

**TIMBER SALE REPORT & APPRAISAL**  
**STAGE STOP RE-OFFER TIMBER SALE**

**Gunnison National Forest**

**Gunnison Ranger District**

**July 27, 2013**

Prepared by: Kevin Duda Date: 7/27/13  
Forester

Approved by: John R. Murphy Date: 8-1-13  
District Ranger

## SUMMARY OF RECOMMENDATIONS

The following lists the major recommendations and results of the appraisal.

Net Volume (Appraised and Contract):

Lodgepole Pine, Sawtimber, Live and Dead                   **2,052 CCF**

Timber Subject to Agreement:

Lodgepole Pine, POL, Live   **Unestimated CCF**  
**2,052 CCF**

Quadratic Mean DBH (Live and Dead Sawtimber)                   = **10.2 inches**

Mean DBH (Live and Dead Sawtimber)                               = **9.9 inches**

Net acres = 139.6 acres

Advertised Rates:

Live and Dead LP Sawtimber   **\$7.07/CCF**

Timber Subject to Agreement:

Live ES&O POL   **\$1.00/CCF**

Specified Road Reconstruction = **NONE**

Public Works Construction Cost = **N/A**

Road Completion Date = **N/A**

Required Slash Deposit is **\$1.63/CCF**

Required Surface Rock Replacement Deposit is **\$0.72/CCF**

Total KV Collections at advertised rates = **\$14,000**

Essential KV = **\$14,000**

Contract period is two (2) years. **Termination Date = October 31, 2015**

**Normal Operating Season is June 15 to September 30**

## **DESCRIPTION**

### **A. Location**

The Stage Stop Re-offer timber sale is located in the Taylor Park area between Taylor Park Reservoir and Cottonwood Pass on the Gunnison National Forest. It is approximately 38 miles northeast of Gunnison, CO. The legal location is Sections 17, 18, 19, and 20; T.14S., R.81W.; and Sections 13, 23, and 24; T.14S., R.82W., Sixth Principal Meridian, Gunnison County, Colorado; Compartments 100404, 100405, 100406, and 100578. The Sale Area is 530 gross acres with 139.6 net acres set for harvesting within cutting units.

### **B. Land Status**

All harvested lands are on National Forest Service lands.

### **C. Basis for Selecting Area**

This area was first specified in the five-year Timber Sale Action Plan in 1993. Stage II inventory was done on the area and compartment prescriptions were written. The harvest meets current direction in the Grand Mesa, Uncompahgre, and Gunnison National Forest Land Management Plan, as well as the Environmental Assessment for the Stagestop Timber Sale (EA). The Decision Notice was signed August 1997. The Biological Assessment and Biological Evaluation were signed April 27, 1997; silvicultural prescriptions were completed June 22, 1998.

### **D. Transportation Routes and Appraisal Points**

The sawtimber and POL will be appraised using Montrose, Colorado as the delivery location.

### **E. Silvicultural Description**

A clearcut with wildlife reserve trees is prescribed for all the cutting units within the sale. Based on the clearcut prescription, the sale had wildlife reserve trees marked as LEAVE, with a clearcut designation in the contract. See the silvicultural prescriptions and marking guide for detailed information.

## **F. Unique Circumstances**

See the Logging Plan.

## **CONDITIONS OF SALE**

### **A. Planned Cutting Methods**

Clearcutting is the silvicultural prescription for this sale. See the prescriptions for detailed information.

Clearcut units contain reserve trees marked with a blue painted band at eye-level, in addition to a blue painted stump mark. Also, the contract contains only lodgepole pine as the included species, so species other than this will also remain as reserve trees.

### **B. Sale Area Improvement Needs (SAI)**

See the SAI Plan on form FS-2400-50 and KV Plan Narrative for information.

### **C. Slash Treatment**

Slash must be lopped and scattered. Cone bearing tops and limbs must be severed prior to skidding or returned to the cutting units, and not piled at the landings. A deposit will be collected to cover the cost of post sale landing slash pile burning conducted by U.S. Forest Service personnel. See the Brush Disposal Treatment Plan FS-2400-62 (*formally the: Slash Treatment Plan R2-2480-1*) and narrative for slash disposal details.

### **D. Water Quality Protection and Erosion Control**

Landings, skid trails, and temporary roads will be re-vegetated to stabilize soils. Skid trails are to be laid out to reduce erosion, and drainage structures will be required where erosion potential is high. Temporary roads and skid trails will be water barred, ripped, and re-vegetated.

### **E. Mitigation Measures**

Mitigation measures are specified in the Stage Stop Timber Sale Environmental Analysis with the Decision Notice signed August 18, 1997.

*1. A weed-free native or short-lived, sterile non-native seed mixture will be put on skid trails disturbed to bare mineral soil, log landings, obliterated temporary roads and roadsides. The mixture may include native grass, forb, and/or shrub species.*

**RESPONSE:** A weed-free seed mixture will be required when seeding disturbed areas. See **CT6.601#** and **CT6.602#** in the Timber Sale Contract (TSC) for seed mixture.

***2. To reduce log hauling and recreation conflicts, log hauling will not be allowed on weekends. When winter logging activities occur and the Cottonwood Pass Road has been plowed, and alternate snowmobile route will be developed, signed, and marked by the Forest Service and local snowmobile club.***

**RESPONSE:** Special Provision **CT5.12#** is included in the TSC. It will include restrictions on weekend hauling on the primary access roads. If the purchaser indicates the intention to snowplow the Cottonwood Pass Road in the Plan of Operation and Annual Operating Plan, the Sale Administrator will work with the District Recreation Staff to assure an alternate snowmobile route has been developed, signed, and marked. The Timber Sale Administrator (TSA) will monitor compliance.

***3. As appropriate for each alternative, tree species other than lodgepole pine will be favored for establishment to increase the species diversity mix.***

**RESPONSE:** This measure has been incorporated into the marking guidelines for the sale. Species other than lodgepole pine have been designated for retention in **CT2.3#** of the TSC and **AT2** of the TSC only includes lodgepole pine as the included species.

**4. Significant cultural sites will be identified and protected.**

**RESPONSE:** Special Provision **CT6.24#** is included in the TSC, which specifies cultural resource protection measures. The TSC also contains Standard Provision **BT6.24** that provides protection of any known or newly discovered cultural resources.

***5. Improve riparian habitats by developing watering sites to disperse livestock use away from riparian zones.***

**RESPONSE:** This is an ongoing objective within the District Range department. Adequate buffer areas were maintained between harvest units and riparian zones within the sale area during layout. The TSC contains Standard Provision **BT6.5** which provides protection of streamcourses shown on the Sale Area Map; Special Provision **BT6.6** is also included in the TSC which limits skidding within 100 feet of live streams.

***6. Assure adequately regenerated lodgepole pine stands by harvesting lodgepole pine stands with viable seed sources.***

**RESPONSE:** This measure was incorporated into the selection of a preferred alternative during the EA process and carried out through silvicultural prescriptions.

***7. Assure adequately regenerated aspen stands by fencing to exclude livestock and big game wildlife species to protect regeneration.***

**RESPONSE:** There will be no aspen harvested with this timber sale.

**8. *Protect breeding sites of Threatened, Endangered, Proposed, or Sensitive species by providing a buffer zone and/or seasonal use restriction from May 1 to July 31 around the site to disturbance from timber activities.***

**RESPONSE:** There were no sites located during surveys conducted prior to and during presale activities in the area. The TSC includes Standard Provision **BT6.24** which provides protection to species discovered that need special protection, and Special Provision **CT6.24#** is included in the TSC to provide additional protections should any species be located during sale activities.

**9. *Maintain a minimum of 300 snags/100 acres from the largest diameter snags available, larger live trees with dead tops, and other trees showing signs within the sale area to provide perching, foraging, roosting, and nesting sites for Sensitive species and their prey.***

**RESPONSE:** This measure was incorporated into the marking guidelines and applied on the ground during presale activities.

**10. *Where available, maintain 10-20 tons per acre of coarse woody debris within harvest units to encourage faster re-colonization of harvest units by small mammals and other prey species. Retain some small slash piles to provide habitat for small mammals.***

**RESPONSE:** Historically, sales have maintained this component of coarse woody debris. Slash piles will be protected during slash burning in coordination with the District Wildlife Biologist. The TSA should alert the District Fire Officer of this constraint when slash piles are ready for burning. Piles created during site preparation treatments will also assist in meeting this constrain.

**11. *Where available, maintain large diameter downed logs in various stages of decay within the harvest units (50 linear feet/acre of 10 inches diameter or larger at mid-point lodgepole pine logs and or 12 inches diameter spruce or fir logs) to provide habitat for prey species.***

**RESPONSE:** See response to item 10.

**12. *Protect soil productivity from the extensive use of heavy equipment during logging and site preparation activities. Heavy equipment shall adversely impact more than 15% of each harvest unit.***

**RESPONSE:** The TSC includes Standard Provision **BT6.6** which provides that equipment shall not be operated when ground conditions are such that excessive damage will occur. The TSC also contains Standard Provisions **BT5.1** and **BT6.422** providing for designation of locations of temporary roads, skid trails, and landings prior to construction or use; therefore, maintaining the impacted area to less than 15% of each harvest unit is within the TSA's authority.

**13. *Use Best Management Practices to protect riparian area health and water quality, especially for temporary road construction as per FSH 2509.25 Watershed Conservation Practices Handbook.***

**RESPONSE:** Best Management Practices have been incorporated into the sale design and layout. Also, the TSC contains Standard Provision **BT6.5** to provide protection for streamcourses shown on the Sale Area Map. The TSC also contains Special Provision **CT6.6#** which restrict tractor skidding along/through live streams. The TSA will assure that protection to water resources is provided during logging activities.

*14. Within ¼ mile of known active goshawk nests, all timber purchaser operations, timber harvest activities, prescribed burning, road construction, road maintenance, road obliteration work (including temporary roads), post-sale treatment activities, and any additional activities that involve the use of heavy equipment and/or chainsaws will take place outside of March 1 – July 31, or until fledging has occurred, to minimize disturbance to nesting goshawks during this critical breeding period. Outside of a 30-acre area around known goshawk nest sites, timing restrictions are not needed for project layout, marking, weed treatments, and other activities that are non-disturbing. If a newly discovered goshawk nest is found, maintain a 30-acre area of uncut timber around the nest site.*

**RESPONSE:** Extensive survey work was completed within the sale area prior to and during presale activities to locate nesting sites. No nest sites were located in the area. Special Provision **CT6.24#** has been included in the TSC to provide protection if a goshawk nest becomes active. See response to item 8.

*15. Restrict salt block placement outside clearcut harvest units.*

**RESPONSE:** The District Range department will assure compliance with the grazing allotment permittee regarding this measure following completion of harvesting in clearcut units.



LP POL	<i>Unestimated</i>		<i>Unestimated</i>		<b>Unestimated</b>	
<b>Total</b>	2567	100%	2052	100%	<b>2,052</b>	<b>100%</b>

#### **D. Area Determination**

Area determination for this sale was conducted using a Global Positioning System (GPS). Procedures used for determining the acreages of harvest units in the timber sale area are in accordance with the standards set forth in R2 Supplement 2409.12-2000-4, chapter 52.2. GPS data was collected during the 2003 field season. Acreages by unit are as follows:

Acres by cutting unit (GPS)

Unit #	Acres	LP, L & D CCF	Total Volume	% of Tot
26	27.8	409	409	20%
28	12.8	188	188	9%
29	25.4	373	373	18%
30	7.0	103	103	5%
31	8.3	122	122	6%
39	25.3	372	372	18%
40	33.0	485	485	24%
<b>Totals</b>	<b>139.6</b>	<b>2052</b>	<b>2052</b>	<b>100%</b>

2,052 CCF / 139.6 acres = **14.70 CCF Average Net Volume/Acre** (LP ST)

2,052 CCF / 20,356 = **10.08 CF/tree** (LP ST)

**Quadratic Mean Diameter: 10.2"** for Live & Dead LP ST

**Mean Diameter: 9.9"** for Live & Dead LP ST

Board Foot/Cubic Foot Ratio: **4.7013 BF/CF** for Live & Dead LP ST

## **APPRAISAL**

### **A. Appraisal Data**

**BULLETIN No. BU230413a for Region 2, Zone 3 (SW Intermountain Zone) effective May 10, 2013 until superseded was used for this timber sale appraisal.**

Reference FSH 2409.22,51.3 - Current TE Appraisal Data - Following are the indices and Index Operations values for use in appraising TE sales on or after May 10, 2013, TE damage appraisals for sales expiring on or after May 10, 2013 and extensions of sales terminating on or after June 24, 2013.

### **B. Skid/Yard (Refer to 2400-17)**

The skid/yard cost adjustment (formerly called the logging cost adjustment) is now calculated using the TEA234 Oracle-based 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, 51.3 and 51.61).

Base Skid/Yard Cost = \$104.36

Sale Skid/Yard Cost = \$112.51

Skid/Yard Cost Adjustment = \$-8.15

### **C. Haul Cost Calculation (Refer to appraisal spreadsheet, haul tab)**

- 1) Sawtimber: Haul to Montrose, Colorado

Log Truck Haul Time Estimations

\* Round Trip Minutes Per Mile are from FSH 2409.22 Sec. 44.1 Exhibit 1

451 Minutes Round Trip

114 haul miles

\$50.95/CCF

- 2) POL: (subject to agreement) Haul to Montrose, Colorado

POL Haul Distance

451 Minutes Round Trip

114 Haul miles

\$10.46/CCF

### **D. Road Maintenance (Refer to appraisal spreadsheet, road maintenance tab, pre-haul tab, during haul tab and post haul tab)**









Pre-Use Maintenance			\$3,975.67
Purchaser Road Maintenance			\$5,860.94
Post Haul Maintenance			\$2,486.48
Road Maintenance Deposits		\$	-
Surface Rock		\$	1,480.50
Snow Removal			\$0.00
Dust Abatement			\$0.00
<b>Total Road Maintenance</b>			<b>\$13,803.60</b>
<b>Costs per CCF</b>		<b>\$</b>	<b>6.73</b>

**E. Sale Slash Disposal (Refer to appraisal spreadsheet, slash tab)**

See the Brush Disposal Treatment Plan FS-2400-62 (*formally the: Slash Treatment Plan R2-2480-1*) for calculations of the contract deposit costs.

**Required deposits: = \$1.67/CCF (see BD plan)**

**F. Temporary Roads( Refer to appraisal spreadsheet, temp road and temp road worksheet tabs)**

As identified in the Logging Plan, 0.6 miles of newly constructed temporary road will be needed to complete this sale. See Logging Plan Map for specific locations. ***Most costs and figures are from the USDA Forest Service Regions 2, 3, 4 March 2013 Cost Estimating Guide for Road Construction. Labor rates are reduced from Davis-Bacon wage rates according to the percent labor for Colorado, Area 1.***

**Total temporary road cost per CCF = \$7.66**

**Total temporary road cost = \$15,712.83**

**Cost per mile = \$8,682.02**

**G. Unusual Adjustments (Refer to appraisal spreadsheet, unusual tab)**

**Total unusual adjustments = \$(1.03)/CCF for sawtimber**

**Short Haul Cap unusual adj. = \$(0.00)/CCF**

**Quality unusual adj. = \$(1.20)/CCF**

**Logging Fuel Cost adj. = \$0.48/CCF**

**Hauling Fuel Cost adj. = \$0.23/CCF**

**High Risk Unusual adj. (short NOS) = \$(0.54)/CCF**

**Total unusual adjustments = \$(0.51)/CCF for POL (subject to agreement)**

**Sorting unusual adj. = \$(1.22)/CCF**  
**Logging Fuel Cost adj. = \$0.48/CCF**  
**Hauling Fuel Cost adj. = \$0.23/CCF**

**H. Competition Factor** (FSH 2409.22, 51.3, Bulletin No. BU230413a)

The competition factor for the GMUG, Rio Grande, San Juan and White River will be set at 10% (competitive). The competition factor for the San Isabel will be 5% for this Bulletin period (non-competitive).

COMPETITION FACTOR by Forest and VALUES based on all species live ADJ BPP.

	Bid/Ad	LIVE CCF:			TF
		LP&DF	ES	PP	
<b><u>Zone as a Whole:</u></b>					
Grand Mesa/Unc/Gun	1.39	0.89	5.51	0.30	4.03

**I. Specified Roads**

NONE

**J. Base Rates** (FSM 2431.31b)

Live & Dead LP Sawtimber: \$7.07/CCF  
 Live & Dead LP POL: \$1.00/CCF

**K. Fire Precautionary Period** (AT9)

June 30 to October 31

**L. Purchaser's Obligation for Fire (Refer to appraisal spreadsheet, perform tab)** (AT11)

4 people x \$13.24/hr (AD-C) x 12 hrs x 3 days	<b>\$1,906.56</b>
rounded to the next \$100	<b>\$2,000.00</b>

**M. Termination Date** (AT12)

R2 Supplement No. 2409.18-2006-2, Sec. 53.41 states that sales of this size without specified roads should be 1 to 2 operating seasons. Termination date for this sale will be **October 31, 2015**.

**N. Bid Guarantee (Refer to appraisal spreadsheet, perform tab)**

Bid Guarantee = **\$2,500.00**

**O. Performance Bond Calculation (Refer to appraisal spreadsheet, perform tab)** (AT14)

There are two methods of calculating the performance bond per FSH 2409.18, 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 = **\$3,000**

Bond Based on Penal Sum – Method II = **\$12,600.00**

The greater of Method I or Method II is: **\$12,600.00**

**P. Distribution of Funds**

Live & Dead LP Sawtimber                      \$7.07/CCF x 2,052 CCF =                      \$14,507.64

<b>Total Sale Value</b>	<b>\$</b>	<b>14,507.64</b>
<b>Funded SSF</b>	<b>\$</b>	<b>-</b>
<b>NFF Minimum</b>	<b>\$</b>	<b>512.88</b>
<b>Available For All KV</b>	<b>\$</b>	<b>13,994.76</b>
<b>Essential KV</b>	<b>\$</b>	<b>13,994.76</b>