ROCKY MOUNTAIN REGION (2)
SAN ISABEL NATIONAL FOREST (12)
SAN CARLOS RANGER DISTRICT (03)

TIMBER SALE REPORT
AND
APPRAISAL SUMMARY

POLE CREEK SALVAGE TIMBER SALE

Prepared by: _____ Date: _____
Patrick Craig
Forester

Reviewed by: _____ Date: _____
Sam Schroeder
Forester

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: _____ Date: _____
Paul Crespin
District Ranger

Pole Creek 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) :

Species		**Volume**
Contract Volume		
Sawtimber		
Engelmann Spruce & Other Species (Live & Dead)	ES & O	4141 CCF
	Total	4141 CCF
POL		
Engelmann Spruce & Other Species (Live & Dead)		
Undetermined volume subject to agreement.		

Advertised Rates ---	Sawtimber	ES & O	=	$1.00/CCF
Subject to Agreement	POL	ES & O	=	$1.00/CCF

Required Slash Deposit is $0.00/CCF

Road Maintenance Deposit is $0.00/CCF

Surface Rock Replacement Deposit is $1.85/CCF

Road Maintenance Purchaser Responsibility $3.85/CCF

Temporary Road Cost is $ 6.57/CCF

KV Collection is $3104.00

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 20, 2016.

Normal Operating Season is: July 1 – October 15

II. SALE AREA DESCRIPTION

1. Location: San Isabel National Forest, San Carlos Ranger District

   County: Custer and Huerfano

   State: Colorado

   Legal Description: T24S, R69W, Sections 16, 17, 20, 21, 22 NMPM

2. STARS#: 13301
   SALE #: 003

3. Gross Sale Area: 911 acres

4. Net Harvest Area: 462 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, "Greenhorn Blowdown, Spruce Beetle and Forest Management Project"
Date of Project Approval: July 25, 2011
Approved By: Paul Crespin

1. Snow plowing to facilitate logging operations will not be permitted between November 20th and April 30th annually. Plowing of these road segments would prevent snowmobile travel between the Ophir Creek snowmobile trailhead and the primary snowmobile trail system located on top of Greenhorn Mountain.

Response: No snow plowing to facilitate logging operations will occur between November 20th and April 30th. C6.312# will be used to apply this sale operations restriction.

2. Prohibit road maintenance and hauling operations on three-day holiday weekends such as Memorial Day, Labor Day, or July 4th, if it falls on or near a weekday.

   Response: No road maintenance or hauling will be conducted on three day holiday weekends. C6.312# will be used to account for this sale operations restriction.

3. Level 1 logging roads and existing decommissioned roads reopened for project purposes will be closed through scarification and seeding with a Forest Service approved seed mix, and then signed to inform the public that vegetative restoration is in progress. Road closures would occur within one year after completion of all project activities associated with each temporary or decommissioned road.

   Response: Level 1 logging roads and reopened decommissioned roads will be closed and seeded within one year after use. B6.63 and C5.35# will be used to accomplish effective closure methods and C6.601# will be used to designate the type, amount and time of seeding to be used. District resources will install signs to inform the public that vegetative restoration is in progress.

4. NF system trails will be protected from damage by logging operations.

   Response: NF system trails will be protected as protection of improvements under B6.22 and will be identified on the Sale Area Map.

5. All green spruce slash larger than 6 inches in diameter will be yarded to a log landing and treated to prevent spruce beetle colonization or emergence within one year of yarding.

   Response: All treated material 6 inches in diameter and greater will be yarded to the landing location and treated under C6.42# and C6.411#.

6. Logging equipment is not permitted within 100 feet of wetlands, riparian areas or springs except on designated roads. Logs may be harvested from these buffer areas, but they must be winched-out by equipment located outside of the buffer. Trees that directly shade streams will not be cut or removed (with exceptions for operator and/or public safety and disease management).

   Response: Skidding operations will not be permited within 100 feet of these areas as identified in C6.6#. A 100' buffer was provided for during layout and marking of all units.

7. Landings will be scarified and seeded after use. Where feasible, log landings will be located at least 100 feet away from the Greenhorn Road (FR 369) or the Ophir Road (FR 360) to reduce their visual impact and to minimize their potential for future use as camping or parking areas. Where feasible, log landings should be located on north or east facing slopes to facilitate their re-vegetation.

   Response: C6.601# will accomplish scarification and seeding of landings. Where feasible spur temp roads will be used to locate the landings at least 100 ft. off FR 369.

8. Existing structural range improvements will be protected during timber sale activities.

   Response: Range improvements will be protected during sale operations by the use of B6.22 and will be identifed on the Sale Area Map

9. Prior to entering the National Forest all off-road logging equipment, machinery, and vehicles will be cleaned to remove any plant material that may have become attached to the vehicles. These vehicles will be inspected by a Forest Service administrator to assure that any weed material has been removed from the equipment.

   Response: Noxious weeds will be treated using B6.35. Prior to moving Off-Road Equipment onto the Sale Area, Purchaser shall identify the location of the equipment‘s most recent operation. Purchaser shall not move any Off-Road Equipment that last operated in an area infested with one or more invasive species of concern onto Sale Area without having cleaned such equipment of seeds, soil, vegetative matter, and other debris that could contain or hold seeds, and having notified Forest Service. If the location of prior operation cannot be identified, then Purchaser shall assume that the location is infested with invasive species of concern.

10. Within treatment areas, retain a minimum (preferably more) of 8 snags or live recruitment snags per acre (averaged over a 10 acre area). When selecting snags or live recruitment snags for retention, the following characteristics – large diameter, rot, cavities, forked tops, broken tops, dead tops, ‘‘wolfy’’ appearance, cankers, knarls, heartrot or crooks - are preferred. Clumping (versus even distribution) of snags is preferable if trees with the desired snag characteristics are available for the snag retention clump.

    Response: All units were cut tree marked so the snag retention guides were accomplished to the level that was present within the unit by not marking trees as cut trees.

V. AREA DESCRIPTION SUMMARY

Unit Number	Harvest Acres	Mgt. Area	TLSC	Harvest Method	Logging Method
1	55	7A	600	4231	420
2	83	9B	600	4152	420
3	75	7A	600	4152	420
4	56	9B	600	4152/4231	420
5	26	7A	600	4152	420
6	27	9B	600	4152	420
7	17	7A	600	4231	420

8	23	9B	600	4152	420
9	15	9B	600	4152	420
10	14	9B	600	4152	420
24	71	9B	600	4152	420

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

Scaled timber sales with an estimated value of greater than $15,000 and less than or equal to $35,000 are required to meet a sampling error of 30% or less at a 95% confidence interval (FSH 2409.12, Chapter 41.1). This volume was obtained from Pole Creek Salvage T.S. Cruise which was a 1 in 100 Sample Tree measurement cruise. Total Sale error = 9.75%. The final sale error of 9.75 meets the requirements for scaled sales with a value greater than $15,000 and less than or equal to $35,000 (FSH 2409.12 Chapter 41.1) thus is acceptable.

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

	Units	Sale Total or Average	Species Group ES & O (Live & Dead)
Contract Volume	CCF	4141	4141
% By Species/Group	%	100%	100%
Ave. Net Volume/Tree	CF	14.00	14.00
Ave. Net Volume/Acre	CCF	8.96	8.96
BF/CF Ratio	n/a	4.781	4.781
Quad Mean DBH/Species	Inch	13.3	13.3
Total Number of Trees	Trees	29,568	29,568

VIII. UNIT SUMMARY

Cutting Unit	CCF ES & O from Cruise
1	563.14
2	457.00
3	637.78
4	661.10
5	468.89
6	148.87
7	258.15
8	133.90
9	93.98
10	130.12
24	587.85
Total-->	4141

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:

		MILES
NFSR 369	Pre/During/Post Haul	9.6
NFSR 360	Pre/During/Post Haul	8.1
NFSR 392	Pre/During/Post Haul	0.3
		18.0

SURFACE ROCK REPLACEMENT:		MILES
NFSR 360	During/Post Haul	8.1
		8.1

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

Pole Creek Salvage Timber Sale
Transaction Evidence Appraisal Report

I. TRANSACTIONAL APPRAISAL SUMMARY

- Adjustments for Dead timber, Quality Unusual Adjustment, Logging Fuel Cost, and Hauling Fuel Costs.

- Sale appraised to Montrose, CO.

II. ACCESS AND RELATION TO MARKETS

Product	Contract Species	Appraisal Group	Appraisal Point(s)	One Way Haul Miles
Sawtimber	Engelmann Spruce & other species (Live & Dead)	ES	Montrose, CO	229
POL	Engelmann Spruce & other species (Live & Dead)	ES	Montrose, CO	229

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	Engelmann Spruce & other species (Live & Dead)	ES – 093	4141	CCF – 03
POL – 03	Engelmann Spruce & other species (Live & Dead)	ES – 093		CCF – 09
TOTAL			**4141**	CCF – 03

IV. CURRENT APPRAISAL DATA

SAWLOGS
BULLETIN NO. BU230713
BASE DATA PERIOD: 3rd QTR CY12 – 2nd QTR CY13
APPRAISAL BASE PERIOD: 6-13
BASE INDEX: June, 2013 (2007-08 basis): 348.46
BASE INDEX Adjusted to CCF: WWPA(B): 165.52

INDEX OPERATIONS		
SPECIES: ES	**ST**	**POL**
Adjusted Base Period Price	43.03	1.00
Base Skid-Yard Cost	103.70	NA
Base Haul	71.83	NA
Base Road Maintenance	8.46	5.42
Base Slash	2.21	2.11
Base Temp Roads	3.32	3.14

V. TRANSPORTATION COSTS

A. Road Maintenance

	Total Cost	Volume	Cost/CCF
Purchaser Required Performance Timber Purchaser Overhead (TPOH) @ 31.54% = $12,112.43 * .3154	$12,112.43 $3,820.26	4141 4141	$2.93 $0.92
	$15,932.69	**$/CCF**	**$ 3.85**

	Total Cost	Volume	Cost/CCF
Surface Rock Replacement	$7,660.85	4141	$1.85
	$7,660.85	**$/CCF**	**$ 1.85**

Total Road Maintenance Costs = $23,593.54/4141 CCF = **$5.70/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 3.5 miles of temporary roads will need to be constructed and 1.1 miles of existing temporary road will need to be reopened to complete the required harvest in this sale.

See attached Pole Creek Temporary Road Costs Estimate document.

Costs to construct temporary road =	$7124.51
Costs to reopen existing temporary roadbeds =	$534.27
Costs to close temporary roads =	$7591.17
Costs to close existing temporary roadbeds =	$2389.92
Temporary Road Costs =	**$17639.87**

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

Total Temporary Road Costs = $17639.87 x 1.09 x 1.075 = $20669.52

$20669.52 x 1.3154 (TPOH) = $27188.69/4141 CCF = $6.57/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 = 978 Min. x $0.1130/CCF/Min. = **$ 110.51/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 = (224 miles – 52 average haul miles) x $0.170/CCF/Min. = **$ 29.24/CCF**

D. Sale Transportation – Subtotal

Sawtimber	Cost/CCF	POL	Cost/CCF
Sale Haul-Sawtimber	$110.51	**Sale Haul-POL**	$ 29.24
Road Maintenance	$ 5.70	**Road Maintenance**	$ 5.70
Temporary Road	$ 6.57	**Temporary Road**	$ 6.57
SAWTIMBER TRANSPORTATION COSTS	$122.78	**POL TRANSPORTATION COSTS**	$ 41.51

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- ES 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, PP, DF, and TF. The maximum amount of the optional Quality Unusual Adjustment for ES = $-17.21.

Formula from Bulletin:

$$\$85.00 \times \frac{r-R}{.04} \times R = \text{quality adjustment}$$

Where:

R = mbf/ccf ratio for database avg. and r = ES mbf/ccf ratio from the cruise
R = .50246 and r = .4781

Because .4781 - .50246 = - 0.02436 and is greater than -0.010, the ES in this sale qualifies for the adjustment.

The adjustment = $ 85.00/MBF x (-0.02436 /.04) x .50246 MBF/CCF = -$26.00/CCF

The amount of Quality Unusual Adjustment applied to ES in the appraisal is -**$17.21CCF**

B. Dead Unusual Adjustments

CRUISED VOLUME (CCF)

ES = 1366 CCF Live
ESR = 1970 CCF Recent dead, deteriorating live
ESD = 805 CCF Dead, all brown or no needles

APPRAISAL

Using Bulletin BU230713 August, 12 2013
Assume: sale award 10/11/13 and sale termination is 11/20/2016
So, sale contract midpoint is estimated to be 04/15/2015

ASSUMPTIONS

1. Dead Engelmann Spruce Unusual Adjustment

Appraiser estimates that 75% of 1970 CCF of recently infested volume (ESR) will be dead at the midpoint of the contract. In addition to ESR there is 805 CCF of already dead (ESD) associated with the sale.

0.75 X 1970 CCF = 1478 CCF of ESR deteriorating dead at midpoint.
1.0 X 805 CCF = 805 CCF of ESD already dead.

Total dead at midpoint is: 1478 CCF of ESR + 805 CCF of ESD = 2283 CCF total dead at midpoint.

SO

Appraise 1366 CCF of ES as live sawtimber.
Appraise 492 CCF of ESR as deteriorating live sawtimber.
Appraise 2283 CCF as ESD dead sawtimber.
4141 CCF Total Live and Dead ES 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 (301 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)

($325.62) x (0.15) x (0.4781) = **$23.35/CCF**

This adjustment is to be applied to 492 CCF of deteriorating live ESR volume.

2. Develop unusual adjustment factor for dead volume (1478 CCF + 805 CCF = 2283 CCF) of dead ESD sawtimber.

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

($43.03/CCF) X (0.5) = **$21.51/ CCF** unusual adjustment factor for 2283 CCF of dead ESD sawtimber.

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

$$\frac{(\$0.00/CCF \times 1366\ CCF) + (\$23.35/CCF \times 492\ CCF) + (\$21.51/CCF \times 2283)}{1366\ CCF + 492\ CCF + 2283\ CCF}$$

= **-$14.63/ CCF** total weighted average dead unusual adjustment for ES sawtimber

C. Fuel Cost Adjustments

1. Hauling Fuel Cost Adjustment (Sawtimber)

A positive (+) $0.002/mile/CCF log haul fuel cost adjustment will be added as an unusual adjustment to all hauling costs developed using the standard procedures in FSH 2409.22. The haul cost fuel adjustment should not be used for haul costs that are developed empirically using procedures that use the current cost of fuel in the development of hauling costs.

> The one way haul distance is 224 miles. The round trip haul distance is 448 miles. The round trip haul time is 16.3 hours. Standard R2 procedures are being used to develop the haul costs.
>
> The log haul fuel adjustment is: 448 miles X $0.002/mile/CCF = $0.90 per CCF
>
> In addition to the normal haul cost, a **+ $0.90/CCF** haul fuel cost adjustment will be added as an unusual adjustment to the "Species level Information Screen".

2. Logging Fuel Cost Adjustment (Sawtimber)

Also, a positive (+) $0.76/CCF logging cost fuel adjustment for all ground based and skyline logging costs developed using the standard R2 logging cost procedures will be used. This adjustment is to be used for logging costs that are developed using the R2 TEA234 appraisal program, and should not be used for logging costs that are developed empirically using procedures that include the current cost of fuel in the development of logging costs. This cost adjustment, if applicable, should be entered as a **+ $0.76** unusual adjustment to all species in the "Species Level Information" screen of the appraisal program.

3. Hauling Fuel Cost Adjustment (POL)

A negative (+)$0.002/mile/CCF log haul fuel cost adjustment will be added as an unusual adjustment to all hauling costs developed using the standard procedures in FSH 2409.22. The haul cost fuel adjustment should not be used for haul costs that are developed empirically using procedures that use the current cost of fuel in the development of hauling costs.

> The one way haul distance is 224 miles. The round trip haul distance is 448 miles. The round trip haul time is 17.1 hours. Standard R2 procedures are being used to develop the haul costs.
>
> The log haul fuel adjustment is: 448 miles X + $0.002/mile/CCF = $0.90 per CCF
>
> In addition to the normal haul cost, a **+ $0.90/CCF** haul fuel cost adjustment will be added as an unusual adjustment to the "Species level Information Screen".

4. Logging Fuel Cost Adjustment (POL)

Also, a negative (+) $0.76/CCF logging cost fuel adjustment for all ground based and skyline logging costs developed using the standard R2 logging cost procedures will be used. This adjustment is to be used for logging costs that are developed using the R2 TEA234 appraisal program, and should not be used for logging costs that are developed empirically using procedures that include the current cost of fuel in the development of logging costs. This cost adjustment, if applicable, should be entered as a **+ $0.76** unusual adjustment to all species in the "Species Level Information" screen of the appraisal program.

D. Unusual Adjustments Subtotal

Species:	ES	POL
Slash Disposal	N/A	N/A
Quality Unusual Adjustment	-$17.21	N/A
Dead Unusal Adjustment	-$14.63	N/A
Haul Fuel Cost Adjustment	+$0.90	+$0.90
Log Fuel Cost Adjustment	+$0.76	+$0.76
SUB-TOTAL *(slash costs are put into TEA234 separately)*	**-$30.18**	**+$1.66**

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 people x $11.32 / hour x 12 hours x 3 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 5% for this Bulletin period. Figures are taken from BU230713, effective August 12, 2013.

Species/Product	Competition Factor
ES Sawtimber	$ 2.15
ES POL	$ 0.05

X. BASE RATES

Minimum Base Rates are set by the Regional Office. (TEA Bulletin No. 230713) Base rates for the Pole Creek Salvage Timber Sale have been approved to be advertised at $1.00/CCF by the Regional Forester (TEA Bulletin No. 230713gh).

Sale Species/Product	Base Rates per CCF
ES Sawtimber	$1.00
ES 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)

Sale Species/Product	Adjustments to Base Rates per CCF

ES Sawtimber	$ 33.89
ES POL	$ 29.23

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

Advertised Stumpage Value = $ 4141.00
x .10
$ 414.10

Round up to next $100.00 --->$500.00

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

Sale Volume = 4141 CCF /3 operating seasons = 1380 CCF
Road Closure Cost for sale = $2350.00

*Lopping (10% of fall, buck cost): $17.00/CCF x .10 = $1.70 / CCF
*Waterbarring (5% of skid cost): $23.45 x .05 = $1.17 / CCF
½ Temp road closure: $2300.00 x .5 = $1150/4141 = $0.28 / CCF

Total: = $3.15/CCF

$3.15/CCF x 1380 CCF x 1.16 FSOH = $5042.52
Round up to next thousand ---> $6000.00

The greater of Method I or Method II is: $6000.00
* Used zone average appraisal cost R2 Amendment 2409.22-95-3 Sec.42

XIII. STUMPAGE AVAILABLE FOR KV and SSF

Total Sale Value = $ 4141.00
Less to NFF = $ 1036.00
Stumpage available for KV and SSF funding = $ 3105.00