

ROCKY MOUNTAIN REGION (2)  
SAN ISABEL NATIONAL FOREST (12)  
SALIDA RANGER DISTRICT (02)

TIMBER SALE REPORT  
AND  
APPRAISAL SUMMARY

**PLACER LOOP SALVAGE TIMBER SALE**

Prepared by: \_\_\_\_\_  
Patrick Craig  
Forester

Date: \_\_\_\_\_

Reviewed by: \_\_\_\_\_  
Sam Schroeder  
Forester

Date: \_\_\_\_\_

Certification

I hereby certify that the requirements of the Secretary's Regulation 36 CFR 223.30 have been met by this timber sale.

I certify that the timber for this sale has been designated and cruised by the procedures and standards in the Timber Cruising Handbook (FSH 2409.12). Records of the cruise and checks are on file at the Salida Ranger District Office in Salida, Colorado.

Approved by: \_\_\_\_\_  
Amy Ormseth  
District Ranger

Date: \_\_\_\_\_

# Placer Loop Salvage Timber Sale Timber Sale Report

## I. SUMMARY OF RECCOMENDATIONS

The following lists the recommendations and results of the appraisal.

Net Volumes (Appraised and found in A2 of the contract) :

<u>Species</u>	<u>Volume</u>
<b><u>Contract Volume</u></b>	
<b>Sawtimber</b>	
Douglas fir & Other Species (Live & Dead)	DF & O 697 CCF
Lodgepole Pine (Live & Dead)	LP 133 CCF
<b>POL</b>	
Douglas fir & Other Species (Live & Dead)	DF & O <u>60 CCF</u>
<b>Total</b>	<b>890 CCF</b>

Advertised Rates ---	Sawtimber	DF & O	=	\$3.00/CCF
		LP	=	\$3.00/CCF
	POL	DF & O	=	\$1.00/CCF

Required Slash Deposit is \$0.00/CCF

Road Maintenance Deposit is \$0.73/CCF

Surface Rock Replacement Deposit is \$0.00/CCF

Road Maintenance Purchaser Responsibility \$0.00/CCF

Temporary Road Cost is \$ 11.46/CCF

KV Collection is \$2326.00

Salvage Sale Fund Collection is \$0.00

Specified Road Construction is 0.0 Miles

Specified Road Reconstruction is 0.0 Miles

Termination Date is November 15, 2015.

Normal Operating Season is: May 15 – November 15

## II. SALE AREA DESCRIPTION

1. Location: San Isabel National Forest, Salida Ranger District  
 Legal Description: T50N, R7E, Sections 9, 10, 11, 14, 15, 16, 23 NMPM, Chaffee County, Colorado
2. STARS#: 13203  
 SALE #: 007
3. Gross Sale Area: 1372 acres
4. Net Harvest Area: 173 acres
5. Location and description of private lands, claims, patents, reservations, or special uses within the sale area and measures to protect them. Private lands are adjacent to the sale boundaries, however, no easements are needed to access timber for this sale.

## III. SALE OBJECTIVE CODE

Purpose	Activity	Percentage
FS – Forest Health	10	100%

## IV. MANAGEMENT REQUIREMENTS AND CONSTRAINTS

NEPA Decision Document: Decision Notice, “Westside Ecosystem Management Project”

Date of Project Approval: August 01, 2001

Approved By: William Wood

Action or Constraint	Response	When to Accomplish	How Accomplished
<b>Physical Elements</b>			
1. Use previous roads, trails, and other soil disturbances unless other options will produce less long term sediment. Reconstruct for long-term soil and drainage stability.	Existing roads will be used where possible. All temporary roads will be rehabilitated according to FSH 2509.25 Watershed Conservation Practices Handbook.	During layout and sale harvest.	Provision BT6.63 Temporary Roads will provide for closure and drainage stability of temporary roads

<b>Action or Constraint</b>	<b>Response</b>	<b>When to Accomplish</b>	<b>How Accomplished</b>
2. Keep heavy equipment out of filter strips as well as streams, swales, lakes or wetlands.	Filter strips will be protected.	During layout and sale harvest.	Filter strips were avoided during layout. BT6.5 Streamcourse Protection will be used to provide for protection of filter strips through sale administrator.
3. Ensure road maintenance provides stable surfaces and drainage.	Road maintenance will meet criteria found in maintenance T-specifications.	During sale harvest.	Provision CT5.32# Road Maintenance Deposit Schedule will be used to accomplish road maintenance as necessary.
4. Runoff will be increased due to damage to ground cover.	Maintain average ground cover at least 80%	During sale harvest.	Disturbance will be kept to a minimum through designated skid trails and sale administrator review.
5. Avoid soil disturbance during periods of heavy rain or when soils are wet.	Logging operations will be suspended during times of wet soils.	During sale harvest.	Provision BT6.6 Erosion Prevention and Control will be used by sale administration to restrict operations depending on conditions.
6. Temporary roads must be dealt with after sale harvest. Skid trails will be designed to keep sediment from streamcourses, as well as to minimize soil compaction	Temporary roads will be closed, ripped, recontoured (if necessary) and re-vegetated after logging is complete. Skid trails will be designated away from streamcourses and kept to a minimum.	During sale harvest.	Provision BT6.63 Temporary Roads will be used to provide for temporary road closures. Provision BT6.422 Landings and Skid Trails will provide for appropriate locations of skid trails through sale administration approval.
<b>Biological Elements</b>			
1. Protection of sensitive plant species.	Only native seed mixes will be used within sale area.	During contract preparation and post sale.	Acceptable native seed mixture is outlined in CT 6.601#.

Action or Constraint	Response	When to Accomplish	How Accomplished
2. Encourage the development of shrub understories (especially Gambel Oak) in ponderosa pine and Douglas-fir forest types to increase habitat suitability for oak-oriented species, and species such as Abert's squirrel and wild turkey.	The silvicultural prescription encourages the retention and regeneration of ponderosa pine and removal of Douglas-fir and lodgepole pine which would improve Abert's squirrel and wild turkey habitat.	During sale preparation.	Marking for removal of lodgepole pine and Douglas-fir and retention of existing ponderosa pine and encouragement of ponderosa pine regeneration would encourage the development of any existing Gambel Oak and shrub understories.
3. Inventory, treat, and monitor noxious weed infestations throughout the project area.	Existing noxious weeds would be identified during sale preparation and treatment would be provided for if found in the sale area through KV plans.	During sale preparation and post harvest treatments.	Noxious weeds will be treated post-sale using KV funding if sale area is known to contain noxious weeds. District personnel will complete these activities.
4. A minimum of 7 snags and/or logs per acre shall be retained for every acre treated.	Minimum snag requirements will be provided for during layout and marking.	Layout and marking	A minimum of 7 snags and/or loge were retained during marking. All soft snags will be left unless they present a safety hazard.
5. Thinning of regenerating conifers will not occur in lynx habitat.	The only cutting unit that is identified as lynx habitat is unit 5.	Post harvest treatments.	No TSI activities have been planned in unit 5.
6. Some downed logs will remain in lynx habitat (1 jack strowed pile/acre, where available).	The only cutting unit that is identified as lynx habitat is unit 5.	During sale preparation.	One jack strowed pile/acre was provided for during marking.
<b>Use of Forest</b>			

Action or Constraint	Response	When to Accomplish	How Accomplished
1. Maintain and protect all existing range improvements that exist within the project area.	All fences and range improvements will be protected.	During sale harvest.	All fences will be shown on the sale area map as requiring protection. If crossing is needed, sale administrator will designate crossing locating and review fence rehabilitation. Provisions BT6.22 Protection of Improvements and CT6.223 Protection of Fences will be used to protect range improvements.
2. No commercial hauling would occur on weekends (1200 Friday to 0600 Monday) from May 1 <sup>st</sup> to September 11 <sup>th</sup> .	No hauling may occur on weekends(1200 Friday to 0600 Monday) from May 1 <sup>st</sup> till September 11 <sup>th</sup> .	During sale harvest	Provision CT5.12# Use of Roads by Purchaser will be used to restrict hauling during this time period.

## V. AREA DESCRIPTION SUMMARY

Unit Number	Harvest Acres	Mgt. Area	TLSC	Harvest Method	Logging Method
1	40	7A	600	4151	421
2	63	7A	600	4151	421
3	31	7A	600	4151	421
4	19	7A	600	4151	421
5	20	7A	600	4151	421

Applicable Coding Structure For Area Description  
(Timber Land Suitability Class (TLSC, TMIS Handbook))

500 - Suitable, Timber

600 - Suitable, Other Emphasis

630 - Recreation Emphasis

640 - Visual Emphasis

650 - Wildlife Emphasis

660 - Water Emphasis

### Harvest Method

4111 - Patch Clearcut  
4112 - Strip Clearcut  
4113 - Stand Clearcut  
4121 - Shelterwood Prep Cut  
4131 - Shelterwood Seed Cut  
4141 - Shelterwood Removal Cut

4143 - Overstory Removal  
4151 - Individual Tree Selection  
4152 - Group Selection  
4154 - Single Tree Selection (NRN)  
4231 - Salvage Intermediate Treatment  
4270 - Permanent Clearing

### Logging Method

410 - Animal (Horse)  
421 - Rubber Tired Skidder  
496 - Feller Buncher

420 - Tractor  
454 - Other  
498 - Low Ground Pressure

## **VI. TIMBER VOLUME DETERMINATION**

### **Volume Determination**

Tree measurement timber sales with an estimated value of less than \$5,000 are not required to meet a sampling error (FSH 2409.12, Chapter 41.1) however, volume determination should be done in a defensible manner. The estimated value at advertised rates is \$2550.00 based on a volume of 890 CCF. Therefore a sampling error is not required to be met based on the volume and value of this sale however defensible volume determination must be provided. The volume was obtained from the Placer Loop Salvage T.S. cruise which was a Sample Tree Cruise and Plot Cruise design. Cut trees were tallied in four strata; Strata 1 Sample Tree Cruise 1 in 100 sawtimber, Strata 2 Sample Tree Cruise 1 in 75 POL, Strata 3 Variable Plot Cruise 10 BAF sawtimber, and Strata 4 Fixed Plot Cruise 1/10 acre POL. This cruise resulted in an estimated volume of 697 CCF Douglas fir and other species (Live & Dead) sawlogs, 133 CCF lodgepole pine (Live & Dead) and 60 CCF Douglas fir and other species (Live & Dead) POL for a total sale volume of 890 CCF. Total Sale error = 17.87%. The final sale error of 17.87% meets the requirements for tree measurement sales with a value greater than \$5,000 and less than or equal to \$15,000 (FSH 2409.12 Chapter 41.1) thus is acceptable.

### **Merchantability Specifications**

<b>Species</b>	<b>Products</b>	<b>UOM</b>	<b>Min DBH</b>	<b>Top DIB</b>	<b>Length</b>	<b>Merch. Factor</b>
Douglas-fir & other species (Live & Dead)	Sawlogs	CCF	8.0	6.0	8.0'	10.67
Lodgepole Pine (Live & Dead)	Sawlogs	CCF	7.0	6.0	8.0	10.67
Douglas-fir & other species (Live & Dead)	POL	CCF	5.0	4.0	6.5	NA

**Area Determination Method**

The acreage of each cutting unit was determined by the Global Positioning System (GPS) method on all cutting units following direction set forth in FSH 2409.12.52.12. Maps of each cutting unit are filed in the *Presale Folder 2430* for this sale.

**VII. TRACT DATA**

	<b>Units</b>	<b>Sale Total or Average</b>	<b>DF &amp; O (Live &amp; Dead) Sawtimber</b>	<b>LP (Live &amp; Dead) Sawtimber</b>	<b>DF &amp; O (Live &amp; Dead) POL</b>
<b>Contract Volume</b>	CCF	890	697	133	60
<b>% By Species/Group</b>	%	100%	78%	15%	7%
<b>Ave. Net Volume/Tree</b>	CF	9.3	12.5	13.2	1.98
<b>Ave. Net Volume/Acre</b>	CCF	5.14	4.03	0.77	0.35
<b>BF/CF Ratio</b>	n/a	4.535	4.447	4.417	5.851
<b>Quad Mean DBH/Species</b>	Inch	11.6	13.9	12.7	6.7
<b>Total Number of Trees</b>	Trees	9,593	5,562	1,005	3,026

**VIII. UNIT SUMMARY**

Cutting Unit	CCF DF & O Sawtimber From Cruise	CCF LP Sawtimber From Cruise	CCF DF & O Misc-Conv From Cruise
1	100	22	22
2	275	51	17
3	140	26	11
4	90	17	7
5	92	17	3
<b>Total</b>	697	133	60

**IX. TRANSPORTATION SYSTEM**

Cost estimates for road construction, road reconstruction, and road maintenance are provided in the Transaction Evidence Appraisal Report (TEA), Section V.

ROAD MAINTENANCE:

		<u>MILES</u>
NFSR 250B	During/Post Haul	0.4
NFSR 250A	During/Post Haul	2.6
NFSR 250	During/Post Haul	<u>0.9</u>
		3.9



SURFACE ROCK REPLACEMENT: MILES

There is no surface rock replacement for this sale 0.0

SPECIFIED ROAD CONSTRUCTION: MILES

There is no specified road construction for this sale. 0.0

SPECIFIED ROAD RECONSTRUCTION: MILES

There is no specified road reconstruction for this sale. 0.0

#### **X. AGREEMENTS, EASEMENTS, AND PERMITS**

There are no agreements, easements, and/or permits with other agencies or members of the public required to gain access to the sale area or portions thereof.

#### **XI. APPROVALS/AUTHORIZATIONS**

The following are Forest Service Manual and Handbook references for Authorization and Policy regarding this timber sale:

FSM 2400 - Timber Management

FSH 2409.18 Timber Sale Preparation Handbook, Chapter 50, Section 53 – Final Package Preparation

FSH 2409.19 Renewable Resources Handbook

## **Placer Loop Salvage Timber Sale Transaction Evidence Appraisal Report**

#### **I. TRANSACTIONAL APPRAISAL SUMMARY**

- Adjustments for quality unusual adjustment and dead timber adjustment.
- Sale appraised to Montrose, CO.

#### **II. ACCESS AND RELATION TO MARKETS**

<b>Product</b>	<b>Contract Species</b>	<b>Appraisal Group</b>	<b>Appraisal Point</b>	<b>One Way Haul Miles</b>
Sawtimber	Douglas fir & other species (Live & Dead)	DF	Montrose, CO	129
	Lodgepole Pine (Live & Dead)	LP	Montrose, CO	129
POL	Douglas fir & other species (Live & Dead)	DF	Montrose, CO	129

All material will be appraised to Montrose, Colorado. This mill location is the closest manufacturing and marketing point for a sale of this quantity for sawlog and POL products to be processed.

### III. SALE APPRAISAL VOLUMES

Product	Contract Species	Appraisal Group	Volume	Unit of Measure
Sawtimber - 01	Douglas fir & other species (Live & Dead))	DF – 122	697	CCF – 03
	Lodgepole Pine (Live & Dead)	LP – 108	133	
POL – 03	Douglas fir & other species (Live & Dead)	DF – 122	60	CCF – 09
<b>TOTAL</b>			<b>890</b>	CCF – 03

### IV. CURRENT APPRAISAL DATA

<b>SAWLOGS</b>
<b>BULLETIN NO. BU231213a</b>
<b>BASE DATA PERIOD:</b> 4th QTR CY12 – 3rd QTR CY13
<b>APPRAISAL BASE PERIOD:</b> 6-13
<b>BASE INDEX:</b> October, 2013 (2007-08 basis): 349.92
<b>BASE INDEX Adjusted to CCF:</b> WWPA(A): 148.72

INDEX OPERATIONS	DF Sawtimber	LP Sawtimber	DF POL
Adjusted Base Period Price	3.00	3.00	1.00
Base Skid-Yard Cost	104.93	104.93	NA
Base Haul	78.57	78.57	NA
Base Road Maintenance	6.28	6.28	5.98
Base Slash	1.54	1.54	1.88
Base Temp Roads	3.88	3.88	3.52

### V. TRANSPORTATION COSTS

#### A. Road Maintenance Deposits

Following is a list of specified roads requiring road maintenance deposits:

Road	Segment Length	Maintained Miles
NFSR 250B	0.4	0.4
NFSR 250	0.8	0.9
NFSR 250A	2.7	2.6

Total 3.9

Deposits = (3.9 miles) (\$0.1625/ccf/mile\*1.15 FSOH) (890 CCF) = \$648.64

**Total Road Maintenance Costs** = \$648.64/890 CCF = **\$0.73 / CCF**

## B. Sale Temporary Roads

### 1. Temporary Road Costs

Temporary road construction is allowed when skidding distance exceeds 1,000 feet. It is estimated that 0.8 miles of new temporary roads will need to be constructed and 1.7 miles of existing temporary road will need to be reopened to complete the required harvest in this sale.

**See attached Placer Loop Salvage Temporary Road Costs Estimate document.**

Costs to construct temporary road =	\$1164.55
Costs to reopen existing temporary roadbeds =	\$810.61
Costs to close temporary roads =	\$1685.62
Costs to close existing temporary roadbeds =	<u>\$3618.03</u>
<b>Temporary Road Costs =</b>	<b>\$7278.81</b>

**Total Temporary Road Costs** = Temporary Road Costs x Mobilization Costs x Adj.  
Annual Consumer Price Index (CPI)

**Total Temporary Road Costs** = \$7278.81 x 1.09 x 1.075 = \$8528.95  
\$8528.95/1.10 (profit) = \$7753.59

\$7753.59 x 1.3154 (TPOH) = \$10199.07/890 CCF = **\$11.46/CCF**

## C. Sale Haul Costs

### 1. Sawtimber – Haul to: Montrose, CO

**See attached haul/road maintenance spreadsheet for haul information.**

Sawtimber Sale Haul Cost = (Total Round Trip Haul Minutes) x (\$0.1130/CCF/Min.) (per FSH 2409.22, Chap. 44.1)

Sawtimber Haul Costs = 573 Min. x \$0.1130/CCF/Min. = **\$ 64.75/CCF**

### 2. POL - Haul to: Montrose, CO

POL Sale Haul Cost = Subtract average haul miles (52) from the sale haul miles and multiply by the haul cost. Haul cost is \$0.170/CCF/MI.

POL Sale Haul Cost = (129 miles – 52 average haul miles) x \$0.170/CCF/Min. = **\$ 13.09/CCF**

#### D. Sale Transportation – Subtotal

<b>Sawtimber</b>	<b>Cost/CCF</b>	<b>POL</b>	<b>Cost/CCF</b>
Sale Haul-Sawtimber	\$ 64.75	Sale Haul-POL	\$ 13.09
Road Maintenance	\$ 0.73	Road Maintenance	\$ 0.73
Temporary Road	\$ 11.46	Temporary Road	\$ 11.46
<b>SAWTIMBER TRANSPORTATION COSTS</b>	<b>\$ 77.95</b>	<b>POL TRANSPORTATION COSTS</b>	<b>\$ 26.29</b>

#### VI. LOGGING COSTS

Logging cost adjustment is figured on the TEA234 Appraisal System. It is based on the difference between the appraised sale and Regional average sale diameter and sale volume per acre. (Reference FSH 2409.22, 51.61)

#### VII. UNUSUAL ADJUSTMENTS

Unusual adjustments are sale adjustments made necessary for cost or value items that are not reflected in the appraisal database. (FSH 2409.22, 51.6)

##### A. Quality Unusual Species and Form Adjustment

###### 1. Quality Unusual Adjustment- DF qualifies for adjustment.

The Appraisal Bulletin suggests an unusual adjustment for quality when the difference between the species mbf/ccf ratio and the zone average mbf/ccf ratio is greater than - 0.010. This assumes that smaller lumber dimensions will be produced from poorer formed trees of equal diameter and therefore an adjustment in advertised rates is justified. This adjustment is available for use on ES, LP, DF, and TF. The maximum amount of the optional Quality Unusual Adjustment for DF = \$-1.20.

Formula from Bulletin:

$$\$110.00 \times \frac{r-R}{.04} \times R = \text{quality adjustment}$$

Where:

R = mbf/ccf ratio for database avg. and r = DF mbf/ccf ratio from the cruise  
R = .49085 and r = .4447

Because .4447 - .49085 = - 0.04615 and is greater than -0.010, the DF in this sale qualifies for the adjustment.

$$\text{The adjustment} = \$ 110.00/\text{MBF} \times (-0.04615/.04) \times .49085 \text{ MBF/CCF} = -\$62.29/\text{CCF}$$

The amount of Quality Unusual Adjustment applied to DF in the appraisal is - **\$1.20/CCF**

## 2. Quality Unusual Adjustment- LP qualifies for adjustment.

The Appraisal Bulletin suggests an unusual adjustment for quality when the difference between the species mbf/ccf ratio and the zone average mbf/ccf ratio is greater than - 0.010. This assumes that smaller lumber dimensions will be produced from poorer formed trees of equal diameter and therefore an adjustment in advertised rates is justified. This adjustment is available for use on ES, LP, DF, and TF. The maximum amount of the optional Quality Unusual Adjustment for LP = \$-1.20.

Formula from Bulletin:

$$\$110.00 \times \frac{r-R}{.04} \times R = \text{quality adjustment}$$

Where:

R = mbf/ccf ratio for database avg. and r = LP mbf/ccf ratio from the cruise  
R = .49085 and r = .4417

Because  $.4417 - .49085 = -0.04915$  and is greater than  $-0.010$ , the LP in this sale qualifies for the adjustment.

$$\text{The adjustment} = \$110.00/\text{MBF} \times (-0.04915 / .04) \times .49085 \text{ MBF/CCF} = -\$66.34/\text{CCF}$$

The amount of Quality Unusual Adjustment applied to LP in the appraisal is - **\$1.20/CCF**

## B. Dead Unusual Adjustments

### CRUISED VOLUME (CCF)

DF = 558 CCF Live  
DFR = 108 CCF Recent dead, deteriorating live  
DFD = 6 CCF Dead, all brown or no needles  
PP = 17 CCF Live  
PPR = 7 CCF Recent dead, deteriorating live  
PPD = 0 CCF Dead, all brown or no needles  
LP = 83 CCF Live  
LPR = 50 CCF Recent dead, deteriorating live  
LPD = 0 CCF Dead, all brown or no needles

### APPRAISAL

Using Bulletin BU231213a December, 30 2013

Assume: sale award 01/15/14 and sale termination is 11/15/2015  
So, sale contract midpoint is estimated to be 12/15/2014

### ASSUMPTIONS

#### 1. Dead Douglas-fir Unusual Adjustment

Appraiser estimates that 50% of 108 CCF of recently dead volume (DFR) will be dead at the midpoint of the contract. In addition to DFR there is 6 CCF of already dead (DFD) associated with the sale.

$0.50 \times 108 \text{ CCF} = 54 \text{ CCF}$  of DFR deteriorating dead at midpoint.

$1.0 \times 6 \text{ CCF} = 6 \text{ CCF}$  of DFD already dead.

Total dead at midpoint is:  $54 \text{ CCF}$  of DFR +  $6 \text{ CCF}$  of DFD =  $60 \text{ CCF}$  total dead at midpoint.

SO

Appraise 558 CCF of DF as live sawtimber.  
Appraise 54 CCF of DFR as deteriorating live sawtimber.  
Appraise 60 CCF as DFD dead sawtimber.  
672 CCF Total Live and Dead DF sawtimber

### APPRAISAL ADJUSTMENTS

1. Develop adjustment for the portion of faders and insect infested trees to be appraised as “deteriorating live” sawtimber (insect infested, wind thrown, or fading) by contract midpoint (46.5 CCF). Use FSH 2409.22 51.6 – Deteriorating Live Unusual Adjustment.

Apply a 5% to 25% reduction of lumber selling value based on current WWPA Index in Bulletin for deteriorating live sawtimber. In this case we use a 15% factor.

(WWPA INDEX) X (FACTOR) X (MBF/CCF Conversion)

$(\$341.59) \times (0.15) \times (0.4447) = \mathbf{\$22.79/CCF}$

This adjustment is to be applied to 54 CCF of deteriorating live DFR volume.

2. Develop unusual adjustment factor for dead volume ( $54 \text{ CCF} + 6 \text{ CCF} = 60 \text{ CCF}$ ) of dead DFD sawtimber.

Multiply the species adjusted base period price from the bulletin by 0.5 for the dead unusual adjustment.

$(\$3.00/CCF) \times (0.5) = \mathbf{\$1.50/CCF}$  unusual adjustment factor for 60 CCF of dead DFD sawtimber.

3. Develop total weighted average deteriorating live and dead unusual adjustment for all ES sawtimber (live and dead).

$$\frac{(\$0.00/CCF \times 558 \text{ CCF}) + (\$22.79/CCF \times 54 \text{ CCF}) + (\$1.50/CCF \times 60)}{558 \text{ CCF} + 54 \text{ CCF} + 60 \text{ CCF}}$$

= **-\$1.97/ CCF** total weighted average dead unusual adjustment for DF sawtimber

## 2. Dead Ponderosa Pine Unusual Adjustment

Appraiser estimates that 50% of 7 CCF of recently infested volume (PPR) will be dead at the midpoint of the contract. In addition to PPR there is 0 CCF of already dead (PPD) associated with the sale.

0.50 X 7 CCF = 3.5 CCF of PPR deteriorating dead at midpoint.

1.0 X 0 CCF = 0 CCF of DFD already dead.

Total dead at midpoint is: 3.5 CCF of PPR + 0 CCF of PPD = 3.5 CCF total dead at midpoint.

SO

Appraise 17 CCF of PP as live sawtimber.  
Appraise 3.5 CCF of PPR as deteriorating live sawtimber.  
Appraise 3.5 CCF as PPD dead sawtimber.  
24 CCF Total Live and Dead PP sawtimber

### APPRAISAL ADJUSTMENTS

1. Develop adjustment for the portion of faders and insect infested trees to be appraised as “deteriorating live” sawtimber (insect infested, wind thrown, or fading) by contract midpoint (3.5 CCF). Use FSH 2409.22 51.6 – Deteriorating Live Unusual Adjustment.

Apply a 5% to 25% reduction of lumber selling value based on current WWPA Index in Bulletin for deteriorating live sawtimber. In this case we use a 15% factor.

(WWPA INDEX) X (FACTOR) X (MBF/CCF Conversion)

$$(\$279.80) \times (0.15) \times (0.3636) = \mathbf{\$15.26/CCF}$$

This adjustment is to be applied to 3.5 CCF of deteriorating live PPR volume.

2. Develop unusual adjustment factor for dead volume (3.5 CCF + 0 CCF = 3.5 CCF) of dead PPD sawtimber.

Multiply the species adjusted base period price from the bulletin by 0.5 for the dead unusual adjustment.

$(\$3.00/\text{CCF}) \times (0.5) = \mathbf{\$1.50/CCF}$  unusual adjustment factor for 3.5 CCF of dead PPD sawtimber.

3. Develop total weighted average deteriorating live and dead unusual adjustment for all ES sawtimber (live and dead).

$$\frac{(\$0.00/\text{CCF} \times 17 \text{ CCF}) + (\$15.26/\text{CCF} \times 3.5 \text{ CCF}) + (\$1.50/\text{CCF} \times 3.5)}{17 \text{ CCF} + 3.5 \text{ CCF} + 3.5 \text{ CCF}}$$

= **-\$2.44/CCF** total weighted average dead unusual adjustment for PP sawtimber

Since DF and PP are in the same contract species group a weighted average dead unusual adjustment for DF & O (Live & Dead) must be calculated.

$$\frac{(\$1.97/\text{CCF} \times 672 \text{ CCF}) + (\$2.44/\text{CCF} \times 24)}{672 \text{ CCF} + 24 \text{ CCF}}$$

= **\$1.99/CCF** total weighted average dead unusual adjustment for DF & O

## 2. Dead Lodgepole Unusual Adjustment

Appraiser estimates that 50% of 50 CCF of recently dead volume (LPR) will be dead at the midpoint of the contract. In addition to LPR there is 0 CCF of already dead (LPD) associated with the sale.

$0.50 \times 50 \text{ CCF} = 25 \text{ CCF}$  of LPR deteriorating dead at midpoint.

$1.0 \times 0 \text{ CCF} = 0 \text{ CCF}$  of LPD already dead.

Total dead at midpoint is: 25 CCF of LPR + 0 CCF of LPD = 25 CCF total dead at midpoint.

SO

Appraise	83 CCF of LP as live sawtimber.
Appraise	25 CCF of LPR as deteriorating live sawtimber.
Appraise	<u>25 CCF</u> as LPD dead sawtimber.
	134 CCF Total Live and Dead LP sawtimber

### APPRAISAL ADJUSTMENTS

1. Develop adjustment for the portion of faders and insect infested trees to be appraised as “deteriorating live” sawtimber (insect infested, wind thrown, or fading) by contract midpoint (24 CCF). Use FSH 2409.22 51.6 – Deteriorating Live Unusual Adjustment.

Apply a 5% to 25% reduction of lumber selling value based on current WWPA Index in Bulletin for deteriorating live sawtimber. In this case we use a 15% factor.



(WWPA INDEX) X (FACTOR) X (MBF/CCF Conversion)

$$(\$341.59) \times (0.15) \times (0.4417) = \mathbf{\$22.63/CCF}$$

This adjustment is to be applied to 25 CCF of deteriorating live LPR volume.

2. Develop unusual adjustment factor for dead volume (25 CCF + 0 CCF = 25 CCF) of dead LPD sawtimber.

Multiply the species adjusted base period price from the bulletin by 0.5 for the dead unusual adjustment.

$$(\$3.00/CCF) \times (0.5) = \mathbf{\$1.50/ CCF}$$

unusual adjustment factor for 25 CCF of dead LPD sawtimber.

3. Develop total weighted average deteriorating live and dead unusual adjustment for all ES sawtimber (live and dead).

$$\frac{(\$0.00/CCF \times 84 \text{ CCF}) + (\$22.63/CCF \times 25 \text{ CCF}) + (\$1.50/CCF \times 25)}{83 \text{ CCF} + 25 \text{ CCF} + 25 \text{ CCF}}$$

$$= \mathbf{-\$4.56/ CCF}$$

total weighted average dead unusual adjustment for LP sawtimber

### C. Unusual Adjustments Subtotal

Species:	DF & O	LP	POL
Slash Disposal	NA	NA	NA
Quality Unusual Adjustment	-\$1.20	-\$1.20	NA
Dead Unusal Adjustment	-\$1.99	-\$4.56	NA
<b>SUB-TOTAL</b> <i>(slash costs are put into TEA234 separately)</i>	<b>-\$3.19</b>	<b>-\$5.76</b>	<b>\$0.00</b>

## VIII. PURCHASER OBLIGATION PER OPERATIONS FIRE

(A15) FSH 2409.18, Sec.53.31

Wage rate for AD-2 firefighter = \$11.32 / hour\*

Estimate a 4-person woods crew.

$$4 \text{ people} \times \$11.32 / \text{hour} \times 12 \text{ hours} \times 3 \text{ days} = \$1630.08$$

Round to the nearest hundred ---> **\$1,600.00**

\* FSH 5109.34 - Interagency Incident Business Management Handbook

## IX. COMPETITION FACTOR

The San Isabel National Forest is currently a competitive forest. The competition factor for the San Isabel will be 10% for this Bulletin period. Figures are taken from BU231213a, effective December 30, 2013.

<b>Species/Product</b>	<b>Competition Factor</b>
DF & O Sawtimber	\$ 0.30
LP Sawtimber	\$ 0.30
DF POL	\$ 0.10

## **X. BASE RATES**

Minimum Base Rates are set by the Regional Office. (TEA Bulletin No. 231213a)

<b>Sale Species/Product</b>	<b>Base Rates per CCF</b>
DF & O Sawtimber	\$3.00
LP Sawtimber	\$3.00
DF POL	\$1.00

## **XI. ADJUSTMENT TO BASE RATES**

If any of the Indicated Advertised Rates for a species are below Base Rates, the Base Rate will be used as the Advertised Rate for those species and the other species' Advertised Rates will be adjusted downward in proportion to the amount of their positive value. (FSH 2409.18, 45.43)

<b>Sale Species/Product</b>	<b>Adjustments to Base Rates per CCF</b>
DF & O Sawtimber	\$ 5.10
LP Sawtimber	\$ 7.67
DF POL	\$ 14.00

## **XII. PERFORMANCE BOND**

(A18) There are two methods of calculating the performance bond per FSH 2409.18, Sec.54.1. The larger of the two calculations is used for the minimum performance bond.

### Bond Based on 10% of Advertised Stumpage Value - Method I

$$\begin{array}{r}
 \text{Advertised Stumpage Value} = \quad \$ 2550.00 \\
 \qquad \qquad \qquad \qquad \qquad \qquad \times .10 \\
 \qquad \qquad \qquad \qquad \qquad \qquad \hline
 \qquad \qquad \qquad \qquad \qquad \qquad \$ 255.00
 \end{array}$$

Round up to next \$100.00 --->\$300.00

### Bond Based on Penal Sum - Method II, work required for one logging season (without TPOH)

$$\begin{array}{l}
 \text{Sale Volume} = 890 \text{ CCF} / 2 \text{ operating seasons} = 445 \text{ CCF} \\
 \text{Road Closure Cost for sale} = \$5303.65
 \end{array}$$

$$\begin{array}{ll}
 \text{*Lopping (10\% of fall, buck cost): } \$17.00/\text{CCF} \times .10 & = \$1.70 / \text{CCF} \\
 \text{*Waterbarring (5\% of skid cost): } \$23.45 \times .05 & = \$1.17 / \text{CCF} \\
 \text{\frac{1}{2} Temp road closure: } \$5303.65 \times .5 = \$2651.83/890 & = \underline{\underline{\$2.98 / \text{CCF}}}
 \end{array}$$

Total: = \$5.85/CCF

$\$5.85/\text{CCF} \times 445 \text{ CCF} \times 1.16 \text{ FSOH} = \$3019.77$   
Round to nearest thousand ---> \$3000.00

The greater of Method I or Method II is: \$3000.00

\* Used zone average appraisal cost R2 Amendment 2409.22-95-3 Sec.42

### **XIII. STUMPAGE AVAILABLE FOR KV and SSF**

Total Sale Value = \$ 2550.00  
Less to NFF = \$ 222.50  
Stumpage available for KV and SSF funding = \$ 2327.50