumps, shall be equipped with one fire extinguisher having a UL rating of at least 5 B,C and one "D" handled or long handled round point shovel, size 0 or larger. In addition, each motor patrol, truck and passenger-carrying vehicle shall be equipped with a double-bit axe or Pulaski, 3-1/2 pounds or larger.

(c) Equipment required in (a) and (b) shall be kept in a serviceable condition and shall be readily available.

(d) Each gasoline power saw operator shall be equipped with a pressurized chemical fire extinguisher of not less than 8-ounce capacity by weight, and one long handled round point shovel, size 0 or larger, except at a landing where a suitable fire extinguisher and shovel are immediately available. The extinguisher will be kept in possession of the saw operator at all times. The shovel shall be accessible to the operator within 1 minute.

(e) Each helicopter shall be equipped with one fire extinguisher having a UL rating of at least 5 B,C mounted inside the aircraft within reach of the pilot's operating position.

(f) One refill for each type or one extra extinguisher sufficient to replace each size extinguisher required on equipment shall be safely stored in the fire tool box or other agreed upon place on Contract Area that is protected and readily available.

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(g) At each area where helicopters are being serviced or supplied, a carbon dioxide fire extinguisher with a UL rating of at least 20 B,C will be provided on the site and placed where it is available for immediate use.

C. Spark arresters and mufflers.

Each internal combustion engine shall be equipped with a spark arrester qualified and rated under USDA Forest Service Standard 5100-1a as shown in the National Wildfire Coordination Group Spark Arrester Guide, unless it is:

(a) Equipped with a turbine-driven exhaust supercharger such as the turbocharger. There shall be no exhaust bypass.

(b) A multi-position engine, such as on power saws which must meet the performance levels set forth in the Society of Automotive Engineers (SAE) "multi-positioned small engine exhaust fire ignition standard, SAE recommended practice J335B" as now or hereafter amended.

(c) A passenger carrying vehicle or light truck, or medium truck up to 40,000 GVW, used on roads and equipped with a factory designed muffler complete with baffles and an exhaust system in good working condition.

(d) A heavy duty truck, such as a dump or log truck, or other vehicle used for commercial hauling, used only on roads and equipped with a factory designed muffler and with a vertical stack exhaust system extending above the cab.

Exhaust equipment described in this Subsection, including spark arresters and mufflers, shall be properly installed and constantly maintained in serviceable condition.

D. Fire Tools.

Contractor shall furnish serviceable fire fighting tools in a readily accessible fire tool box or compartment of sound construction with a hinged lid and hasp so arranged that the box can be secured or sealed. The box shall be red and marked "Fire Tools" in letters at least 1 inch high. It shall contain a minimum of:

- (a) Two axes or Pulaskis with a 32 inch handle.
- (b) Three adze eye hoes. One Pulaski may be substituted for one adze eye hoe.
- (c) Three long handled, round point shovels, size 0 or larger.

E. Tank Truck.

Contractor shall provide a tank truck or trailer, containing not less than 300 gallons of water, during yarding, skidding, loading, land clearing, right-of-way clearing, mechanical falling, and mechanical treatment of slash. Such tank truck or trailer shall be maintained in a serviceable condition and located within 10 minutes, round trip, from each operating side during Fire Precautionary Period (closed season), except as provided under H.2.1.

The tank truck or trailer shall be equipped with a pump capable of discharging 20 gallons of water per minute, using a 1/4 inch nozzle tip, through a 50 foot length of poly or rubber lined hose. In addition, 500 feet of serviceable hard rubber poly or rubber lined or FJRL hose of not less than 1 inch outside diameter, fitted with a nozzle capable of discharging a straight stream of 1/4 inch diameter and a spray pattern shall be immediately available for use. The tank, pump, nozzle and at least 250 feet, of the total 500 feet of hose, shall be connected and ready for use at all times. Synthetic hose may be used by

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agreement.

If a trailer is used, it shall be equipped with a hitch to facilitate prompt movement. A serviceable tow vehicle shall be immediately available for attachment to the trailer and must meet the time requirements stated above. Such truck or trailer shall be equipped to operate for a minimum of 8 hours.

Where designated on Contract Area Map, Contractor shall provide a tank trailer or water source and pumping equipment, including accessories, which can be lifted and transported by the yarding system. The component parts shall meet all specifications above. The tank trailer or water supply and pumping accessories shall be deliverable to a fire, in area of operations, within 15 minutes of detection.

In lieu of the above tank trailer or water supply for helicopter operations, Contractor may provide a suitable helicopter water bucket with a 300 gallon capacity. When Contractor provides a water bucket, a water source shall be provided within 5 minutes round trip flight time from operating side.

F. Communications.

During Contractor's Operations, excluding powersaw falling and bucking, Contractor shall provide adequate two-way communication facilities to report a fire to Forest Service within 15 minutes of detection. Citizen Band radios (CB's) are not considered adequate two-way communications because FCC Regulations prohibit commercial use.

G. Smoking and Open Fire Restrictions.

Smoking and fires shall be permitted only at the option of Contractor. Contractor shall not permit open fires on Contract Area without advance permission in writing from Forest Service.

H. Blasting.

Blasting shall be permitted only for road construction purposes unless advance permission is obtained from Forest Service.

Whenever the Industrial Fire Precaution Level is II or greater, a fire security person equipped with a long handled round point No. 0 or larger shovel and a 5 gallon backpack pump can filled with water, will stay at location of blast for 1 hour after blasting is done. Blasting may be suspended by Forest Service, in areas of high rate of spread and resistance to control.

Fuses shall not be used for blasting. Explosive cords shall not be used without permission of Forest Service, which may specify conditions under which such explosives may be used and precautions to be taken.

I. Compliance with State Fire Laws.

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

J. Aircraft Communications.

Every aircraft used in conjunction with Contractor's Operations shall be equipped with an operable radio system. The radio system shall be capable of transmitting and receiving on VHF frequency 122.85 Megahertz (MHz) with a minimum output of 5 watts at the transmitter. The system shall be located and installed so that the pilot can operate it while flying. A shielded all-weather broad-band antenna shall be part of the system. Radio and antenna shall be properly installed and maintained.

Upon discovery or notification of a fire on Contract Area, all aircraft pilots controlled by Contractor

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shall monitor VHF frequency 122.85 MHz when within 5 miles of a fire and broadcast their intentions.

K. Logging Block Equipment.

Contractor shall provide a serviceable 5 gallon backpack pump full of water, one axe, and one long handled round point shovel, size 0 or larger, at each haulback block through which a running line passes.

The area below such blocks must be kept clear of all flammable debris under 4 inches in diameter for a distance of 6 feet in all directions. Material larger than 4 inches that poses a fire risk, such as punky logs, must also be removed.

Contractor shall avoid line-rub on rocks or woody material which may result in sparks or sufficient heat to cause ignition of fire.

K-H.2.0.1 - BURNING BY CONTRACTOR (06/2006)

Notwithstanding the Fire Precautionary Period limitation of H.2, Contractor is required to obtain written permission from Forest Service prior to any burning on the National Forest Lands.

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K-H.2.2 - EMERGENCY FIRE PRECAUTIONS (05/2005)

Contractor shall restrict operations in accordance with the Industrial Fire Precaution Levels attached. Forest Service may change the Industrial Fire Precaution Levels to other values upon revision of the National Fire Danger Rating System and may change the specific Industrial Fire Precaution Levels when such changes are necessary for the protection of the National Forest. When sent to Contractor, the revised Industrial Fire Precaution Levels will supersede the attached levels.

INDUSTRIAL FIRE PRECAUTIONS SCHEDULE

LEVEL INDUSTRIAL FIRE PRECAUTION

I. Closed Season - Fire precaution requirements are in effect. A Fire Watch/Fire Security is required at this and all higher levels unless otherwise waived.

II. Partial Hootowl - The following may operate only between the hours of 8 p.m. and 1 p.m. local time:

power saws, except at loading sites;
cable yarding;
blasting;
welding or cutting of metal.

III. Partial shutdown - The following are prohibited:

cable yarding - except that gravity operated logging systems employing non-motorized carriages may be operated between the hours of 8 p.m. and 1 p.m. local time when all blocks and moving lines are 10 feet or more above the ground, excluding the line between the carriage and the choker.

power saws - except at loading sites and on tractor/skidder operations between the hours of 8 p.m. and 1 p.m. local time.

In addition, the following are permitted between the hours of 8 p.m. and 1 p.m. local time:

tractor, skidder, feller-buncher, forwarder, or shovel logging operations where tractors, skidders or other equipment with a blade capable of constructing fireline are immediately available to quickly reach and effectively attack a fire start;
mechanized loading and hauling;
blasting;
welding or cutting of metal;
any other spark-emitting operation not specifically mentioned.

IV. General shutdown - All operations are prohibited.

The following definitions shall apply to these Industrial Fire Precaution Levels:

Cable yarding systems: A yarding system employing cables and winches in a fixed position.

Closed Season (Fire Precautionary Period): That time period each year when a fire hazard exists and as described in A.12.

Hauling: Where hauling involves transit through more than one shutdown zone/regulated use area, the precaution level at the woods site shall govern the level of haul restrictions, unless prohibited by other than the Industrial Fire Precaution Level system.

Loading sites/woods site: A place where any product or material (including but not limited to logs,

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firewood, slash, soil, rock, poles, posts, etc.) is placed in or upon a truck or other vehicle.

Advance written waiver of the above precautions may be issued by the Contracting Officer or Forest Service Representative.

Such waiver, or substitute precautions under H.2.1, shall prescribe measures to be taken by Contractor to reduce the risk of ignition, and/or the spread of fire. The Contracting Officer or Forest Service Representative shall consider site specific weather factors, fuel conditions, and specific operations that result in less risk of fire ignition and/or spread than contemplated when precaution level was predicted. Consideration shall also be given to measures that reduce the precaution levels above. Contractor shall assure that all conditions of such waivers or substitute precautions are met.

Contractor shall obtain the predicted Industrial Fire Precaution Level from the appropriate Ranger District headquarters. If predictions made after 6:00 p.m., local time, are significantly different than originally estimated, Forest Service will inform Contractor when changes in restrictions or industrial precautions are indicated.

K-H.3.1 - ADDITIONAL AREA OF FIRE RESPONSIBILITY (05/2005)

The area within 200 feet slope distance of the center line of any road constructed or reconstructed under this contract on National Forest lands outside of Contract Area shall be considered as a part of Contract Area in connection with responsibilities under H.3 and H.4 until the road has been accepted in writing by Forest Service.

K-I.1.0 - DISCLAIMER OF EXPRESSED OR IMPLIED WARRANTY (05/2005)

Contractor and Forest Service hereby agree, acknowledge, and accept that there is no expressed or implied warranty provided by the Forest Service that guarantees the Contractor will be allowed to complete the removal of products sold under the terms of the contract. Upon execution of the contract, Contractor hereby acknowledges the acceptance of the risk that this contract is subject to interruption or termination as a result of litigation associated with the environmental analysis process used by the Forest Service in the planning of this project. If such interruption or termination occurs due to litigation, Contractor agrees to accept as full compensation for such interruption remedies pursuant to I.3.3, or for termination remedies pursuant to I.3.4.

K-I.3.1# - CONTRACT CHANGES (OPTION 1) (05/2005)

Contract changes involving volumes and/or values will use a weight ratio of 3.364 to convert net CCF cruise volumes to Tons.

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K-I.6.8# (Option 1) - USE OF TIMBER (09/2004)

(a) This contract is subject to the Forest Resources Conservation and Shortage Relief Act of 1990, as amended (16 USC 620, et seq.).

(b) Except for N/A determined pursuant to public hearing to be surplus, unprocessed Included Timber shall not be exported from the United States nor used in direct or indirect substitution for unprocessed timber exported from private lands by Contractor or any person as defined in the Act (16 USC 620e).

(c) Timber in the following form will be considered unprocessed:

(i) Trees or portions of trees or other roundwood not processed to standards and specifications suitable for end product use;

(ii) Lumber, construction timbers, or cants intended for remanufacturing not meeting standards defined in the Act (16 USC 620e); and

(iii) Aspen or other pulpwood bolts exceeding 100 inches in length.

(d) Unless otherwise agreed in writing, unprocessed Included Timber shall be delivered to a domestic processing facility and shall not be mixed with logs intended for export.

(e) Prior to award, during the life of this contract, and for a period of 3 years from Termination Date, Contractor shall furnish to Forest Service, upon request, records showing the volume and geographic origin of unprocessed timber from private lands exported or sold for export by Contractor or affiliates.

(f) Prior to delivering unprocessed Included Timber to another party, Contractor shall require each buyer, exchangee, or recipient to execute an acceptable agreement that will:

(i) Identify the Federal origin of the timber;

(ii) Specify domestic processing for the timber involved;

(iii) Require the execution of such agreements between the parties to any subsequent transactions involving the timber;

(iv) Require that all hammer brands and/or yellow paint must remain on logs until they are either legally exported or domestically processed, whichever is applicable; and

(v) Otherwise comply with the requirements of the Act (16 USC 620d).

(g) No later than 10 days following the execution of any such agreement between Contractor and another party, Contractor shall furnish to Forest Service a copy of each such agreement. Contractor shall retain, for 3 years from Termination Date, the records of all sales, exchanges, or dispositions of all Included Timber.

(h) Upon request, all records dealing with origin and disposition of Included Timber shall be made available to Contracting Officer.

(i) For breach of this Section, Forest Service may terminate this contract and take such other action as may be provided by statute or regulation, including the imposition of penalties. When terminated by Forest Service under this Section, Forest Service will not be liable for any Claim submitted by Contractor relating to the termination.