

2009 HB-1199 Colorado
Community Forest Watershed
Restoration Grants

FOR OFFICIAL USE ONLY	
Entity Submitting Project:	
Applicable CSFS District:	
Date:	
Dollar Amount Requested:	\$100,000
Matching Share:	\$100,000

Applicant Information	
1	Name of Project: Heil PA5 Forest Restoration Project
	Applicant: Boulder County Parks and Open Space (BCPOS)
	Contact Person: Chad Julian
	Address: 5201 St. Vrain Road
	City/Zip Code: Longmont, Co 80503
	Phone (Work/Cell): 303-678-6202
	Email: cjulian@bouldercounty.org
	Fax: 303-678-6179

Community At Risk Information	
2	Community Name: Lyons and Lefthand Canyon
	County: Boulder
	Name of CWPP Lefthand FPD CWPP & Lyons FPD CWPP
	Location to obtain/review Lefthand FPD

Grant Contributors (Matching Share)							
(Applications will be disqualified if insufficient match is identified) Please specify each match contributor and the dollar amount of each contribution. Please DO NOT show grant requested funds in this table. This is for matching share only.							
3	Contributors: (Please specify)	Boulder County					TOTAL
	Dollars (Hard Match):	\$80,000	\$0	\$0	\$0	\$0	\$80,000
	In-Kind (Soft Match):	\$20,000	\$0	\$0	\$0	\$0	\$20,000
	TOTAL:	\$100,000	\$ 0	\$ 0	\$ 0	\$ 0	\$100,000

Total Project Expense (break down matching share totals from block three)					
	Grant Share (\$ Amount Requested)	Match (from block three)		TOTAL	
		Dollars	In-Kind		
4	Personnel / Labor:	\$0	\$0	\$20,000	\$20,000
	Operating:	\$0	\$0	\$0	\$ 0
	Travel:	\$0	\$0	\$0	\$ 0
	Contractual Services:	\$100,000	\$80,000	\$0	\$180,000
	Equipment:	\$0	\$0	\$0	\$ 0
	Indirect Costs:	\$0	\$0	\$0	\$ 0

	TOTAL:	\$100,000	\$80,000	\$20,000	\$200,000
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Project Summary (check all that apply and answer related questions)		
Addresses protection of water supplies? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Project based on ecological assessment of current conditions? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Project Objectives, check all that apply		
5	Reducing threat of large, high-intensity wildfires and the negative effects of excessive competition between trees by restoring ecosystem functions, structures, and species composition, including the reduction of non-native species.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	Preserving old and large trees to the extent consistent with ecological values and science.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	Replanting trees in deforested areas if such areas exist in the project area.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Improving the use of, or adding value to small-diameter trees.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	Number of acres to be treated: 70	Estimated cost \$2,571.00
Will the implementation of this project involve a contract with the Colorado Youth Corps Association or another accredited Colorado youth corps?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Number of communities directly affected by this project:		112 + home

	<p align="center">Project Area Description</p> <p align="center">All information for the project must fit into the allotted character space provided below. Attachments will not be considered by the review committee. Characters include letters, numbers, spaces, and punctuation.</p>
6	<p>Provide a brief overview of the project and the project area. Specify size of project and land ownerships involved (e.g. private, county, state, federal, etc.). Include information on the relevant watershed. Attach map of project area (see Attachment A). 1500 characters</p> <p>This proposed project will be completed on Heil Valley Ranch, a 6,800-acre open space property owned by Boulder County, that is located north of Lefthand Canyon at T2N, Range 70 West, at an elevation of 6000 to 6500 ft., adjacent to (3) private subdivisions to the east of Heil, including approximately 112 homes in the Lefthand Watershed. The property is a flagship property for Boulder County's open space program, and includes recreational trails for biking and hiking and provides important ecological habitat closure areas. BCPOS was awarded grant funding in 2007 to help thin 160 acres on Heil, and these two units have been completed. For 2010-2011, BCPOS would like to continue to focus our forestry operations on Heil. This proposed project includes thinning units in Project Area 5, by 2011 in the area of Heil that is adjacent and to the west of private subdivisions and southwest of Lyons. The work would involve additional work in units that were thinned between 2000-2004. This 2nd entry is needed to further reduce forest density to achieve Ponderosa pine forest restoration goals. Forest biomass will be used in the BCPOS Biomass Facility. The units are also highlighted in Lefthand FPD CWPP. The units will be prioritized according to funding availability.</p>
7	<p align="center">Scientific Foundation</p> <p align="center">All information for the project must fit into the allotted character space provided below. Attachments will not be considered by the review committee. Characters include letters, numbers, spaces, and punctuation.</p> <p>Briefly describe the scientific foundation for the project, specifically the practice standards (i.e. forest management plan, CWPP, or other professional publications) applied for the desired outcome of project. 1000 characters</p> <p>The area is located within the area recommended for Forest Restoration as highlighted in the Front Range Fuels Treatment Partnership Recommendations. BCPOS is following restoration guidelines from the Colorado Forest Restoration Institute and GTR's from the Rocky Mtn. Research Station. We have verified historical conditions by spatially locating presettlement trees on the property as well as referencing historical photos from 1911. We have completed an inventory of the forested stands; currently for the project area: the average basal area is 100 square feet/acre; the average diameter is 10.6 inches; the average canopy cover is 68%; the average age is 96 ybp. The thinning that occurred between 2000-2004 only thinned small diameter fuels and did not restore the clumps and the openings. By using historical data and current data, we find that the guidelines for Ponderosa pine forest restoration apply at this site.</p>
8	<p align="center">Protection of Water Supplies</p> <p align="center">All information for the project must fit into the allotted character space provided below. Attachments will not be considered by the review committee. Characters include letters, numbers, spaces, and punctuation.</p> <p>Please describe how the proposed project will contribute to the protection of water supplies, such as water quality, water quantity and / or associated infrastructure. 700 characters</p> <p>This project will help protect water supplies. The Overland fire (2003) occurred two ridges to the south of this project. Mudslides occurred in 2004 on the east side of the burn and deposited significant quantities of debris into Lefthand Creek (Lefthand Watershed). This affected irrigation infrastructure to downstream agriculture users and the domestic water users of Lefthand Water District (18,000 users). Geer Canyon creek is located on Heil and is a tributary of Lefthand Creek and the St. Vrain River. Current work is occurring on a watershed assessment of the St. Vrain Watershed and recommendations from that report will be implemented as they apply to this project.</p>

Scope of Work / Project Timeline

All information for the project must fit into the allotted character space provided below.
Attachments will not be considered by the review committee. **Characters include letters, numbers, spaces, and punctuation.**

Provide a brief scope of work which clearly describes how grant funds will be spent. (This should be more specific than the project description) 1500 characters

In developing the restoration proposal for Heil, emphasis was placed on forest restoration goals of BCPOS and the fire mitigation needs of the Lefthand Fire Protection District. The scientific foundation for this project is based on forest restoration and fuel reduction technologies. Grant funds will be used to pay contractors to perform silvicultural operations to create an uneven aged restored Ponderosa pine forest.

Prescription:

- * Reduce basal area to 40-60 square ft/acre, creating an uneven-aged clumps of 2-60 trees
- * Create openings of .5-5 acres over 50% of the project area
- * Retain all trees > 20" dbh
- * Retain Rocky Mountain juniper where it is not a ladder fuel for ponderosa pine
- * Maintain overall canopy cover < 30%
- * Prevent ponderosa pine encroachment in designated meadows
- * Maintain or create 50-80 linear ft of large downed logs > 10" dbh;
- * Stumps will be cut to 3" and dressed to maintain aesthetics;
- * Continue to maintain wildlife cover as prescribed by wildlife staff.

Provide a timeline for the project, including significant accomplishment milestones. 500 characters

- Inventory forest stands (completed);
- Write forest management prescription (in final phase);
- Spring 2010 - Write bid specifications;
- 2010/2011- Award Contract;
- 2010/2011- Initiate project.
- 2011/2012 - Boulder County Youth Corps utilized for rehabilitation of site after completion

Collaboration

Specify the private, local, tribal, county, state, federal and/or non-governmental (501c3) organizations that participated in the design of this project and describe how such partners will contribute to, or participate in, the project's implementation. Specify the role of any Youth Conservation Corps that will participate in implementation. 1000 characters

BCPOS is currently working with Lefthand Fire District on updating their CWPP and will include this project in that update. We are also working with Lyons Fire District on their CWPP and will include the north half of this project area in that plan. The project area also includes a Colorado State Land Board Parcel, that is leased to BCPOS. Conversations have been initiated with the local CSFS district office with Allen Owen on working together on the state land parcel. The Boulder County Youth Corp and volunteers of the local community will work on rehabilitation of the project when forest operations are completed.

Project Longevity / Maintenance

Clearly demonstrate the long-term benefits of the project and how the project will remain effective over time. 500 characters

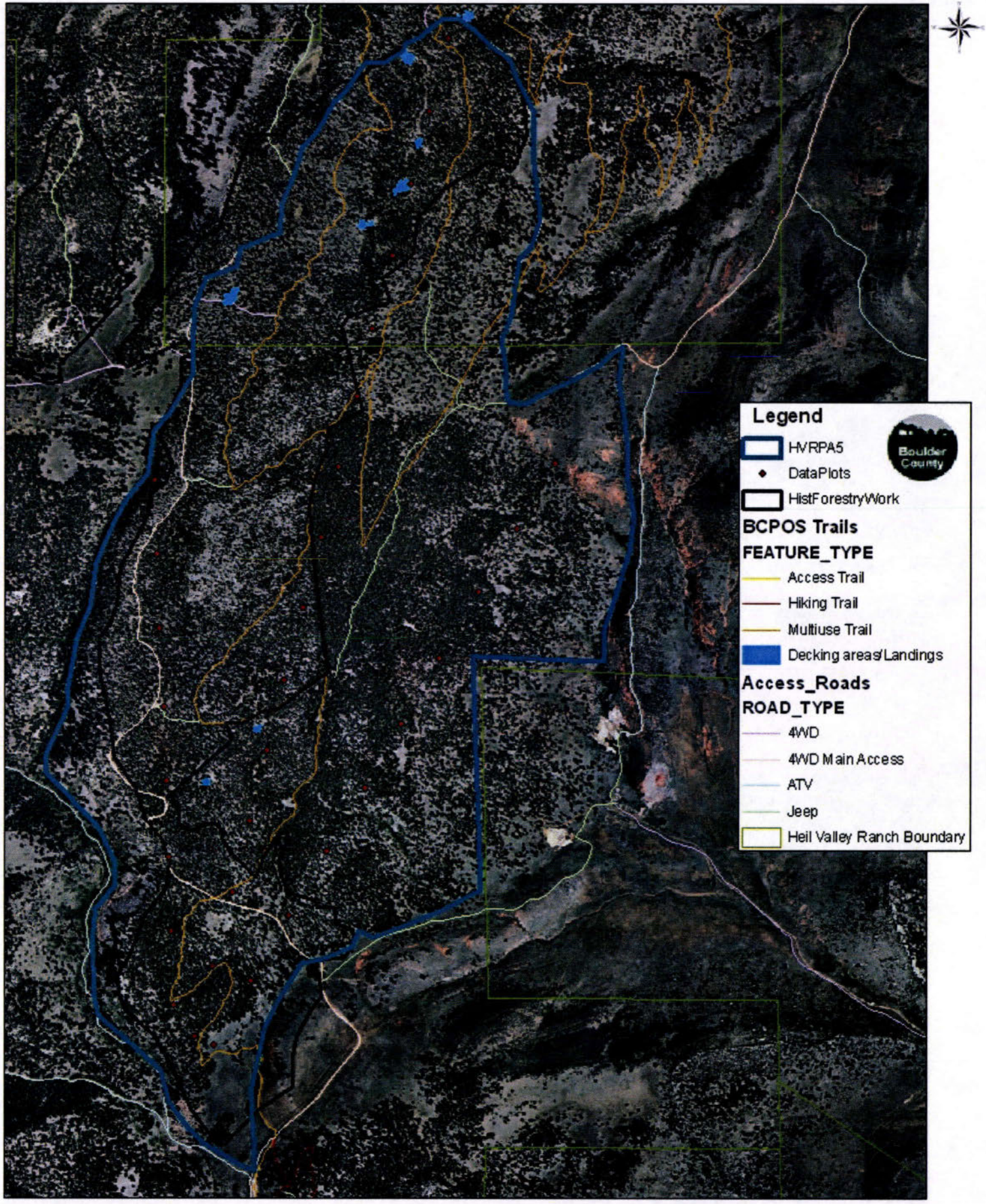
This project is part of a phased project, and will be maintained by BCPOS. Monitoring and maintenance activities are shown below:

Monitoring, first year and fifth year: all resources (plants, wildlife) are monitored by BCPOS staff and will be funded by BCPOS. BCPOS has 10 years of monitoring history/results for comparison;
Maintenance: prescriptions burns in 3-5 years; annual weed spraying.

ATTACHMENT A: PROJECT AREA MAP

Map must fit on this page (insert jpg, tif, or pdf, etc. files). Do not include photos.

Heil Valley Ranch Project Area 5



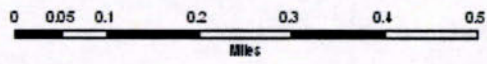
Legend

- HVRPA5
- DataPlots
- HistForestryWork
- BCPOS Trails**
- FEATURE_TYPE**
- Access Trail
- Hiking Trail
- Multiuse Trail
- Decking areas/Landings
- Access_Roads**
- ROAD_TYPE**
- 4WD
- 4WD Main Access
- ATV
- Jeep
- Heil Valley Ranch Boundary



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DISCLAIMER: This map is for illustrative purposes only and is not available for project specific decision making. The areas depicted herein are approximate. More detailed maps may be required to show accurate coordinates.



Map by: N. Stremel

Financial Assistance Program
Cooperative Match Project
COLORADO FOREST RESTORATION PILOT GRANT

To be conducted by:

Boulder County Parks and Open Space

Funding Provided by CSFS:	\$100,000
Minimum Recipient Match:	\$100,000
Project to be Completed by:	November 4, 2011
Documentation due to State Office by:	November 4, 2011

Based on the strength of the application proposal submitted by **Boulder County Parks and Open Space** the Colorado State Forest Service is providing funding in the amount up to but not exceeding **\$100,000** to accomplish the project described in the attached scope of work.

As the cooperator, **Boulder County Parks and Open Space**, will be reimbursed for costs incurred in implementing the project up to the amount listed above once the following requirements are met:

- A. Complete all work as described in *Attached Project Proposal "EXHIBIT A" (scope of work)*.
- B. Provide documentation that project funds have been matched at amount stated in proposal which is at a minimum rate of 40%. Your required minimum match is listed above.

Complete and submit through the local CSFS District Office periodic Grant Report(s)/Reimbursement Request(s) using the form provided, as needed, and a Final Report that provides details on expenditures and accomplishments as a result of this project. Submission to:

Colorado State Forest Service
Attn: Allen Owen, District Forester
Boulder District
5625 Ute Highway
Longmont, CO 80503-9130

As a representative of the cooperator, I have read and understand the conditions of participating in this cooperative match project.

Cooperator Signature:

Date:

Boulder County Parks and Open Space

Mailing Address: **Attn: Chad Julian**
5201 St. Vrain Road
Longmont, CO 80503

Telephone Number: **(303) 678-6202**
Email Address: **cjulian@bouldercounty.org**
Fax: **(303) 678-6179**

EXHIBIT A
COLORADO FOREST RESTORATION PILOT GRANT
SCOPE OF WORK

Cooperator: *Boulder County Parks and Open Space*

Work to be completed: As described in Applicant's Grant Application:

- Implement forest restoration activities over 70 acres
- Reduce basal area to 40-60 square ft/acre
- Create uneven-aged clumps of 2-60 trees
- Retain all trees >20" dbh
- Create ½ -5 acre openings over 50% of project area
- Maintain overall canopy cover <30%
- Retain Rocky Mountain juniper where it is not a ladder fuel for ponderosa pine
- Maintain or create 50-80 linear ft of large downed logs .10" DBH
- Stumps will be cut to 3"
- Maintain wildlife cover

Standards or Guidelines: Will meet CSFS guidelines appropriate for treatment. Will comply with standards in *Colorado Forest Stewardship Guidelines to Protect Water Quality: Best Management Practices*

Project Period: April 22, 2010 to November 4, 2011.

Funded Amount: \$100,000

Minimum cooperator match: \$100,000

All work completed under this project must be certified as meeting minimum Colorado State Forest Service standards prior to any reimbursement being made to the cooperator. Attachment B to the project entitled "Attachment B, Grant Report/ Reimbursement Request, Colorado Forest Restoration Grant HB 1199" will be the document used to both request reimbursement and to certify that work has been completed to minimum standards.

Intermittent requests for reimbursement must be accompanied by intermittent project accomplishments. Final requests for reimbursement must be accompanied by a final report depicting total project accomplishments.

Minimum reporting items:

- Accomplishments (i.e. acres treated, fuelbreak miles, quantity of presentations, etc.)
- Summary of Youth Corps participation, if applicable
- Summary of actual costs
- Summary of matching funds
- Map and GIS data of completed project area
- Before and after photos (digital preferred)

Initials:

Pre-Encumbrance ?

COPY

Doc Nbr:	779320	Status:	FINAL
Initiator:	kmcarlin	Created:	09:59 AM 06/02/2010

* required field

Document Overview

ENCUMBERED

Document Overview

* Description:	HB1199 Boulder Cnty Parks and Open Space	Explanation:	FINANCIAL ASSISTANCE PROGRAM COOPERATIVE MATCH PROJECT; HB1199; Colorado Forest Restoration Pilot Grant; Project Number 1929200-BO-1; Heil PA5 Forest Restoration Project. Project to be Completed by Nov. 4, 2011.
Org. Doc. #:			

Financial Document Detail

Total Amount:	100,000.00
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Pre-Encumbrance Details

Pre-Encumbrance Details

Reversal Date:	
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Accounting Lines

Accounting Lines ?

Encumbrance

	* Chart	* Account Number	Sub-Account	* Object	Sub-Object	Project	Org Ref Id	* Amount	Actions
1	CO Colorado State University	1929200 HB 1199 Extension of Forest Restoration Project		6693 Cost Share Reimb			BO	100,000.00	

Total: 100,000.00


Disencumbrance

Total: 0.00

General Ledger Pending Entries

Notes and Attachments (1)

Notes and Attachments

	Posted Timestamp	Author	* Note Text	Attached File	Actions
add:			<input type="text"/>	<input type="text"/> Browse... <input type="button" value="CANCEL"/>	<input type="button" value="add"/>
1	06/02/2010 09:59 AM	Carlin, Karen M	CSFS Boulder District Form 805 to encumber \$100,000 for the Boulder County Parks and Open Space HB1199, Colorado Forest Restoration Grant - Heil PA5 Forest Restoration Project. Project Number 1929200-BO-1. Project to be Completed by Nov. 4, 2011.	 Form 805 Boulder County Parks and Open Space 1929200-BO-1 \$100,000.pdf (70 KB, application/pdf)	

Ad Hoc Recipients

Route Log

CSFS REQUEST FOR SUPPLIES OR SERVICES (other than GSA)

DOC. 145R. 1/1/20
CSFS # 805 Rev. 11/13/09

Date: 5/12/10		Requested By: Allen Owen		Resale to:		CSFS Invoice #: N/A		
Vendor: Boulder County Parks & Open Space Attn: Chad Julian 5201 St. Vrain Road Longmont, CO 80503 (PLEASE PROVIDE COMPLETE ADDRESS)				CSFS District: Boulder District 5625 Ute Highway Longmont, CO 80503-9130 (PLEASE PROVIDE COMPLETE DELIVERY ADDRESS)				
Reason for Vendor Selection: <input type="checkbox"/> Sole Source (attach completed Sole Source Justification Form) <input type="checkbox"/> Previous Supplier <input checked="" type="checkbox"/> Other						ENCUMBERED		
Shipping Instructions: <input type="checkbox"/> FOB Fort Collins, Colorado <input type="checkbox"/> FOB			Delivery Date:		Deliver to: Initials____ Bldg____ Room____ Phone____			
#	Account	Object Code	Qty	UOM	Description of Supplies or Services	Unit Price	Item Total	
1	1929200	6693	1	1	Colo. Forest Restoration Pilot Grant		\$100,000	
2					HB 1199; Project #1929200-BO-1;			
3					Heil PA5 Forest Restoration Project			
4					Project to be completed by: Nov. 4, 2011			
5								
6								
7								
8								
9								
10								
SPECIAL INSTRUCTIONS: <div style="text-align: center; font-weight: bold; font-size: 1.2em;">Please Encumber</div>				Expenditure Approval: Authorized Signature: <u><i>Handwritten Signature</i></u> Date: <u>5/12/2010</u> <u>6/2/2010</u>			Subtotal: \$100,000 Discount: \$0.00 TOTAL: \$100,000	

COPY

**Financial Assistance Program
Cooperative Match Project
COLORADO FOREST RESTORATION PILOT GRANT**

To be conducted by:

Boulder County Parks and Open Space

Funding Provided by CSFS:	\$100,000
Minimum Recipient Match:	\$100,000
Project to be Completed by:	November 4, 2011
Documentation due to State Office by:	November 4, 2011

Based on the strength of the application proposal submitted by **Boulder County Parks and Open Space** the Colorado State Forest Service is providing funding in the amount up to but not exceeding **\$100,000** to accomplish the project described in the attached scope of work.

As the cooperator, **Boulder County, through Boulder County Parks and Open Space**, will be reimbursed for costs incurred in implementing the project up to the amount listed above once the following requirements are met:

- A. Complete all work as described in *Attached Project Proposal "EXHIBIT A" (scope of work)*.
- B. Provide documentation that project funds have been matched at amount stated in proposal which is at a minimum rate of 40%. Your required minimum match is listed above.

Complete and submit through the local CSFS District Office periodic Grant Report(s)/Reimbursement Request(s) using the form provided, as needed, and a Final Report that provides details on expenditures and accomplishments as a result of this project. Submission to:

**Colorado State Forest Service
Attn: Allen Owen, District Forester
Boulder District
5625 Ute Highway
Longmont, CO 80503-9130**

As a representative of the cooperator, I have read and understand the conditions of participating in this cooperative match project.

Cooperator Signature: _____

Cindy Domenico
Cindy Domenico

Date: _____

05/25/10

Boulder County
C/o Boulder County Parks and Open Space

Mailing Address: Attn: Chad Julian
 5201 St. Vrain Road
 Longmont, CO 80503

Telephone Number: (303) 678-6202
Email Address: cjulian@bouldercounty.org
Fax: (303) 678-6179

EXHIBIT B
GRANT REPORT/REIMBURSEMENT REQUEST
COLORADO FOREST RESTORATION GRANT HB1199

Project Number:

In order to receive reimbursement, you **must** provide documentation supporting your expenditures covered by this initial disbursement and the corresponding match. You may request reimbursement intermittently as you incur expenses, however the final 10% of the award amount will not be released until the final closeout report is received and accepted. Reimbursement requests must be accompanied by receipts for costs incurred and documentation of matching funds. **Matching Funds are expenses for goods, services and labor necessary for project implementation and incurred by the applicant.**

1. Project #:	2. Project Funding Amount:	3. Community Protected:
4. Make Payment To: Name: Address:		5. Period of Performance: From: To:

6. What was accomplished? (Quantity or Status of Project. Please provide a description of accomplishments. Please be specific and report numbers such as acres treated, numbers of defensible spaces, tons of cubic feet or yards of slash collected, number of presentations, number of plans written. Attach additional sheets as necessary.)

7. Reimbursement Request:

Project to Date Reimbursement Request Amount cannot exceed the total Project obligation as identified in the Project Document. The Total Reimbursement Request Amount cannot exceed the Total Matching Funds amount for the period being billed.

	Current Period				Project to Date			
	Reimbursement Amount Requested For Out of Pocket Expenses	Matching Funds		Total Project Costs	Reimbursement Amount Requested For Out of Pocket Expenses	Matching Funds		Total Project Costs
		Cash (hard match)	Donated (Inkind match)			Cash (hard match)	Donated (Inkind match)	
Labor*								
Material**								
Total								

Donated time and materials can only be counted towards the matching component.

* Use actual costs or \$20.25/hour for donated or volunteers' time.

** Use actual costs or fair market value of donated materials, supplies, or equipment use.

8. Amount Paid to CSFS for Products and/Or Services : \$

9. I request reimbursement in the amount of \$_____ for the work completed and documented above. I certify that to the best of my knowledge and belief this report is correct and complete and that all outlays reported are for the purposes set forth in the project documents.

Signature:

Date:

All expenses are true and accurate and all cost share is true and accurate.

10. Certification (To be completed by CSFS District Forester):

Work meets minimum standards as set forth by CSFS.

Signature:

Date:

COPY

**Colorado
State
FOREST
SERVICE**

Colorado State University
Fort Collins, Colorado 80523-5060
(970) 491-6303
FAX: (970) 491-7736

April 22, 2010

Chad Julian
Boulder County Parks and Open Space
5201 St. Vrain Road
Longmont, CO 80503

Dear Chad:

I am pleased to inform you that your application for the 2009 Colorado Forest Restoration Pilot (CFRP) Program, established by the General Assembly through House Bill 1199, has been selected for a financial assistance grant. We would like to offer you **\$100,000** in state grant funds to support your project titled **Heil PA5 Forest Restoration Project**.

All projects that involve on-the-ground forest management will comply with *Colorado Forest Stewardship Guidelines to Protect Water Quality: Best Management Practices* which are available on the Colorado State Forest Service (CSFS) website at http://csfs.colostate.edu/pdfs/bmp_screen.pdf. If you have any questions about this, please contact your CSFS District Forester using the information provided below.

The amount being offered to you may be less than you requested in your project proposal. If you cannot complete the project with the reduced amount, please notify me immediately at (970) 491-6303. The grant program requires at least a 40% match of non-state funds. You are required to contribute the amount of matching funds as stated in your proposal. If you cannot match the required amount, the award will be adjusted or rescinded. Again, please contact us immediately if you have a question about your ability to match the offered grant.

If you are able to go forward with your project using the grant funding being offered, please see the three attached pages. Each of these pages will need action from you.

1. Financial Assistance Program Cooperative Match Project notification: After you read the notification, and if you agree with the conditions of participation, please sign and date.
2. Exhibit A, Scope of Work: After you have read Exhibit A, and if you agree with the conditions of participation, please initial and date.
3. Attachment B: Retain this attachment and use it to request reimbursement for qualifying project costs. You may make additional copies if needed.

Please return original signed Project Notification and initialed Scope of Work **no later than May 3** to:

Naomi J. Marcus, Assistant Staff Forester
Forest Management Division
Colorado State Forest Service
5060 Campus Delivery, CSU
Fort Collins, CO 80523

Reimbursement will be made for actual costs, up to the amount listed on your project notification, with consideration of the matching requirement. You may not use these funds to purchase capital equipment (individual items costing more than \$5000.00). Additionally, we will require strict documentation. Please be advised your payments will be based on achieving the specifics proposed in your grant as reiterated on Exhibit A including treating the full amount of acres as defined in your grant application. This award may be considered as income by the IRS. Please check with your tax advisor if appropriate.

As part of the CFRP program, we require you to provide a Final Closeout Report at the time of requesting your final reimbursement including the following:

- Accomplishments: examples include (quantified: # acres treated; # miles of fuelbreak; # of defensible spaces implemented; # of presentations with # of participants).
- Summary of Youth Corps participation, if applicable.
- Summary of actual costs.
- Summary of matching funds.
- Digital before and after photos
- Electronic map and GIS data.

When you are ready to close-out your project and claim final or intermittent reimbursement, please submit an Attachment B to your CSFS District Forester who will certify that the work is complete and the documentation is adequate. Certification by the District Forester may require a site visit to the project location. The District Forester will then forward Attachment B to the CSFS state office for processing.

Projects must be completed and certified by your CSFS District Forester no later than **November 4, 2011** close of business. By the same date your final reimbursement request signed by the CSFS District Forester and the Final Closeout Report must be received by Naomi Marcus.

For future reference, your CSFS District Forester is **Allen Owen**. You can reach him at (303) 823-5774 or alowen@lamar.colostate.edu.

Thank you for your interest in improving the health and sustainability of Colorado's forests and communities!

Sincerely,



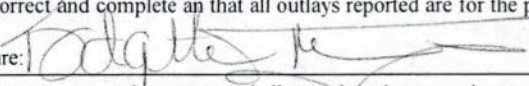
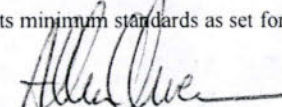
Naomi J. Marcus
Assistant Staff Forester

cc: Allen Owen

EXHIBIT B
GRANT REPORT/REIMBURSEMENT REQUEST
COLORADO FOREST RESTORATION PILOT GRANT

Project Number: 1929200-BO-1

In order to receive reimbursement, you **must** provide documentation supporting your expenditures covered by this initial disbursement and the corresponding match. You may request reimbursement on a monthly basis as you incur expenses, however the final 10% of the award amount will not be released until the final closeout report is received and accepted. Reimbursement requests must be accompanied by receipts for costs incurred and documentation of matching funds. **Matching Funds are expenses for goods, services and labor necessary for project implementation and incurred by the applicant.**

1. Project #:1929200-BO-1	2. Project Funding Amount: 100,000	3. Community Protected: Lyons & Lefthand Canyon																																																							
4. Make Payment To: Name: Boulder County Parks & Open Space Address: 5201 St. Vrain Road Longmont, Co 80503		5. Period of Performance: 4/22/2010-11/2/2011 From: To:																																																							
6. What was accomplished? (Quantity or Status of Project. Please provide a description of accomplishments. Please be specific and report numbers such as acres treated, numbers of defensible spaces, tons of cubic feet or yards of slash collected, number of presentations, number of plans written. Attach additional sheets as necessary.) Please refer to the attached Final report.																																																									
7. Reimbursement Request: Project to Date Reimbursement Request Amount cannot exceed the total Project obligation as identified in the Project Document. The Total Reimbursement Request Amount cannot exceed the Total Matching Funds amount for the period being billed.																																																									
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th colspan="4">Current Period</th> <th colspan="4">Project to Date</th> </tr> <tr> <th></th> <th>Reimbursement Amount Requested For Out of Pocket Expenses</th> <th colspan="2">Matching Funds</th> <th>Total Project Costs</th> <th>Reimbursement Amount Requested For Out of Pocket Expenses</th> <th colspan="2">Matching Funds</th> <th>Total Project Costs</th> </tr> <tr> <th></th> <th></th> <th>Cash (hard match)</th> <th>Donated (Inkind match)</th> <th></th> <th></th> <th>Cash (hard match)</th> <th>Donated (Inkind match)</th> <th></th> </tr> </thead> <tbody> <tr> <td>Labor*</td> <td>\$100,000.00</td> <td>\$343,585.00</td> <td>\$29,144.00</td> <td>\$472,729.00</td> <td>\$100,000.00</td> <td>\$343,585.00</td> <td>\$29,144.00</td> <td>\$472,729.00</td> </tr> <tr> <td>Material**</td> <td>\$0.00</td> <td>\$0.00</td> <td>\$0.00</td> <td>\$0.00</td> <td>\$0.00</td> <td>\$0.00</td> <td>\$0.00</td> <td>\$0.00</td> </tr> <tr> <td>Total</td> <td>\$100,000.00</td> <td>\$343,585.00</td> <td>\$29,144.00</td> <td>\$472,729.00</td> <td>\$100,000.00</td> <td>\$343,585.00</td> <td>\$29,144.00</td> <td>\$472,729.00</td> </tr> </tbody> </table>					Current Period				Project to Date					Reimbursement Amount Requested For Out of Pocket Expenses	Matching Funds		Total Project Costs	Reimbursement Amount Requested For Out of Pocket Expenses	Matching Funds		Total Project Costs			Cash (hard match)	Donated (Inkind match)			Cash (hard match)	Donated (Inkind match)		Labor*	\$100,000.00	\$343,585.00	\$29,144.00	\$472,729.00	\$100,000.00	\$343,585.00	\$29,144.00	\$472,729.00	Material**	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	Total	\$100,000.00	\$343,585.00	\$29,144.00	\$472,729.00	\$100,000.00	\$343,585.00	\$29,144.00	\$472,729.00
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Donated time and materials can only be counted towards the matching component. * Use actual costs or \$20.85/hour for donated or volunteers' time; labor costs are actual BCPOS staff and Youth Corps ** Use actual costs or fair market value of donated materials, supplies, or equipment use.																																																									
8. Amount Paid to CSFS for Products and/Or Services : \$0																																																									
9. I request reimbursement in the amount of \$100,000 for the work completed and documented above. I certify that to the best of my knowledge and belief this report is correct and complete and that all outlays reported are for the purposes set forth in the project documents.																																																									
Signature: 		Date: 11/2/2011																																																							
All expenses are true and accurate and all cost share is true and accurate.																																																									
10. Certification (To be completed by CSFS District): Work meets minimum standards as set forth by CSFS.																																																									
Signature: 		Date: 11/3/11																																																							

Final Report-HB1199 2009 Grant at Heil Valley Ranch

In 2010 Boulder County Parks and Open Space (BCPOS) was awarded a \$100,000 Community Forest Restoration, House Bill 1199 (2009) grant to support a large-scale phased thinning project at Heil Valley Ranch (Heil), in northwestern Boulder County near the Town of Lyons. Heil is a 6,800-acre open space property owned by Boulder County, that is located north of Lefthand Canyon at T2N, Range 70 West, at an elevation of 6000 to 6500 ft., and adjacent to (3) private subdivisions to the east of Heil, including approximately 112 homes in the Lefthand Watershed (please refer to the attached project area maps). BCPOS was previously awarded grant funding in 2007 for thinning a prior phase on Heil that included 160 acres. For our 2010-2011 Heil thinning project, BCPOS completed thinning on units 4-10 in Project Area 5 of Heil, which is adjacent to and west of private subdivisions and southwest of Lyons.

HB1199 (2009) funds were leveraged with SFA funding that BCPOS received in 2011 to thin these units in Project Area 5. HB1199 (2009) and SFA funding resulted in 254 acres thinned. While these units are located in a similar area (Project Area 5), the prescriptions for the units slightly varied, and are shown separately.

Scope of Work Completed:

Grant funding was used to pay a contractor to complete the thinning to BCPOS specifications. Grant funds were used for "trees hitting the ground" with Boulder County paying for the costs associated with hauling the material away. Trees were severed from the stump using a "hot saw" and placed in wind rows within the unit. A second tracked machine with a Cut-to-Length processing head then de-limbed the material and placed it into pre-bunches in the forest. A third machine then loaded the material for transport to 4 landings located along the main access road. The material was transported offsite to a storage area in Longmont, for utilization at a later time in Boulder County's biomass plant. Overall the entire operation from stump to storage required 3 individuals with expertise in a specific machine. This process allowed for a lower impact on the land and significantly cut down on the amount of site rehabilitation.

Accomplishments: This large scale thinning project was designed based on unit area prescriptions developed by BCPOS forestry staff. A summary of our prescriptions for PA 5, units 4-10 (the full prescription is included as an Attachment to this report) is shown below:

Prescription: PA 5, Units 4-7:

- * Reduce basal area to 40-60 square ft/acre, creating an uneven-aged clumps of 2-60 trees.
- * Create openings of .5-5 acres over 50% of the project area.
- * Retain all trees > 20" dbh.

- * Retain Rocky Mountain juniper where it is not a ladder fuel for ponderosa pine.
- * Maintain overall canopy cover < 30%.
- * Prevent ponderosa pine encroachment in designated meadows.
- * Maintain or create 50-80 linear ft of large downed logs > 10" dbh.
- * Stumps will be cut to 3" and dressed to maintain aesthetics.
- * Continue to maintain wildlife cover as prescribed by wildlife staff.

Prescription: PA 5, Units 8-10:

- * Reducing basal area/acre of ponderosa pine < 18" dbh to 30-50 sq. ft/acre.
- * Retain all trees > 18" dbh or that exhibit characteristics of pre-settlement trees.
- * Retain Rocky Mountain juniper and Douglas-fir where it is not a ladder fuel for ponderosa pine.
- * Maintain a canopy cover < 30%.
- * Prevent ponderosa pine encroachment in designated meadows.
- * Maintain or create 50-80 linear ft. of large downed logs > 10" dbh.
- * Create or maintain openings of 1/4 to 2 acres in size and irregular in shape.
- * Continue to maintain wildlife cover as prescribed by wildlife staff.
- * Create groups/clumps of trees that vary in size, shape and density.

Based on this prescription, the objectives identified for this project were to:

- 1) Emulate pre-settlement forest structure by creating a clumpy, uneven-aged forest, interspersed with openings that more closely resemble conditions that existed prior to the interruption of historic fire regime.
- 2) Maintain existing large openings and create additional openings.
- 3) Reduce the overall basal area to 40-60 ft²/acre for units 4-7.
- 4) Reduce the overall basal area to 30-50 ft²/acre for units 8-10.
- 5) Reduce the overall canopy cover to 15-30%.

The Heil Project area was identified in the 1996 North Foothills Management Plan for fuels treatment and was also highlighted as needing treatment in a CSFS report by the Boulder district in 1998. In developing the restoration proposal for Heil, emphasis was placed on forest restoration goals of BCPOS and the fire mitigation needs of the Lefthand Fire Protection District. The scientific foundation for this project was based on forest restoration and fuel reduction technologies. This project area is located within the area recommended for Forest Restoration as highlighted in the Front Range Fuels Treatment Partnership Recommendations and this unit was highlighted in the Lefthand FPD CWPP.

BCPOS followed restoration guidelines from the Colorado Forest Restoration Institute and GTR's from the Rocky Mtn. Research Station. Based on historical data and current data, BCPOS determined that the guidelines for Ponderosa pine forest restoration applied at this site. Historical conditions were verified by spatially locating pre-

settlement trees on the property as well as referencing historical photos from 1911. A pre-thinning inventory of the forested stands was completed by the BCPOS Forestry Division. Prior to this thinning project the average basal area was 100 square feet/acre; the average diameter was 10.6 inches; the average canopy cover was 68%; the average age was 96 ybp.

The completion of this project met all of the objectives that we developed prior to this treatment. BCPOS created an additional 30 acres of openings, reducing the canopy cover to 30% and created a mosaic of uneven-aged, clumpy stands of trees and openings. The basal area was reduced to an overall average of 55 ft²/acre. Both our canopy cover and basal area will be reduced further when we implement our prescribed fire treatment (three to five years after thinning operations are (Overall 1300 tons of material was cut in the units associated with this grant funding).

BCPOS was able to meet all of the stated objectives for this treatment. BCPOS created an additional 30 acres of openings, reducing the canopy cover to 30% and created a mosaic of uneven-aged, clumpy stands of trees and openings. Our pre-treatment inventory showed an overabundance of trees in the 8 to 12 inch diameter class with few larger trees and even fewer smaller diameter trees. For that reason this treatment targeted that 8-12 inch diameter class for removal. Basal area measurements during operations showed a reduction of 30% to an overall average of 50 ft²/acre in units 8-10 and 55 ft²/acre in units 4-7. This resulted in a removal of approximately 3400 tons of material from the Heil site.

With the completion of this project Boulder County Parks and Open Space now has 254 acres of continuous treated land in the middle of one of our most popular parks. There are currently plans to treat an additional 200 acres adjacent to this project and expand upon our efforts to mitigate the effects of mountain pine beetle and catastrophic wildfire.

Project Cost Summary:

A breakout of the total costs for the entire project area and funding sources is shown below:

Type	HB1199 2009 Grant	SFA Grant	BCPOS Match
Contract Costs	\$100,000	\$100,000	\$243,585
Personnel-BCPOS			3,012
Boulder County Youth Corp			<u>26,132</u>
Total:	\$100,000	\$100,000	\$272,729

Total Overall Heil-Project Costs: \$472,729

Summary-Matching Funds: BCPOS contributed \$272,729 in matching funds to this project through a \$243,585 cash match and \$29,144 of in-kind support from staff time providing on-the ground supervision and a 10-week Boulder County Youth Corp Team.

Summary Youth Corps Participation: During the summer of 2011, BCPOS funded a Youth Corps crew to pile slash along the trail system within the treatment unit. One crew of 10 crew members and two leaders were tasked with piling all activity fuels within one chain (66 ft.) of both sides of the trails. By the end of their season the crew had made 34 piles in a 10 acre area. In addition to piling activity fuels, the crew also assisted in our invasive species control by pulling and bagging over 100 ft³ of mullein, Canada thistle and musk thistle seed heads.

Before & After Photos: Before and after photos are attached to this Final Report.

Map & GIS Data: Maps of the project area is attached to this Final Report. GIS shape files were sent to the CSFS office for all units in September, 2011.

Attachments

1. Before & After Photos
2. Project Maps
3. Prescription
4. Invoice Copies
5. Youth Corps Timesheets and BCPOS Timesheets

Before & After Photos



HVR_PA5U4TIP6_E_09



HVR_PA5U4TIP6_N_09



HVR_PA5U4TIP6_S_09



HVR_PA5U4TIP6_W_09



HVR_PA5U6T2P7_E_09



HVR_PA5U6T2P7_N_09



HVR_PA5U6T2P7_S_09



HVR_PA5U6T2P7_W_09



HVRPA5U4T1P6_N



HVRPA5U4T1P6_E



HVRPA5U4T1P6_S



HVRPA5U4T1P6_W



HVRPA5U6T2P7_N_11

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HVRPA5U6T2P7_S_11

HVRPA5U6T2P7_W_11



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HVR_PA5U9T2P12_N_09



HVR_PA5U9T2P12_S_09



HVR_PA5U9T2P12_W_09



HVR_PA5U10T2P10_E_09



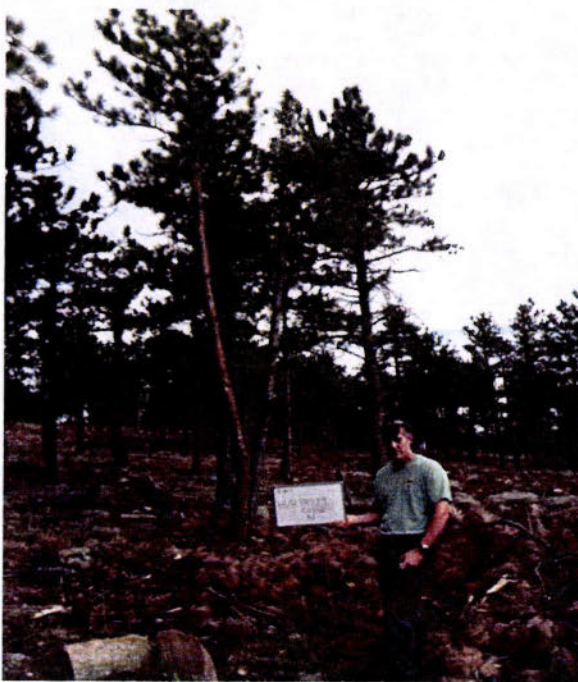
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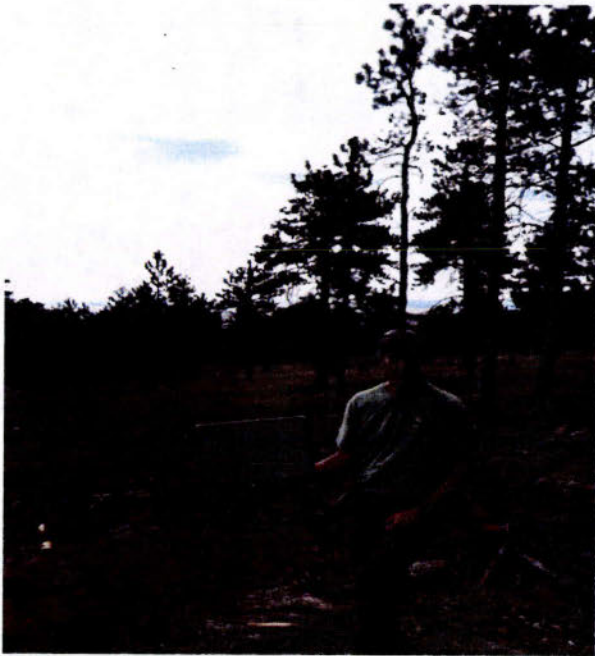
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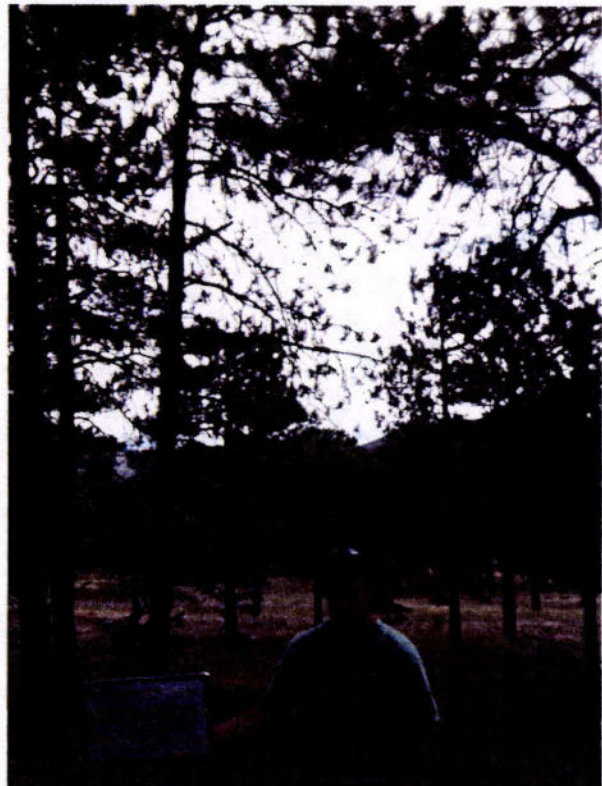
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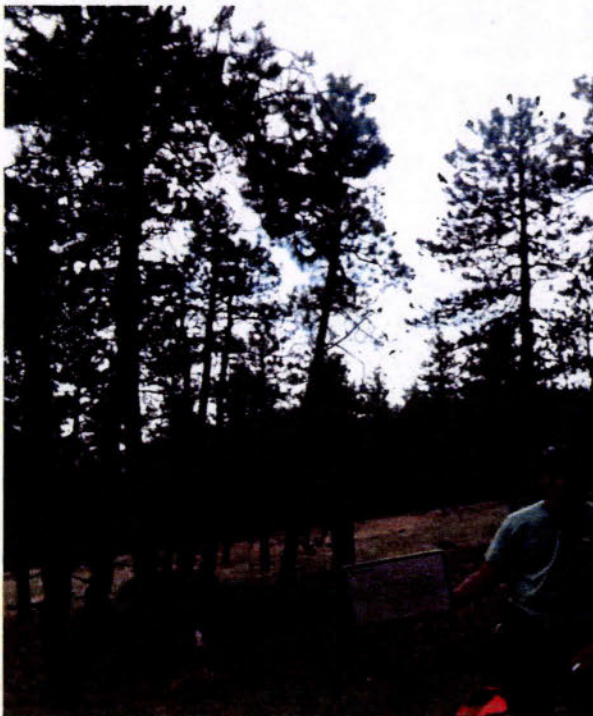
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HVRPA5U10T2P10_W_11

Project Maps

Heil Ranch Project Area 5, Units 4,6 and 7 2010-2011 Contract Unit



- Legend**
- Labor**
 - Contract (72 acres)
 - Access_Roads**
 - <all other values>
 - ROAD_TYPE**
 - Main Access
 - Jeep
 - ATV
 - Landing
 - Broad Ownership Category Name**
 - County Open Space
 - ProjectAreaUnits**
 - Project Unit Id Number**
 - HVRPA5
 - HVRPA5U4
 - HVRPA5U6
 - HVRPA5U7
 - Trails

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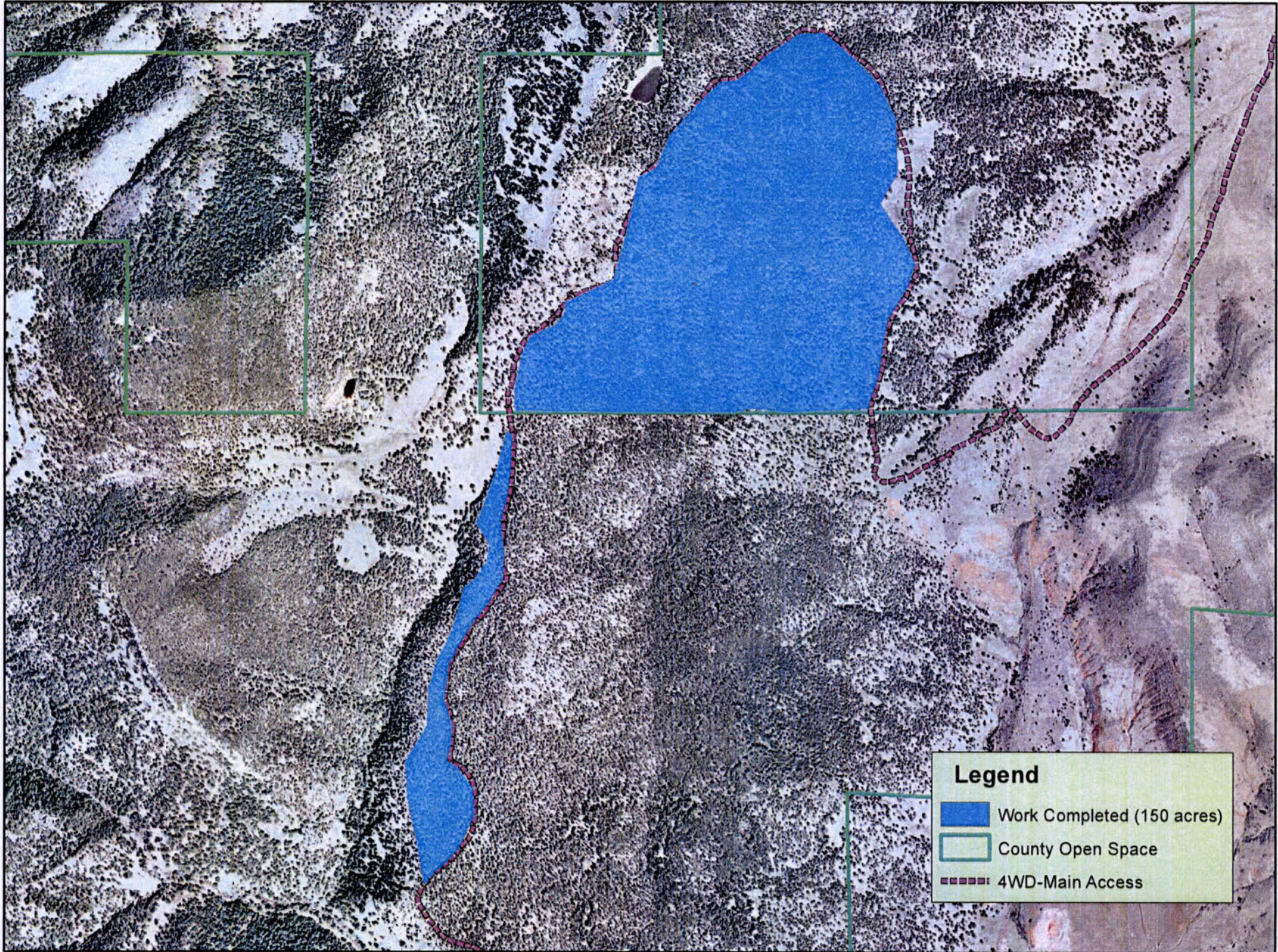
DISCLAIMER
 This map is for illustrative purposes only, and is not suitable for parcel specific decision making. The areas depicted here are approximate. More site specific studies may be required to draw accurate conclusions.

0 200 400 800 1,200
 Feet

Map by: C. Julian 6-24-10



Forestry Work Completed with SFA Grant at Heil Valley Ranch



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DISCLAIMER
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0 295 590 1,180 1,770 2,360
Feet



Map by: C. Julian 6-24-10

Prescription



Heil Valley Ranch Open Space Project Area 5 Units 4,5, 6 and 7 Forest Restoration/Fuels Management Project

1. Project Area Background

North Foothills Open Space (NFOS) was conceptualized during the development of the initial Boulder County Comprehensive Plan in the 1970s. Much of the area was designated as a "Scenic Area" on the Open Space Map. The designations stemmed from the beauty, undeveloped nature, cultural value and natural resources of these lands. Several major acquisitions and land saving actions have occurred (Figure 1). Boulder County Parks & Open Space Department (BCPOS) made their first purchase of land in North Foothills Open Space in 1990 with the acquisition of Trevarton Ranch. For the 1,207 acre parcel, 491 acres were purchased outright while a conservation easement was acquired on the remaining 716 acres.

Beginning in 1993, Boulder County began acquiring portions of two of the most significant properties in the county. The Heil Valley Ranch totals 4,923 acres. The Hall Ranch covers 3,205 acres. Those purchases are now complete. Heil Valley Ranch totals 6,326 acres as of 2010.

The department approved a management plan for the North Foothills Open Space, which includes both Hall and Heil Ranch in 1996. The plan can be found on the Boulder County website within the Parks and Open Space section. Objectives for vegetative resource management and more specifically the forest and grassland management, are listed in the Desired Future Conditions Section. The project area aligns with Areas One and Two on Figure 5 in Volume 2 of the NFOSMP, identified as vegetation management priority areas. Lastly, the Colorado State Forest Service (CSFS) highlighted this area as an area that needs forest management in a report to BCPOS in 1998.

Lefthand Fire Protection District has also completed a Community Wildfire Protection Plan, which identifies this site as a high priority for wildfire mitigation to protect subdivision to the east from catastrophic wildfire. Within a two mile radius, there have been at least six fires >1 acre since 2003. The largest was the Overland Fire of 2003, which consumed 3,500 acres.

The CSFS and the former private landowner, treated a portion of Heil Project Area Five (PA5) in the 1980's. BCPOS treated a portion of Heil PA5 between 1999-2004. The goal with that treatment was a shaded-fuelbreak. All species below 6" in diameter were removed. Those prescriptions reference a second entry into those units in the near future.

A detailed inventory of both overstory and understory vegetation was completed in September of 2009. The following document includes a baseline inventory and recommended forest restoration prescription for Heil PA5. In developing this restoration proposal we have placed emphasis on forest restoration goals of BCPOS and the fuels reduction needs of the Boulder County Sheriff's Department and Lefthand Fire Protection District.

2. Historical Stand Condition

Refer to Boulder County Parks and Open Space Forest Management Policy, Appendix A, Lower Montane Life Zone pages 22-32. (Document can be found at <G:\Forestry-Fire\Management-Work Plans\Forest Management Policy>).

3. Current Stand Condition

Forest overstory vegetation data was collected with a basal area factor prism of 10 (BAF10) via six variable radius plots, located along 2 random transects. Data was then extrapolated for the entire unit using the Forest Vegetation Simulator software (FVS). Refer to figures 1- 6 for additional metrics for PA5 Units 4,6,7.

A. Overstory Vegetation

Project area five is 664 acres. The contract is 72 acres broken into three units; Unit 4 is 29 acres, Unit 6 is 16 acres and Unit 7 is 27 acres. The elevation of the units range from approximately 6,700 feet in elevation. Project Area 5 Units 4, 6 and 7 (HVRPA5U4,6,7) consists mostly of *Pinus ponderosa* with *Sabina scopulorum* and *Psuedotsuga menziesii* making up the rest of the forest overstory structure. Forest overstory vegetation data was collected with a basal area factor prism of 10 (BAF10) via 6 variable radius plots located along 2 random transects. Among the 6 plots sampled, slopes ranged from 2% to 17%, with a mean of 9.3%. The dominant aspect is southeast (150°). Total average canopy cover was calculated at 62% closed, with a mean tree height of 38 ft. (n = 59, sd = 7.5 ft., max = 60 ft.). Basal area (BA) was calculated at 98 ft²/acre (n= 6, sd= 45 ft²/acre). The mean calculated diameter at breast height (dbh) was 12.1 in. (n=59, sd= 2.8 in., max= 25.4 in.). The mean kind (a scale with 1 being alive and 3 being standing dead) was 1, with a mean vigor (1 being healthy/good form and 4 being suppressed) of 2. The mean dwarf mistletoe (DM) rating for *Arceuthobium vaginatum* subs. *Cryptopodum* rating was 0 for sampled trees, but is present within the unit. The average age of the sampled trees in PA5U4,6,7 is 95 YBP with a standard deviation of 27 (n=14).

B. Understory Vegetation

Forest understory vegetation data for PA5U4,6,7 was collected via 6 variable radius plots, located at the center point of each overstory plot. The mean ground cover was as follows: grass 24%; forbs 8%; rock 16%; duff 36%, litter 16%; bare ground <1%;

and weeds/shrubs made up less than 1%. Species identified at plot locations: *Ambrosia sp.*, ragweed; *Pascopyrum smithii*, western wheatgrass; *Linaria genistifolia subsp. dalmatica*, dalmation toadflax; *Andropogon gerardii*, big bluestem; *Poa compressa*, Canada bluegrass; *Poa pratensis*, Kentucky bluegrass; *Shepherdia canadensis*, buffalo berry; *Anisantha tectorum*, cheatgrass; *Agropyron desertorum*, crested wheatgrass; *Carex sp.*, sedge; *Heterotheca villosa*, golden aster; *Hesperostipa comata*, needle and thread;

Figure 1. Overstory Vegetation Data; Basal Area and Diameter Summary (Inventory Conditions)

Stand=2010_contract Year=2009 Inventory conditions				
File: jlj_001.svs				
Summary is for all species				
Tree list summary:				
Origin:	(0.0,0.0)			
Size:	208.7 by 208.7 (1.00 acres)			
Units:	ENGLISH			
Total objects:	175	(175 per acre)		
Standing live trees (using FVS plant class codes):				
	Mean	SD	Min	Max
dbh	9.8	2.6	6.5	23.7
ht	35.2	8.4	21.0	60.0
Basal area:	94.3		(94.3 per acre)	
Number of trees:	170		(170 per acre)	
Standing dead trees (using FVS plant class codes):				
	Mean	SD	Min	Max
dbh	11.1	2.0	9.6	13.3
ht	30.2	9.3	20.0	37.0
Basal area:	3.4		(3.4 per acre)	
Number of trees:	5		(5 per acre)	
Downed trees and logs (status code 0, 10, 3, or 13):				
No downed logs to summarize				

Figure 2. Overstory Vegetation Data; Canopy Cover, Kind, DM Rating and Age Summary. (Inventory Conditions)

Metric	2009 Conditions	Standard Deviation
Basal Area	98.3	45.4
Canopy Cover	62%	22.2
Kind	1.0	.1
Vigor	2.0	.5
Site Index	38	
Mean Age Cored	94.8 ybp	27.0
Mean R. Growth	6.4 (1/20")	5.6
Slope	9.3%	6.2
Aspect	150.3 degrees	19.2
DM Rating	0.0	0.0

All Figures represent conditions as inventoried in 2009 in Heil PA5 Units 4,6,7. Figures are outputs from FVS.

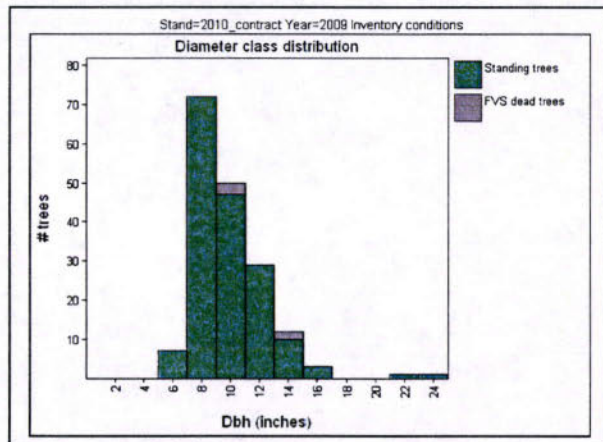


Figure 3. Diameter Class Distribution

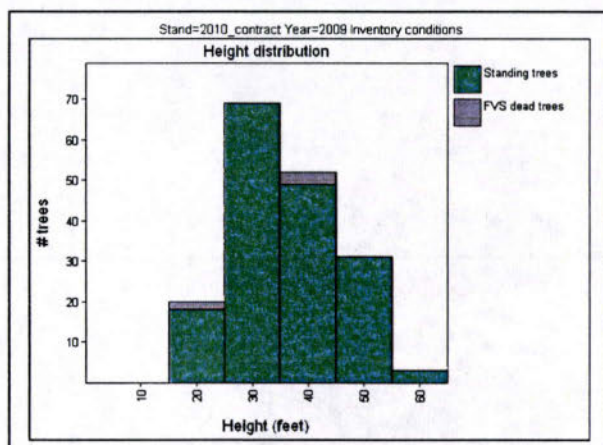


Figure 4. Height Distribution

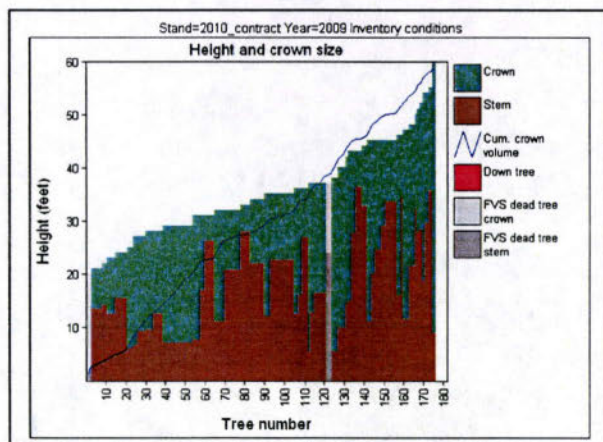
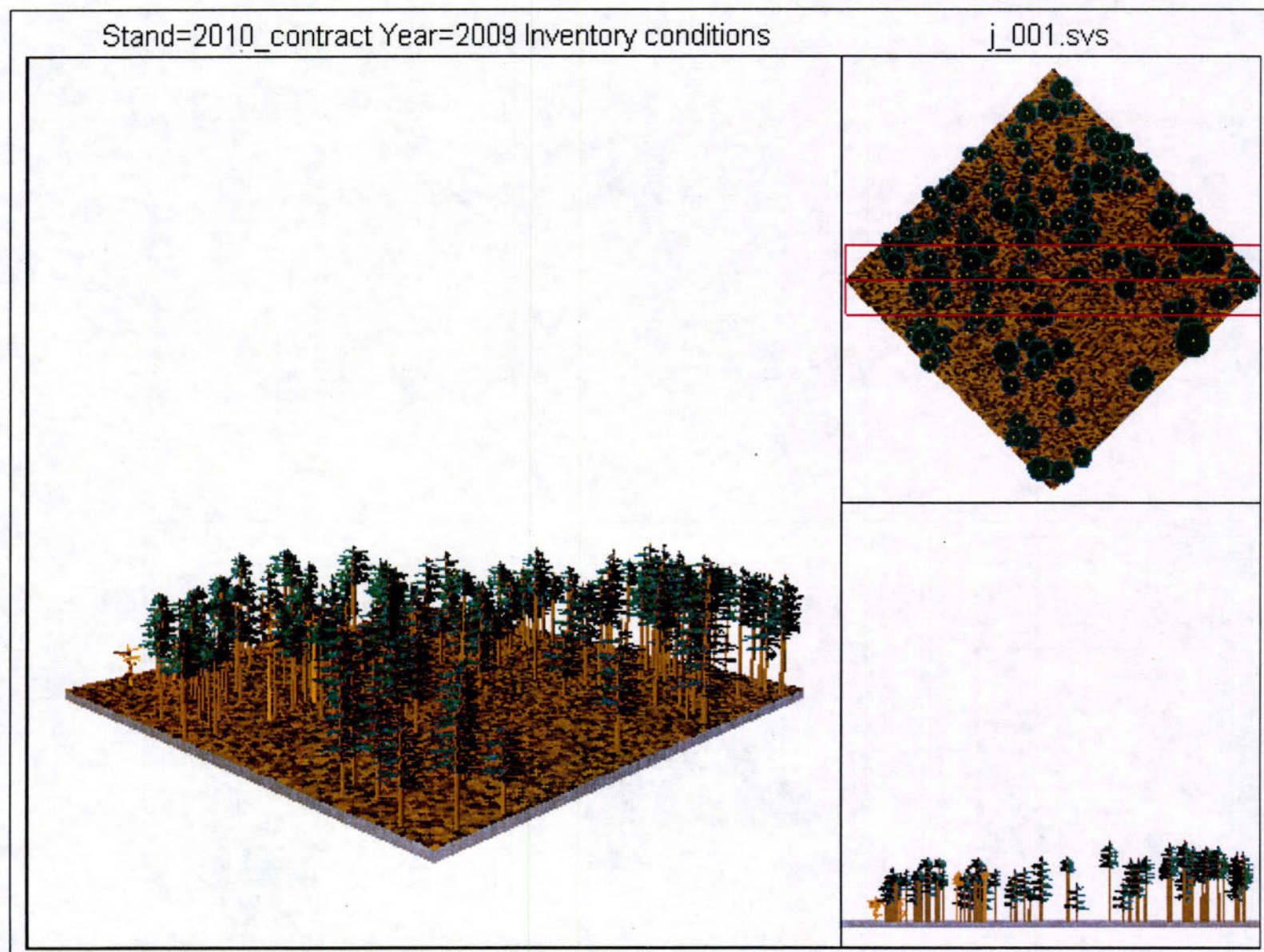


Figure 5. Height and Crown Size

Figure 6. Overhead, Perspective and Side Views



4. Desired Stand Condition

A) Management Plan Recommendations

***All management plan recommendations are from the North Foothills Open Space Management Plan**

The management direction is towards protecting critical resources, encouraging native species over exotic, and maintaining natural processes. Where feasible, a passive approach of letting nature take its course will be utilized. However, active tools such as forest thinning, herbicides, seeding, grazing, rest from grazing, exclusion from grazing, biological weed controls and prescribed fire will also be utilized.

1) General Management Plan Objectives for Vegetative Management (Section 6.0)

- Protect and properly manage Conservation Areas, Significant Plan Communities, and rare plants.
- Manage vegetative communities by maintaining and encouraging desirable native species, restoring degraded areas, and eliminating or controlling undesirable exotic species.
- Manage for ecosystem integrity by encouraging and planning for naturally occurring processes, or the simulation of those processes, so they will remain vital components of the ecosystem.

2) Forest and Grassland Management (Section 6.2)

- Increase native plants, increase diversity, cover and vigor, control soil erosion, and retain more moisture on site.
- Reduce the density of some forest stands to bring these stands back to a more natural density and to decrease the probability of major wildfire, and large-scale insect and disease infestations.
- Restore natural meadow systems by reducing invasion of conifers.
- Retain and perpetuate old-growth forests and woodlands. Retain large-diameter trees (generally those over 20" Diameter at Breast Height (DBH)), snags (standing dead) and coarse woody debris in the understory. Retain a minimum of three snags per acre of 10" DBH for wildlife.
- Maintain a mosaic of stand density, size and age for vegetation types, particularly coniferous forests and woodlands, and foothill shrublands.
- Protect and restore riparian habitat. Reduce grazing to a level that allows for the regeneration and establishment of willows, shrubs and cottonwoods in riparian zones.
- Manage undesirable vegetation, including noxious weeds, using an integrated pest management approach. Unwanted vegetation may be managed using manual removal, prescribed fire, mechanical, biological, or herbicidal methods. All methods of control will be evaluated to reduce potential adverse effects to human health and the environment.

The primary tools for active management include: thinning and pruning of forests and woodlands; use of controlled burns; grazing; and weed management.

3) Wildlife Management (Section 7.0)

- Protect the ecosystem functions of the properties relative to their values within the North St. Vrain and South St. Vrain/Foothills Environmental Conservation Areas, and particularly Coffintop and Central gulches.
- Protect and properly manage conservation areas and critical resources.
- Protect wildlife habitat by maintaining natural food, cover, nesting sites, resting areas and habitat effectiveness.

The management direction focuses on three different scales: 1) the context of the property in the landscape of northwestern Boulder County; 2) the ability of the property to function as effective wildlife habitat; and 3) the protection of known significant resources.

4) Primary Tools

- Thinning and pruning of forests and woodlands: This management tool is utilized in order to decrease stand density in ponderosa pine forests and maintain open meadows, shrublands and woodlands. It also allows fire to be a more effective and less dangerous agent by reducing stand density, maintaining less hazardous fuel types, and eliminating ladder fuels. Thinning will focus on removing understory trees, as well as many seedlings and saplings which would have been killed by historically occurring low-intensity ground fires. Most active forest management will focus on maintaining meadows, shrublands and woodlands (Figure 5, areas 1, 3-5, 7-9). Thinning can be used to reduce fuel loads, bring ponderosa pine stands back to more natural densities, and feather the sharp edges created by thinning operations of the past (Figure 5, areas 2 & 6).
- Use of Prescribed Burns: Fire is an important part of grassland, woodland, shrubland and forest ecosystems of Boulder County. Recent research suggests that fires in the foothills burned at an interval of 10-20 years prior to suppression efforts. Many plants and plant communities are influenced by fire or are dependent upon it for germination and growth. Fire burns in a mosaic that creates a diversity of species and densities within a vegetative community. Fire helps return nutrients to the soil. Fire should be used in conjunction with grazing, mowing, thinning and pruning to maintain periodic disturbances in vegetative communities.

B) POS Forestry-Fire Recommendations:

1) Overall objectives for Heil PA5 Units 4, 6 and 7

- Emulate pre-settlement forest structure by creating a clumpy, uneven-aged forest structure interspersed with openings that more closely resembles conditions that existed prior to interruption of the historic fire regime.
- Maintain existing large openings and create additional openings.
- Reduce overall Basal Area to 40-60 square feet/acre.
- Reduce overall canopy cover to 15-30%
- Reintroduce low intensity surface fire 3-5 years from completion date of mechanical thinning and every 8-10 years thereafter.

2) Designation by Description/Marking Guidelines

- Reduce the basal area/acre of ponderosa pine <18" dbh from ~98.3 sq.ft/acre to a range from 40-60 sq.ft./acre.
- Retain all Douglas fir and Rocky Mountain Juniper except when they are a ladder fuel.
- Retain all presettlement ponderosa pine.
- Retain all trees over 18 inches dbh.
- Create groups/clumps of trees that vary in size and shape and number and are centered around presettlement trees or groups that have the most age/diameter diversity.
- Create openings that range from .5-2.5 acres in size, and are irregular in shape. Total opening acreage will range from 15-20 acres.
- Reduce overall canopy cover from 62% to a range of 15-30%.
- Keep crowns interlocked or close in highest density patches.
- Maintain or create 3 snags/acre >10" dbh.
- Maintain or create 80 linear ft/acre of large downed logs > 10" dbh.
- Leave all old downed logs.

The recommendations meet the forest health and ecosystem objectives of BCPOS and the CSFS. The recommendations also address the need to treat and reduce fuels for fire. This will meet goals of fuels management of the BCPOS, CSFS, Lefthand and Lyons Fire Protection Districts, Boulder County Sheriff's and Land Use Departments. Lastly, this project will treat vegetation within a high priority area as outlined in the NFOS management plan.

Figure 7. Overstory Vegetation Data; Basal Area and Diameter Summary (Post-Treatment)

Stand=2010_contract Year=2012 End of projection				
File: jlj_005.svs				
Summary is for all species				
Tree list summary:				
Origin:	(0.0,0.0)			
Size:	208.7 by 208.7 (1.00 acres)			
Units:	ENGLISH			
Total objects:	84	(84 per acre)		
Standing live trees (using FVS plant class codes):				
	Mean	SD	Min	Max
dbh	10.1	3.0	6.8	24.0
ht	35.7	8.4	22.0	60.0
Basal area:	45.2 (45.2 per acre)			
Number of trees:	74 (74 per acre)			
Standing dead trees (using FVS plant class codes):				
	Mean	SD	Min	Max
dbh	12.1	2.5	9.6	15.9
ht	38.0	10.3	19.0	52.0
Basal area:	5.8 (5.8 per acre)			
Number of trees:	7 (7 per acre)			
Downed trees and logs (status code 0, 10, 3, or 13):				
	Mean	SD	Min	Max
dbh	10.0	1.9	8.7	12.2
length	29.0	8.5	20.0	37.0
Number of logs:	3 (3 per acre)			

All Figures represent conditions as inventoried in 2009 in Heil PA5 Units 4,6,7. Figures are outputs from FVS.

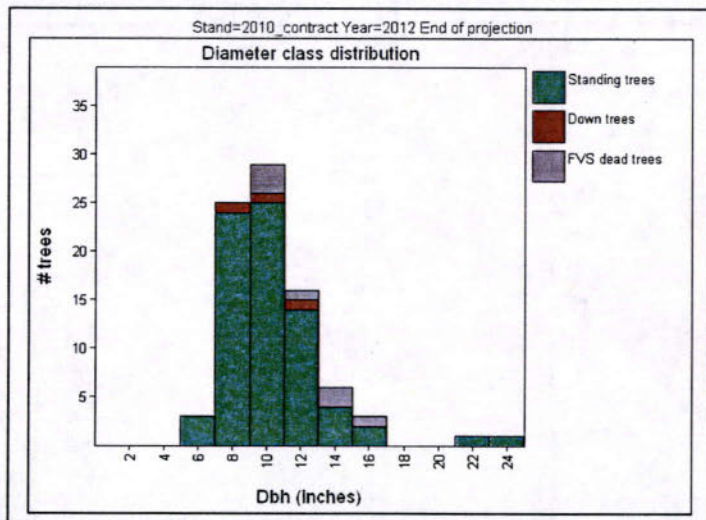


Figure 8. Diameter Class Distribution

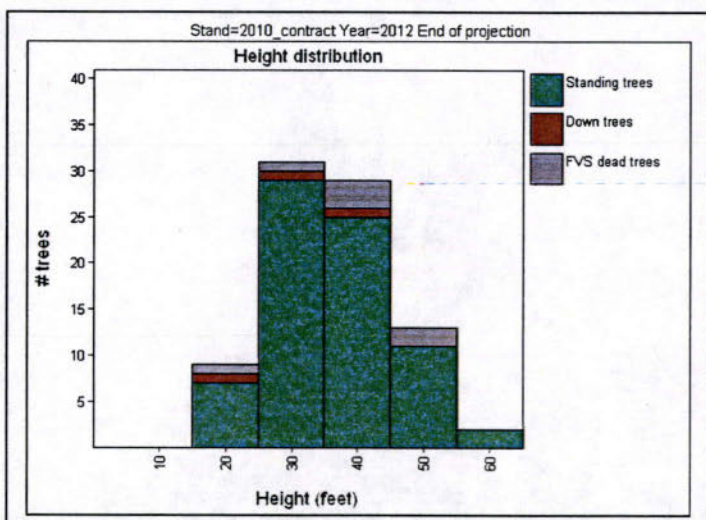


Figure 9. Diameter Class Distribution

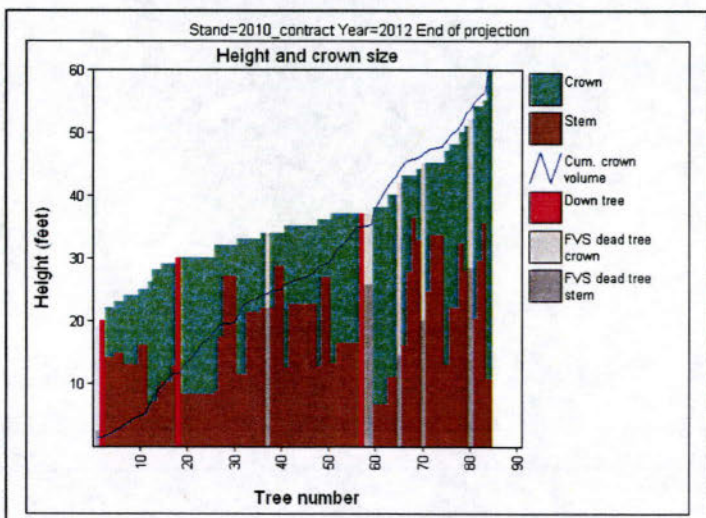
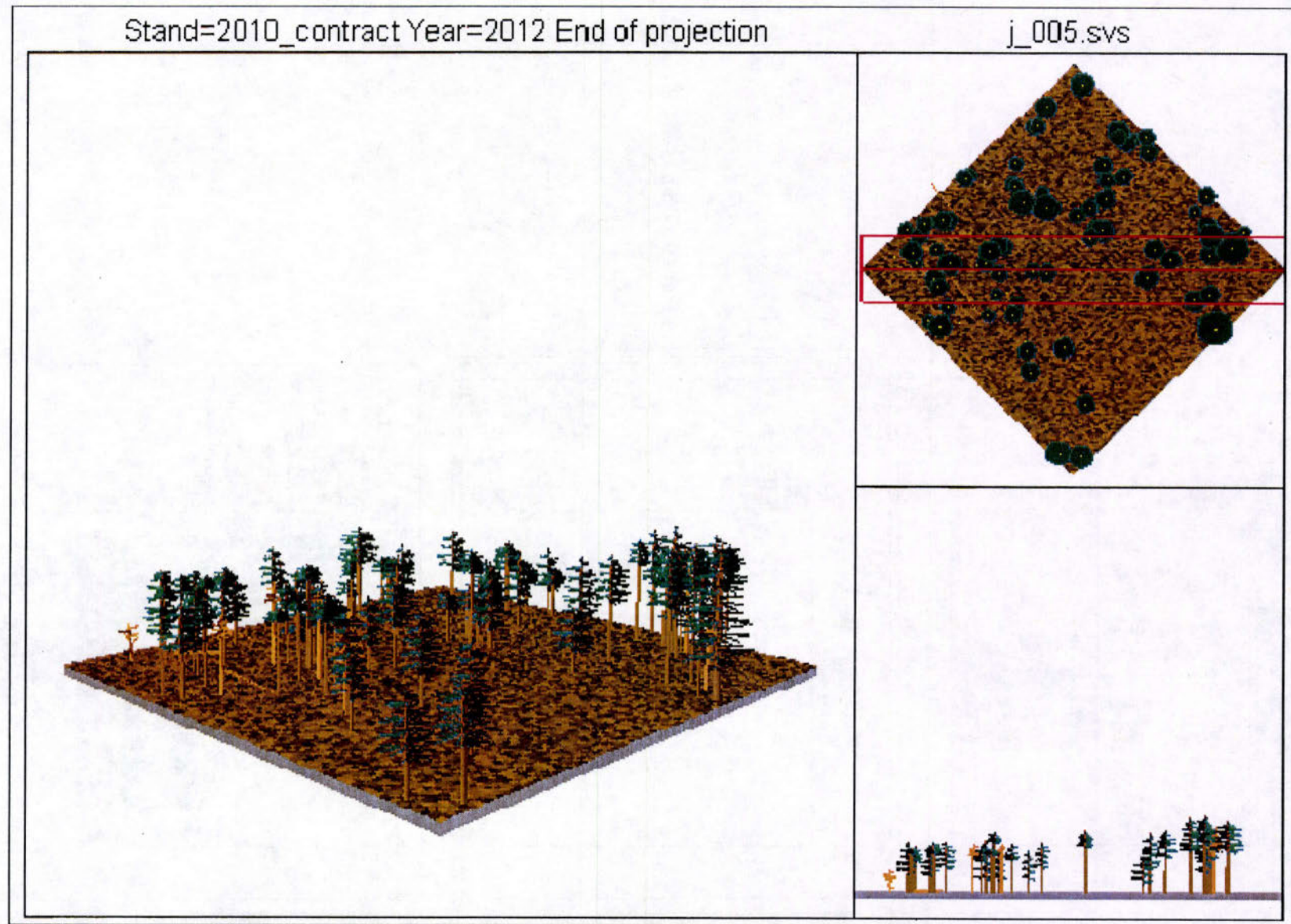


Figure 10. Diameter Class Distribution

Figure 11. Overhead, Perspective and Side Views



5. Operational Guidelines

A. Unit Layout

- Boundary will be painted in red vertical stripes facing into the unit.
- Landings are flagged in yellow flagging.

B. Project Description

Project will be completed utilizing a fully mechanical cut-to-length (CTL) system. This system entails the use of two primary machines; a harvester that fells, delimbs, and bucks the tree into standard log lengths at the stump and a forwarder, which loads the logs into bunks (think small off-road log truck) and carries the material to landing for temporary storage or directly loading onto a truck/trailer for transport. CTL harvesting systems as compared to typical skidder operations result in much lower site disturbance and impact, as measured by many parameters.

Slash will be broadcast on site as harvesting operations progress. As the harvester advances, subsequent forwarder traffic will attempt to travel on the "slash mat" wherever feasible. This has the multiple benefit of reducing soil compaction/disturbance; reducing/negating the need for forwarding ("skid") trail rehab, and compacting the slash to a minimal depth to facilitate the future prescribed broadcast burn that will follow the treatment. Slash will be hand-piled within a 100' corridor along the bordering trails and main access road to facilitate a fuel break for the future prescribed burn as well as to maintain/enhance visual aesthetics.

Logs will be transported offsite by the contractor to Alaska Avenue for stockpiling. This will result in heavy truck traffic on the main access road for the duration of the contract. Road damage created as a result of this forestry contract will be repaired with forestry section resources.

6. Rehabilitation of Project Impacts

- Impacts from skid trails will be assessed when project is complete. Ripping, seeding, and erosion control will be considered as possible rehabilitation techniques. Project completion will be late 2011.
- Impacts to main landing will be assessed when project is complete. If compaction has occurred, the landing will be ripped and seeded with a seed mix provided by BCPOS Plant Ecology.
- Impacts to trail system will be assessed throughout the project. Contractor will be required to rehab impacts as they occur.
- Any damage to the existing access road will be repaired by BCPOS Forestry.

7. Monitoring of Post-Project Conditions

- Weeds will be monitored and treated after completion of the project.
- Overstory inventories and photopoints noted with survey pins and GPS coordinates should be recollected within one year of the thinning treatment to ensure the treatment parameters were met.
- It is recommended that understory vegetation inventories be completed within five years of thinning treatment, and in five-year increments thereafter. Photo point plots should be recollected within one year of the thinning treatment.
- Slash pile sites, skid trails, and the landing area should be monitored for newly established noxious weed infestations or increased densities of existing weeds.

8. Site Photopoints (On next page)

Heil PA5U4 Photopoints

HVR PA5U4T1P6 N 09



HVR PA5U4T1P6 E 09



HVR_PA5U4T1P6_S_09



HVR_PA5U4T1P6_W_09



Heil PA5U6 Photopoints

HVR_PA5U6T2P7_N_09



HVR_PA5U6T2P7_E_09



HVR_PA5U6T2P7_S_09



HVR_PA5U6T2P7_W_09





Heil Valley Ranch Open Space Project Area 5 Units 8, 9 and 10 Forest Restoration/Fuels Management Project

1. Project Area Background

North Foothills Open Space (NFOS) was conceptualized during the development of the initial Boulder County Comprehensive Plan in the 1970s. Much of the area was designated as a "Scenic Area" on the Open Space Map. The designations stemmed from the beauty, undeveloped nature, cultural value and natural resources of these lands. Several major acquisitions and land saving actions have occurred (Figure 1). Boulder County Parks & Open Space Department (BCPOS) made their first purchase of land in North Foothills Open Space in 1990 with the acquisition of Trevarton Ranch. For the 1,207 acre parcel, 491 acres were purchased outright while a conservation easement was acquired on the remaining 716 acres.

Beginning in 1993, Boulder County began acquiring portions of two of the most significant properties in the county. The Heil Valley Ranch totals 4,923 acres. The Hall Ranch covers 3,205 acres. Those purchases are now complete. Heil Valley Ranch totals 6,326 acres as of 2010.

The department approved a management plan for the North Foothills Open Space, which includes both Hall and Heil Ranch in 1996. The plan can be found on the Boulder County website within the Parks and Open Space section. Objectives for vegetative resource management and more specifically the forest and grassland management are listed in the Desired Future Conditions Section. The project area aligns with Areas One and Two on Figure 5 in Volume 2 of the NFOSMP, identified as vegetation management priority areas. The Colorado State Forest Service (CSFS) highlighted this area as an area that needs forest management in a report to BCPOS in 1998. Lastly, this property was also identified as a high priority in the CSFS Statewide Resource Assessment, the Front Range Fuels Treatment Partnership (FRFTP) Recommendations and the St. Vrain Watershed Assessment.

Lefthand Fire Protection District has also completed a Community Wildfire Protection Plan, which identifies this site as a high priority for wildfire mitigation to protect subdivision to the east from catastrophic wildfire. Within a two mile radius, there have been at least six fires >1 acre since 2003. The largest was the Overland Fire of 2003, which consumed 3,500 acres.

The CSFS and the former private landowner treated a portion of Heil Project Area Five (PA5) in the 1980's. BCPOS treated a portion of Heil PA5 from 1999-2004. The goal with that treatment was a shaded-fuel break. All species below 6" in diameter were removed. Those prescriptions reference a second entry into those units in the near future. In 2010 BCPOS was awarded HB1199 funding to thin an additional 150 acres on Heil, which will be completed in the spring of 2011.

A detailed inventory of both overstory and understory vegetation was completed in September of 2009. The following document includes a baseline inventory and recommended forest restoration prescription for Heil PA5. In developing this restoration proposal we have placed emphasis on forest restoration goals of BCPOS and the fuels reduction needs of the Boulder County Sheriff's Department and Lefthand Fire Protection District.

2. Historical Stand Condition

Refer to Boulder County Parks and Open Space Forest Management Policy, Appendix A, Lower Montane Life Zone pages 22-32. (Document can be found at [G:\Forestry-Fire\Management-Work Plans\Forest Management Policy](#)).

3. Current Stand Condition

Forest overstory vegetation data was collected with a basal area factor prism of 10 (BAF10) via nine variable radius plots. Data was then extrapolated for the entire unit using the Forest Vegetation Simulator software (FVS). Refer to figures 1- 6 for additional metrics for PA5 Units 8,9,10.

A. Overstory Vegetation

Project area five is 664 acres. The portions of Units 8, 9, 10 that pertain to this document have been designated Unit B for contracting purposes. Unit B is approximately 136 acres in size. The elevation within the units ranges from 6,800 feet to 6,400 feet. Unit B consists mostly of *Pinus ponderosa* with *Sabina scopulorum* and *Psuedotsuga menziesii* making up the rest of the forest overstory structure. Among the nine plots sampled, slopes ranged from 2% to 18%, with a mean of 9.7%. The dominant aspect is south (189°). Total average canopy cover was calculated at 52% closed, with a mean tree height of 34 ft. (n = 64, sd = 4.5 ft., max = 51 ft.). Basal area (BA) was calculated at 70 ft²/acre (n= 9, sd= 37 ft²/acre). The mean calculated diameter at breast height (dbh) in inches was 10.8 (n=64, sd= 2.2, max= 16.4). The mean kind (a scale with 1 being alive and 3 being standing dead) was 1.3, with a mean vigor (1 being healthy/good form and 4 being suppressed) of 1.6. The mean dwarf mistletoe (DM) rating for *Arceuthobium vaginatum* subs. *Cryptopodum* rating was 0.4 for sampled trees. The average age of the sampled trees in Unit B is 97 YBP with a standard deviation of 27 (n=11).

B. Understory Vegetation

Forest understory vegetation data for Unit B was collected via nine plots, located at the center point of each overstory plot. The mean ground cover was as follows: grass 28%; forbs 13%; rock 19%; duff 23%, litter 12%; bare ground 5%. Some of the species identified at the plot locations: *Erigeron sp.*, fleabane; ; *Potentilla recta*, sulphur cinquefoil; *Artemisia frigida*, silver sage; *Artemisia ludoviciana*, sage; *Alsinacea cerastiu*, mouse-ear chickweed; *Anisantha tectorum*, cheatgrass; *Danthonia parryi*, Parry's oatgrass; *Carex sp.*, sedge; *Harbouria trachyleura*, whiskbroom parsley; *Eriogonum umbellatum subsp.*, sulphur-flower; *Penstemon sp.*, Bearded tongue; *Poa compressa*, Canada bluegrass; *Achillea lanulosa*, yarrow; *Heterotheca villosa*, golden aster; *Mertensia sp.*, chiming bells; *Leucopoa kingii*, spike fescue.

Figure 1. Overstory Vegetation Data; Basal Area and Diameter Summary (Inventory Conditions according to FVS)

Stand=HVRPA5UB Year=2009 Inventory conditions				
File: IV_001.svs				
Summary is for all species				
Tree list summary:				
Origin:	(0.0,0.0)			
Size:	208.7 by 208.7 (1.00 acres)			
Units:	ENGLISH			
Total objects:	176	(176 per acre)		
Standing live trees (using FVS plant class codes):				
	Mean	SD	Min	Max
dbh	8.1	2.5	5.8	16.4
ht	30.4	5.2	21.0	48.0
Basal area:	67.8		(67.8 per acre)	
Number of trees:	173		(173 per acre)	
Standing dead trees (using FVS plant class codes):				
	Mean	SD	Min	Max
dbh	11.5	1.4	10.7	13.1
ht	32.3	4.0	30.0	37.0
Basal area:	2.2		(2.2 per acre)	
Number of trees:	3		(3 per acre)	
Downed trees and logs (status code 0, 10, 3, or 13):				
No downed logs to summarize				

Figure 2. Overstory Vegetation Data; Canopy Cover, Kind, DM Rating and Age Summary. (Inventory Conditions)

Metric	2009 Conditions	Standard Deviation
Canopy Cover	52%	34
Kind	1.3	.3
Vigor	1.6	.7
Site Index	35	
Mean Age Cored	97.1 ybp	27.4
Mean R. Growth	7.0 (1/20")	6.2
Slope	9.7%	5.7
Aspect	189 degrees	131.2
DM Rating	0.4	1.2

All Figures represent conditions as inventoried in 2009 in Heil PA5 Units 8,9 and 10. Figures are outputs from FVS.

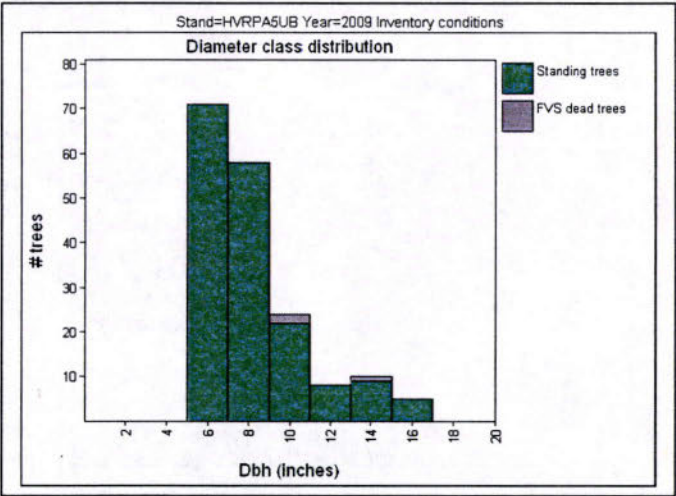


Figure 3. Diameter Class Distribution

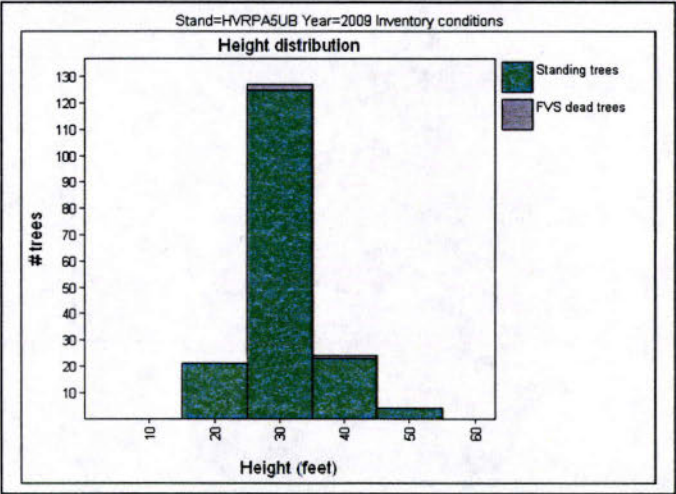


Figure 4. Height Distribution

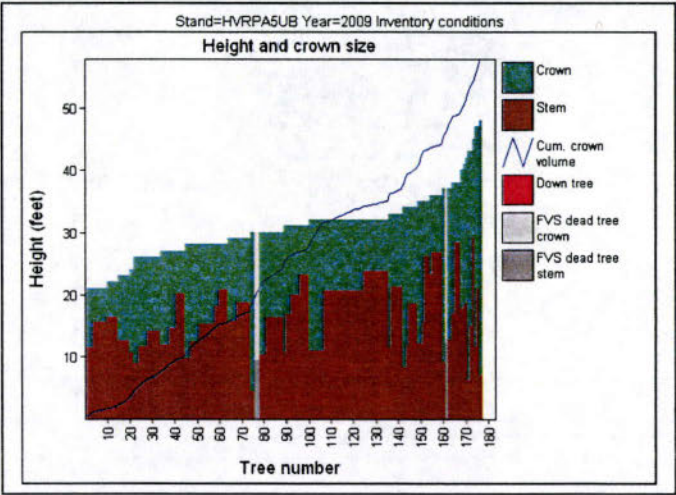
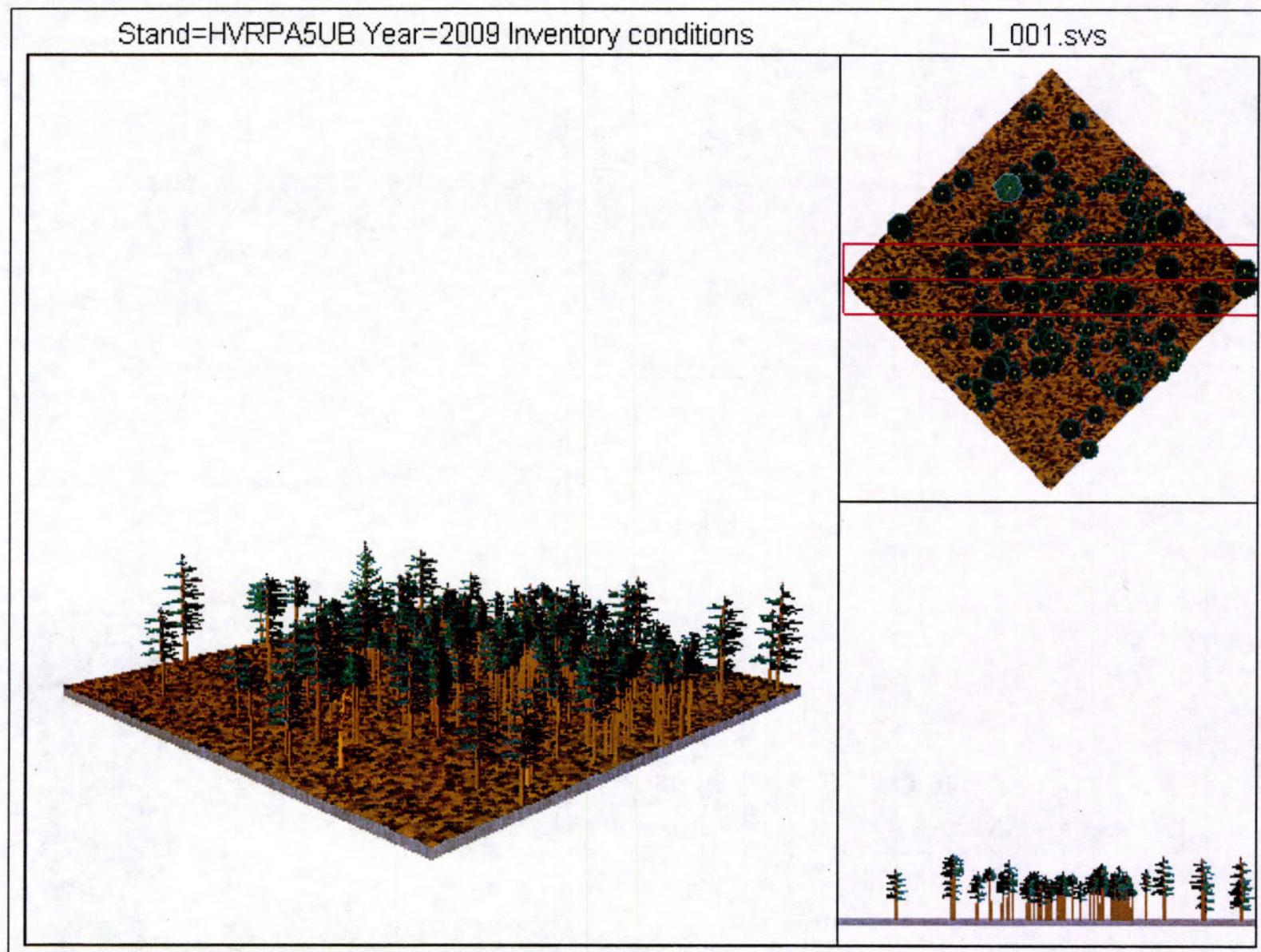


Figure 5. Canopy Base Height and Crown Size

Figure 6. Overhead, Perspective and Side Views



4. Desired Stand Condition

A) Management Plan Recommendations

***All management plan recommendations are from the North Foothills Open Space Management Plan**

The management direction is towards protecting critical resources, encouraging native species over exotic, and maintaining natural processes. Where feasible, a passive approach of letting nature take its course will be utilized. However, active tools such as forest thinning, herbicides, seeding, grazing, rest from grazing, exclusion from grazing, biological weed controls and prescribed fire will also be utilized.

1) General Management Plan Objectives for Vegetative Management (Section 6.0)

- Protect and properly manage Conservation Areas, Significant Plan Communities, and rare plants.
- Manage vegetative communities by maintaining and encouraging desirable native species, restoring degraded areas, and eliminating or controlling undesirable exotic species.
- Manage for ecosystem integrity by encouraging and planning for naturally occurring processes, or the simulation of those processes, so they will remain vital components of the ecosystem.

2) Forest and Grassland Management (Section 6.2)

- Increase native plants, increase diversity, cover and vigor, control soil erosion, and retain more moisture on site.
- Reduce the density of some forest stands to bring these stands back to a more natural density and to decrease the probability of major wildfire, and large-scale insect and disease infestations.
- Restore natural meadow systems by reducing invasion of conifers.
- Retain and perpetuate old-growth forests and woodlands. Retain large-diameter trees (generally those over 20" Diameter at Breast Height (DBH)), snags (standing dead) and coarse woody debris in the understory. Retain a minimum of three snags per acre of 10"DBH for wildlife.
- Maintain a mosaic of stand density, size and age for vegetation types, particularly coniferous forests and woodlands, and foothill shrublands.
- Protect and restore riparian habitat. Reduce grazing to a level that allows for the regeneration and establishment of willows, shrubs and cottonwoods in riparian zones.
- Manage undesirable vegetation, including noxious weeds, using an integrated pest management approach. Unwanted vegetation may be managed using manual removal, prescribed fire, mechanical, biological, or herbicidal methods. All methods of control will be evaluated to reduce potential adverse effects to human health and the environment.

The primary tools for active management include: thinning and pruning of forests and woodlands; use of controlled burns; grazing; and weed management.

3) Wildlife Management (Section 7.0)

- Protect the ecosystem functions of the properties relative to their values within the North St. Vrain and South St. Vrain/Foothills Environmental Conservation Areas, and particularly Coffintop and Central gulches.
- Protect and properly manage conservation areas and critical resources.
- Protect wildlife habitat by maintaining natural food, cover, nesting sites, resting areas and habitat effectiveness.

The management direction focuses on three different scales: 1) the context of the property in the landscape of northwestern Boulder County; 2) the ability of the property to function as effective wildlife habitat; and 3) the protection of known significant resources.

4) Primary Tools

- Thinning and pruning of forests and woodlands: This management tool is utilized in order to decrease stand density in ponderosa pine forests and maintain open meadows, shrublands and woodlands. It also allows fire to a more effective and less dangerous agent by reducing stand density, maintaining less hazardous fuel types, and eliminating ladder fuels. Thinning will focus on removing understory trees, as well as many seedlings and saplings which would have been killed by historically occurring low-intensity ground fires. Most active forest management will focus on maintaining meadows, shrublands and woodlands (Figure 5, areas 1, 3-5, 7-9). Thinning can be used to reduce fuel loads, bring ponderosa pine stands back to more natural densities, and feather the sharp edges created by thinning operations of the past (Figure 5, areas 2 & 6).
- Use of Prescribed Burns: Fire is an important part of grassland, woodland, shrubland and forest ecosystems of Boulder County. Recent research suggests that fires in the foothills burned at an interval of 10-20 years prior to suppression efforts. Many plants and plant communities are influenced by fire or are dependent upon it for germination and growth. Fire burns in a mosaic that creates a diversity of species and densities within a vegetative community. Fire helps return nutrients to the soil. Fire should be used in conjunction with grazing, mowing, thinning and pruning to maintain periodic disturbances in vegetative communities.

B) POS Forestry-Fire Recommendations:

1) Overall objectives for Heil PA5 Units 8, 9 and 10

- Emulate pre-settlement forest structure by creating a clumpy, uneven-aged forest structure interspersed with openings that more closely resembles conditions that existed prior to interruption of the historic fire regime.
- Maintain existing large openings and create additional openings.
- Reduce overall basal area to 30- 50 ft²/acre.
- Reduce overall canopy cover to 15-30%
- Reintroduce low intensity surface fire 3-5 years from completion date of mechanical thinning and every 8-10 years thereafter.

2) Designation by Description/Marking Guidelines

- Reduce the basal area/acre of ponderosa pine <18" dbh from 70ft²/acre to a range from 30-50 ft²/acre.
- Trees with diameters from 1 inch to 16 inches in dbh will be targeted to be reduced 60% to a residual density of 70 trees per acre
- Retain all Douglas fir and Rocky Mountain Juniper except when they are a ladder fuel.
- Retain all pre-settlement ponderosa pine.
- Retain all trees over 18 inches dbh.
- Create groups/clumps of trees that vary in size and shape and number and are centered on pre-settlement trees or groups that have the most age/diameter diversity.
- Create openings that range from .5-2.5 acres in size, and are irregular in shape. Total opening acreage will range from 20 - 40 acres.
- Reduce overall canopy cover from 52% to a range of 15-30%.
- Keep crowns interlocked or close in highest density patches.
- Maintain or create 3 snags/acre >10" dbh.
- Maintain or create 80 linear ft/acre of large downed logs > 10" dbh.
- Leave all old downed logs.

The recommendations meet the forest health and ecosystem objectives of BCPOS and the CSFS. The recommendations also address the need to treat and reduce fuels for fire. This will meet goals of fuels management of the BCPOS, CSFS, Lefthand and Lyons Fire Protection Districts, Boulder County Sheriff's and Land Use Departments. Lastly, this project will treat vegetation within a high priority area as outlined in the NFOS management plan.

Figure 7. Overstory Vegetation Data; Basal Area and Diameter Summary (Post-Treatment)

Stand=HVRPA5UB Year=2011 Post cutting				
File: IV_004.svs				
Summary is for all species				
Tree list summary:				
Origin:	(0,0,0,0)			
Size:	208.7 by 208.7 (1.00 acres)			
Units:	ENGLISH			
Total objects:	176	(176 per acre)		
Standing live trees (using FVS plant class codes):				
	Mean	SD	Min	Max
dbh	8.4	2.6	5.9	15.6
ht	31.0	5.1	22.0	47.0
Basal area:			29.6	(29.6 per acre)
Number of trees:			70	(70 per acre)
Standing dead trees (using FVS plant class codes):				
	Mean	SD	Min	Max
dbh	12.8	3.4	7.2	16.4
ht	35.9	8.1	29.0	47.0
Basal area:			6.6	(6.6 per acre)
Number of trees:			7	(7 per acre)
Downed trees and logs (status code 0, 10, 3, or 13):				
	Mean	SD	Min	Max
dbh	8.0	2.1	5.9	14.6
length	29.8	4.3	22.0	43.0
Number of logs:			99	(99 per acre)

All Figures represent conditions as inventoried in 2009 and treated in 2011 at Heil PA5 Units 8, 9, 10. Figures are outputs from FVS.

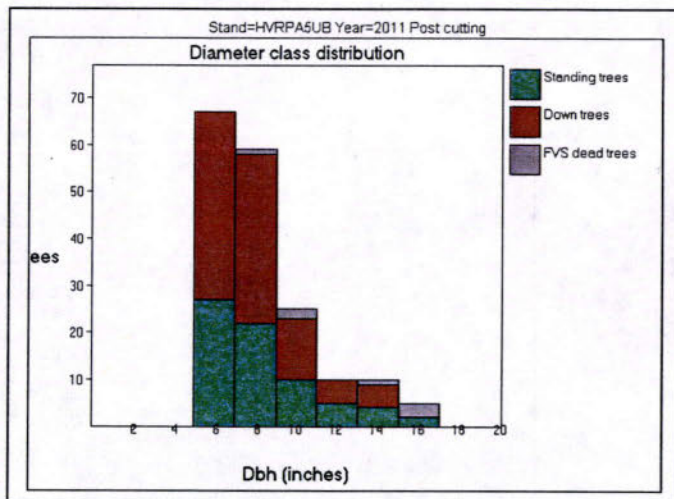


Figure 8. Diameter Class Distribution

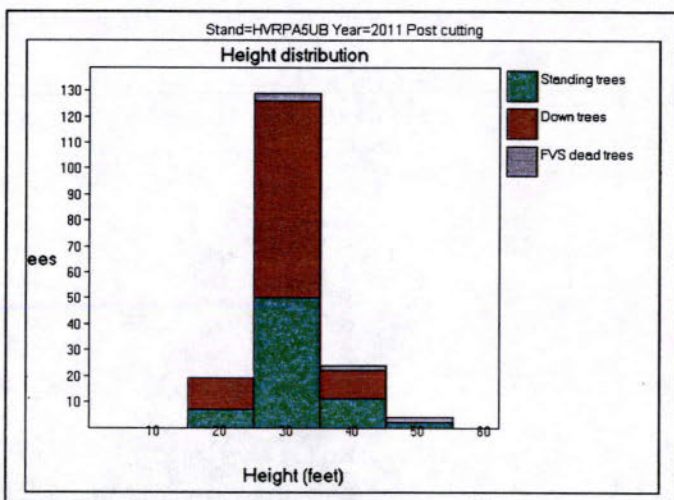


Figure 9. Height Distribution

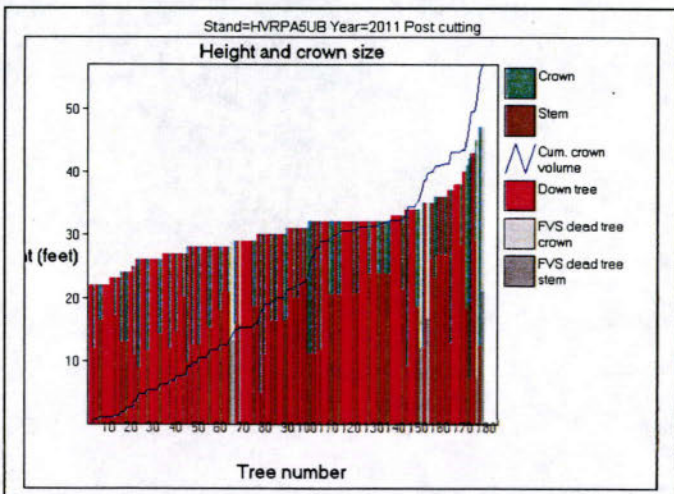
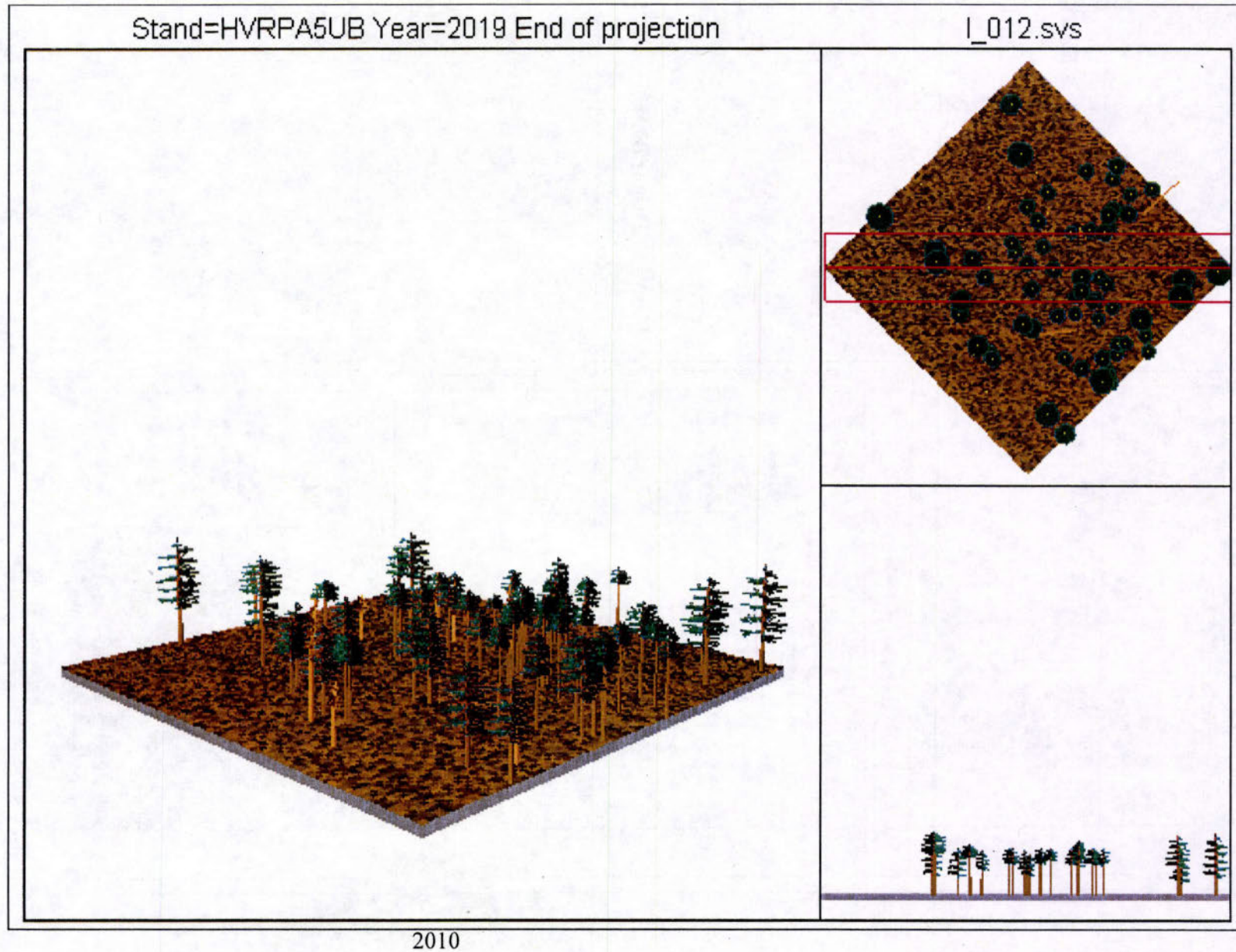


Figure 10. Canopy Base Height and Crown Size

Figure 11. Overhead, Perspective and Side Views



5. Operational Guidelines

A. Unit Layout

- Boundary will be painted in red vertical stripes facing into the unit.
- Landings are flagged in yellow flagging.

B. Project Description

Project will be completed utilizing a fully mechanical cut-to-length (CTL) system. This system entails the use of two primary machines; a harvester that fells, de-limbs, and bucks the tree into standard log lengths at the stump and a forwarder, which loads the logs into bunks (think small off-road log truck) and carries the material to landing for temporary storage or directly loading onto a truck/trailer for transport. CTL harvesting systems as compared to typical skidder operations result in much lower site disturbance and impact, as measured by many parameters.

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Logs will be transported offsite by the contractor to Alaska Avenue for stockpiling. This will result in heavy truck traffic on the main access road for the duration of the contract. Road damage created as a result of this forestry contract will be repaired with forestry section resources.

6. Rehabilitation of Project Impacts

- Impacts from skid trails will be assessed when project is complete. Ripping, seeding, and erosion control will be considered as possible rehabilitation techniques. Project completion will be late 2011.
- Impacts to main landing will be assessed when project is complete. If compaction has occurred, the landing will be ripped and seeded with a seed mix provided by BCPOS Plant Ecology.
- Impacts to trail system will be assessed throughout the project. Contractor will be required to rehab impacts as they occur.
- Any damage to the existing access road will be repaired by BCPOS Forestry.

7. Monitoring of Post-Project Conditions

- Weeds will be monitored and treated after completion of the project.
- Overstory inventories and photo points noted with survey pins and GPS coordinates should be recollected within one year of the thinning treatment to ensure the treatment parameters were met.
- It is recommended that understory vegetation inventories be completed within five years of thinning treatment, and in five-year increments thereafter. Photo point plots should be recollected within one year of the thinning treatment.
- Slash pile sites, skid trails, and the landing area should be monitored for newly established noxious weed infestations or increased densities of existing weeds.

8. Site Photo Points (On next page)

Heil PA5U9 Photo Points

HVR PA5U9T2P12 North 2009



HVR PA5U9T2P12 East 2009



HVR PA5U9T2P12 South 2009



HVR PA5U9T2P12 West 2009



Heil PA5U10 Photo Points

HVR PA5U10T2P10 North 2009



HVR PA5U10T2P10 East 2009



HVR PA5U10T2P10 South 2009



HVR PA5U10T2P10 West 2009



Purchase Order/Contract Tracking

Invoices

file: docs/PurchaseOrders/10_PO_Tracking_Boilder_AUG.xls

Vendor: Morgan Timber

Project: Heil

PO Issue Date: 60911

cat 8/2/11

PO #: P104900

PO Rollover #:

Total PO Amount: \$324,997.39

Notice of Final Settlement Required?

YES	NO
XX	

PO/Line 1 017.5500002.75110.PFHESL000.75110					PO/Line 2 017.5500002.75110.PFHESL001.75110					Total Retainage Held Lines 1 & 2	Total PO Available (incl Retainage) Lines 1 & 2
Line 1 Amount:	Amount	Retainage	Payment	Available	Line 2 Amount:	Amount	Retainage	Payment	Available		
Invoice #					Invoice #						
071111/MORGAN	✓ 55,000.00	5,000.00	50,000.00		062411/MORGAN	✓ 18,819.50	1,881.95	✓ 16,937.55			
072811/MORGAN	✓ 39,154.88	✓ 3,915.49	✓ 35,239.39		071111/MORGAN	✓ 28,819.60	✓ 3,381.95	✓ 25,437.55			
080811/MORGAN	✓ 11,000.00	✓ 1,100.00	✓ 9,900.00		072811/MORGAN	✓ 37,956.00	✓ 3,795.60	✓ 34,160.40			
adjust \$ over grant budget		0.00			080811/MORGAN	✓ 11,000.00	✓ 1,100.00	✓ 9,900.00			
					adjust \$ over grant budget		0.00				
					090211/MORGAN	✓ 27,069.62	✓ 2,706.96	24,362.66			
Totals:	✓ 105,154.88	10,015.49	✓ 95,139.39	-5,154.88	Totals:	✓ 123,664.62	12,866.46	✓ 110,798.16	-23,664.62	22,881.95	-5,937.55

PO/Line 3 017.5500002.75110.PFHEU5000.75110					027.6415700.75110.800189002.75110					Total Retainage Held Lines 1, 2, 3 & 4	Total PO Available (incl Retainage) Lines 1, 2, 3 & 4
Line 3 Amount:	Amount	Retainage	Payment	Available	Line 4 Amount:	Amount	Retainage	Payment	Available		
Invoice #					Invoice #						
062411/MORGAN	✓ 65,000.00	✓ 6,500.00	✓ 58,500.00		062411/MORGAN (performance bond)	12,188.00		12,188.00	47,809.39		
					090211/MORGAN	✓ 2,934.38	✓ 293.44	✓ 2,640.94			
					101811/MORGAN	✓ 14,643.51	✓ 1,464.35	✓ 13,179.16			
Totals:	✓ 65,000.00	6,500.00	58,500.00	0.00	Totals:	✓ 29,765.89	1,757.79	28,008.10	30,231.50	31,139.74	32,551.74

Total spent to date 11/2/11: \$323,585.39

PO: < 324,997.39 >

unspent: \$1,412-

HB11992010



Boulder County Purchasing Department
PO Box 471
Boulder, Co. 80306
(303) 441-3525

06/09/2011

PURCHASE ORDER NO.

P104900

TO RECEIVE PROPER PAYMENT THE ABOVE PO NUMBER MUST APPEAR ON ALL INVOICES, BILLS OF LADING, PACKAGES, CORRESPONDENCE, ETC.

VENDOR: Morgan Timber Products
2532 W County Rd 54G
Ft Collins, CO 80524
PHONE# (970) 484-4065

DELIVER TO: Boulder County Parks and Open Space
5201 St Vrain Rd
LONGMONT, CO 80503

SEND INVOICE TO: Boulder County Parks and Open Space
5201 St Vrain Rd
LONGMONT, CO 80503

Req. # R306191	Vendor # V08562	Ship Via Ground	FOB Destination	Terms NET 30	
Workforce Training Rel.	Requestor Renee Edick		Client Name	Date Required/Void if not used by	
QTY	PART NO.	DESCRIPTION	UNIT	UNIT PRICE	EXTENDED PRICE
1		HEIL VLY RNCH PHS I FORESTRY MANAGEMENT INCLUDES HARVESTING, TRANSPORTATION, AND ROAD IMPROVEMENT, IF APPROVED BY COUNTY AT THE COUNTY'S DISCRETION; UNIT A AND UNIT C AS SPECIFIED IN COUNTY PROPOSAL FOR PROJECT AND AS PROPOSED BY CONTRACTOR; 19.93 ACRES; 10% RETAINAGE & FINAL SETTLEMENT NOTICE; CONTRACT AMENDMENT APPROVED JUNE 2, 2011; COMPLETION DATE 31, 2011. HEIL VALLEY RANCH PHASE II FORESTRY MANAGEMENT INCLUDES HARVESTING, TRANSPORTATION, AND ROAD IMPROVEMENT, IF APPROVED BY COUNTY AT THE COUNTY'S DISCRETION; UNIT A AND UNIT C AS SPECIFIED IN COUNTY PROPOSAL FOR PROJECT AND AS PROPOSED BY CONTRACTOR; 19.93 ACRES; 10% RETAINAGE & FINAL SETTLEMENT NOTICE; CONTRACT AMENDMENT APPROVED JUNE 2, 2011; COMPLETION DATE AUGUST 31, 2011. 017.55000002.75110.PFHESL000.75110	EA	100,000.00	100,000.00
1		HEIL VLY RNCH PHS I FORESTRY MANAGEMENT ACCT CODE: 017.55000002.75110.PFHESL001.75110	EA	100,000.00	100,000.00
1		HEIL VLY RNCH PHS I FORESTRY MANAGEMENT. ACCT CODE: 017.55000002.75110.PFHEU5000.75110	EA	65,000.00	65,000.00
1		HEIL VLY RNCH PHS I FORESTRY MANAGEMENT	EA	59,997.39	59,997.39

5,000
45,000

5263.90
52,36

6500.00

47.80
47.80

AS OF 8/20/2011

W/COWC Morgan \$98,172 on 2011 P.O.
Paid 422,482.5 / 2011 + 85,080

total paid = 311,905



Boulder County Purchasing Department

PO Box 471

Boulder, Co. 80306

(303) 441-3525

06/09/2011

PURCHASE ORDER NO.

P104900

TO RECEIVE PROPER PAYMENT THE ABOVE PO NUMBER MUST APPEAR ON
ALL INVOICES, BILLS OF LADING, PACKAGES, CORRESPONDENCE, ETC.

VENDOR: Morgan Timber Products
2532 W County Rd 54G
Ft Collins, CO 80524
PHONE# (970) 484-4065

DELIVER TO: Boulder County Parks and Open Space
5201 St Vrain Rd
LONGMONT, CO 80503

SEND INVOICE TO: Boulder County Parks and Open Space
5201 St Vrain Rd
LONGMONT, CO 80503

Req. # R306191	Vendor # V08562	Ship Via Ground	FOB Destination	Terms NET 30	
Workforce Training Rel.	Requestor Renee Edick	Client Name		Date Required/Void if not used by	
QTY	PART NO.	DESCRIPTION	UNIT	UNIT PRICE	EXTENDED PRICE
		ACCT CODE: 027.6415700.75110.800189002.75110			
				TOTAL	324,997.39

Tax Exemption # 98-03561-000

This PO is subject to certain terms and conditions which can

be found at: www.bouldercounty.org/find/bids/pages/purchasing.aspx

Jenny Osberding
Authorized Signature

Client Signature - Workforce Use only



Administration Office
5201 St. Vrain Road
Longmont, CO 80503

October 18, 2011

Project Manager:
Nick Stremel

Boulder County Parks and Open Space
RFP #5038-08 Forestry Projects 2011 (Heil Valley Ranch)

Sixth Billing - Hauling Final

Phase I (130 acres)

26 acres hauling completed @ \$288.50/acre

7,501.00

Phase II (19.93 acres)

19.93 acres hauling completed @ \$358.38/acre

7,142.51

14,643.51

Less 10% retainage

-1,464.35

TOTAL DUE

\$13,179.16

Karen S. Morgan

Date

Karen S. Morgan

10-18-11

Please call 970-484-4065 or 970-224-3877 with any questions.



Administration Office
5201 St. Vrain Road
Longmont, CO 80503

September 2, 2011

Project Manager:
Nick Stremel

Boulder County Parks and Open Space
RFP #5038-08 Forestry Projects 2011 (Heil Valley Ranch)

Fifth Billing - Hauling

Phase 1 (130 acres)

104 acres hauling completed @ \$288.50/acre

30,004.00

Less 10% retainage

-3,000.40

TOTAL DUE

\$27,003.60

Karen S. Morgan

Date

Karen S. Morgan

9-2-11

Please call 970-484-4065 or 970-224-3877 with any questions.



Administration Office
5201 St. Vrain Road
Longmont, CO 80503

August 8, 2011

Project Manager:
Nick Stremel

OK to pay
Nick

Boulder County Parks and Open Space
RFP #5038-08 Forestry Projects 2011 (Heil Valley Ranch)

Fourth Billing - Road Permit Finally Issued
Roads:

Switchbacks	\$13,000.00
Between unit improvements	<u>\$9,000.00</u>
	\$22,000.00
Less 10% retainage	<u>-2,200.00</u> ✓
TOTAL DUE	\$19,800.00



081111 DCCPA

Karen S. Morgan

Karen S. Morgan

Date

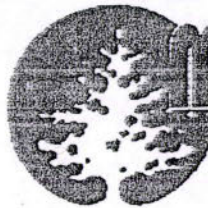
8-8-11

Please call 970-484-4065 or 970-224-3877 with any questions.

080511

Inv # 072811/MORGAN

INVOICE



MORGAN TIMBER PRODUCTS
 YOUR LOCAL FOREST STEWARDSHIP COMPANY
 2532 W. COUNTY RD. 54G FORT COLLINS, CO 80524 970-484-4065

Administration Office
 5201 St. Vrain Road
 Longmont, CO 80503

July 28, 2011

Project Manager:
 Nick Stremel

OK to pay
 NS

Boulder County Parks and Open Space
 RFP #5038-08 Forestry Projects 2011 (Heil Valley Ranch)

Phase Two (Third Billing)

24 acres cut / forward completed @ \$1581.50/acre
 (ALL 130 acres cut / forward completed)

\$37,956.00 49% -

Phase One (First Billing)

19.93 acres cut / forward completed @ \$1,964.62/acre
 (ALL 19.93 acres cut / forward completed)

\$39,154.88 51%

Less 10% retainage

3795.60
 3915.49
 7711.09

\$77,110.88
 -7,711.09/2

TOTAL DUE**\$69,399.79**

Karen S. Morgan

Date

Karen S. Morgan

7-28-11

Please call 970-484-4065 or 970-224-3877 with any questions.



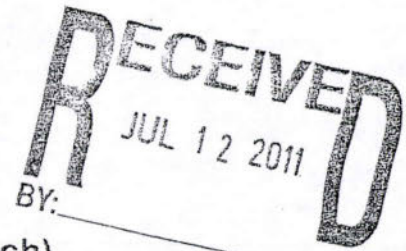
OK to pay
Nick

July 11,, 2011

Administration Office
5201 St. Vrain Road
Longmont, CO 80503

Project Manager:
Nick Stremel

Boulder County Parks and Open Space
RFP #5038-08 Forestry Projects 2011 (Heil Valley Ranch)



Phase Two (Second Billing)	
53 acres cut / forward completed @ \$1581.50/acre	\$83,819.50
Less 10% retain age	-8,381.95

TOTAL DUE

\$75,437.55 ✓

Karen S. Morgan

Date 071311 DCCPA

Karen S. Morgan

7-11-11

Please call 970-484-4065 or 970-224-3877 with any questions.

070811



6/24/11
OK for Payment
Nick S.

Administration Office
5201 St. Vrain Road
Longmont, CO 80503

June 24, 2011

Project Manager:
Nick Stremel

RECEIVED
JUN 24 2011
BY: _____

Boulder County Parks and Open Space
RFP #5038-08 Forestry Projects 2011 (Heil Valley Ranch)

Phase Two

53 acres cut / forward completed @ \$1581.50/acre

\$83,819.50

10% - < 8381.95
75 437.55

Bond Payment

(A copy of the cancelled check is enclosed)

\$12,188.00

~~\$96,007.50~~

TOTAL DUE

~~\$96,007.50~~

87625.55

Karen S. Morgan

Karen S. Morgan

Date

6-24-11

Please call 970-484-4065 or 970-224-3877 with any questions.

062011 DCCPA
04084901

06/11/11

Boulder County
General Ledger Transaction Details
10/4/2011

0171.35500002-75110
PFHESL000

Date	Description	Vendor Name	Subsystem References	Batch ID	Debit	Credit	Net
07/18/2011	HEIL VLY RNCH PHS I FORES'	MORGAN TIMBER PRODU	OH 071111/MORC P104900	OH087214	50,000.00	0.00	50,000.00
-- GL GRT-Parks Natural Resource (5500002) Land Mtnc Contracted Mowing (75110) -- BC POS HeilState Land Board Grant (PFHESL000) Land Mtnc Contracted (75110)							
08/04/2011	HEIL VLY RNCH PHS I FORES'	MORGAN TIMBER PRODU	OH 072811/MORC P104900	OH089905	35,239.39	0.00	35,239.39
-- GL GRT-Parks Natural Resource (5500002) Land Mtnc Contracted Mowing (75110) -- BC POS HeilState Land Board Grant (PFHESL000) Land Mtnc Contracted (75110)							
08/15/2011	HEIL VLY RNCH PHS I FORES'	MORGAN TIMBER PRODU	OH 080811/MORC P104900	OH091392	9,900.00	0.00	9,900.00
-- GL GRT-Parks Natural Resource (5500002) Land Mtnc Contracted Mowing (75110) -- BC POS HeilState Land Board Grant (PFHESL000) Land Mtnc Contracted (75110)							
Grand Total:					95,139.39	0.00	95,139.39

Boulder County
General Ledger Transaction Details
10/3/2011

OH 5500002
70410
PFHESL001

Date	Description	Vendor Name	Subsystem References	Batch ID	Debit	Credit	Net
06/30/2011	HEIL VLY RNCH PHS I FORES	MORGAN TIMBER PRODU	OH 062411/MORC P104900	OH084901	16,937.55	0.00	16,937.55
	-- GL GRT-Parks Natural Resource (5500002) Land Mtnee Contracted Mowing (75110)		-- BC POS HeilState Land Board Match (PFHESL001) Land Mtnee Contracted (75110)				
07/18/2011	CM/HEIL VLY RNCH PHS I FR	MORGAN TIMBER PRODU	OH 071111/MORC P104900	OH087214	25,437.55	0.00	25,437.55
	-- GL GRT-Parks Natural Resource (5500002) Land Mtnee Contracted Mowing (75110)		-- BC POS HeilState Land Board Match (PFHESL001) Land Mtnee Contracted (75110)				
08/04/2011	HEIL VLY RNCH PHS I FORES	MORGAN TIMBER PRODU	OH 072811/MORC P104900	OH089905	34,160.40	0.00	34,160.40
	-- GL GRT-Parks Natural Resource (5500002) Land Mtnee Contracted Mowing (75110)		-- BC POS HeilState Land Board Match (PFHESL001) Land Mtnee Contracted (75110)				
08/15/2011	CM/HEIL VLY RNCH PHS I FR	MORGAN TIMBER PRODU	OH 080811/MORC P104900	OH091392	9,900.00	0.00	9,900.00
	-- GL GRT-Parks Natural Resource (5500002) Land Mtnee Contracted Mowing (75110)		-- BC POS HeilState Land Board Match (PFHESL001) Land Mtnee Contracted (75110)				
09/13/2011	HEIL VLY RNCH PHS I FORES	MORGAN TIMBER PRODU	OH 090211/MORC P104900	OH094729	24,362.66	0.00	24,362.66
	-- GL GRT-Parks Natural Resource (5500002) Land Mtnee Contracted Mowing (75110)		-- BC POS HeilState Land Board Match (PFHESL001) Land Mtnee Contracted (75110)				
Grand Total:					110,798.16	0.00	110,798.16

file: docs/PurchaseOrders/10_PO_Tracking_Boilder_AUG.xls

Vendor: Morgan Timber
Project: Forestry Management
PO # P103304

Total PO Amount: \$120,000.00

Notice of Final Settlement Required?

YES	NO

PO/Line 1 017.5500007.75110.PFHEU5000.75110					PO/Line 2 027.6415700.800189002.75110					Total Retainage Held Lines 1 & 2	Total PO Available Lines 1 & 2
	Amount	Retainage	Payment	Available		Amount	Retainage	Payment	Available		
Line 1 Amount:	34,920.00				Line 2 Amount:	47,520.00					
Invoice #					Invoice #						
110810/MORGAN	24,732.00	2473.2	22,258.80		101710/MORGAN	14,544.00	1,454.40	13,089.60			
111710/MORGAN	10,188.00	1,018.80	9,169.20		120910/MORGAN	32,976.00	3,297.60	29,678.40			
120910/retainage		-3,492.00	3,492.00		120910/retainage		-4,752.00	4,752.00			
Totals:	34,920.00	0.00	34,920.00	0.00	Totals:	47,520.00	0.00	47,520.00	0.00	0.00	0.00

PO/Line 3 027.6415700.75110.800189002.75110					PO/Line 4					Total Retainage Held Lines 1, 2, 3 & 4	Total PO Available Lines 1, 2, 3 & 4
	Amount	Retainage	Payment	Available		Amount	Retainage	Payment	Available		
Line 3 Amount:	37,560.00				Line 4 Amount:						
Invoice #					Invoice #						
2092010/MORGAN	37,560.00	3756	33,804.00								
120910/retainage		-3,756.00									
Totals:	37,560.00	0.00	33,804.00	3,756.00	Totals:	0.00	0.00	0.00	0.00	0.00	3,756.00

1/2/11 \$120K spent

Retainage



Boulder County Purchasing Department
PO Box 471
Boulder, Co. 80306
(303) 441-3525

11/22/2010

PURCHASE ORDER NO.

P103304

TO RECEIVE PROPER PAYMENT THE ABOVE PO NUMBER MUST APPEAR ON
ALL INVOICES, BILLS OF LADING, PACKAGES, CORRESPONDENCE, ETC.

VENDOR: Morgan Timber Products
2532 W County Rd 54G
Ft Collins, CO 80524
PHONE# (970) 484-4065

DELIVER TO: Boulder County Parks and Open Space
5201 St Vrain Rd
LONGMONT, CO 80503

SEND INVOICE TO: Boulder County Parks and Open Space
5201 St Vrain Rd
LONGMONT, CO 80503

Req. # R304182	Vendor # V08562	Ship Via Ground	FOB Destination	Terms NET 30	
Workforce Training Rel.	Requestor Renee Edick		Client Name	Date Required/Void if not used by	
QTY	PART NO.	DESCRIPTION	UNIT	UNIT PRICE	EXTENDED PRICE
1		FORESTRY MANAGEMENT PHASE I HEIL VALLEY RANCH INCLUDES HARVESTING, TRANSPORTATION AND IF APPROVED BY COUNTY ROAD IMPROVEMENT. RATE IS \$1,145.00/PER ACRE AREAS U4, U6-U7 AS SPECIFIED IN BOCC AMENDMENT APPROVED 10/26/2010; LINE 1 AND LINE 2 WILL NOT EXCEED A COMBINED TOTAL OF \$82,440.00; RETAINAGE APPLIES 10% AND FINAL NOTICE. ACCT. CODE: 017.5500007.75110.PFHEU5000.75110	EA	34,920.00	34,920.00
1	ground	FORESTRY MANAGEMENT PHASE I HEIL VALLEY RANCH INCLUDES HARVESTING, TRANSPORTATION AND IF APPROVED BY COUNTY ROAD IMPROVEMENT. RATE IS \$1,145.00/PER ACRE AREAS U4, U6-U7 AS SPECIFIED IN BOCC AMENDMENT APPROVED 10/26/2010; LINE 1 AND LINE 2 OF THIS PURCHASE ORDER WILL NOT EXCEED A COMBINED TOTAL OF \$82,440.00; RETAINAGE APPLIES 10% AND FINAL NOTICE. ACCT. CODE: 026.6415700.800189002.75110	EA	47,520.00	47,520.00
1	work	FORESTRY MANAGEMENT PHASE II HEIL VALLEY RANCH OPEN SPACE INCLUDES HARVESTING, TRANSPORTATION AND IF APPROVED BY COUNTY ROAD IMPROVEMENT AS SPECIFIED IN CONTRACT AMENDMENT APPROVED ON 10/26/2010 BY BOCC. THIS AMOUNT	EA	37,560.00	37,560.00 \$57,000

557,000



Boulder County Purchasing Department
PO Box 471
Boulder, Co. 80306
(303) 441-3525

11/22/2010

PURCHASE ORDER NO.

P103304

TO RECEIVE PROPER PAYMENT THE ABOVE PO NUMBER MUST APPEAR ON
ALL INVOICES, BILLS OF LADING, PACKAGES, CORRESPONDENCE, ETC.

VENDOR: Morgan Timber Products
2532 W County Rd 54G
Ft Collins, CO 80524
PHONE# (970) 484-4065

DELIVER TO: Boulder County Parks and Open Space
5201 St Vrain Rd
LONGMONT, CO 80503

SEND INVOICE TO: Boulder County Parks and Open Space
5201 St Vrain Rd
LONGMONT, CO 80503

Req. # R304182	Vendor # V08562	Ship Via Ground	FOB Destination	Terms NET 30	
Workforce Training Rel.	Requestor Renee Edick	Client Name	Date Required/Void if not used by		
QTY	PART NO.	DESCRIPTION	UNIT	UNIT PRICE	EXTENDED PRICE
		WILL NOT EXCEED \$37,560.00. TOTAL AMOUNT OF PURCHASE ORDER WILL NOT EXCEED \$120,000.00; RETAINAGE 10% APPLIES AND FINAL NOTICE. ACCT. CODE: 026.6415000.75110.800189002.75110			
				TOTAL	120,000.00

Tax Exemption # 98-03561-000

This PO is subject to certain terms and conditions which can
be found at: www.bouldercounty.org/rfp

Jenny Oberding
Authorized Signature

Client Signature - Workforce Use only



Administration Office
5201 St. Vrain Road
Longmont, CO 80503

December 9, 2010

Project Manager:
Scott Golden

RECEIVED
DEC 09 2010
BY: _____

Boulder County Parks and Open Space
RFP #5038-08 Forestry Projects (Heil Valley Ranch)

Full payment on RFP #5038-08
Phase Two

100% complete on	32.8 acres	@ \$1145./acre	\$37,560.00
Less 10% retain age			<u>-\$3,756.00</u>

010 : 17 DORA
01420294

TOTAL DUE**\$33,804.00**

Karen S. Morgan

Date

Karen S. Morgan12-9-10

Please call 970-484-4065 or 970-224-3877 with any questions.



Administration Office
5201 St. Vrain Road
Longmont, CO 80503

December 9, 2010

Project Manager:
Scott Golden

Boulder County Parks and Open Space
RFP #5038-08 Forestry Projects (Hell Valley Ranch)

Final progress payment on RFP #5038-08
Phase One

100% complete on 72 acres

Balance unbilled of 40%

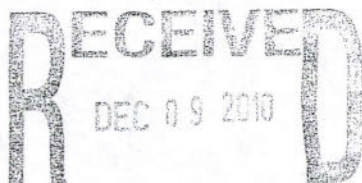
Less 10% retainage

28.8 acres @ \$1145./acre

\$32,976.00

- \$3,297.60

\$29,678.40



BY: _____

TOTAL DUE

\$29,678.40

Karen S. Morgan

Date

Karen S. Morgan

12-9-10

Please call 970-484-4065 or 970-224-3877 with any questions.

12/14/10



Administration Office
5201 St. Vrain Road
Longmont, CO 80503

November 8, 2010

Project Manager:
Scott Golden

Boulder County Parks and Open Space
RFP #5038-08 Forestry Projects (Heil Valley Ranch)

First progress payment on RFP #5038-08
Phase One

11/9/10
OK
TO PAY
500 ✓

30% complete 21.6 acres @ \$1145./acre

\$24,732.00

TOTAL DUE

017,532.00

\$24,732.00

1070 Retainage

- 2473.20

22258.80

NOV 12 2010

112210 DCCPA

Karen S. Morgan

Karen S. Morgan

Date

11-08-10

Please call 970-484-4065 or 970-224-3877 with any questions.



Administration Office
 5201 St. Vrain Road
 Longmont, CO 80503

November 17, 2010

Project Manager:
 Scott Golden

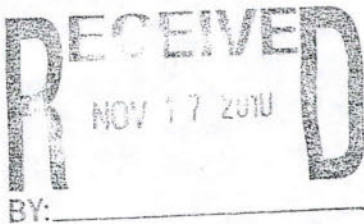
Boulder County Parks and Open Space
 RFP #5038-08 Forestry Projects (Heil Valley Ranch)

Second progress payment on RFP #5038-08
Phase One

60% complete on 72 acres

An additional 30% due 21.6 acres @ \$1145./acre

\$24,732.00



TOTAL DUE

\$24,732.00

10% Retainage - 2473.20
\$22258.80

017.55W \$9164.70
 6415.2W \$13089.10

Karen S. Morgan

Karen S. Morgan

Date

112210 DCCPA

11-17-10

Please call 970-484-4065 or 970-224-3877 with any questions.

②
 (2) pays

P&H

11/17/10
 ok to pay
[Signature]

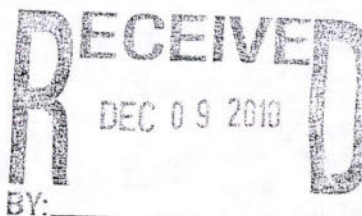
OK.



Administration Office
5201 St. Vrain Road
Longmont, CO 80503

December 9, 2010

Project Manager:
Scott Golden



OK TO PAY
[Signature]
12/9/10

Boulder County Parks and Open Space
RFP #5038-08 Forestry Projects (Heil Valley Ranch)

Phase One

100% complete on 72 acres

10% retainage withheld on 1st check

\$4,946.40

10% retainage withheld on final pymt.

\$3,297.60

\$8,244.00

Phase Two

100% complete on 32.8 acres

10% retainage withheld

\$3,756.00

041061159

11.11 DOCRA

TOTAL DUE**\$12,000.00**

Karen S. Morgan

Date

Karen S. Morgan

12-9-10

Please call 970-484-4065 or 970-224-3877 with any questions.

12/5/10

Boulder County
BOCO: Transaction Detail By Fund, CC, Proj, Object and Vendor
 From 1/1/2010 to 8/30/2011

Date	Description	Subsystem	References	Vendor	Batch ID	Debit	Credit	Balance
Fund: 017	Cost Center: 5500		Project: PFHEU5000					
Fund: 017								
Cost Center: 5500	GRT-Parks CO Dept of Wildlife							
Sub Cost Center: 007								
BC Key PFHEU5000 - POS HeilValleyRestoration								
GL Object 75110 - Land Mtnce Contracted Mowing								
11/24/10	FOREST MGMT/ HEIL PHS I	OH	110810/MORGAN P103304	Morgan Timber Products	OH054544	22,258.80	0.00	22,258.80
11/24/10	FOREST MGMT/ HEIL PHS I	OH	111710/MORGAN P103304	Morgan Timber Products	OH054546	9,169.20	0.00	31,428.00
12/31/10	RETAINAGE/HVR PHS I	OH	120910/RETAIN P103304	Morgan Timber Products	OH061159	3,492.00	0.00	34,920.00
06/30/11	HEIL VLY RNCH PHS I FORESTRY	OH	062411/MORGAN P104900	Morgan Timber Products	OH084901	58,500.00	0.00	93,420.00
GL Object 75110 Total:						93,420.00	0.00	93,420.00
BC Key PFHEU5000 Total:						93,420.00	0.00	93,420.00
Total Sub Cost Center: 007						93,420.00	0.00	93,420.00
Total Cost Center: 5500						93,420.00	0.00	93,420.00
Total Fund: 017						93,420.00	0.00	93,420.00

Report Total: 93,420.00

Retainage 40,500.00
 93,420.00

EXHIBIT B
GRANT REPORT/REIMBURSEMENT REQUEST
COLORADO FOREST RESTORATION PILOT GRANT

Project Number: 1929200-BO-1

In order to receive reimbursement, you **must** provide documentation supporting your expenditures covered by this initial disbursement and the corresponding match. You may request reimbursement on a monthly basis as you incur expenses, however the final 10% of the award amount will not be released until the final closeout report is received and accepted. Reimbursement requests must be accompanied by receipts for costs incurred and documentation of matching funds. **Matching Funds are expenses for goods, services and labor necessary for project implementation and incurred by the applicant.**

1. Project #:1929200-BO-1	2. Project Funding Amount: 100,000	3. Community Protected: Lyons & Lefthand Canyon
4. Make Payment To: Name: Boulder County Parks & Open Space Address: 5201 St. Vrain Road Longmont, Co 80503		5. Period of Performance: 4/22/2010-9/1/2011 From: To:

6. What was accomplished? (Quantity or Status of Project. Please provide a description of accomplishments. Please be specific and report numbers such as acres treated, numbers of defensible spaces, tons of cubic feet or yards of slash collected, number of presentations, number of plans written. Attach additional sheets as necessary.)

Please refer to the attached Final report.

7. Reimbursement Request:

Project to Date Reimbursement Request Amount cannot exceed the total Project obligation as identified in the Project Document. The Total Reimbursement Request Amount cannot exceed the Total Matching Funds amount for the period being billed.

	Current Period				Project to Date			
	Reimbursement Amount Requested For Out of Pocket Expenses	Matching Funds		Total Project Costs	Reimbursement Amount Requested For Out of Pocket Expenses	Matching Funds		Total Project Costs
		Cash (hard match)	Donated (Inkind match)			Cash (hard match)	Donated (Inkind match)	
Labor*	\$100,000.00	\$114,920.00	\$29,144.00	\$244,064.00	\$100,000.00	\$114,920.00	\$29,144.00	\$244,064.00
Material**	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total	\$100,000.00	\$114,920.00	\$29,144.00	\$244,064.00	\$100,000.00	\$114,920.00	\$29,144.00	\$244,064.00

Donated time and materials can only be counted towards the matching component.

* Use actual costs or \$20.85/hour for donated or volunteers' time; labor costs are actual BCPOS staff and Youth Corps

** Use actual costs or fair market value of donated materials, supplies, or equipment use.

8. Amount Paid to CSFS for Products and/Or Services : \$0

9. I request reimbursement in the amount of \$100,000 for the work completed and documented above. I certify that to the best of my knowledge and belief this report is correct and complete and that all outlays reported are for the purposes set forth in the project documents.

Signature: Budget Mc Carthy

Date: 9/1/2011

All expenses are true and accurate and all cost share is true and accurate.

10. Certification (To be completed by CSFS District):

Work meets minimum standards as set forth by CSFS.

Signature:

Date:

9/1/11

Final Report-HB1199 2009 Grant at Heil Valley Ranch

In 2010 Boulder County Parks and Open Space (BCPOS) was awarded a \$100,000 Community Forest Restoration, House Bill 1199 (2009) grant to support a large-scale phased thinning project at Heil Valley Ranch (Heil), in northwestern Boulder County near the Town of Lyons. Heil is a 6,800-acre open space property owned by Boulder County, that is located north of Lefthand Canyon at T2N, Range 70 West, at an elevation of 6000 to 6500 ft., and adjacent to (3) private subdivisions to the east of Heil, including approximately 112 homes in the Lefthand Watershed (please refer to the attached project area map). BCPOS was previously awarded grant funding in 2007 for thinning a prior phase on Heil that included 160 acres. For our 2010-2011 project, BCPOS completed thinning units in Project Area 5 of Heil, which is adjacent to and west of private subdivisions and southwest of Lyons.

Scope of Work Completed: With the money awarded to us from the 2009 HB1199 funding, BCPOS was able to complete 104 acres of forest restoration in Unit 5 on Heil. Grant funds were used for "trees hitting the ground" with Boulder County paying for the costs associated with hauling the material away. A tracked machine with a Cut-to-Length processing head was used to fell, delimb and pre-bunch the material within the unit. A second machine, a high-floatation forwarder, followed behind and picked up the pre-bunches for transport to a central landing. From there a short-chassis truck with a self-loader transported the material offsite to a storage area in Longmont, for utilization at a later time in Boulder County's biomass plant. Overall the entire operation from stump to storage required 3 individuals with expertise in a specific machine. This process allowed for a lower impact on the land and significantly cut down on the amount of site rehabilitation.

Accomplishments: This project was designed based on the project prescription developed by BCPOS forestry staff. A summary of our prescription (the full prescription is included as an Attachment to this report) is shown below:

- * Reduce basal area to 40-60 square ft/acre, creating an uneven-aged clumps of 2-60 trees
- * Create openings of .5-5 acres over 50% of the project area
- * Retain all trees > 20" dbh
- * Retain Rocky Mountain juniper where it is not a ladder fuel for ponderosa pine
- * Maintain overall canopy cover < 30%
- * Prevent ponderosa pine encroachment in designated meadows
- * Maintain or create 50-80 linear ft of large downed logs > 10" dbh;
- * Stumps will be cut to 3" and dressed to maintain aesthetics;
- * Continue to maintain wildlife cover as prescribed by wildlife staff.

Based on this prescription, the objectives identified for this project were to:

- 1) Emulate pre-settlement forest structure by creating a clumpy, uneven-aged forest, interspersed with openings that more closely resemble conditions that existed prior to the interruption of historic fire regime;
- 2) Maintain existing large openings and create additional openings;
- 3) Reduce the overall basal area to 40-60 ft²/acre;
- 4) Reduce the overall canopy cover to 15-30%.

In developing the restoration proposal for Heil, emphasis was placed on forest restoration goals of BCPOS and the fire mitigation needs of the Lefthand Fire Protection District. The scientific foundation for this project was based on forest restoration and fuel reduction technologies. This project area is located within the area recommended for Forest Restoration as highlighted in the Front Range Fuels Treatment Partnership Recommendations and this unit was highlighted in the Lefthand FPD CWPP.

BCPOS followed restoration guidelines from the Colorado Forest Restoration Institute and GTR's from the Rocky Mtn. Research Station. Based on historical data and current data, BCPOS determined that the guidelines for Ponderosa pine forest restoration applied at this site. Historical conditions were verified by spatially locating pre-settlement trees on the property as well as referencing historical photos from 1911. A pre-thinning inventory of the forested stands was completed by the BCPOS Forestry Division. Prior to this thinning project the average basal area was 100 square feet/acre; the average diameter was 10.6 inches; the average canopy cover was 68%; the average age was 96 ybp. BCPOS had previously completed a first entry for this project site that occurred between 2000-2004 and only thinned small diameter fuels and did not restore the clumps and the openings.

The completion of this project met all of the objectives that we developed prior to this treatment. BCPOS created an additional 30 acres of openings, reducing the canopy cover to 30% and created a mosaic of uneven-aged, clumpy stands of trees and openings. The basal area was reduced to an overall average of 55 ft²/acre. Both our canopy cover and basal area will be reduced further when we implement our prescribed fire treatment (three to five years after thinning operations are (Overall 1300 tons of material was cut in the units associated with this grant funding).

Summary-Actual Costs: For the HB1199 2009 portion of this project, BCPOS hired Morgan Timber to provide contracted work to thin 104 acres in Unit 5. A team of Boulder County Youth Corp also worked at the site to pile slash and cuttings over a 10 week period. Grant funding was used to pay the contractor to complete the work to our specifications. Total costs for the overall Heil project and the HB 1199 2009 portion were as follows:

Total Project Costs-254 Acres

Type	HB1199 2009 Grant	SFA Grant	BCPOS Match
Contract Costs	\$100,000	\$100,000	\$244,997
Personnel-BCPOS			3,012
Boulder County Youth Corp			<u>26,132</u>
Total:	\$100,000	\$100,000	\$274,141

Total Overall Heil-Project Costs: \$474,141

The portion allocated to HB1199 2009 -104 acres:

Type	HB199 2009	BCPOS
Contract Costs	\$100,000	\$114,920
Personnel-BCPOS		3,012
Boulder County Youth Corp		<u>26,132</u>
Total:	\$100,000	\$144,064

Summary-Matching Funds: For the HB 1199 2009 portion of this project, BCPOS contributed \$144,064 in matching funds to this project through an \$114,920 cash match and \$29,144 of in-kind support from staff time providing on-the ground supervision and a 10-week Boulder County Youth Corp Team.

Summary Youth Corps Participation: During the summer of 2011, BCPOS funded a Youth Corps crew to pile slash along the trail system within the treatment unit. One crew of 10 crew members and two leaders were tasked with piling all activity fuels within one chain (66 ft.) of both sides of the trails. By the end of their season the crew had made 34 piles in a 10 acre area. In addition to piling activity fuels, the crew also assisted in our invasive species control by pulling and bagging over 100 ft³ of mullein, Canada thistle and musk thistle seed heads.

Before & After Photos: Before and after photos are attached to this Final Report.

Map & GIS Data: A map of the project area is attached to this Final Report. GIS shape files have been included with the attached cd.

Attachments

1. Before & After Photos
2. Project Maps
3. Prescription
4. GIS Data



HVR_PA5U4TIP6_E_09



HVR_PA5U4TIP6_N_09



HVR_PA5U4TIP6_S_09



HVR_PA5U4TIP6_W_09



HVR_PA5U6T2P7_E_09



HVR_PA5U6T2P7_N_09



HVR_PA5U6T2P7_S_09



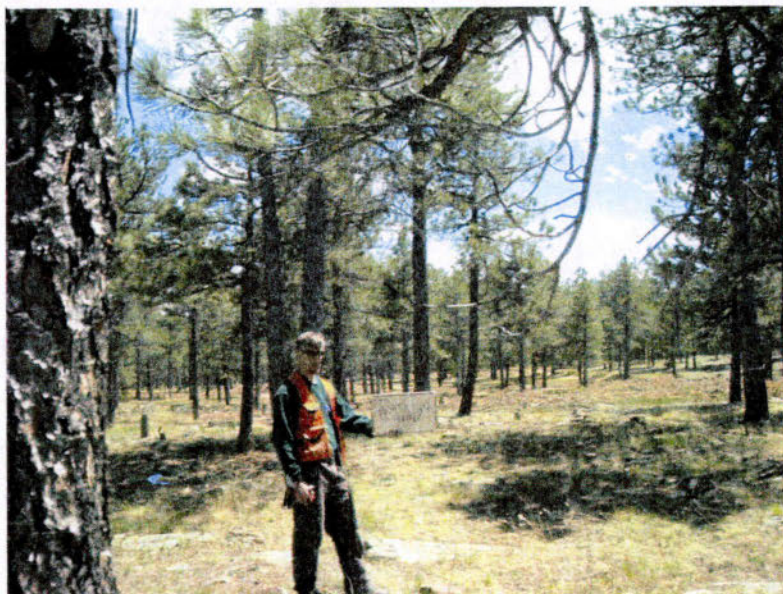
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HVRPA5U4T1P6_N



HVRPA5U4T1P6_E



HVRPA5U4T1P6_S



HVRPA5U4T1P6_W



HVRPA5U6T2P7_N_11

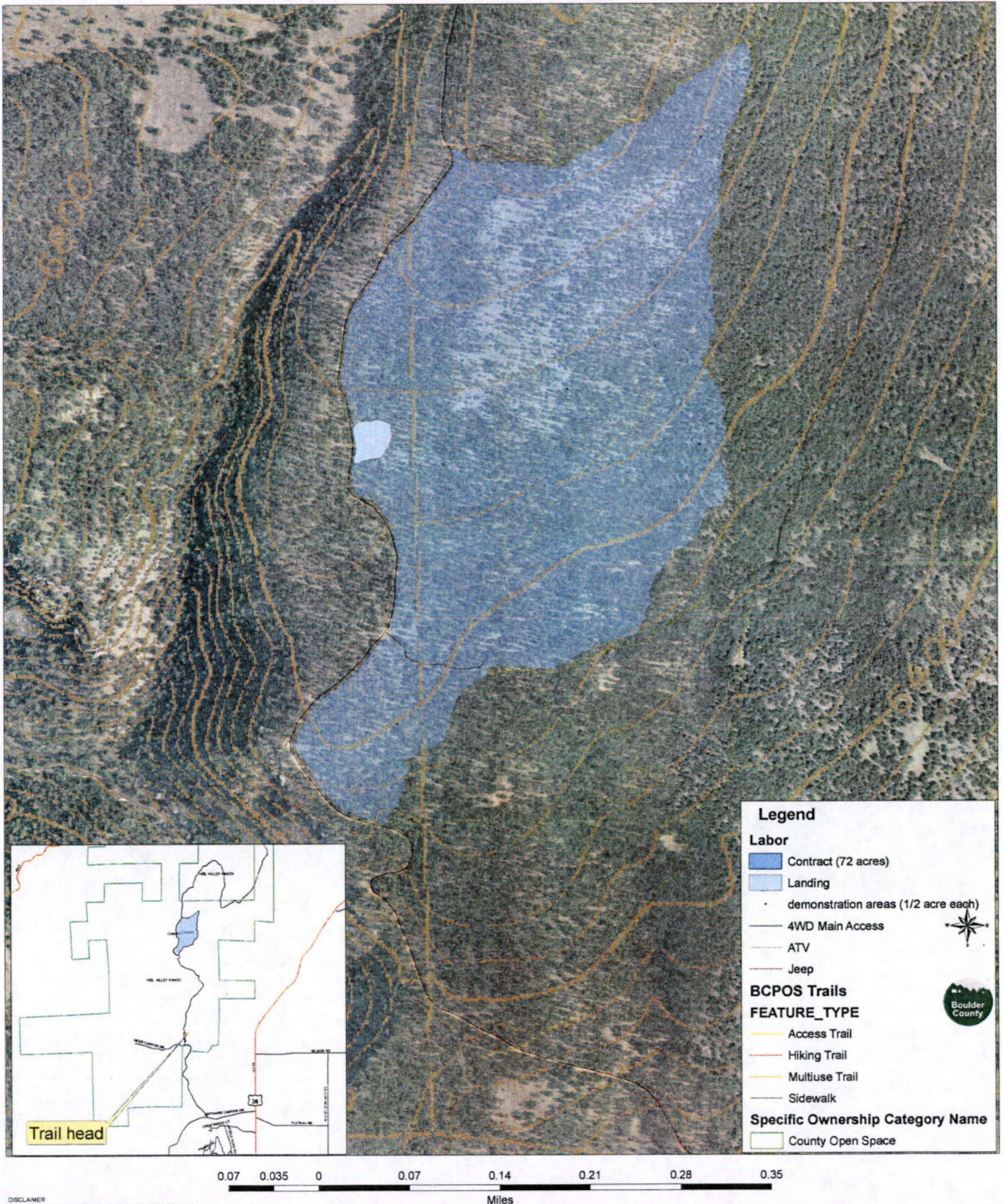
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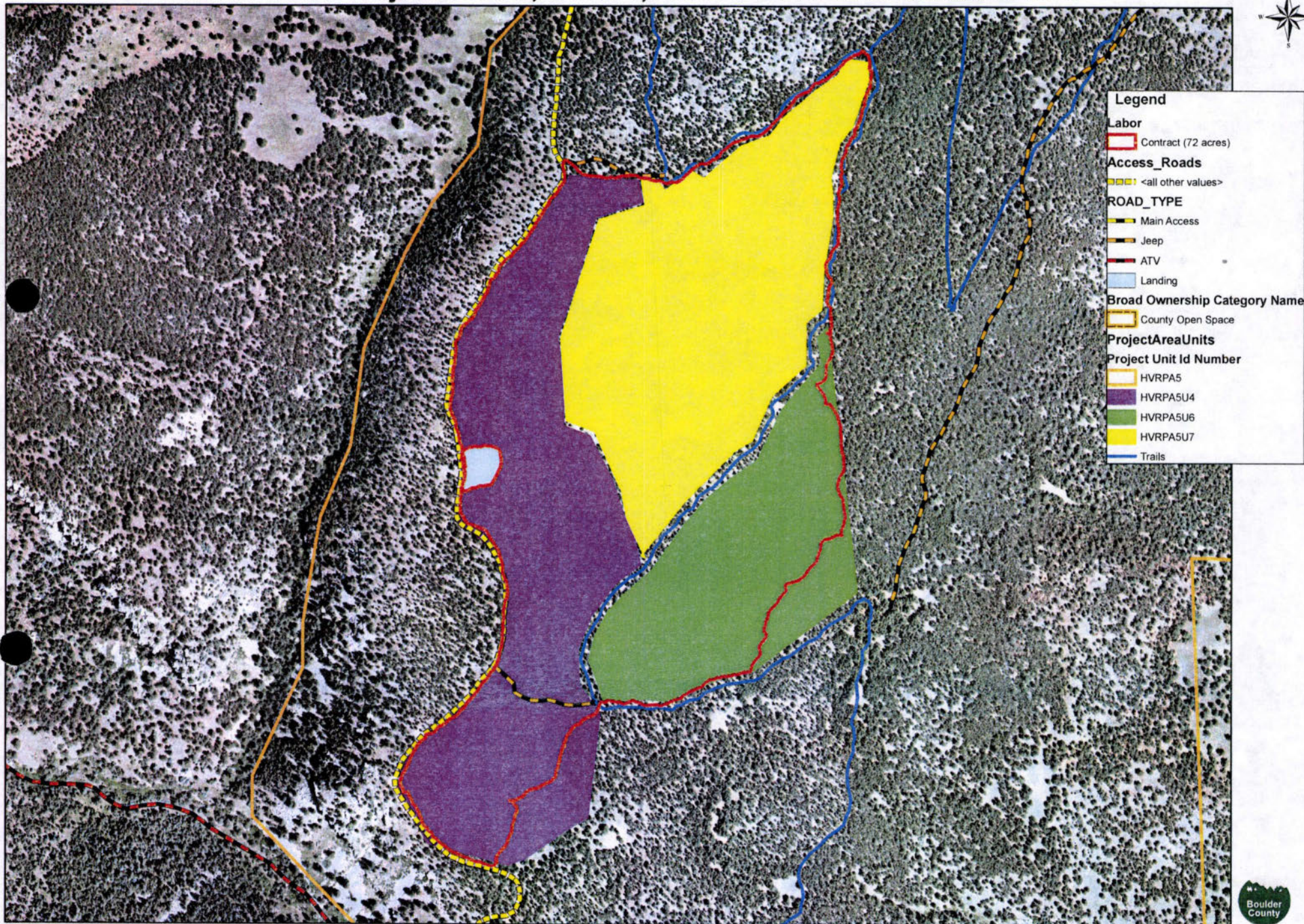
HVRPA5U6T2P7_S_11

HVRPA5U6T2P7_W_11

Heil Valley Ranch 2010 Contract



Heil Ranch Project Area 5, Units 4,6 and 7 2010-2011 Contract Unit



- Legend**
- Labor**
 - Contract (72 acres)
 - Access_Roads**
 - <all other values>
 - ROAD_TYPE**
 - Main Access
 - Jeep
 - ATV
 - Landing
 - Broad Ownership Category Name**
 - County Open Space
 - ProjectAreaUnits**
 - Project Unit Id Number
 - HVRPA5
 - HVRPA5U4
 - HVRPA5U6
 - HVRPA5U7
 - Trails

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DISCLAIMER
This map is for illustrative purposes only, and is not suitable for parcel specific decision making. The areas depicted here are approximate. More site specific studies may be required to draw accurate conclusions.

0 200 400 800 1,200

Feet

Map by: C. Julian 6-24-10





Heil Valley Ranch Open Space Project Area 5 Units 4,5, 6 and 7 Forest Restoration/Fuels Management Project

1. Project Area Background

North Foothills Open Space (NFOS) was conceptualized during the development of the initial Boulder County Comprehensive Plan in the 1970s. Much of the area was designated as a "Scenic Area" on the Open Space Map. The designations stemmed from the beauty, undeveloped nature, cultural value and natural resources of these lands. Several major acquisitions and land saving actions have occurred (Figure 1). Boulder County Parks & Open Space Department (BCPOS) made their first purchase of land in North Foothills Open Space in 1990 with the acquisition of Trevarton Ranch. For the 1,207 acre parcel, 491 acres were purchased outright while a conservation easement was acquired on the remaining 716 acres.

Beginning in 1993, Boulder County began acquiring portions of two of the most significant properties in the county. The Heil Valley Ranch totals 4,923 acres. The Hall Ranch covers 3,205 acres. Those purchases are now complete. Heil Valley Ranch totals 6,326 acres as of 2010.

The department approved a management plan for the North Foothills Open Space, which includes both Hall and Heil Ranch in 1996. The plan can be found on the Boulder County website within the Parks and Open Space section. Objectives for vegetative resource management and more specifically the forest and grassland management, are listed in the Desired Future Conditions Section. The project area aligns with Areas One and Two on Figure 5 in Volume 2 of the NFOSMP, identified as vegetation management priority areas. Lastly, the Colorado State Forest Service (CSFS) highlighted this area as an area that needs forest management in a report to BCPOS in 1998.

Lefthand Fire Protection District has also completed a Community Wildfire Protection Plan, which identifies this site as a high priority for wildfire mitigation to protect subdivision to the east from catastrophic wildfire. Within a two mile radius, there have been at least six fires >1 acre since 2003. The largest was the Overland Fire of 2003, which consumed 3,500 acres.

The CSFS and the former private landowner, treated a portion of Heil Project Area Five (PA5) in the 1980's. BCPOS treated a portion of Heil PA5 between 1999-2004. The goal with that treatment was a shaded-fuelbreak. All species below 6" in diameter were removed. Those prescriptions reference a second entry into those units in the near future.

A detailed inventory of both overstory and understory vegetation was completed in September of 2009. The following document includes a baseline inventory and recommended forest restoration prescription for Heil PA5. In developing this restoration proposal we have placed emphasis on forest restoration goals of BCPOS and the fuels reduction needs of the Boulder County Sheriff's Department and Lefthand Fire Protection District.

2. Historical Stand Condition

Refer to Boulder County Parks and Open Space Forest Management Policy, Appendix A, Lower Montane Life Zone pages 22-32. (Document can be found at [G:\Forestry-Fire\Management-Work Plans\Forest Management Policy](#)).

3. Current Stand Condition

Forest overstory vegetation data was collected with a basal area factor prism of 10 (BAF10) via six variable radius plots, located along 2 random transects. Data was then extrapolated for the entire unit using the Forest Vegetation Simulator software (FVS). Refer to figures 1- 6 for additional metrics for PA5 Units 4,6,7.

A. Overstory Vegetation

Project area five is 664 acres. The contract is 72 acres broken into three units; Unit 4 is 29 acres, Unit 6 is 16 acres and Unit 7 is 27 acres. The elevation of the units range from approximately 6,700 feet in elevation. Project Area 5 Units 4, 6 and 7 (HVRPA5U4,6,7) consists mostly of *Pinus ponderosa* with *Sabina scopulorum* and *Psuedotsuga menziesii* making up the rest of the forest overstory structure. Forest overstory vegetation data was collected with a basal area factor prism of 10 (BAF10) via 6 variable radius plots located along 2 random transects. Among the 6 plots sampled, slopes ranged from 2% to 17%, with a mean of 9.3%. The dominant aspect is southeast (150°). Total average canopy cover was calculated at 62% closed, with a mean tree height of 38 ft. (n = 59, sd = 7.5 ft., max = 60 ft.). Basal area (BA) was calculated at 98 ft²/acre (n = 6, sd = 45 ft²/acre). The mean calculated diameter at breast height (dbh) was 12.1 in. (n=59, sd = 2.8 in., max = 25.4 in.). The mean kind (a scale with 1 being alive and 3 being standing dead) was 1, with a mean vigor (1 being healthy/good form and 4 being suppressed) of 2. The mean dwarf mistletoe (DM) rating for *Arceuthobium vaginatum* subs. *Cryptopodum* rating was 0 for sampled trees, but is present within the unit. The average age of the sampled trees in PA5U4,6,7 is 95 YBP with a standard deviation of 27 (n=14).

B. Understory Vegetation

Forest understory vegetation data for PA5U4,6,7 was collected via 6 variable radius plots, located at the center point of each overstory plot. The mean ground cover was as follows: grass 24%; forbs 8%; rock 16%; duff 36%, litter 16%; bare ground <1%;

and weeds/shrubs made up less than 1%. Species identified at plot locations: *Ambrosia sp.*, ragweed; *Pascopyrum smithii*, western wheatgrass; *Linaria genistifolia subsp. dalmatica*, dalmation toadflax; *Andropogon gerardii*, big bluestem; *Poa compressa*, Canada bluegrass; *Poa pratensis*, Kentucky bluegrass; *Shepherdia canadensis*, buffalo berry; *Anisantha tectorum*, cheatgrass; *Agropyron desertorum*, crested wheatgrass; *Carex sp.*, sedge; *Heterotheca villosa*, golden aster; *Hesperostipa comata*, needle and thread;

Figure 1. Overstory Vegetation Data; Basal Area and Diameter Summary (Inventory Conditions)

Stand=2010_contract Year=2009 Inventory conditions				
File: jly_001.svs				
Summary is for all species				
Tree list summary:				
Origin:	(0.0,0.0)			
Size:	208.7 by 208.7 (1.00 acres)			
Units:	ENGLISH			
Total objects:	175	(175 per acre)		
Standing live trees (using FVS plant class codes):				
	Mean	SD	Min	Max
dbh	9.8	2.6	6.5	23.7
ht	35.2	8.4	21.0	60.0
Basal area:	94.3		(94.3 per acre)	
Number of trees:	170		(170 per acre)	
Standing dead trees (using FVS plant class codes):				
	Mean	SD	Min	Max
dbh	11.1	2.0	9.6	13.3
ht	30.2	9.3	20.0	37.0
Basal area:	3.4		(3.4 per acre)	
Number of trees:	5		(5 per acre)	
Downed trees and logs (status code 0, 10, 3, or 13):				
No downed logs to summarize				

Figure 2. Overstory Vegetation Data; Canopy Cover, Kind, DM Rating and Age Summary. (Inventory Conditions)

Metric	2009 Conditions	Standard Deviation
Basal Area	98.3	45.4
Canopy Cover	62%	22.2
Kind	1.0	.1
Vigor	2.0	.5
Site Index	38	
Mean Age Cored	94.8 ybp	27.0
Mean R. Growth	6.4 (1/20")	5.6
Slope	9.3%	6.2
Aspect	150.3 degrees	19.2
DM Rating	0.0	0.0

All Figures represent conditions as inventoried in 2009 in Heil PA5 Units 4,6,7. Figures are outputs from FVS.

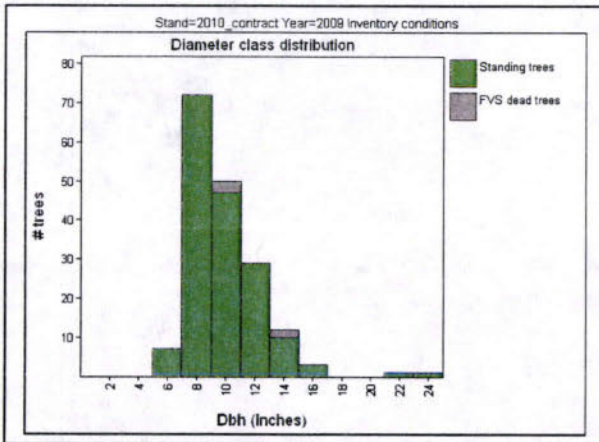


Figure 3. Diameter Class Distribution

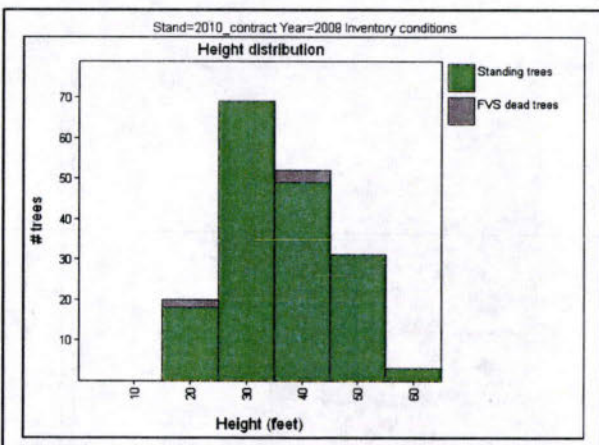


Figure 4. Height Distribution

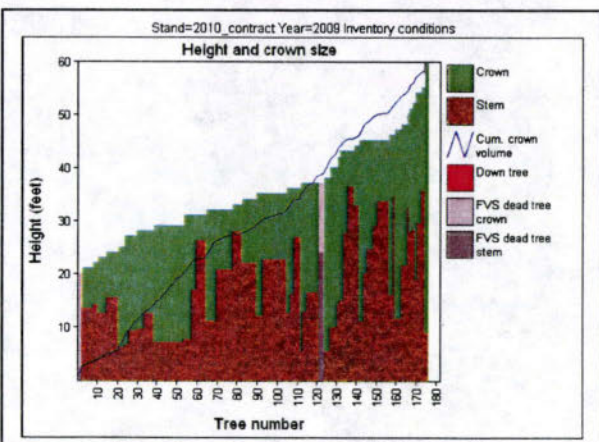
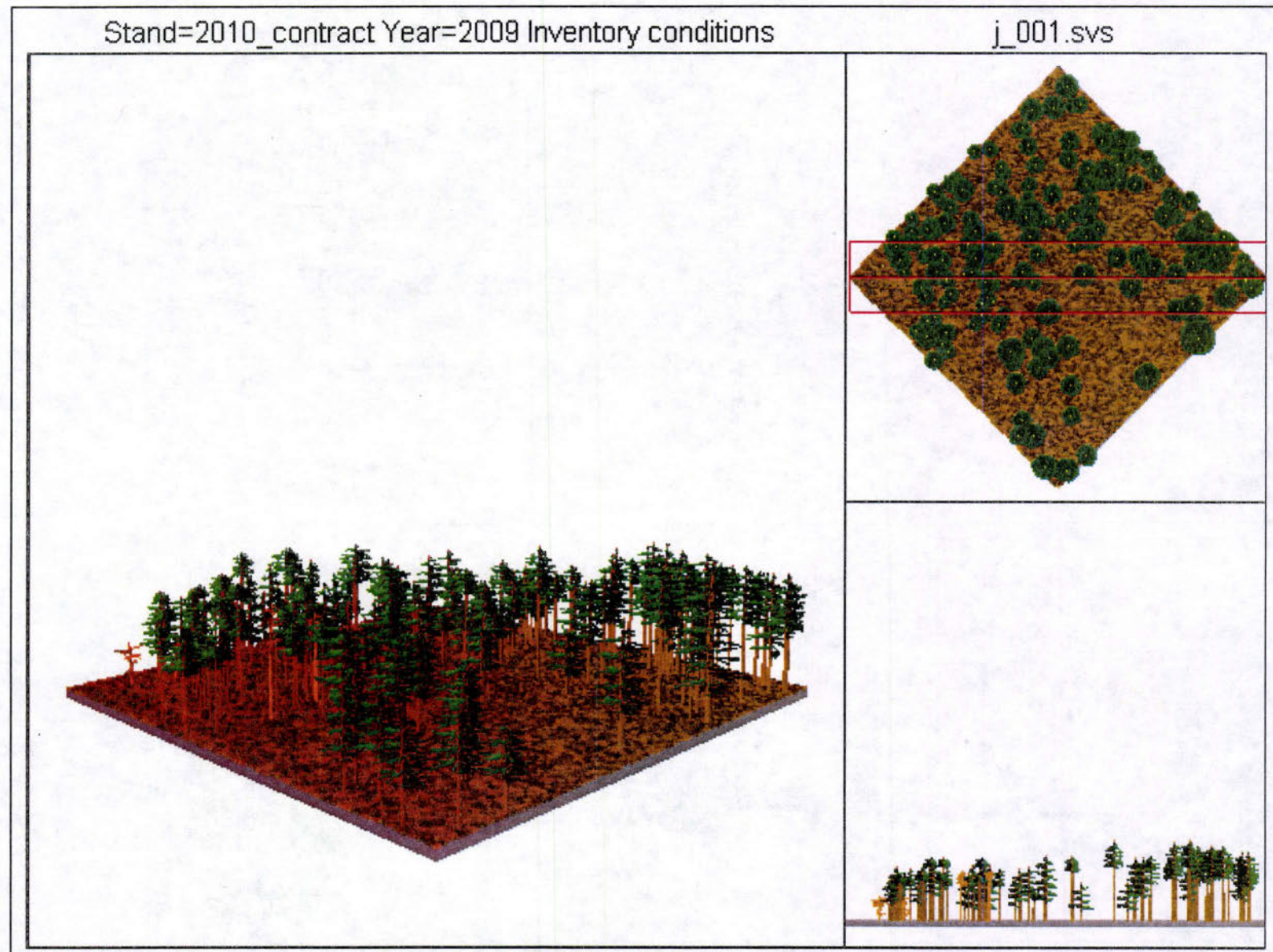


Figure 5. Height and Crown Size

Figure 6. Overhead, Perspective and Side Views



4. Desired Stand Condition

A) Management Plan Recommendations

***All management plan recommendations are from the North Foothills Open Space Management Plan**

The management direction is towards protecting critical resources, encouraging native species over exotic, and maintaining natural processes. Where feasible, a passive approach of letting nature take its course will be utilized. However, active tools such as forest thinning, herbicides, seeding, grazing, rest from grazing, exclusion from grazing, biological weed controls and prescribed fire will also be utilized.

1) General Management Plan Objectives for Vegetative Management (Section 6.0)

- Protect and properly manage Conservation Areas, Significant Plan Communities, and rare plants.
- Manage vegetative communities by maintaining and encouraging desirable native species, restoring degraded areas, and eliminating or controlling undesirable exotic species.
- Manage for ecosystem integrity by encouraging and planning for naturally occurring processes, or the simulation of those processes, so they will remain vital components of the ecosystem.

2) Forest and Grassland Management (Section 6.2)

- Increase native plants, increase diversity, cover and vigor, control soil erosion, and retain more moisture on site.
- Reduce the density of some forest stands to bring these stands back to a more natural density and to decrease the probability of major wildfire, and large-scale insect and disease infestations.
- Restore natural meadow systems by reducing invasion of conifers.
- Retain and perpetuate old-growth forests and woodlands. Retain large-diameter trees (generally those over 20" Diameter at Breast Height (DBH)), snags (standing dead) and coarse woody debris in the understory. Retain a minimum of three snags per acre of 10"DBH for wildlife.
- Maintain a mosaic of stand density, size and age for vegetation types, particularly coniferous forests and woodlands, and foothill shrublands.
- Protect and restore riparian habitat. Reduce grazing to a level that allows for the regeneration and establishment of willows, shrubs and cottonwoods in riparian zones.
- Manage undesirable vegetation, including noxious weeds, using an integrated pest management approach. Unwanted vegetation may be managed using manual removal, prescribed fire, mechanical, biological, or herbicidal methods. All methods of control will be evaluated to reduce potential adverse effects to human health and the environment.

The primary tools for active management include: thinning and pruning of forests and woodlands; use of controlled burns; grazing; and weed management.

3) Wildlife Management (Section 7.0)

- Protect the ecosystem functions of the properties relative to their values within the North St. Vrain and South St. Vrain/Foothills Environmental Conservation Areas, and particularly Coffintop and Central gulches.
- Protect and properly manage conservation areas and critical resources.
- Protect wildlife habitat by maintaining natural food, cover, nesting sites, resting areas and habitat effectiveness.

The management direction focuses on three different scales: 1) the context of the property in the landscape of northwestern Boulder County; 2) the ability of the property to function as effective wildlife habitat; and 3) the protection of known significant resources.

4) Primary Tools

- Thinning and pruning of forests and woodlands: This management tool is utilized in order to decrease stand density in ponderosa pine forests and maintain open meadows, shrublands and woodlands. It also allows fire to be a more effective and less dangerous agent by reducing stand density, maintaining less hazardous fuel types, and eliminating ladder fuels. Thinning will focus on removing understory trees, as well as many seedlings and saplings which would have been killed by historically occurring low-intensity ground fires. Most active forest management will focus on maintaining meadows, shrublands and woodlands (Figure 5, areas 1, 3-5, 7-9). Thinning can be used to reduce fuel loads, bring ponderosa pine stands back to more natural densities, and feather the sharp edges created by thinning operations of the past (Figure 5, areas 2 & 6).
- Use of Prescribed Burns: Fire is an important part of grassland, woodland, shrubland and forest ecosystems of Boulder County. Recent research suggests that fires in the foothills burned at an interval of 10-20 years prior to suppression efforts. Many plants and plant communities are influenced by fire or are dependent upon it for germination and growth. Fire burns in a mosaic that creates a diversity of species and densities within a vegetative community. Fire helps return nutrients to the soil. Fire should be used in conjunction with grazing, mowing, thinning and pruning to maintain periodic disturbances in vegetative communities.

B) POS Forestry-Fire Recommendations:

- 1) **Overall objectives for Heil PA5 Units 4, 6 and 7**
 - Emulate pre-settlement forest structure by creating a clumpy, uneven-aged forest structure interspersed with openings that more closely resembles conditions that existed prior to interruption of the historic fire regime.
 - Maintain existing large openings and create additional openings.
 - Reduce overall Basal Area to 40-60 square feet/acre.
 - Reduce overall canopy cover to 15-30%
 - Reintroduce low intensity surface fire 3-5 years from completion date of mechanical thinning and every 8-10 years thereafter.
- 2) **Designation by Description/Marking Guidelines**
 - Reduce the basal area/acre of ponderosa pine <18" dbh from ~98.3 sq.ft/acre to a range from 40-60 sq.ft./acre.
 - Retain all Douglas fir and Rocky Mountain Juniper except when they are a ladder fuel.
 - Retain all presettlement ponderosa pine.
 - Retain all trees over 18 inches dbh.
 - Create groups/clumps of trees that vary in size and shape and number and are centered around presettlement trees or groups that have the most age/diameter diversity.
 - Create openings that range from .5-2.5 acres in size, and are irregular in shape. Total opening acreage will range from 15-20 acres.
 - Reduce overall canopy cover from 62% to a range of 15-30%.
 - Keep crowns interlocked or close in highest density patches.
 - Maintain or create 3 snags/acre >10" dbh.
 - Maintain or create 80 linear ft/acre of large downed logs > 10" dbh.
 - Leave all old downed logs.

The recommendations meet the forest health and ecosystem objectives of BCPOS and the CSFS. The recommendations also address the need to treat and reduce fuels for fire. This will meet goals of fuels management of the BCPOS, CSFS, Lefthand and Lyons Fire Protection Districts, Boulder County Sheriff's and Land Use Departments. Lastly, this project will treat vegetation within a high priority area as outlined in the NFOS management plan.

Figure 7. Overstory Vegetation Data; Basal Area and Diameter Summary (Post-Treatment)

Stand=2010_contract Year=2012 End of projection				
File: jly_005.svs				
Summary is for all species				
Tree list summary:				
Origin:	(0.0,0.0)			
Size:	208.7 by 208.7 (1.00 acres)			
Units:	ENGLISH			
Total objects:	84	(84 per acre)		
Standing live trees (using FVS plant class codes):				
	Mean	SD	Min	Max
dbh	10.1	3.0	6.8	24.0
ht	35.7	8.4	22.0	60.0
Basal area:	45.2		(45.2 per acre)	
Number of trees:	74		(74 per acre)	
Standing dead trees (using FVS plant class codes):				
	Mean	SD	Min	Max
dbh	12.1	2.5	9.6	15.9
ht	38.0	10.3	19.0	52.0
Basal area:	5.8		(5.8 per acre)	
Number of trees:	7		(7 per acre)	
Downed trees and logs (status code 0, 10, 3, or 13):				
	Mean	SD	Min	Max
dbh	10.0	1.9	8.7	12.2
length	29.0	8.5	20.0	37.0
Number of logs:	3		(3 per acre)	

All Figures represent conditions as inventoried in 2009 in Heil PA5 Units 4,6,7. Figures are outputs from FVS.

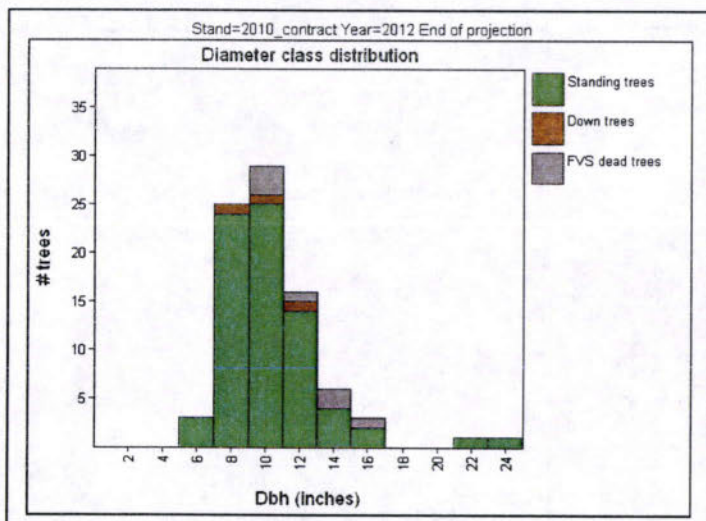


Figure 8. Diameter Class Distribution

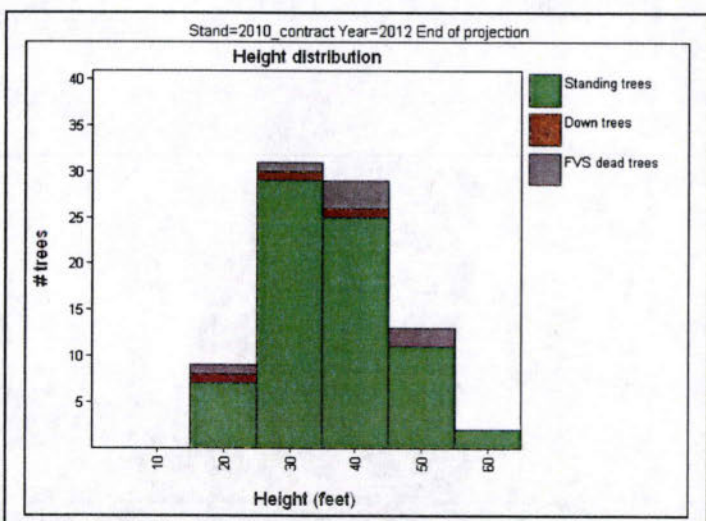


Figure 9. Diameter Class Distribution

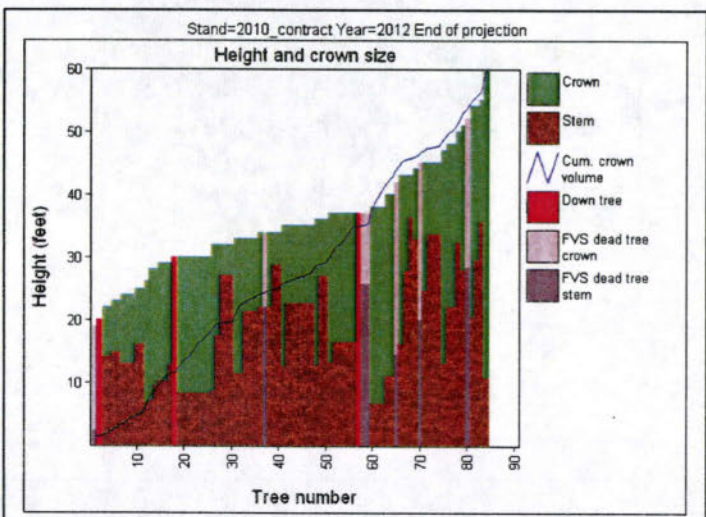
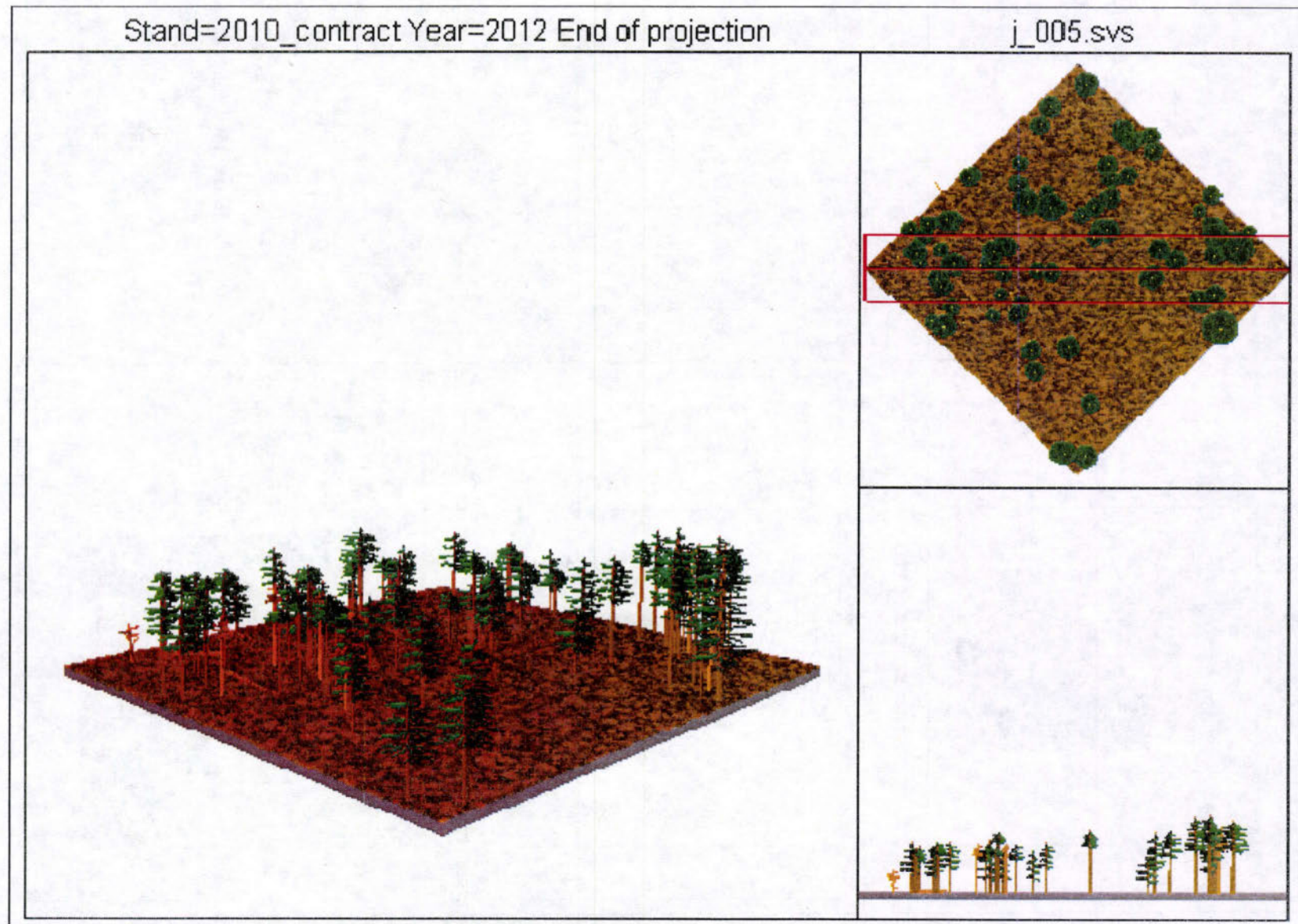


Figure 10. Diameter Class Distribution

Figure 11. Overhead, Perspective and Side Views



5. Operational Guidelines

A. Unit Layout

- Boundary will be painted in red vertical stripes facing into the unit.
- Landings are flagged in yellow flagging.

B. Project Description

Project will be completed utilizing a fully mechanical cut-to-length (CTL) system. This system entails the use of two primary machines; a harvester that fells, delimbs, and bucks the tree into standard log lengths at the stump and a forwarder, which loads the logs into bunks (think small off-road log truck) and carries the material to landing for temporary storage or directly loading onto a truck/trailer for transport. CTL harvesting systems as compared to typical skidder operations result in much lower site disturbance and impact, as measured by many parameters.

Slash will be broadcast on site as harvesting operations progress. As the harvester advances, subsequent forwarder traffic will attempt to travel on the "slash mat" wherever feasible. This has the multiple benefit of reducing soil compaction/disturbance; reducing/negating the need for forwarding ("skid") trail rehab, and compacting the slash to a minimal depth to facilitate the future prescribed broadcast burn that will follow the treatment. Slash will be hand-piled within a 100' corridor along the bordering trails and main access road to facilitate a fuel break for the future prescribed burn as well as to maintain/enhance visual aesthetics.

Logs will be transported offsite by the contractor to Alaska Avenue for stockpiling. This will result in heavy truck traffic on the main access road for the duration of the contract. Road damage created as a result of this forestry contract will be repaired with forestry section resources.

6. Rehabilitation of Project Impacts

- Impacts from skid trails will be assessed when project is complete. Ripping, seeding, and erosion control will be considered as possible rehabilitation techniques. Project completion will be late 2011.
- Impacts to main landing will be assessed when project is complete. If compaction has occurred, the landing will be ripped and seeded with a seed mix provided by BCPOS Plant Ecology.
- Impacts to trail system will be assessed throughout the project. Contractor will be required to rehab impacts as they occur.
- Any damage to the existing access road will be repaired by BCPOS Forestry.

7. Monitoring of Post-Project Conditions

- Weeds will be monitored and treated after completion of the project.
- Overstory inventories and photopoints noted with survey pins and GPS coordinates should be recollected within one year of the thinning treatment to ensure the treatment parameters were met.
- It is recommended that understory vegetation inventories be completed within five years of thinning treatment, and in five-year increments thereafter. Photo point plots should be recollected within one year of the thinning treatment.
- Slash pile sites, skid trails, and the landing area should be monitored for newly established noxious weed infestations or increased densities of existing weeds.

8. Site Photopoints (On next page)

Heil PA5U4 Photopoints

HVR PA5U4TIP6 N 09



HVR PA5U4TIP6 E 09



HVR_PA5U4TIP6_S_09



HVR_PA5U4TIP6_W_09



Heil PA5U6 Photopoints

HVR_PA5U6T2P7_N_09



HVR_PA5U6T2P7_E_09



HVR_PA5U6T2P7_S_09



HVR_PA5U6T2P7_W_09



Vendor: Morgan Timber

Project: Heil

PO Issue Date: 60911

cat 8/2/11

PO #: P104900

PO Rollover #:

Total PO Amount: **\$324,997.39**

Notice of Final Settlement Required?

YES

NO

PO/Line 1 017.5500002.75110.PFHESL000.75110					PO/Line 2 017.5500002.75110.PFHESL001.75110					Total Retainage Held Lines 1 & 2	Total PO Available (incl Retainage) Lines 1 & 2
Amount	Retainage	Payment	Available		Amount	Retainage	Payment	Available			
Line 1 Amount:	100,000.00				Line 2 Amount:	100,000.00					
Invoice #					Invoice #						
071111/MORGAN	55,000.00	5,000.00	50,000.00		062411/MORGAN	18,819.50	1,881.95	16,937.55			
072811/MORGAN	39,154.88	3,915.49	35,239.39		072811/MORGAN	37,956.00	3,795.60	34,160.40			
080811/MORGAN	11,000.00	1,100.00	9,900.00		080811/MORGAN	11,000.00	1,100.00	9,900.00			
Totals:	105,154.88	10,015.49	95,139.39	-5,154.88	Totals:	67,775.50	6,777.55	60,997.95	32,224.50	16,793.04	43,862.66

PO/Line 3 017.5500002.75110.PFHEU5000.75110					027.6415700.75110.800189002.75110					Total Retainage Held Lines 1, 2, 3 & 4	Total PO Available (incl Retainage) Lines 1, 2, 3 & 4
Amount	Retainage	Payment	Available		Amount	Retainage	Payment	Available			
Line 3 Amount:	65,000.00				Line 4 Amount:	59,997.39					
Invoice #					Invoice #						
062411/MORGAN	65,000.00	6,500.00	58,500.00		062411/MORGAN (performance bond)	12,188.00		12,188.00	47,809.39		
Totals:	65,000.00	6,500.00	58,500.00	0.00	Totals:	12,188.00	0.00	12,188.00	47,809.39	23,293.04	98,172.05



Boulder County Purchasing Department
PO Box 471
Boulder, Co. 80306
(303) 441-3525

06/09/2011

PURCHASE ORDER NO.

P104900

TO RECEIVE PROPER PAYMENT THE ABOVE PO NUMBER MUST APPEAR ON ALL INVOICES, BILLS OF LADING, PACKAGES, CORRESPONDENCE, ETC

VENDOR: Morgan Timber Products
2532 W County Rd 54G
Ft Collins, CO 80524
PHONE# (970) 484-4065

DELIVER TO: Boulder County Parks and Open Space
5201 St Vrain Rd
LONGMONT, CO 80503

SEND INVOICE TO: Boulder County Parks and Open Space
5201 St Vrain Rd
LONGMONT, CO 80503

Req. # R306191	Vendor # V08562	Ship Via Ground	FOB Destination	Terms NET 30	
Workforce Training Rel.	Requestor Renee Edick	Client Name		Date Required/Void if not used by	
QTY	PART NO.	DESCRIPTION	UNIT	UNIT PRICE	EXTENDED PRICE
1		HEIL VLY RNCH PHS I FORESTRY MANAGEMENT INCLUDES HARVESTING, TRANSPORTATION, AND ROAD IMPROVEMENT, IF APPROVED BY COUNTY AT THE COUNTY'S DISCRETION; UNIT A AND UNIT C AS SPECIFIED IN COUNTY PROPOSAL FOR PROJECT AND AS PROPOSED BY CONTRACTOR; 19.93 ACRES; 10% RETAINAGE & FINAL SETTLEMENT NOTICE; CONTRACT AMENDMENT APPROVED JUNE 2, 2011; COMPLETION DATE 31, 2011. HEIL VALLEY RANCH PHASE II FORESTRY MANAGEMENT INCLUDES HARVESTING, TRANSPORTATION, AND ROAD IMPROVEMENT, IF APPROVED BY COUNTY AT THE COUNTY'S DISCRETION; UNIT A AND UNIT C AS SPECIFIED IN COUNTY PROPOSAL FOR PROJECT AND AS PROPOSED BY CONTRACTOR; 19.93 ACRES; 10% RETAINAGE & FINAL SETTLEMENT NOTICE; CONTRACT AMENDMENT APPROVED JUNE 2, 2011; COMPLETION DATE AUGUST 31, 2011. 017.55000002.75110.PFHESL000.75110	EA	100,000.00	100,000.00
1		HEIL VLY RNCH PHS I FORESTRY MANAGEMENT ACCT CODE: 017.55000002.75110.PFHESL001.75110	EA	100,000.00	100,000.00
1		HEIL VLY RNCH PHS I FORESTRY MANAGEMENT ACCT CODE: 017.55000002.75110.PFHEU5000.75110	EA	65,000.00	65,000.00
1		HEIL VLY RNCH PHS I FORESTRY MANAGEMENT	EA	59,997.39	59,997.39

5,000
45,000

5263.90
52,86

6500/0

47,90

AS of 8/30/2011

Wornc Morgan 198,172 on 2011 P.O.
Paid 924,825 / 2011 + 85,080

total paid = 211,905



Boulder County Purchasing Department
PO Box 471
Boulder, Co. 80306
(303) 441-3525

06/09/2011

PURCHASE ORDER NO.

P104900

TO RECEIVE PROPER PAYMENT THE ABOVE PO NUMBER MUST APPEAR ON
ALL INVOICES, BILLS OF LADING, PACKAGES, CORRESPONDENCE, ETC.

VENDOR: Morgan Timber Products
2532 W County Rd 54G
Ft Collins, CO 80524
PHONE# (970) 484-4065

DELIVER TO: Boulder County Parks and Open Space
5201 St Vrain Rd
LONGMONT, CO 80503

SEND INVOICE TO: Boulder County Parks and Open Space
5201 St Vrain Rd
LONGMONT, CO 80503

Req. # R306191	Vendor # V08562	Ship Via Ground	FOB Destination	Terms NET 30	
Workforce Training Rel.	Requestor Renee Edick		Client Name	Date Required/Void if not used by	
QTY	PART NO.	DESCRIPTION	UNIT	UNIT PRICE	EXTENDED PRICE
		ACCT CODE: 027.6415700.75110.800189002.75110			
				TOTAL	324,997.39

Tax Exemption # 98-03561-000

324,997.39

Tax Exemption # 98-03561-000

This PO is subject to certain terms and conditions which can

be found at: www.bouldercounty.org/find/bids/pages/purchasing.aspx

Jenny Obberding
Authorized Signature

Client Signature - Workforce Use only

Vendor: Morgan Timber
 Project: Forestry Management
 PO #: P103304

Total PO Amount: \$120,000.00

Notice of Final Settlement Required?

YES

NO

PO/Line 1 017.5500007.75110.PFHEU5000.75110					PO/Line 2 027.6415700.800189002.75110					Total Retainage Held Lines 1 & 2	Total PO Available Lines 1 & 2
	Amount	Retainage	Payment	Available		Amount	Retainage	Payment	Available		
Line 1 Amount:	34,920.00				Line 2 Amount:	47,520.00					
Invoice #					Invoice #						
110810/MORGAN	24,732.00	2473.2	22,258.80		101710/MORGAN	14,544.00	1,454.40	13,089.60			
111710/MORGAN	10,188.00	1,018.80	9,169.20		120910/MORGAN	32,976.00	3,297.60	29,678.40			
120910/retainage		-3,492.00	3,492.00		120910/retainage		-4,752.00	4,752.00			
Totals:	34,920.00	0.00	34,920.00	0.00	Totals:	47,520.00	0.00	47,520.00	0.00	0.00	0.00

PO/Line 3 027.6415700.75110.800189002.75110					PO/Line 4					Total Retainage Held Lines 1, 2, 3 & 4	Total PO Available Lines 1, 2, 3 & 4
	Amount	Retainage	Payment	Available		Amount	Retainage	Payment	Available		
Line 3 Amount:	37,560.00				Line 4 Amount:						
Invoice #					Invoice #						
2092010/MORGAN	37,560.00	3756	33,804.00								
120910/retainage		-3,756.00									
Totals:	37,560.00	0.00	33,804.00	3,756.00	Totals:	0.00	0.00	0.00	0.00	0.00	3,756.00

2010 payments = 85,080

Grant = 34,920
 Match = 50,160

AB1199

2011 payments =

Grant = 58,500
 Match = 12,188 (Forestry CIP)

Req = 80K + 20K in-kind



Boulder County Purchasing Department
PO Box 471
Boulder, Co. 80306
(303) 441-3525

11/22/2010

PURCHASE ORDER NO.

P103304

TO RECEIVE PROPER PAYMENT THE ABOVE PO NUMBER MUST APPEAR ON
ALL INVOICES, BILLS OF LADING, PACKAGES, CORRESPONDENCE, ETC.

VENDOR: Morgan Timber Products
2532 W County Rd 54G
Ft Collins, CO 80524
PHONE# (970) 484-4065

DELIVER TO: Boulder County Parks and Open Space
5201 St Vrain Rd
LONGMONT, CO 80503

SEND INVOICE TO: Boulder County Parks and Open Space
5201 St Vrain Rd
LONGMONT, CO 80503

Req. # R304182	Vendor # V08562	Ship Via Ground	FOB Destination	Terms NET 30	
Workforce Training Rel.	Requestor Renee Edick		Client Name	Date Required/Void if not used by	
QTY	PART NO.	DESCRIPTION	UNIT	UNIT PRICE	EXTENDED PRICE
1		FORESTRY MANAGEMENT PHASE I HEIL VALLEY RANCH INCLUDES HARVESTING, TRANSPORTATION AND IF APPROVED BY COUNTY ROAD IMPROVEMENT. RATE IS \$1,145.00/PER ACRE AREAS U4, U6-U7 AS SPECIFIED IN BOCC AMENDMENT APPROVED 10/26/2010; LINE 1 AND LINE 2 WILL NOT EXCEED A COMBINED TOTAL OF \$82,440.00; RETAINAGE APPLIES 10% AND FINAL NOTICE. ACCT. CODE: 017.5500007.75110.PFHEU5000.75110	EA	34,920.00	34,920.00
1	grant	FORESTRY MANAGEMENT PHASE I HEIL VALLEY RANCH INCLUDES HARVESTING, TRANSPORTATION AND IF APPROVED BY COUNTY ROAD IMPROVEMENT. RATE IS \$1,145.00/PER ACRE AREAS U4, U6-U7 AS SPECIFIED IN BOCC AMENDMENT APPROVED 10/26/2010; LINE 1 AND LINE 2 OF THIS PURCHASE ORDER WILL NOT EXCEED A COMBINED TOTAL OF \$82,440.00; RETAINAGE APPLIES 10% AND FINAL NOTICE. ACCT. CODE: 026.6415700.800189002.75110	EA	47,520.00	47,520.00
1	notice	FORESTRY MANAGEMENT PHASE II HEIL VALLEY RANCH OPEN SPACE INCLUDES HARVESTING, TRANSPORTATION AND IF APPROVED BY COUNTY ROAD IMPROVEMENT AS SPECIFIED IN CONTRACT AMENDMENT APPROVED ON 10/26/2010 BY BOCC. THIS AMOUNT	EA	37,560.00	37,560.00
					85,080



Boulder County Purchasing Department
PO Box 471
Boulder, Co. 80306
(303) 441-3525

11/22/2010

PURCHASE ORDER NO.

P103304

TO RECEIVE PROPER PAYMENT THE ABOVE PO NUMBER MUST APPEAR ON
ALL INVOICES, BILLS OF LADING, PACKAGES, CORRESPONDENCE, ETC.

VENDOR: Morgan Timber Products
2532 W County Rd 54G
Ft Collins, CO 80524
PHONE# (970) 484-4065

DELIVER TO: Boulder County Parks and Open Space
5201 St Vrain Rd
LONGMONT, CO 80503

SEND INVOICE TO: Boulder County Parks and Open Space
5201 St Vrain Rd
LONGMONT, CO 80503

Req. # R304182	Vendor # V08562	Ship Via Ground	FOB Destination	Terms NET 30	
Workforce Training Rel.	Requestor Renee Edick	Client Name	Date Required/Void if not used by		
QTY	PART NO.	DESCRIPTION	UNIT	UNIT PRICE	EXTENDED PRICE
		WILL NOT EXCEED \$37,560.00. TOTAL AMOUNT OF PURCHASE ORDER WILL NOT EXCEED \$120,000.00; RETAINAGE 10% APPLIES AND FINAL NOTICE. ACCT. CODE: 026.6415000.75110.800189002.75110			
				TOTAL	120,000.00

Tax Exemption # 98-03561-000

This PO is subject to certain terms and conditions which can
be found at: www.bouldercounty.org/rfp

Jenny Oberding
Authorized Signature

Client Signature - Workforce Use only



Administration Office
5201 St. Vrain Road
Longmont, CO 80503

August 8, 2011

Project Manager:
Nick Stremel

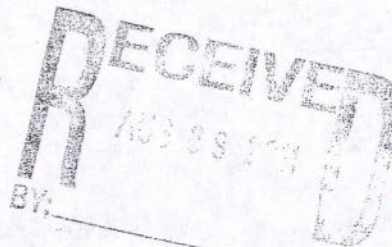
OK to pay
Nick

Boulder County Parks and Open Space
RFP #5038-08 Forestry Projects 2011 (Heil Valley Ranch)

Fourth Billing - Road Permit Finally Issued
Roads:

Switchbacks
Between unit improvements

Less 10% retainage



\$13,000.00

\$9,000.00

\$22,000.00

-2,200.00 ✓

TOTAL DUE

\$19,800.00

081111 DCCPA

Karen S. Morgan

Date

Karen S. Morgan

8-8-11

Please call 970-484-4065 or 970-224-3877 with any questions.

080511

Inv # 072811/MORGAN

INVOICE



Administration Office
 5201 St. Vrain Road
 Longmont, CO 80503

July 28, 2011

Project Manager:
 Nick Stremel

OK to pay
 NS

Boulder County Parks and Open Space
 RFP #5038-08 Forestry Projects 2011 (Heil Valley Ranch)

Phase Two (Third Billing)

24 acres cut / forward completed @ \$1581.50/acre
 (ALL 130 acres cut / forward completed)

\$37,956.00 49%

Phase One (First Billing)

19.93 acres cut / forward completed @ \$1,964.62/acre
 (ALL 19.93 acres cut / forward completed)

\$39,154.88 51%

Less 10% retainage

3795.60
 3915.49
 7711.09

\$77,110.88

-7,711.09/2

TOTAL DUE**\$69,399.79**

Karen S. Morgan

Date

Karen S. Morgan

7-28-11

Please call 970-484-4065 or 970-224-3877 with any questions.



OK to pay
Nick

July 11, 2011

Administration Office
5201 St. Vrain Road
Longmont, CO 80503

Project Manager:
Nick Stremel

Boulder County Parks and Open Space
RFP #5038-08 Forestry Projects 2011 (Heil Valley Ranch)



Phase Two (Second Billing)	
53 acres cut / forward completed @ \$1581.50/acre	\$83,819.50
Less 10% retain age	-8,381.95

TOTAL DUE **\$75,437.55**

Karen S. Morgan

Date 071311 DCCPA

Karen S. Morgan

7-11-11

Please call 970-484-4065 or 970-224-3877 with any questions.

070811



6/24/11
 OK for Payment
 Nick S
 June 24, 2011

Administration Office
 5201 St. Vrain Road
 Longmont, CO 80503

Project Manager:
 Nick Stremel

RECEIVED
 JUN 24 2011
 BY: _____

Boulder County Parks and Open Space
 RFP #5038-08 Forestry Projects 2011 (Heil Valley Ranch)

Phase Two

53 acres cut / forward completed @ \$1581.50/acre

\$83,819.50

10% - $\frac{8381.95}{75} = 111.75$

Bond Payment

(A copy of the cancelled check is enclosed)

\$12,188.00

~~\$96,007.50~~

TOTAL DUE

~~\$96,007.50~~

87625.55

Karen S. Morgan

Karen S. Morgan

Date

6-24-11

Please call 970-484-4065 or 970-224-3877 with any questions.

062811 DCCPA
 04084901

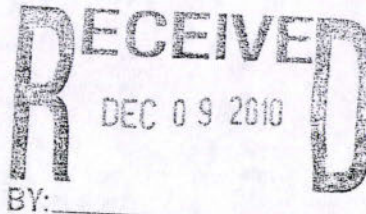
06/11/11



Administration Office
5201 St. Vrain Road
Longmont, CO 80503

December 9, 2010

Project Manager:
Scott Golden



OK TO PAY
[Signature]
12/9/10

Boulder County Parks and Open Space
RFP #5038-08 Forestry Projects (Heil Valley Ranch)

Phase One

100% complete on 72 acres	
10% retainage withheld on 1 st check	\$4,946.40
10% retainage withheld on final pymt.	\$3,297.60
	<u>\$8,244.00</u>

Phase Two

100% complete on 32.8 acres	
10% retainage withheld	\$3,756.00

041061159
11.11 DCCPA

TOTAL DUE

\$12,000.00

Karen S. Morgan

Date

Karen S. Morgan

12-9-10

Please call 970-484-4065 or 970-224-3877 with any questions.

dos/11



Administration Office
5201 St. Vrain Road
Longmont, CO 80503

December 9, 2010

Project Manager:
Scott Golden

RECEIVED
DEC 09 2010
BY: _____

Boulder County Parks and Open Space
RFP #5038-08 Forestry Projects (Heil Valley Ranch)

Full payment on RFP #5038-08
Phase Two

100% complete on	32.8 acres	@ \$1145./acre	\$37,560.00
Less 10% retain age			<u>-\$3,756.00</u>

010111 DCCRA
01120294

TOTAL DUE

\$33,804.00

Karen S. Morgan

Date

Karen S. Morgan

12-9-10

Please call 970-484-4065 or 970-224-3877 with any questions.



Administration Office
5201 St. Vrain Road
Longmont, CO 80503

December 9, 2010

Project Manager:
Scott Golden

Boulder County Parks and Open Space
RFP #5038-08 Forestry Projects (Heil Valley Ranch)

Final progress payment on RFP #5038-08
Phase One

100% complete on 72 acres

Balance unbilled of 40%

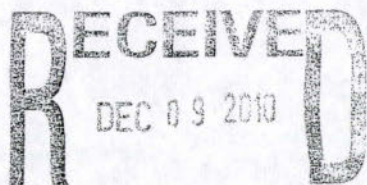
Less 10% retainage

28.8 acres @ \$1145./acre

\$32,976.00

- \$3,297.60

\$29,678.40



BY: _____

TOTAL DUE

\$29,678.40

Karen S. Morgan

Karen S. Morgan

Date

12-9-10

Please call 970-484-4065 or 970-224-3877 with any questions.

121410



Administration Office
5201 St. Vrain Road
Longmont, CO 80503

November 17, 2010

Project Manager:
Scott Golden

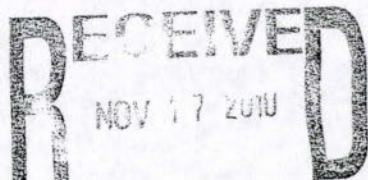
Boulder County Parks and Open Space
RFP #5038-08 Forestry Projects (Heil Valley Ranch)

Second progress payment on RFP #5038-08
Phase One

60% complete on 72 acres

An additional 30% due 21.6 acres @ \$1145./acre

\$24,732.00



TOTAL DUE

BY: _____

\$24,732.00

10% Retainage - 2473.20
\$22258.80

017.55W \$9169.00
6415.6W \$13089.60

Karen S. Morgan

Karen S. Morgan

Date

112210 DCCPA

11-17-10

Please call 970-484-4065 or 970-224-3877 with any questions.



Administration Office
5201 St. Vrain Road
Longmont, CO 80503

November 8, 2010

Project Manager:
Scott Golden

Boulder County Parks and Open Space
RFP #5038-08 Forestry Projects (Heil Valley Ranch)

First progress payment on RFP #5038-08
Phase One

11/9/10
OK
TO PAY
[Signature]

30% complete 21.6 acres @ \$1145./acre

\$24,732.00

TOTAL DUE 017,532.00

\$24,732.00

1090 Retainage

- 2473.20

22,258.80

NOV 12 2010

112210 DCCPA

Karen S. Morgan

Karen S. Morgan

Date

11-08-10

Please call 970-484-4065 or 970-224-3877 with any questions.



Administration Office
5201 St. Vrain Road
Longmont, CO 80503

September 2, 2011

Project Manager:
Nick Stremel

Boulder County Parks and Open Space
RFP #5038-08 Forestry Projects 2011 (Heil Valley Ranch)

Fifth Billing - Hauling

Phase 1 (130 acres)

104 acres hauling completed @ \$288.50/acre

30,004.00

Less 10% retainage

-3,000.40

TOTAL DUE

\$27,003.60

Karen S. Morgan

Date

Karen S. Morgan

9-2-11

Please call 970-484-4065 or 970-224-3877 with any questions.