

TIMBER SALE REPORT AND APPRAISAL

ANTLERED BEETLE SALVAGE RESALE- 2015

Prepared by: Rachael Sanchez Date: 5-13-15
Rachael Sanchez, Sales Prep Forester
Divide Ranger District

I certify that this sale meets requirements of the Secretary of Agriculture's Regulation 36 CFR 223.30.

Approved by: Martha Williamson Date: 5.14.15
Martha Williamson
District Ranger, Divide RD

I. SUMMARY OF RECOMMENDATIONS

Advertised as Scaled Sale

INCLUDED VOLUME		
Engelmann Spruce Live and Dead	All conifer species	678 CCF
	Total (included volume only)	678 CCF
REQUIRED DEPOSITS		
	Road Maintenance	\$0.00/CCF
	Surface Rock Replacement	\$3.52/CCF
	Slash Deposit	\$2.41/CCF
TOTAL SALE VALUE		
	\$5.00/CCF X 678	\$3,390.00
ADVERTISED VALUE		
	By Species and Product	
LIVE SAWTIMBER		
	ES -Dead	\$5.00/CCF

APPRAISAL BULLETIN NO		BU230115a
Support Information		
	Normal Operating Season	07/01 – 10/31
	Fire Liability	\$1,500.00
	Termination Date	09/30/2018
	Method of Bidding	Sealed Bid
	Escalated	Yes
	Bid Guarantee	\$400.00
	Minimum Performance Bond	\$400.00

This sale complies with Section 6(g), 3(e) - (f) of the National Forest Management Act of 1976, (36 CFR 233.3), the (revised) Rio Grande National Forest Land and Resource Plan (approved 11/7/96), and the Big Moose Vegetation Management Project Environmental Impact Statement and Record of Decision (approved 03/23/2011).

II. DESCRIPTION OF SALE AREA

A. Location

The sale is found within FS Veg Units RH0502 30, 32, 99, 120, 127, 131, 135 and 138 on the Divide Ranger District of the Rio Grande National Forest. The legal description is: all or portions of sections 1 and 12 of T.39N, R.2W, all in the NMPM and all in Mineral County, Colorado. Access from Del Norte, Colorado is: travel west from Del Norte on US Highway 160 to South Fork for approximately 16 miles, turn north onto US Highway 149 and proceed towards Creede for approximately 21 miles, travel through Creede on Highway 149 for approximately 6 miles to NFSR 523 (Middle Creek Road). Take NFSR 523 for approximately 13 miles to the beginning of the Sale Area.

B. Acreage, Volume Data, and General Sale Information

This sale is comprised of 1 cutting unit totaling approximately 68 harvest acres, on National Forest land. This sale is a leave tree marked (LTM) timber sale. The included volume was cruised using the variable plot method. The cruise was designed to scale standards to stay below a combined sampling error of + or - 30% with an estimated sale value of \$3,390.00 based on the average price of salvage sales within the same area. The actual cruise error was 29.84% for all included volume. This meets Regional and WO handbook standards in WO amendments 2409.12 –2000-2. This sale will be sold as a Load Count Scaled Sale at 11.23 CCF/Load.

Included timber to be harvested: Engelmann spruce, live and dead.

C. Land Status

National Forest land.

D. Basis for Selecting the Area

This area was identified for harvest to salvage beetle infested and killed trees and to promote regeneration. The area lies within Forest Products Management area prescription (5.13) of the revised Rio Grande National Forest Land and Resource Management Plan. For further information, please refer to the Big Moose Vegetation Management Project Environmental Impact Statement and Decision Notice.

E. Relationship to Other Uses

See the Big Moose Vegetation Management Project Environmental Impact Statement.

F. Project Design Criteria

Project Design Criteria and monitoring measures identified in the Big Moose Vegetation Management Project Environmental Impact Statement and the specialist reports and amendments to specialist reports specific for this sale are highlighted and how each one is addressed is listed here.

PROJECT DESIGN CRITERIA
Wildlife/TES/MIS Resources
Retain a minimum average of six snags/acre in various conditions of decay and distribution. <i>Minimum snag requirements were met during leave tree marking. The number of leave trees left per acre in each unit can be found in the logging plan.</i>
Trees with known active bird nests/cavities will not be marked for removal. <i>Trees with known active birds nests were left as leave trees during marking.</i>
Select snags with a larger-than-average diameter for the stand where available. <i>Snags with a larger-than-average diameter were selected during marking.</i>
No harvest activities will occur within approximately 600' slope distance of timberline to provide for wildlife corridors. <i>This sale was not adjacent to timberline.</i>
Retain all live trees in salvage units, except for trees that need to be removed for operational/safety purposes. <i>A majority of live trees in salvage units were marked as leave during marking.</i>
Effects to understory vegetation and dense horizontal cover will be minimized to benefit snowshoe hare and lynx by identifying skid trail locations away from dense understory as much as possible and spacing skid trails at least 100 feet apart. <i>C6.42# Skidding and Yarding (Special Objective) is included in this contract designating skidtrail spacing. Notes to Sale Administration Team in logging plan also specifies the importances of protecting existing regeneration.</i>
Place landings in open areas if available, to protect understory. <i>Landings will be placed in open areas as much</i>

<i>as possible and old landing sites will be used, if applicable. Notes to Sale Administration Team in logging plan specifies the importance of landing placement.</i>
Retain patches of trees with dense understory. <i>Patches of trees with dense understory were retained during marking.</i>
The project has been surveyed for <i>TES</i> and <i>MIS</i> species with a particular emphasis on nest and den sites. This will continue to occur during project implementation. If a species or site is found, it will be protected as indicated in the Forest Plan with consultation with the U.S. Fish and Wildlife Service, as necessary. <i>B6.24 Protection Measures Needed for Plants, Animals, Cultural Resources, and Cave Resources included in this contract.</i>
Roads utilized during logging activities and following logging will remain closed to the general public to minimize wildlife disturbance. An exception may be temporarily opening roads for public firewood collection. <i>C5.41# Closure to Use by Others is included in this contract.</i>
Winter logging is encouraged to limit direct disturbance to the fewest number of wildlife species as possible, but will cease by May 1 at which time lynx kittens are being born. Harvest activities will generally not occur between the timeframe of May 1 to June 15 to minimize disturbance to lynx and during calving and fawning periods unless otherwise consulted with the District Ranger and Wildlife Biologist or designees. <i>C6.312# is included within this contract and will restrict logging activities during the specified timeframe, unless otherwise agreed to.</i>
To protect potential lynx kittens, harvest activities involving felling & skidding, will not occur prior to July 1 in the Aspen/Spruce/Fir zone or Spruce/Fir zone as identified in the Alternative 4 map. <i>C6.312# is included within this contract and will restrict felling and skidding during the specified timeframe, unless otherwise agreed to.</i>
To protect potential lynx kittens, prescribed fire will not occur prior to July 1 in the Aspen/Spruce/Fir zone, except in logging units that have been converted to unsuitable habitat and have been consulted with District Ranger and Wildlife Biologist or designees. No burning will occur in the Spruce/Fir zone. These zones are delineated on Map B-4. <i>Not applicable to this sale. Burning is not included in this contract.</i>
Thinning activities will focus on creating irregular shapes for the thinning units, creating mosaics of thinned and unthinned areas, and using variable density thinning. The Wildlife Biologist & Landscape Architect or designees will be involved in project design. <i>Not applicable to this sale.</i>

PROJECT DESIGN CRITERIA
Range Resources
As needed in individual Sale Areas, temporary fence would be constructed to restrict livestock access to the project areas during harvest and the early stages of planting and regeneration of the harvest area. Where possible, any new fences would utilize existing barriers and would use existing openings or openings created by harvest activities to reduce the need to clear brush or trees. When the temporary fence is no longer needed, it would be removed. <i>Sale Administration team will notify Range Team if problems exist with livestock during harvest operations and determine the best course of action at that time. Fencing for regeneration purposes will be determined after harvest, if needed. May be added to KV plan if funds exist before sale closure. May also be funded with appropriated money, if needed.</i>
If current natural barriers are made ineffective with the development of skid trails, new fence locations would be identified on a sale area basis. Fences would be constructed as necessary to ensure allotment rotations are in compliance with individual AMP's and AOI's. <i>To be determined after harvest operations by Range and Timber Teams. Natural barriers are expected to exist after harvest.</i>
Any protected improvements such as fences, identified on sale area maps or in fuel treatment areas, will be protected during harvest or treatment activities. Any damage to constructed features will be repaired or replaced, depending upon the amount of damage. <i>Fences and cattle guards have been identified on the Sale Area/Vicinity Map as a protected improvement.</i>
As needed in individual aspen treatment areas, temporary fence would be constructed to restrict livestock access to the project areas during the early stages of regeneration of the treatment area. Where possible, any new fences would utilize existing barriers and would use existing openings or openings to reduce the need to clear brush or trees. When the temporary fence is no longer needed, it would be removed. <i>The Sale Administration team will notify the Range Team if problems exist between livestock during harvest operations and determine the best course of action at that time. Fencing for regeneration purposes will be determined after harvest, if needed.</i>
Provide one full growing season rest period prior to scheduling livestock grazing in prescribed burn units where feasible. Any livestock grazing post fire will consider timing, amount of use and duration. <i>Not applicable to sale.</i>

There is not any prescribed burning included within this contract.

Where possible, prescribed fire treatments will not be implemented the same season in multiple pastures. ***Not applicable to this sale. There is not any prescribed burning included within this contract.***

PROJECT DESIGN CRITERIA

Noxious Weeds

The timber purchaser will be required to clean all logging and construction equipment that operates off roads prior to entry to the project area. ***B6.35 Standard Provision is in this contract requiring all off road equipment be cleaned and inspected before moving to sale area.***

Haul routes and highly disturbed areas, such as landings, will be treated for noxious weed infestations as needed for five years following harvest. ***Noxious weed spraying along roads, landings and skidtrails has been identified in the KV plan or will be funded with appropriated dollars.***

All organic material used for rehabilitation: seed, straw, erosion control material, etc., will be certified weed free. ***C6.602# Protection of Disturbed Areas from Establishment of Noxious Weeds is included in this contract and specifies the seed mixture for rehabilitation.***

Road fill and road base material brought in off site will come from a borrow source free of State Listed Noxious Weeds. The Forest Service will inspect and approve the borrow source location prior to materials being hauled to the project area. ***Borrow material source is not included in the road package for this sale. Therefore, this is not applicable to this sale.***

PROJECT DESIGN CRITERIA

Timber Resources

In all sanitation/salvage stands that exceed 50 percent removal of overstory spruce, reforestation surveys will be conducted, and if the survey indicates that Forest Plan stocking Standards will not be met, these stands will be artificially reforested to meet or exceed Forest Plan Standards. ***Reforestation and timber evaluation are planned for in the KV plan after harvest to determine reforestation needs.***

To protect soil, leave trees, and regeneration, tractor skid roads will be located and approved in advance of falling. Logs will also be skidded with the leading end free of the ground to reduce ground disturbance. ***C6.42# Skidding and Yarding (Special Objective) and C6.411# Falling and Bucking (Special Objective) is included in this contract designating skidtrail spacing and directional felling.***

PROJECT DESIGN CRITERIA

Aquatic Resources

There will be no planned harvest or equipment entry within the water influence zone (WIZ) of all intermittent and perennial streams (WIZ-100 horizontal feet from the top of each stream bank) except at designated stream crossings. For ephemeral streams, no harvest or mechanical disturbance will be allowed within 50 feet of the centerline of the stream or a swale. No skid trails are allowed within the WIZ of all streams, including ephemeral. Skid trail crossings within the WIZ of all streams including ephemeral will be minimized and must be approved by the sale administrator. These crossings must be perpendicular to the streams and a one-end log suspension must be maintained when skidding across the WIZ. ***Not applicable to this sale; WIZ or SMZ's do not exist in this sale.***

Minimize disturbance during maintenance of existing roads to limit exposure and placement of fresh sediment in ditches that could enter stream courses. Prevent sediment loss from road surfaces and rutting impacts by appropriate hardening such as the use of gravel rock. ***C5.31# Road Maintenance requirements is included in this contract.***

Existing roads will be evaluated to identify erosion and sediment problems so they can be fixed as part of road maintenance operations. Install additional cross drains if needed to divert road drainage into buffer strips or away from sensitive soil areas, and minimize road drainage into stream channels. ***Existing roads have been evaluated and road reconstruction has already been completed to fix sediment problems and cross drains where needed.***

Existing road segments used in timber harvest operations that are within the water influence zone (100 feet) of intermittent and perennial streams will be inspected by hydrology or soils specialists or their designees to ensure sediment sources are disconnected from the stream system. If necessary, wattles, silt fence, or other appropriate sediment control will be installed to prevent sediment from entering the stream course. ***Existing roads have been evaluated and reconstruction has already been completed to fix sediment problems and cross drains where***

<i>needed.</i>
Hydrology, soils specialists, or their designees will inspect harvest units for seepages or riparian areas. Where found, these features will be protected through sale marking and layout. <i>Not applicable to this sale.</i>
A 100 ft no-harvest buffer will be maintained from the edge of wetlands identified in the Analysis Area. <i>Not applicable to this sale.</i>
Prescribed fire lighting operations will avoid the WIZ of streams and wetlands to minimize resource impact, and the only fire that will be allowed is that which may occasionally creep into these areas. <i>Not applicable to this sale.</i>
On a watershed scale, unrecovered burn area will be limited to 15% of each 6th level watershed area, or 200 acres whichever is greater, but not more than 300 acres. Additional treatment in the watershed can occur after evaluation by a Forest Service soil scientist or designee has shown that sufficient recovery has occurred to meet soil cover standards. <i>Not applicable to this sale.</i>
On a harvest unit scale, units that are subsequently subjected to prescribed burn treatment will be assessed by a Forest Service soil scientist or designee following the burn and the amount of detrimentally burned area determined. If this area causes a unit to exceed Forest standards with regard to cumulative detrimentally impacted soil disturbance (timber harvest, road, prescribed burn activities); additional prescribed burn operations will not occur in those units until they are brought within standard through mitigation or natural recovery. <i>Not applicable to this sale.</i>

PROJECT DESIGN CRITERIA
Soil Resources
No more than 15% of the soil within a harvest unit should be detrimentally disturbed by primary tractor skid trails, cable yarding corridors, landings, and temporary roads. <i>This criteria is met by keeping skid trail spacing 100 feet apart. C6.42# Skidding and Yarding (Special Objective) is included in this contract.</i>
Reuse existing skid trails and landings whenever practical. <i>C6.42# Skidding and Yarding (Special Objective) is included in this contract stating skid trails will be located and approved in advance of falling. Notes to Sale Administration Team will be identified in the logging plan to re-use existing skid trails where applicable.</i>
Skid trail locations will be agreed to by the Forest Service in advance of construction. Skid trail spacing will be approximately 100 feet apart, allowing for topographic variation and skid trail convergence. <i>C6.42# Skidding and Yarding (Special Objective) is included in this contract.</i>
Units not previously analyzed for existing soil disturbance will be evaluated for >15% detrimental disturbance prior to harvest. <i>Units have been analyzed for soil conditions prior to harvest.</i>
Units with an existing detrimental soil disturbance level $\geq 12\%$ will be treated as necessary to ensure post-treatment forest plan compliance. Detrimental disturbance levels will be brought within the 15% standard through post-harvest subsoiling/ripping of primary skid trails, landing, and/or temporary roads. <i>Soil disturbance will be monitored throughout harvest activities. Subsoiling has been identified and planned for in the KV plan as required reforestation work. Appropriated funds will be used if additional funds are needed.</i>
Skid trails will be waterbarred within 25 feet of landings and roads. Waterbars will also be placed on all main skid trail sections that exceed 20% gradient. Spacing of waterbars will be at least every 100 feet on these gradients. <i>C6.42# Skidding and Yarding (Special Objectives) is included in this contract. Waterbar specifications will be met.</i>
Skidding equipment will generally be restricted to slopes <35% and will operate when soil moisture is below the plastic limit, following the wet weather logging guidelines as detailed in the Big Moose Soils Resource Report. <i>C6.42# is included in this contract and soil moisture guidelines are attached to Logging Plan.</i>
Any areas >35% slope that have proposed skidding operations will be approved on site by the Forest Service. <i>C6.42# is included in this contract and states that all skid trails must be approved before felling.</i>
During project implementation, temporary roads will be outslopped, covered with slash (when needed), and blocked to vehicle access after the harvest season and before onset of the wet season. Where applicable, temporary roads will also be subsoiled/ripped to a depth of 12-24 inches post-treatment. <i>Temporary roads will be monitored by the Sale Administration Team and redied for the onset of the wet season. Notes made to Sale Administration Team are in logging plan. Subsoiling has been included and planned for in the KV plan. Appropriated funds will be used if needed.</i>

Retain existing levels or increase levels of coarse woody debris (CWD) in units in accordance with the following table, per vegetation type:

Forest Type	Spruce/Fir	Lodgepole Pine	Aspen	Douglas-Fir	Ponderosa Pine
CWD (tons/acre)	10-15	5-10	3-5	5-10	4-9

C6.7# is included in the contract stating Spruce/Fir forests require 10-15 tons/acre of CWD in each unit. CWD guidelines are included in the Logging Plan.

In clearcut units having poor soils (as identified in Forest Plan Soil Productivity guidelines), retain 90% of the fine slash, considering existing and projected levels of fine slash. ***Not applicable to this sale. There are no clearcuts prescribed in this sale.*** Slash should be evenly distributed throughout the harvest unit and lopped and scattered to a height of 2 feet or less. The materials should be well distributed throughout the stand and may be deposited on skid trails. ***C6.7# is included in this contract, which requires scattering slash to a height of 2 feet or less.***

Post-treatment total soil cover should range from 40-50% depending on the soil erosion hazard class. ***Post-treatment soil cover will be monitored to ensure the range is met.***

Where applicable, landings will be subsoiled/ripped to a depth of 12-24 inches and seeded or covered with slash after harvest. Seeding of disturbed sites will utilize a native subalpine grass mix and application prescriptions. ***Subsoiling has been included and planned for in the KV plan. Appropriate funds will be used if needed. Seed mix in C6.601# and C6.602# consist of a Subalpine mix.***

All burning will be done under an approved burn plan that specifies a burn prescription for each area. These prescriptions will account for fuel loading, fuel moisture, soil moisture, slope, aspect, etc., and will result in the desired quantity of fuel consumed for each prescribed burn. A fuel management specialist, who may utilize recommendations from a soil scientist or designee, will prepare prescriptions. ***Not applicable to this sale.***

Retain ground cover amounts recommended by soil scientist or designee to keep erosion of the underburned sites within the limits of the burn plan and objectives for soil cover. ***Not applicable to this sale.***

PROJECT DESIGN CRITERIA

Recreation Resources & Public Safety

Notify the public of logging and/or burning activities through media such as local newspapers and the Forest website. ***Sale administration team will coordinate with Public Affairs on purchasers plan of operations.***

No weekend log hauling during Big Game rifle hunting seasons from Friday noon until Sunday midnight. ***C6.312# restricts hauling on weekends during hunting season.***

In the event of winter logging, transportation logistics would be coordinated with snowmobile clubs concerning public snowmobile routes, parking, and turn-arounds. ***Sale Administration team will coordinate with Winter Recreation Staff to inform snowmobile clubs and others of proposed winter operations.***

Post caution signs at key intersections along access routes to alert the public to logging traffic and/or burning operations. ***B6.33 shows where logging hauling signs should be posted. Sign locations are also shown on the Vicinity Map.***

Dust abatement will be utilized on FSR 523 along the Love Lake fishing area and on FSR 522 from the end of the pavement to Fern Creek Trailhead. ***Dust abatement was included within the appraisal for the timber sale for NFSR 523.***

Protect trail heads. ***Not applicable to this sale.***

Keep gates closed during harvest activities. ***C5.41# Closure to Use by Others is included in this contract.***

PROJECT DESIGN CRITERIA
Cultural Resources
All persons associated with operations under this authorization must be informed that any objects or sites of cultural, paleontological, or scientific value such as historic or prehistoric resources, graves or grave markers, human remains, ruins, cabins, rock art, aspen art, fossils, or artifacts shall not be damaged, destroyed, removed, moved, or disturbed. If in connection with operations under this authorization any of the above resources are encountered, the proponent shall immediately suspend all activities in the immediate vicinity of the discovery that might further disturb such materials and notify the Rio Grande National Forest authorized officer of the findings. The discovery must be protected until notified in writing to proceed by the authorized officer. <i>B6.24 Protection Measures Needed for Plants, Animals, Cultural Resources, and Cave Resources included in this contract.</i>
Previously recorded site 5ML.21 is an unevaluated prehistoric lithic scatter just inside clearcut Unit #22. Site 5ML282 is an unevaluated prehistoric open camp that is on the border of a burn unit in Alternatives 2 and 3 and just inside a burn/harvest unit in Alternative 4. These sites will require avoidance by all project activities until they can be adequately evaluated for significance. This will be easily accomplished as they are just on the boundaries of project units. <i>None of the above sites are within the Sale Area Boundary.</i>

PROJECT DESIGN CRITERIA
Scenic Resources
No single-spaced trees will be left along ridgelines and openings. In stands having close proximity to the Silver Thread Scenic Byway or seen from the Byway, all edges will be irregular in shape or scalloped to resemble characteristic landscape patterns. <i>Irregular edge shapes were obtained during layout.</i>
Landings will be located at the edge of natural openings or along roads. Harvest-created openings will be located adjacent/joining natural openings so that treated areas look like natural extensions of meadows. Where possible, current man-made openings will be rehabilitated within the timber sale (next to old harvest units, etc.). <i>Landings will be approved by the Sale Administration team prior to harvest activities.</i>
Burn patterns will resemble characteristic landscape patterns for aspen and have irregular edges. <i>Not applicable to this sale.</i>
A Landscape Architect or designee will be involved in the design and layout of units 9, 10, 19, & 22, due to visibility from the Scenic Byway. <i>Not applicable to this sale.</i>

III. CONDITION OF SALE

A. Planned Cutting Methods

The harvest system for this sale is ground-based – tractor/mechanical harvester on included timber.

B. Regeneration and Sale Area Betterment

Planting in high mortality areas is expected. Areas will be surveyed after harvest to determine regeneration needs. The KV plan includes regeneration surveys to ensure that this occurs.

C. Slash Treatment

C6.7#, states how slash will be treated in this sale.

D. Erosion Control

Provisions C6.601# and C6.602# are included in the contract.

E. Specified New Road Construction & Road Reconstruction

There is no road construction or reconstruction included in this contract.

F. Check Cruise Information

Check Cruise was done on October 18, 2011 by Kevin Duda. Cruiser, Chris Dupont passed the check cruise with a 97.3%. The check cruise was done on the original Antlered Beetle Salvage Sale.

IV. APPRAISAL PREMISE

- A. Volume Compilation
A summary of the volume determination is attached.
- B. Plan of Operation
Over three operating seasons is assumed adequate to complete this sale.
- C. Appraisal Point
Regional direction recently stated that all sawlog sales will be appraised to Intermountain Resources Inc. in Montrose, Colorado given the current sawlog market condition. They also manufacture the end product.
- D. Weight Factor Derivation
The weight factor for this contract is from the Rock Creek scale data done by Kurt Stagner, Certified Scaler.

V. APPRAISAL SUMMARIES

See the attached 2400-17 Appraisal Summary. Appraisal Bulletin used for this appraisal = BU230115a

VII. VOLUME & COST CALCULATIONS

- 2400-17
- Sale Volume Calculation
- Sale Unit Volume Summary & Live and Dead Volume Calculation
- Haul Cost
- Road Maintenance Cost
- Temporary Road Calculation
- Logging Plan and Map
- Performance Bond Calculation & Bid Guarantee
- Unusual Adjustment Calculation & Fire Liability (AT15)
- Weight Calculation
- Silvicultural Prescription
- Marking Guides and Supplements
- Cruise Design, Cruise Addendums, Cruise Design Appendices
- Cruise Printout
- Slash Plan & Costs
- K-V Plan & Costs
- Salvage Sale Fund & Costs

Region: 02

Summary Checked By: Kevin Duda

Forest: San Juan/Rio Grande

Checked Date: 6/3/2015

Sale Name: Antlered Beetle ReSale

STARS Id: 15408

Sale Id: 02090400832015

Spec Rd Const (mi):	0.0	Spec Rd Reconst (mi):	0.0	Road Cost:	0
(01-03)Appraised to: Montrose, CO		Haul mi: 162 RTM: 756		Essential KV:	2910
Ground Base Vol:	678	Sky/Ground Lead Vol:	0	Aerial Vol:	0
Grnd Base Skid Cost:	113.53	Sky/Grnd Lead Yard Cost:	0.00	Aerial Yard Cost:	0.00
CCF/Acre (Grnd/Base):	10.0	Roads in Place: N		Sale Wt.Avg. Skid-Yard Cost	113.53
CF/Tree(Grnd/Base):	9				
Skid Dist (Grnd/Base):	575				

1 Product/Unit	01-03		Total or Avg *	
2 Species Group	ES			
3 Species Code	093			
4 % By Species	100.00	T	100.00	
5 Volume(CCF)	678	T	678	
6 DBH (Inches)	11.2	A	11.4	
7 Base Period Price (BPP)	16.94	A	16.94	
8 Market Adjustment	-2.11	A	-2.11	
9 Adj BPP (7+8)	14.83	A	14.83	
10 Base Skid-Yard Cost	104.27	A	104.27	
11 Sale Skid-Yard Cost	113.53	A	113.53	
12 Skid/Yard Cost Adj (10-11)	-9.26	A	-9.26	
13 Base Haul Cost	67.74	A	67.74	
14 Sale Haul Cost	85.40	A	85.40	
15 Haul Cost Adj (13-14)	-17.66	A	-17.66	
16 Base Road Maint Cost	6.87	A	6.87	
17 Sale Road Maint Cost	19.04	A	19.04	
18 Road Maint Cost Adj (16-17)	-12.17	A	-12.17	
19 Base Slash Cost	1.07	A	1.07	
20 Sale Slash Cost	0.91	A	0.91	
21 Sale Slash Adj (19-20)	0.16	A	0.16	
22 Base Temporary Road Cost	2.07	A	2.07	
23 Sale Temporary Road Cost	3.11	A	3.11	
24 Temp Road Cost Adj (22-23)	-1.04	A	-1.04	
25 Qual Adjustment	0.00	A	0.00	
26 Unusual Adjustment	0.00	A	0.00	
27 Total Adjustment	-39.97	A	-39.97	
(Sum:12,15,18,21,24,25,26)				
28 Predicted Bid (9 + 27)	-25.14	A	-25.14	
29 Competition Amount	1.48	A	1.48	
30 Ind Adv Rates (28-29-34+36)	-26.62	A	-26.62	TV -18048.36
31 Base Rates + TPV (31+36)	5.00	A	5.00	
32 Adjustment to Base Rates	31.62	A	31.62	
33 Advertised Rates (30+32)	5.00	A	5.00	TV 3390.00
34 Sale Specified Road Cost	0.00	A	0.00	
35 Base Indices (6-15)	167.69			
36 Timber Property Value	0.00	A	0.00	
MBF/CCF ratio:	0.46400		0.46400	
TSA Table:	WWPAB			
Deficit Sale Increased:	21438.36			

* Standard rate products are included in the total or weighted avg.

Report of Timber Sale (CCF)
 Convertible and Nonconvertible Products (Ref. FSM 2490)

Region:02 Forest:09 District:04 Sale Number:008 Qtr:3 FY:2015 State:08 County:079 Sale Name:Antlered Beetle ReSale
 Compartment:000000 Sale Acres: 281 Harv Acres: 68 Legal Description:T39N R2W sections 1 & 12 Competitive Forest: Y
 Bid Date: Status: SBA Set-Aside:N App Base Period:6-14 Zone:3 Salvage:Y Pricing method:3 Planned SAB col:\$ 3179
 Term Date: Contr Date: Contract No.: Contract Form:6 Contract Off.:S Meth of Sale:S Reg.36CFR223:06

	Spec	Prod	CCF	Adv	Stat	High	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
Spec	Code	Unit	Vol	Rates	Hi Bid	Bidder									
ES	093	01 03	678	5.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total/Avg		01/03	678	5.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

I certify that I have personally examined the bid for this sale and that this is an accurate record thereof.

Signature /s/

Title: Date

Rank	Name	Summary of Bidders		Total Bid Value
		SBA Class		

Region: 02

Summary Checked By: Kevin Duda

Forest: San Juan/Rio Grande

Checked Date: 6/3/2015

Sale Name: Antlered Beetle ReSale

STARS Id: 15408

Sale Id: 02090400832015

Spec Rd Const (mi):	0.0	Spec Rd Reconst (mi):	0.0	Road Cost:	0
(01-01)Appraised to: Montrose, CO		Haul mi: 162 RTM: 756		Essential KV:	2910
Ground Base Vol:	315	Sky/Ground Lead Vol:	0	Aerial Vol:	0
Grnd Base Skid Cost:	244.68	Sky/Grnd Lead Yard Cost:	0.00	Aerial Yard Cost:	0.00
MBF/Acre (Grnd/Base):	4.6	Roads in Place: N		Sale Wt.Avg. Skid-Yard Cost	244.68
BF/Tree(Grnd/Base):	42				
Skid Dist (Grnd/Base):	575				

1 Product/Unit	01-01		Total or Avg *	
2 Species Group	ES			
3 Species Code	093			
4 % By Species	100.00	T	100.00	
5 Volume(MBF)	315	T	315	
6 DBH (Inches)	11.2	A	11.4	
7 Base Period Price (BPP)	36.51	A	36.51	
8 Market Adjustment	-4.55	A	-4.55	
9 Adj BPP (7+8)	31.96	A	31.96	
10 Base Skid-Yard Cost	224.72	A	224.72	
11 Sale Skid-Yard Cost	244.68	A	244.68	
12 Skid/Yard Cost Adj (10-11)	-19.96	A	-19.96	
13 Base Haul Cost	145.99	A	145.99	
14 Sale Haul Cost	184.05	A	184.05	
15 Haul Cost Adj (13-14)	-38.06	A	-38.06	
16 Base Road Maint Cost	14.81	A	14.81	
17 Sale Road Maint Cost	41.03	A	41.03	
18 Road Maint Cost Adj (16-17)	-26.23	A	-26.23	
19 Base Slash Cost	2.31	A	2.31	
20 Sale Slash Cost	1.96	A	1.96	
21 Sale Slash Adj (19-20)	0.34	A	0.34	
22 Base Temporary Road Cost	4.46	A	4.46	
23 Sale Temporary Road Cost	6.70	A	6.70	
24 Temp Road Cost Adj (22-23)	-2.24	A	-2.24	
25 Qual Adjustment	0.00	A	0.00	
26 Unusual Adjustment	0.00	A	0.00	
27 Total Adjustment	-86.14	A	-86.14	
(Sum:12,15,18,21,24,25,26)				
28 Predicted Bid (9 + 27)	-54.18	A	-54.18	
29 Competition Amount	3.19	A	3.19	
30 Ind Adv Rates (28-29-34+36)	-57.37	A	-57.37	TV -18048.36
31 Base Rates + TPV (31+36)	10.78	A	10.78	
32 Adjustment to Base Rates	68.15	A	68.15	
33 Advertised Rates (30+32)	10.78	A	10.78	TV 3390.00
34 Sale Specified Road Cost	0.00	A	0.00	
35 Base Indices (6-15)	353.03			
36 Timber Property Value	0.00	A	0.00	
MBF/CCF ratio:	0.46400		0.46400	

TSA Table:

Deficit Sale Increased: 21438.36

* Standard rate products are included in the total or weighted avg.

Report of Timber Sale (MBF)
 Convertible and Nonconvertible Products (Ref. FSM 2490)

Region:02 Forest:09 District:04 Sale Number:008 Qtr:3 FY:2015 State:08 County:079 Sale Name:Antlered Beetle ReSale
 Compartment:000000 Sale Acres: 281 Harv Acres: 68 Legal Description:T39N R2W sections 1 & 12 Competitive Forest: Y
 Bid Date: Status: SBA Set-Aside:N App Base Period:6-14 Zone:3 Salvage:Y Pricing method:3 Planned SAB col:\$ 3179
 Term Date: Contr Date: Contract No.: Contract Form:6 Contract Off.:S Meth of Sale:S Reg.36CFR223:06

	Spec	Prod	MBF	Adv	Stat	High	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
Spec	Code	Unit	Vol	Rates	Hi Bid	Bidder									
ES	093	01 01	315	10.78	10.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total/Avg		01/01	315	10.78	10.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

I certify that I have personally examined the bid for this sale and that this is an accurate record thereof.

Signature /s/

Title: Date

Rank	Name	Summary of Bidders		Total Bid Value
		SBA Class		

List of errors found in above sale

Sale Name: **Antlered Beetle Salvage ReSale**
Stars Number: 15408 **Sale QMD:** 11.4
TEA Number: 008 **Sale Ave Diameter:** 11.2
Sale Acres: 68
Gross Acres: 281 SAB

Bulletin # BU230415

CONTENTS

	<u>/ccf cost</u>	<u>total cost</u>		
<u>Sale Haul Cost</u>	\$ 85.40	\$ 57,901.20	<u>Need 17 for following:</u>	
<u>Sale Haul Miles</u>	162		<u>Purchaser Fire Obligation</u>	\$ 1,500.00
<u>Sale Round Trip Minutes</u>	756			
<u>Sale Slash Cost</u>	\$ 0.91	\$ 613.92	<u>Performance Bond</u>	\$2,700
<u>Sale Road Maint Cost</u>	\$ 19.04	\$ 9,424.20	<u>Bid Guarantee</u>	\$ 400.00
<u>Sale Temp Road Cost</u>	\$ 3.11	\$ 3,505.26		
<u>Average Skid Distance (ft)</u>	575			

Appendix A

Antlered Beetle Salvage ReSale

Volume Calculations

11-May-15

From B1 Report

Cruise #	Strata	SPP	Gross Volume BDFT	Gross CUFT	Net Volume BDFT	Net CUFT	Net Volume MBF	CCF	# Of Trees	Net BF/CF
12404	1	ES	503,333	109,626	311,145	67,827	311.1	678	7325	4.5873
			503,333	109,626	311,145	67,827	311	678	7,325	4.5873

Sawtimber	ES	CCF	678	100%	Adj. BPP \$ 19.18	\$ 13,004.04	18.53
Total			678	100%		\$ 13,004.04	
SAW PIEN			678	100%	\$ 19.18	\$ 13,004.04	

Total		QMD
Acres=	68	11.4
Trees=	7,325	DBH
		11.2
Volume	CCF	MBF
Per Acre	9.97	4.58
Volume	CF	BF
Per Tree	9.26	42.48

678	100%	\$ 13,004.04
		\$ 19.18

Species/Product	CCF	MBF	QMD	MBF/CCF Ratio	Mean DBH
ES	678	315	11.4	0.46400	11.2

Antlered Beetle Salvage ReSale

Unit Volume Summary

Acres	ES Ccf	Total Volume	% of Tot
68.0	678	678	100%
68.0	678	678	100%

5/11/2015 11:49

Antlered Beetle Salvage ReSale

Dead and Live Volume Calculations

Per Regional Office Direction for Selling Dead Timber (letter dated August 11, 2004)
Live and Dead sawtimber of each species will be appraised and scaled as one contract
group, "Live and Dead Sawtimber"

For this Sale no uninfested live trees were found during the cruise, all green trees marked and cruised are classified as "Recent Dead" since they have been infested with spruce beetles.

Appraiser estimates that all ES volume will be dead at midpoint. So, all volume will be considered ESD.

Cruised Volume CCF

ESD 678 100%

TOTAL 678

Assume 3 year contract.

Assume sale award April of 2015 with a termination date of September 30, 2017. So sale contract midpoint would be August 31, 2016 for normal operating season.

Appraiser Estimates that 100% of Live volume will be dead at Midpoint of Contract

Tracer Paint

	<u>Mark</u>	<u>Color</u>	<u>Lot Number</u>
All Units	Boundaries and Leave Trees	Orange	SO657, PO634, XO691, CO400 & MO318

SEE LOGGING PLAN

**Antlered Beetle Salvage ReSale
Road Maintenance**

5/11/2015 11:49

Pre Haul Maintenance

Road Number	Termini	Haul Miles
523	525 to 523.2A	1.53
523.2A	Jct 523.2A to end	0.78
523	Jct 523.2A to Jct 523.2F	1.50
523.2F	Jct 523.2F to MP 0.04	0.04

Total Miles **3.85**
 \$500/mile (from engineering 05/26/10) **\$ 1,925.00**
 Cost per CCF **\$ 2.84**

Regular & Post Haul Maintenance

Road Number	Termini	Haul Miles
523	Hwy 149 to 525	10.84
523	525 to 523.2A	1.53
523.2A	Jct 523.2A to end	0.78
523	Jct 523.2A to Jct 523.2F	1.50
523.2F	Jct 523.2F to MP 0.04	0.04

Total Miles **14.69**
 .17/mile/ccf+POH of 31.54% (from engineering 06/10/10) **\$ 2,227.20**
 Cost per CCF **\$ 3.28**

Road Maintenance Deposits

Road Number	Termini	Haul Miles

Total Miles **0**
 .17/mile/ccf+FSOH of 15% (from engineering 06/10/10) **\$ -**
 Cost per CCF **\$ -**

**Surface Rock
Replacement Deposits**

Road Number	Termini	Haul Miles
523	MP 7.37 to Jct 525	3.4

Total Miles **3.4**
 .22/ccf/mile+FSOH of 15% (from engineering 06/10/10) **\$ 583.22**
 Cost per CCF **\$ 0.86**

Snow Removal

Road Number	Termini	Haul Miles
523	MP 7.37 to 523.2F	6.39
523.2A	Jct 523.2A to MP 0.78	0.78
523.2F	Jct 523.2F to MP 0.04	0.04

County plows from Hwy 149 to first cattleguard (7.37 miles)

Total Miles **7.21**
 Total Trips over 3 Seasons **1**
 Estimated cost per mile **\$ 187.00 LLC est.**
 Total Purchaser OH 31.54% **\$1,773.51**

Estimating 3 seasons, 1 trip out of the 3 seasons.

\$ 2.62
 \$ 6.12
 Cost per CCF **\$ 2.62**

Dust Abatement

Road Number	Termini	Haul Miles
FSR 523	Jct 525 to MP 0.5	0.5

Dust abatement costs include water, road prep and blading. Cost is \$3200/mile per road engineer, Hinsdale county cost estims
 Dust abatement is done 1 time/year and includes Magnesium Chloride and Lignin. Cost is calculated for a total of 2 out of the 3
 Cost= miles of road x \$3200 x 2

Total Miles **0.5**
 Cost of Application **\$6,400.00**
 Cost per CCF **\$9.44**

Pre-Use Maintenance **\$ 1,925.00**
 Purchaser Road Maintenance **\$ 2,227.20**
 Road Maintenance Deposits **\$ -**
 Surface Rock **\$ 583.22**
 Snow Removal **\$1,773.51**
 Dust Abatement **\$6,400.00**
 Total Road Maintenance **\$ 12,908.92**
 Costs per CCF **\$ 19.04**

Conversions: (1 mile = 1.609 kilometers) Miles **1** Kilometers **1.61**

Appendix D

Haul Cost Calculation Sawtimber
 Appraisal point is
 6530 Rd, San Juan Ave., Montrose, CO
 5/11/2015 11:49

Antlered Beetle Salvage ReSale

Road Number	Termini	Round Trip Travel Times	Haul Miles	Haul Class	% Grade	% Volume	Round Trip % increase	Round Trip Time min/mi	Weighted Haul Miles
6530 Rd.	Mill	7.04	2.20	2A1	0	100	0%	3.2	2.200
San Juan Ave.	6530 Rd.	1.08	0.30	2B1	0	100	0%	3.6	0.300
US 50	Jct. Hwy 149 to San Juan Ave. (in Montrose)	229.74	54.70	2C1	0	100	0%	4.2	54.700
Hwy 149	Jct. US 50 to Hwy NFSR 523	376.94	89.30	2C1	-2	100	50%	4.2	133.950
NFSR 523	Jct. Hwy 149 to NFSR 523.2A	72.50	12.50	3C2	-2	100	0%	5.8	12.500
NFSR 523.2A	Jct. NFSR 523.2A to Temp Road 22	3.83	0.75	4B3	-2	100	0%	5.1	0.750
Temp Road 22	From Jct. Temp Road 22 to Temp Road 31	0.47	0.36	5C3	-2	20	0%	6.5	0.072
Temp Road 31	Jct. Temp Road 31 to end	0.16	0.49	5C3	-1	5	0%	6.5	0.025
NFSR 523	From Jct NFSR 523.2A to NFSR 523.2F	3.90	1.50	5C3	-2	40	0%	6.5	0.600
523.2F	Jct 523 to Temp Road 32	0.02	0.04	4B3	-2	10	0%	5.1	0.004
Temp Road 32	Jct 523.2F to end	0.11	0.17	5C3	-1	10	0%	6.5	0.017

695.78 162.31 205.118
60 Delay Time
756 Min X 0.113 /ccf/min=
11.6 hours \$ 85.40 per CCF sawtimber
0.17

11-May-15

Antlered Beetle Salvage ReSale

Temporary Road Cost Calculations

This sale will re-open three existing temporary roads totalling 1.02 miles (shown on the logging plan map). Cost of re-opening old temporary roads will be 50% (because road base is already in place) of the cost of a newly constructed temporary road. Costs include construction of waterbars, closure, seeding, earth barriers, clearing and grubbing, culverts and excavation. (For costs refer to the temp road worksheet)

Road #	Miles	KM	Construction Needs
Temp 31	0.49	0.79	Blade and shape with cat, earth barriers for closure
Total	0.49	0.79	

Open existing brushed in / slashed in temp roads

	Miles	KM				
Temp 31	0.49	0.79	@	50%	New Construction Rate	
		0.79	X	\$ 3,749.57	=	\$ 1,837.29
	0.00	0.00	@ .25 mi/hour X (\$99.80/hr (D-6 Cat rate)			
			- hr X	\$ 99.80 =		\$ -
	0.00	0.00	@ .4 mi/hour X (\$99.80/hr (D-6 Cat rate)			
			- hr X	\$ 99.80 =		\$ -

Construct New Temp Road

Miles	KM		
	0.00	(Cost includes <i>clearing, grubbing, excavation, skidding, seeding</i>	
	0.00	X	\$ 7,499.14 (estimate for const. per mile)
			\$ -

TOTAL TEMP PRE-USE COSTS **\$ 1,837.29**

Each

Waterbars	\$ 10.00	23	\$ 230	One per 150' w/ 3516' total
Earth Barriers	\$ 20.00	2	\$ 40	1 on each road w/ 2 roads total
			\$ 270	

TOTAL TEMP POST-USE COSTS **\$ 270.00**

TOTAL TEMP ROAD COSTS **\$ 2,107.29**
COST PER CCF **\$ 3.11** 678 ccf

Unusual Adjustments**Antlered Beetle Salvage ReSale**

11-May-15

Unusual Adjustment Factor for Deteriorating Live and Dead Volume

Total Volume		678
Current Index	\$	376.01
Reduction		0
Cubic Conversion		0.475
Deteriotating and Dead Volume		678

Antlered Beetle Salvage ReSale

Total Advertised Value

Species	Vol Ccf	Advertised Rates	Value
ALL	678	\$5.00	\$ 3,390.00 <--From 2400-17

Bid Guarantee - Cash Deposit

10% of Total Advertised Value	\$339.00
Rounded to next \$100	\$400.00

Minimum Performance Bond

10% of the Bid Value rounded up the next \$ 100 if Total Sale Value is \$10,000 or less or rounded up to the next \$1000 if Total Sale Value is greater than \$10,000 (FSH2409.18-54-1)

10% of Total Advertised Value	\$339.00
Rounded to next \$1000	\$400.00

2nd Method - Based on Penal Sum

Based on cost to repair damage that could occur after one season

All cost are based on Region 2 ,3, & 4 Cost Estimate Guide (2/2011)

Road Maintenance

Estimate 0.82 miles (roads behind gates) will need road maintenace

Move in Cost (lowboy & operator)	\$105.25 x number of hours	1 hour	\$105.25
Grader Operator/hr	\$23.97 x hours	7 hrs	\$167.79
Road Maintenance cost/mile	\$388.00 x miles	0.82 miles	\$318.16
		subtotal	\$591.20
	\$591.20 x TPOH	1.3154	\$777.66
1 GS-11 to administer/day	\$261/day x days	.5 days	\$130.50
1 4x4 PU/mile	\$.34 /mile	130 miles	\$44.20
1 4x4 PU/day (FOR)	\$14/day	1 day	\$14.00
		subtotal	\$188.70
	\$188.70 x FSOH	1.1129	\$210.00

Total Road Maintenance \$987.67

Closure of Skidtrails (water bar, pulling slash, etc)

Estimate 5 acres

A D-6 Cat can close 1 acre of scattered skidtrails in 1.5 hours

D-6 cat / hour	\$90.72 /hr	7.5 hrs	\$680.40
D-6 operator /hr	\$23.28 /hr	7.5 hrs	\$174.60
		subtotal	\$855.00
	\$855.00 x TPOH	1.3154	\$1,124.67

Forest Service Cost is included in road maintenance

Total Closure of Skidtrails \$1,124.67

Erosion Control Landings and skidtrails

Estimate 1 acres

Recommended Seed Mix from Gerry Poe Forest Ecologist 03/12/03

Species	% mix	PLS lbs/ac	\$/lb	\$/ac
slender wheatgrass (san luis)	31	5.2	\$6.25	\$32.50
Sodar Streambank Wheat Grass	20	3.4	\$7.75	\$26.35
Bromar Mountain Brome	49	8.2	\$8.00	\$65.60
	Total Cost/ Acre			\$124.45
	Total Cost of Seed	2.5		\$311.13
1 GS-7 cost/day	\$176/day	1		\$176.00
1 4x4 PU/mile	\$.40 /mile	56 miles		\$22.40
1 4x4 PU/day (FOR)	\$14/day	1		\$14.00
		subtotal		\$523.53
	\$523.53 x FSOH	1.1129		\$582.63

Total Erosion Control \$582.63

Total Performance Bond Based on Penal Sum

Rounded to next \$100 **\$2,694.97** **\$2,700** Use this as

Purchaser Fire Obligation For SP34

3 people x \$13.24/hr (AD-C) x 12 hrs x 3 days	\$1,429.92
rounded to the next \$100	\$1,500.00

(AD-C rate from FSH 5109.34-2007-1 13.6 Exhibit 01)

Slash Treatment Plan

Antlered Beetle Salvage ReSale

11-May-15

All slash will be lopped and scattered down to 2 feet. Landing piles planned for 1 burning.
Costs are included in the TEA average cost.

Area treated: **68** acres
All Landing slash will be burned by Forest Service.

6 Landings @ approx .25 ac / landing 1.5

Labor

GS Level	Rate/Day	# of Days	Total Cost
1 GS-11/3	\$350.00	1	\$ 350.00
1 GS-7/3	\$250.00	1	\$ 250.00
1 GS-5	\$150.00	1	\$ 150.00
Total Labor			\$ 750.00

Equipment

Mileage	Miles/day	# of days	Total Cost
\$0.45	100	1	\$ 45.00
FOR	FOR/day	# of days	
250	15.00	1	\$ 15.00
Total Equip.			\$ 60.00

Misc Supp

(Fuel & Tools) \$ 75.00

Sub Total \$ 885.00

District Overhead 15% \$ 132.75

Total \$ 1,017.75

Rounded next \$10 \$ 1,020.00

Treatment cost / Acre \$ 680.00

W/ Inflation and OH --> **Treatment cost / Acre** \$ 996.88

Inflation = 3% and OH = 43.6%

Total

\$ 1,495.00

Less **\$ 881.08** collected

Remaining **\$ 613.92**

Debris Piles - Purchaser Cost - Not included in BD for Deposits

Debris Piles - 1023 0
1/2 hour per pile 0 hours

Labor	Skidder Operator	\$ 38.59 /hour	\$ -	
Equipment	Cat Skidder	\$ 92.82 /hour	\$ -	
Sub Total			\$ -	
plus OH @ 1.3154			\$ -	#DIV/0!
Rounded to next \$10			\$ -	

Total Appraisal Cost	\$ 613.92
Total Appraisal Cost / Ccf	\$0.91 TOTAL
Required Deposit	\$ 613.92
Required Deposit / Ccf	\$0.91 DEPOSIT
Purch Cost	\$ -
Purch Cost/CCF	\$ -

3-Jun-15

Antlered Beetle Salvage ReSale
KV Calculations

Treatment	Activity Code	Cost per Unit	No. of Units	Total Costs	Units Financed	Cost Finance	With FSOH/rounded	Priority
Regeneration Surveys Year 1	4341	\$ 10.92	68	\$ 742.56	68	\$ 742.56	\$ 743.00	1
Regeneration Surveys Year 3	4341	\$ 11.37	68	\$ 773.16	68	\$ 773.16	\$ 773.00	1
Subsoil Skid Trails and Landings and seeding	5217	\$ 340.05	1.4	\$ 476.07	3.5	\$ 1,190.18	\$ 1,612.45	1
Certification Verification	4381	\$ 11.37	68	\$ 773.16	68	\$ 773.16	\$ 773.00	1
Invasive Plant Management Year 1	2510	\$ 448.12	1.7	\$ 761.80	1.7	\$ 761.80	\$ 762.00	2
Invasive Plant Management Year 2	2510	\$ 457.09	1.7	\$ 777.05	0.3	\$ 137.13	\$ 137.00	3
Total				\$ 4,303.81		\$ 4,240.86	\$ 3,187.00	

Essential KV **\$3,901**
Total KV Financed

CCF Volume	\$ per CCF	Total Bid Value	Percent Distribution
678	\$ 5.00	\$ 3,390.00	

Total Sale Value	\$ 3,390.00
Funded SSF	\$ -
NFF Minimum	\$ 169.50
Available For All KV	\$ 3,220.50 \$ 3,390.00

SEE BELOW

Condition Surveys

Condition Surveys: Walk through surveys determining if areas will need site prep or artificial regeneration. Estimate Acres of Walk Through surveys are 172.3 acres. Cost of \$5.29/ac. before inflation or WO admin cost was used as a 2010 base cost in FACTS to create inflated costs.

Labor	GS Level	Rate/Day	# of Days	Total Cost
	1 GS-9	\$300.00	0.25	\$75.00
	1 GS-5	\$150.00	1	\$150.00
Total Labor				\$225.00
Equipment	Mileage	Miles/day	# of days	Total Cost
	\$0.45	100	1	\$45.00
	FOR	FOR/day	# of days	Total Cost
	\$ 233.00	\$14.00	1	\$14.00
Total Equip.				\$59.00
Misc Supp	(Fuel & Tools)			\$75.00
Sub Total				\$359.00
15% District Overhead				\$53.85
Total				\$412.85
Rounded next \$10				\$420.00
Treatment cost / Acre				\$6.18

Tree Planting

Planting - Using Forester estimate for planting, tree storage, and contract administration.

0 Acres	\$0 per acre	Region 2 KV Cost Guide, District Forester Estimate
		TC/Acre with OH
		\$0.00

Invasive Plant Management

Acres	1.70
Cost per acre	\$ 130.79 District Road and Range Specialist Estimate

Assume 10% of the acres will be in skidtrail. 25% will need sprayed. Estimate approximate acres in landings. Estimate approximate acres in along roads. Total acres need for 1st year of spraying. Repeat for 2nd treatment

COST	1st Treatme	2nd treatment	Total \$/ac w/ OH
	\$ 761.80	\$ 1,200.00	\$ 130.79
	4.31 skidtrail		
	3.00 landings		
	8.00 roads		

Subsoil Skid Trails and Landings and seeding

Project	15 acres/week	Forest Hydrologist project cost estimate
Cost Per Project	\$4,000.00	Forest Hydrologist estimates 1 wk use; Covers post-subsoil seeding cost
Cost Per Acre	\$266.67	
Acres to Subsoil -- 2%* 68 ac =	1.40 acres	
Sale cost	\$373.34	+ OH and inflation

Per NEPA design criteria, rehab skid trails and landings with winged subsoiler. Unit 34 had 17% DSD, so 2% of 68 acres needs reclamation to bring levels to within 15%

Antlered Beetle Salvage ReSale

Salvage Sale Fund Plan Narrative

#####

Salvage volume for this sale is 100% of the sale volume.

Salvage Volume 678 ccf

Cost calculations and assumptions are based on funding for salvage sale prep and admin for FY 12.

	\$/CCF	CCF	Total Cost
Preparation:	\$25.57	678	\$17,336.46
Administration	\$8.50	678	\$5,763.00
Engineering	\$9.00	678	\$6,102.00
Other Resources	\$5.00	678	\$3,390.00
Subtotal	\$48.07		\$32,591.46
Indirect Cost	65.1%		\$21,217.04
Inflation (2.4% per year from TIM)	2.4%		\$57,776.44
Total CCF	\$ 85.22	678	\$57,779.16
50% Additional Collection			\$28,889.58
Surcharge	\$/CCF		
	\$0.00	678	\$0.00
Total Sale Planned Collection			\$86,668.74
Total Sale Value	\$3,390.00		
Funded KV	\$3,187.00		\$3,187.00
25 cents per ccf (min NFF)	\$169.50		
Available for SSF	\$0.00	TIM (SSF/1.651):	\$0.00
Max Collection	\$86,668.74		

Step 1 - Clearing and Grubbing

Clearing and grubbing - ac/mile from Table T-1	1.83
Unit cost for 4 MBF/ac - Sec. 201, Figure 1	\$ 1,630.00
Percent labor - labor % in Sec. 201	40%
Adj. factor for D-B wages - CO Area 1, Table 21	0.89
Adj. factor for timber sale wages - Table 25	0.90
Slash/cleanup factor for on-site disposal - Table 37	1.2
Cost per Mile	\$ 2,867.16

Step 1a - Felling, Bucking, & Skidding

Base Skid-Yard Cost from current TEA Bulletin (MBF)	\$ 201.23
Harvest volume per acre (MBF)	4.58
Cost per Mile	\$ 1,684.97
NET Cost per Mile	\$ 1,182.20

Step 2 - Excavation

Excavation - cubic yards/mile - Table T-1	1023
Base cost for excavation (\$/cy) - Sec. 204	\$ 1.66
Adj. factor for type of material - Table 39	1
Percent labor - labor % in Sec. 204	20%
Adj. factor for D-B wages - CO Area 1, Table 21	0.95
Adj. factor for timber sale wages - Table 25	0.95
Cost per Mile	\$ 1,532.61

Culverts

Avg. Culverts/Mile	\$ 1.25
Avg. Culvert length (ft)	19
Installation of 18" culvert (\$/LF) - Table 53	\$ 36.50
Percent labor - Sec. 602	30%
Adj. factor for D-B wages - CO Area 1, Table 21	0.92
Adj. factor for timber sale wages - Table 25	0.93
Cost per Mile	\$ 741.70
TOTAL Cost per Mile	\$ 2,274.31

Step 3 - Seeding

Seeding - Table T-1	1.99
Unit cost for seeding w/o fertilizer/mulch - Sec. 625	\$ 550.00
Percent labor - labor % in Sec. 204	35%
Adj. factor for D-B wages - CO Area 1, Table 21	0.91
Adj. factor for timber sale wages - Table 25	0.94
Cost per Mile	\$ 936.24

Step 4 - Obliteration

Outslope road (\$/mile) - Sec. 211	\$ 1,200.00
Rip roadbed (\$/mile) - Sec. 211	\$ -
Percent labor - labor % in Sec. 204	20%
Adj. factor for D-B wages - CO Area 1, Table 21	0.95
Adj. factor for timber sale wages - Table 25	0.95
Number of culverts removed (avg./mi.)	1.25
Culvert removal cost - Sec. 211	\$ 300.00
Cost per Mile	\$ 1,421.44

Step 5 - Total Unit Cost

Cost per Mile	\$ 7,499.14
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Forest
Service

Rocky Mountain Region

740 Simms Street
Golden, CO 80401
303-275-5350
FAX: 303-275-5366

File Code: 2440

Date:

DEC 29 2014

Route To:

Subject: Request for Approval to Load Count Scale Pluto Beetle Salvage and Antlered Re-Sale Timber Sales

To: Forest Supervisor, Rio Grande National Forest

In accordance with the instructions for 2400-6 contract provision RO-C6.825# - Scaling As Presented (Sales By Load Count) (9/07), approval to use an average volume per load conversion factor was requested for use on the Pluto Beetle Salvage and Antlered Re-Sale Timber Sales on December 9, 2014. The enclosed conversion factors were calculated, by Kurt Stagner Regional Measurements Specialist, in accordance with national standards and procedures described in FSH 2409.12 – National Forest Timber Cruising Handbook and contract provision RO-C6.825#. You are approved to use an average volume per load factor of 11.29 CCF per standard truck configuration for the Pluto Beetle Salvage Timber Sale. In addition, you are approved to use an average volume per load factor of 11.23 CCF per standard truck configuration for the Antlered Re-Sale Timber Sale.

Please contact Kurt Stagner, Regional Measurements Specialist, at kstagner@fs.fed.us or 970-874-6611 if you have any questions.


DANIEL J. JIRÓN
Regional Forester

cc: Kurt Stagner, Kirby Self, Rachael Sanchez, Sharon Paul

