

# Boulder County Parks and Open Space Forest Management Policy



May 25, 2010



Parks and Open Space



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- B Managing Your Natural Resources Summary

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## LIST OF ACRONYMS

Acronym or Abbreviation

Full Phrase

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BCPOS	Boulder County Parks and Open Space
BOCC	Board of County Commissioners
Comprehensive Plan	<i>Boulder County Comprehensive Plan</i>
FMO	Fire Management Officer
Forest Management Policy	<i>Boulder County Parks and Open Space, Forest Management Policy</i>
GIS	geographic information system
GOCO	Great Outdoors Colorado
POSAC	Boulder County Parks and Open Space Advisory Committee
SO	Sheriffs Office
SOG	standard operating guidelines
US	United States

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## EXECUTIVE SUMMARY

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### POLICY DEVELOPMENT AND SCOPE

In 2006 Boulder County Parks and Open Space (BCPOS) adopted a new departmental planning approach, creating policies guiding the management of key resources to complement and streamline site-specific management plans. Forestry, fire, and resource planning staff led the development of the *Boulder County Parks and Open Space, Forest Management Policy* (Forest Management Policy). An interdepartmental team worked over a three-year period to create the vision, goals, objectives, and standards that make up the policy. Additionally, the entire forestry staff provided input throughout the development of this policy. The policy went through a public process in 2009/2010 for full approval by the Board of County Commissioners (BOCC).

The purpose of the Forest Management Policy is to articulate the management goals and objectives for BCPOS forested properties. This Forest Management Policy applies to properties that Boulder County owns or manages.

### IMPLEMENTATION AND MODIFICATION OF THE POLICY

Implementation of the Forest Management Policy begins when the Board of County Commissioners adopts the policy. Revisions to the policy will occur every 10 years, or in the interim to accommodate changes in resources or policy needs.

### FOREST MANAGEMENT VISION STATEMENT

*Boulder County Parks and Open Space is a national leader in sustainable forest management. We manage forests to protect and restore natural processes, support rich ecological diversity and serve community values. We manage forests with responsibility and accountability.*

### FOREST MANAGEMENT GOALS

#### Forestry Goal

Boulder County Parks and Open Space manages for healthy forest ecosystems specific to each life zone and transition zone (ecotone). Different open space forests may require different management actions, ranging from no action to implementing intensive management when conditions warrant, to meet prescribed objectives.

#### Fire Goal

Boulder County Parks and Open Space values fire as a natural process and as a management tool for ecosystem health. Fire is managed in a way that provides safety for the public, and protects and improves forest and community resources.

#### Insect and Disease Goal

Boulder County Parks and Open Space manages native insects and disease as natural components of the forest ecosystem within the historical range of variability. Individual open space forests may be managed differently due to the complexity of insects and disease and how they relate to each life zone.

#### Biomass Utilization Goal

Boulder County Parks and Open Space utilizes forest biomass to promote the sustainability of local forests, communities, economies, and energy use. Boulder County Parks and Open Space values woody forest biomass and forest products as part of a comprehensive approach to forest management.

#### Monitoring Goal

Boulder County Parks and Open Space collects and assesses data and other information on forested open space. These data allow Boulder County Parks and Open Space to document current conditions and assess change over time due to natural processes or management activities.

### **Collaboration Goal**

Boulder County Parks and Open Space works cooperatively with other agencies and private landowners in order to build collaborative relationships and better manage forested ecosystems. Forestry and fire staff works with other county departments and divisions within Boulder County Parks and Open Space.

### **Public Goal**

Boulder County Parks and Open Space values and provides opportunities for public involvement in forestry and fire planning. Boulder County Parks and Open Space regularly communicates with the public about forest related activities. Boulder County Parks and Open Space identifies community values and incorporates them into forestry management decisions.

### **PUBLIC INVOLVEMENT AND COORDINATION**

During 2007 and 2008, Boulder County Parks and Open Space completed a comprehensive scoping process aimed at identifying the underlying issues and concerns, and potential goals, objectives, and standards related to managing BCPOS forested lands. Prior to the distribution of the draft Forest Management Policy, BCPOS staff made presentations to the Gold Hill, Lyons, and Nederland Town Boards, describing the purpose and need of the draft Forest Management Policy and inviting them to encourage residents in their community to take part in the public review and comment period following the release of the draft Forest Management Policy.

The draft Forest Management Policy was made available for review during a 30-day comment period. During the public comment period, public meetings were held in Boulder, Lyons, and Nederland. A total of 13 responses, containing 48 comments, were received on the draft Forest Management Policy during the 30-day comment period. A detailed description of the public comment process, including public comments on the draft Forest Management Policy and BCPOS responses, is provided in the *Boulder County Parks and Open Space, Forest Management Policy, Summary of Public Comments* (Boulder County 2010a).

The draft Forest Management Policy was presented to the Boulder County Parks and Open Space Advisory Committee (POSAC) on April 22, 2010. Boulder County Parks and Open Space Advisory Committee voted unanimously in favor of recommending the draft policy as presented to the Board of County Commissioners. The final Forest Management Policy was approved and adopted the Board of County Commissioners on May 25, 2010.



## CHAPTER 1 – INTRODUCTION

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### 1.1 BACKGROUND

Citizens interested in preserving land from rapid development initiated the BCPOS program in the mid-1960s. In 1977, Boulder County Parks and Open Space began acquiring land with the purchase of the Betasso property north of Boulder Canyon. Boulder County Parks and Open Space has preserved over 94,000 acres of land including land covered by conservation easements. The County now owns or has some management interest in over 58,630 acres distributed throughout more than 464 properties. BCPOS lands are spread over a diverse landscape of forested mountains, rolling foothills, riparian corridors, grasslands on the plains, and irrigated croplands. Boulder County Parks and Open Space also provides open space and trail facilities to urban and rural communities throughout Boulder County.

Open space is acquired in a variety of different ways using a variety of funding sources. These lands are used to:

- Shape and buffer urban areas;
- Preserve critical ecosystems, cultural resources, and scenic vistas;
- Provide access to lakes, streams, and other public lands;
- Conserve forests, agricultural land, and water resources; and
- Protect areas of environmental concern.

In 1978, the *Boulder County Comprehensive Plan* (Comprehensive Plan) was adopted, which continues to guide the management of county open space. BCPOS staff began writing management plans for open space properties in the early 1980s on a property or property-group specific basis. Many plans require updates or amendments as new research, land acquisitions, or management needs arise. After several decades of land acquisition and management plan development, it became evident that a more comprehensive approach to planning would serve the department. Thus, Boulder County Parks and Open Space has adopted a resource-based policy approach to set general direction for open space management. This policy approach will serve as an essential link between the Comprehensive Plan and BCPOS property-specific management plans (**Figure 1-1, Relationship of Forest Management Policy with Other County Planning Documents**). The Comprehensive Plan contains goals, policies, and map elements that guide development and land protection in the County; goals developed for the Forest Management Policy align with a number of Comprehensive Plan goals (**Table 1-1, Forest Management Policy and Boulder County Comprehensive Plan Goals**).

With the constant changes that the Colorado Front Range ecosystems are experiencing, this document serves as a guide to BCPOS forested lands now and in the future. Forestry staff will use this policy to make consistent management decisions that are beneficial to the environment while taking into consideration human, economic, and other concerns.

### 1.2 DEVELOPMENT OF BCPOS RESOURCE MANAGEMENT POLICIES

Over the past 32 years, Boulder County Parks and Open Space has acquired or has some interest in more than 94,000 acres. Funding for open space acquisitions comes from three primary sources: property tax revenues (the “general fund”), the state lottery, and a countywide open space sales and use tax. Grants from organizations such as the Great Outdoors Colorado (GOCO) and the Land and Water Conservation Fund are additional funding sources. Another important funding source for the County is the Federal Farmland Protection Program. Open space acquisition prevents development by extinguishing building rights, and has allowed protection for ecological conservation, scenic mountain vistas, and agricultural properties.

Despite generous funding and widespread public support for open space acquisition, land-use changes in the county may shape the future such that as land is either acquired by land management agencies, or remains in private ownership, acquisition of large properties may slow.

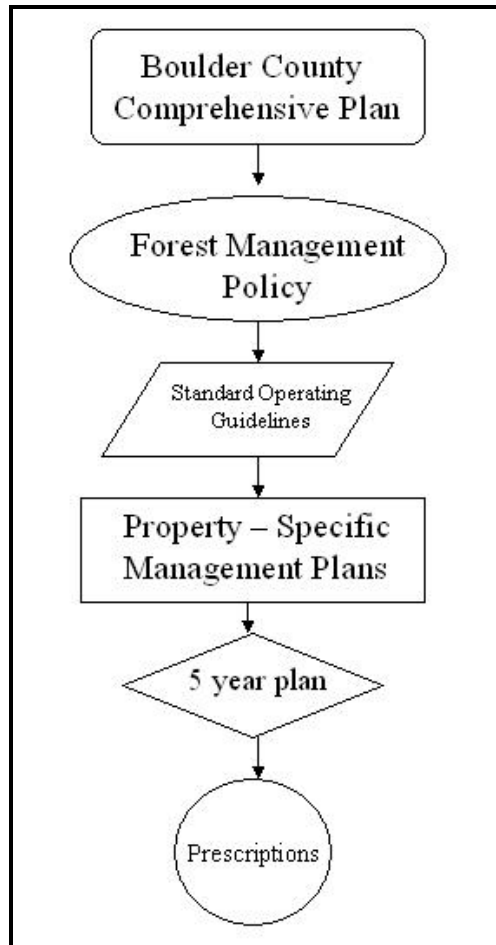


Figure 1-1. Relationship of Forest Management Policy with Other County Planning Documents

Table 1-1. Forest Management Policy and Boulder County Comprehensive Plan Goals

Forest Management Policy Goal	Boulder County Comprehensive Plan Goals
<p><b>Forestry</b> - BCPOS manages for healthy forest ecosystems specific to each life zone and transition zone (ecotone). Different open space forests may require different management actions, ranging from no action to implementing intensive management when conditions warrant, to meet prescribed objectives.</p>	<p>Environmental Management: B.1, B.6, B.9</p>
<p><b>Fire</b> - BCPOS values fire as a natural process and as a management tool for ecosystem health. Fire is managed in a way that provides safety for the public, and protects forest and community resources.</p>	<p>Environmental Management: B.1, B.2, B.3</p>

**Table 1-1. Forest Management Policy and Boulder County Comprehensive Plan Goals**

Forest Management Policy Goal	Boulder County Comprehensive Plan Goals
<b>Insect and Disease</b> - BCPOS manages native insects and diseases as natural components of the forest ecosystem within the historical range of variability. Individual open space forests may be managed differently due to the complexity of insects and disease and how they relate to each life zone.	Environmental Management: B.3
<b>Biomass</b> - BCPOS utilizes forest biomass to promote the sustainability of local forests, communities, economies and energy use. BCPOS values woody forest biomass and forest products as part of a comprehensive approach to forest management.	Environmental Management: B.2
<b>Monitoring</b> - BCPOS collects and assesses data and other information on forested open space. This data allows BCPOS to document current conditions and assess change over time due to natural processes or management activities.	Environmental Management: B.1, B.3, B.4, B.6
<b>Collaboration</b> - BCPOS works cooperatively with other agencies and private landowners in order to build collaborative relationships and better manage forested ecosystems. Forestry and fire staff works with other county departments and divisions within BCPOS.	Government Relations: I.1
<b>Public</b> - BCPOS values and provides opportunities for public involvement in forestry and fire planning. BCPOS regularly communicates with the public about forest related activities. BCPOS identified community values and incorporates them into forestry management decisions.	Public Involvement: H.1

Source: Boulder County 2010b

The acquisition of property by Boulder County Parks and Open Space during the past quarter-century was in part a response to the rapid development in the County, including its 10 incorporated municipalities and unincorporated areas. For example, US Census data indicated that the Boulder County population grew from approximately 150,000 in 1975 to approximately 280,000 in 2005. By necessity, Boulder County Parks and Open Space has begun focusing its efforts on purchasing smaller properties that abut existing holdings or expand community buffers, and on securing conservation easements over private property.

Now that Boulder County Parks and Open Space has purchased much of the large acreage it is likely to obtain, a more comprehensive approach to management planning is appropriate. While management plans are still essential to detail property-specific decisions, the development of departmental policies is needed to improve efficiency and provide more consistent resource management across all BCPOS holdings. Currently, individual management plans are written for each property or property group. Property-specific and greater issues must be resolved prior to completion of each plan. This process is inefficient at staff, departmental, and inter-agency levels, because it requires reiteration of larger goals and concerns each time a management plan is developed. Additionally, the current process does not allow for an ecosystem-level approach that might otherwise provide intentional direction for land conservation on a broad scale. Thus, a comprehensive

approach using management policies will allow Boulder County Parks and Open Space to achieve balanced management of natural and cultural resources across multiple habitat types and properties, while providing for appropriate visitor use.

### **1.3 POLICY SCOPE**

This management policy provides guidance for all BCPOS properties that contain forested lands and is a directive for management of BCPOS properties owned in fee or in joint-ownership with other government entities. It does not pertain to private properties in the County at large, or private properties over which Boulder County Parks and Open Space has a conservation easement. However, through collaborative efforts Boulder County Parks and Open Space anticipates that this policy may assist private landowners in understanding and better managing their properties containing forested land.

### **1.4 DOCUMENT OVERVIEW**

Boulder County Parks and Open Space developed this policy to guide management activities on BCPOS forested lands. The document contains the following main sections:

- Chapter 2 – Purpose and Need: The purpose and need for policies for forested lands
- Chapter 3 – Goals, Objectives, and Standards: Describes the goals, objectives, and standards for BCPOS forested lands
- Chapter 4 – Public Involvement and Coordination: Public involvement and coordination during Forest Management Policy development
- Chapter 5 – Glossary: Glossary of terms
- Chapter 6 – References: Source material reviewed during policy development
- Appendices: Supporting information

While certain individual goals and objectives provide important guidance by themselves, there is an interrelationship among goals and objectives that provide clarity and continuity for the management of BCPOS forested lands. Also, the glossary (Chapter 5) contains important terms that apply throughout the policy and should be incorporated while using the policy.

### **1.5 IMPLEMENTATION AND MODIFICATION OF THE POLICY**

Implementation of the Forest Management Policy begins when the Board of County Commissioners adopts the policy. Revisions to the policy will occur every 10 years, or in the interim to accommodate changes in resources or policy needs.

Whenever the Forest Management Policy is revised in the future it should:

- Comply with current laws and regulations;
- Emphasize consultation and cooperation with local/state/federal entities;
- Support pursuit of the best contemporary practices and sustainability; and
- Encourage consistency across Boulder County Parks and Open Space.

## CHAPTER 2 – PURPOSE AND NEED

### 2.1 FOREST MANAGEMENT VISION STATEMENT

*Boulder County Parks and Open Space is a national leader in sustainable forest management. We manage forests to protect and restore natural processes, support rich ecological diversity and serve community values. We manage forests with responsibility and accountability.*

### 2.2 PURPOSE AND NEED

This policy guides management of BCPOS forested ecosystems. The policy allows for flexibility of future changes due to the dynamic nature of resource management priorities and our understanding of forest ecosystems.

1. Boulder County Parks and Open Space has the responsibility of managing forest ecosystems within BCPOS properties. The development of a comprehensive policy provides for consistent long-term management given the complexity of forest ecosystems along the Front Range of the Colorado Rocky Mountains.
2. Boulder County Parks and Open Space manages a variety of forest types, including ponderosa pine, mixed conifer, and lodgepole pine forests (**Table 2-1, Acreage of Forested Lands in Boulder County; Figure 2-1, Geographic Distribution of Forested Lifezones in Boulder County; Figure 2-2, Major Vegetation Zones in the Colorado Front Range**), all of which have different ecosystem processes. In the Intermountain West, forests have been altered due to human settlement activities including suppression of natural fire; wildlife herbivory such as over grazing of aspen; and the introduction of cattle grazing, mining, and logging. The impacts of these activities include altered stand density, diversity, and structure. This has led to an overall increase in fire severity, and decrease in frequency of natural fire events. Additionally, insect outbreaks and disease are more severe in these forests types when they are stressed due to drought, and when stand densities are higher and more homogenous than under natural conditions.
3. A consistent BCPOS policy for forest management is necessary in order to promote healthy forests. This includes management for insect and disease outbreaks, mitigation of catastrophic wildfire risk and its potential effects on human safety and property, and integrated restoration activities.

**Table 2-1. Acreage of Forested Lands in Boulder County**

	<b>Foothills Ecotone</b>	<b>Lower Montane</b>	<b>Upper Montane</b>	<b>Subalpine</b>
<b>Total Acreage in Boulder County<sup>1</sup></b>	24,799	83,251	100,028	70,513
<b>Total Acreage Managed by BCPOS<sup>1</sup></b>	5,871	14,150	5,446	3,287

<sup>1</sup> As of October 25, 2009.

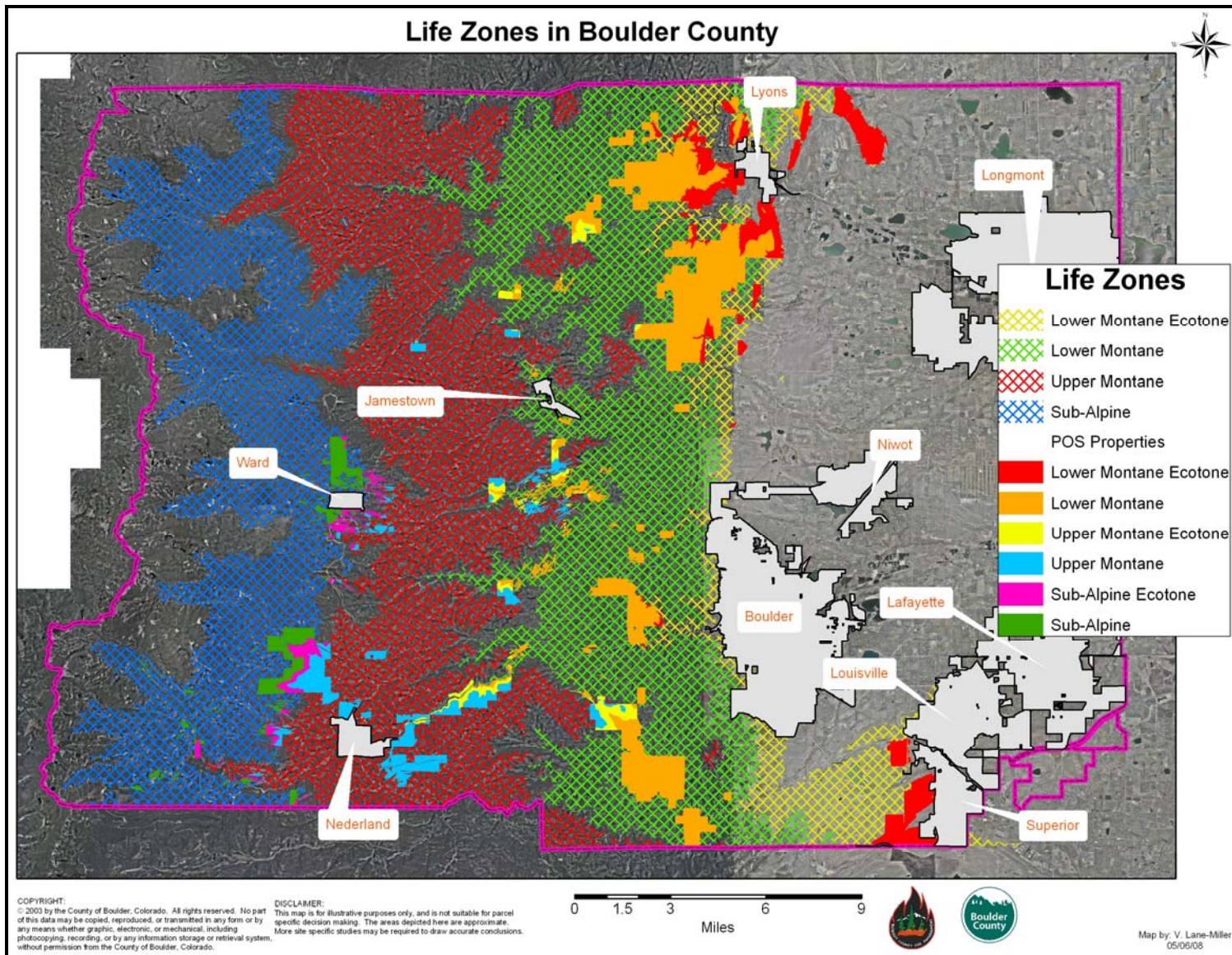
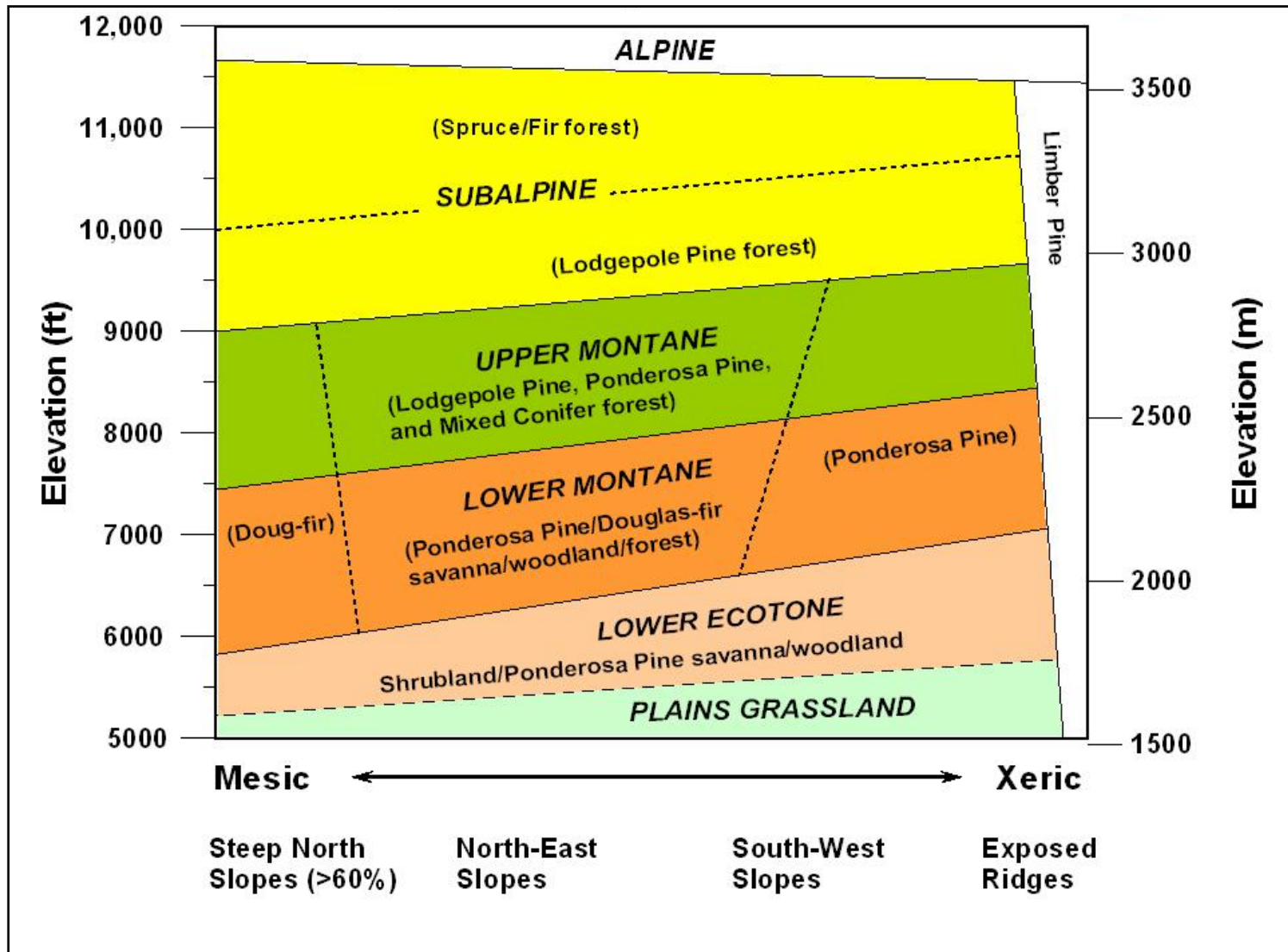


Figure 2-1. Geographic Distribution of Forested Life Zones in Boulder County



Source: Kaufmann, Veblen, and Romme 2006

Figure 2-2. Major Vegetation Zones in the Colorado Front Range

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## CHAPTER 3 – GOALS, OBJECTIVES, AND STANDARDS

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### 3.1 FORESTRY (FO) GOAL

Boulder County Parks and Open Space manages for healthy forest ecosystems specific to each life zone and transition zone (ecotone). (See Appendix A for a complete description of the forested ecosystems in Boulder County). Different BCPOS forests may require different management actions, ranging from no action to implementing intensive management when conditions warrant, to meet prescribed objectives.

**Objective FO – A:** Evaluate and incorporate best available science and techniques into BCPOS practices.

#### Standards

**FO – A.1:** Maintain open and continuous dialogue with other agencies and participate in research partnerships. These relationships allow for Boulder County Parks and Open Space to remain aware of the newest available science information.

**FO – A.2:** Evaluate current research and apply management techniques that are supported by the scientific and resource management communities.

**FO – A.3:** Use information from different sources such as field evaluations, aerial maps and photography, computer modeling, and public feedback to continually evaluate forest health. Assess new techniques for forest health and apply where appropriate.

**Objective FO – B:** Assess current information from forested open space properties in various life zones to determine the best management actions.

#### Standards

**FO – B.1:** Prioritize projects on ecological factors, economic feasibility, community values, watershed impacts, and accessibility.

**FO – B.2:** Collect site-specific information and develop a management prescription where management will occur. These prescriptions include information about desired forest density, present stand conditions, target conditions, and marking and cutting parameters.

**FO – B.3:** Allow for flexibility in management prescriptions on site-specific application, from even to un-even aged management, in order to accommodate new information and changing conditions.

**FO – B.4:** Incorporate information about other natural resources such as cultural resources, recreation, and wildlife into management practices.

**Objective FO – C:** Recognize best management practices and low-impact forestry techniques and apply them during forest management operations.

#### Standards

**FO – C.1:** Incorporate best management practice guidance set forth by the Colorado State Forest Service.

**FO – C.2:** Monitor post-treatment effects on weed proliferation and mitigate impacts to native and sensitive species if they occur.

**FO – C.3:** Create suitable temporary access for forest management activities when appropriate and rehabilitate temporary roads following management activities. Trails may be used as temporary access and will be rehabilitated.

**FO – C.4:** Due to changing forestry conditions and management techniques, allow flexibility in management activities in areas such as permanent and temporary public and wildlife closures.

**FO – C.5:** Manage forestry operations to ensure public safety.

### **3.2 FIRE (FI) GOAL**

Boulder County Parks and Open Space values fire as a natural process and as a management tool for ecosystem health. Fire is managed in a way that provides safety for the public and protects forest and community resources.

**Objective FI – A:** Work cooperatively in fire management with the Sheriff’s Office (SO) and the Fire Management Officer (FMO).

#### Standards

**FI – A.1:** Follow Federal, State, and local laws for fire and smoke management.

**FI – A.2:** Implement the SO Annual Operating Plan for management of wildland fire and other emergency management activities as it pertains to Boulder County Parks and Open Space.

**Objective FI – B:** Use prescribed fire for public safety, natural fuels reduction, and ecological benefits.

#### Standards

**FI – B.1:** Use prescribed fire for ecosystem and fuels management. Reduce forest residues by burning slash piles and broadcast burning of slash.

**FI – B.2:** Use the air curtain burner as a community resource to reduce the biomass generated during public and private landowners mitigation projects.

**FI – B.3:** Work cooperatively with BCPOS agriculture and water resources staff and with the FMO towards agricultural management goals, such as irrigation ditch burning and cropland burning.

**FI – B.4:** Allow for flexibility in prescribed fire prescriptions on site-specific application in order to accommodate new information and changing conditions.

**Objective FI – C:** Work with the SO and the FMO to manage and suppress wildland fire.

#### Standards

**FI – C.1:** Implement standard operating guidelines (SOG) that are developed by the FMO specifically for forested open space properties.

**FI – C.2:** Use modified containment strategies to realize ecological benefits from wildland fire when appropriate.

**Objective FI – D:** Assess and manage wildland fire impacts.

#### Standards

**FI – D.1:** Create an interdisciplinary team for assessment of wildland fire effects to decide mitigation efforts such as erosion and noxious weeds control, temporary closures for public safety, and recreational impacts on roads and trails

### **3.3 INSECT AND DISEASE (ID) GOAL**

Boulder County Parks and Open Space manages native insects and disease as natural components of the forest ecosystem within the historical range of variability. Individual open space forests may be managed differently due to the complexity of insects and disease and how they relate to each life zone.

**Objective ID – A:** Use multiple sources for assessment of insect and disease presence and populations.

Standards

**ID – A.1:** Apply current research, surveys, geographic information system (GIS), information shared by the public, agency communication, and other available tools for data collection and assessment.

**ID – A.2:** Monitor and evaluate outbreaks on a continual basis due to the dynamic nature of insects and disease.

**ID – A.3:** Based on regional conditions, shift from monitoring to active management when appropriate. This decision may take into account budget limitations, the scale of the outbreak, and native versus non-native status of the insect or disease.

**Objective ID – B:** Indicate treatments for insect and disease management when appropriate. Individual areas and outbreaks are assessed on a case-by-case basis.

Standards

**ID – B.1:** Identify critical treatment areas for forest health using surveys and other additional information. Assess sites for appropriateness of management, such as important plant and wildlife areas; developed areas and trails; near trailheads and parking lots; and conservation areas. These high-value areas should be targeted for treatment if appropriate. On a case-by-case basis, insect and disease management may not be feasible due to access or resource constraints.

**ID – B.2:** Use a variety of management techniques for insect and disease control such as no action, solar, chemical, and mechanical treatments.

**ID – B.3:** Recognize that some insects and diseases are native components of the ecosystem and may be managed differently than non-native species. Certain non-native species may be managed with more aggressive techniques if they are having disproportionate impacts on native species.

### **3.4 BIOMASS UTILIZATION (BU) GOAL**

Boulder County Parks and Open Space values woody forest biomass and forest products as part of a comprehensive approach to forest management. Boulder County Parks and Open Space utilizes forest biomass to promote the sustainability of local forests, communities, economies, and energy use.

**Objective BU – A:** Strive for leadership in sustainable forestry and woody biomass application.

Standards

**BU – A.1:** Continue using biomass products from open space properties to their highest potential. This may include energy production, roundwood products, habitat enhancement, firewood, and lumber for BCPOS historic restoration projects and amenity construction.

**BU – A.2:** Promote sustainable management activities such as the use of locally produced forest products for local applications.

**BU – A.3:** Commit to sustainable energy use, such as using a biomass facility to heat the BCPOS Department and Transportation buildings, and guiding development of other County facilities.

**BU – A.4:** Participate in the Boulder County Sustainability Initiative.

**Objective BU – B:** Recognize our regional leadership role in promoting the use of woody biomass technology for forest management activities.

Standards

**BU – B.1:** Educate and collaborate with other communities and agencies in the US and throughout the world on the value and mechanisms of using woody biomass technology.

**BU – B.2:** Commit to educating the public about forest biomass technology. Opportunities may include workshops, seminars, conferences, presentations, and on-site and facility tours.

**Objective BU – C:** Monitor and incorporate emerging technologies into our biomass operations.

Standards

**BU – C.1:** Participate in forums, research, and collaborative efforts to understand, develop, and apply new woody biomass technologies.

**3.5 MONITORING (MO) GOAL**

Boulder County Parks and Open Space collects and assesses data and other information on forested open space. These data allow Boulder County Parks and Open Space to document current conditions and assess change over time due to natural processes or management activities.

**Objective MO – A:** Gather information and observations on site and stand attributes including soils, vegetation, slope, and forest biometrics. Use this information to assess site conditions, decide on management actions, and develop prescriptions.

Standards

**MO – A.1:** Develop methods and procedures to evaluate ecosystem conditions. Gather information and data prior to, during, and following forest and fire management activities.

**MO – A.2:** Manage data in a format to allow for coordination among staff, other agencies, and the public.

**MO – A.3:** Use data and observations to document and assess outcomes of forestry and fire management activities and guide management direction for future activities.

**Objective MO – B:** Recognize the importance of data collection in forested ecosystems in order to document changes over time.

Standards

**MO – B.1:** Develop long-term monitoring sites on forested BCPOS lands.

**3.6 COLLABORATION (CO) GOAL**

Boulder County Parks and Open Space works cooperatively with other agencies and private landowners in order to build collaborative relationships and better manage forested ecosystems. Forestry and fire staff also works with other County departments and divisions.

**Objective CO – A:** Participate with Federal, State, regional, and local management agencies to maintain relationships with these groups and further common management goals.

Standards

**CO – A.1:** Work with other agencies to have consistent landscape-scale management across boundaries for forestry and fire. Consult with landowners of open space lands leased by Boulder County Parks and Open Space prior to implementing forestry activities.

**CO – A.2:** Promote and participate in collaborative research projects and programs such as the BCPOS Small Grant program; academic research opportunities; Rocky Mountain Research Station; and neighboring land management agencies.

**CO – A.3:** Maintain representation in collaborative discussions about forestry and fire management, such as the Northern Front Range Mountain Pine Beetle working group; Front Range Fuels Treatment Partnership Roundtable; and the Boulder County Wildland Fire Cooperators.

**CO – A.4:** Commit to having a representative on multi-agency teams with agencies, such as the US Forest Service; Colorado State Forest Service; Rocky Mountain National Park; Colorado State Parks; and other counties.

**Objective CO – B:** Promote forest sustainability through outreach and education with private landowners.

**Standards**

**CO– B.1:** Educate and collaborate with private landowners in the County on the value and mechanisms for achieving healthy forests.

**CO – B.2:** Work with private landowners to have consistent management across BCPOS boundaries and private parcels. Use site visits and presentations to share forestry and fire management activities.

**Objective CO – C:** Work with other County departments and divisions to capture departmental and staff knowledge and maintain open communication about forestry and fire activities.

**Standards**

**CO – C.1:** Share forestry and fire management activities and solicit and incorporate feedback as appropriate from BCPOS staff and other County department staff. Use interdisciplinary processes such as management teams, resource management supervisory meetings, site visits, and presentations to maintain open communication.

**CO – C.2:** Develop an internal review system for BCPOS division supervisors to provide feedback and endorse forestry and fire projects.

### **3.7 PUBLIC (PU) GOAL**

Boulder County Parks and Open Space values and provides opportunities for public involvement in forestry and fire planning. Boulder County Parks and Open Space regularly communicates with the public about forest related activities. Boulder County Parks and Open Space recognizes community values and incorporates them into forestry management decisions.

**Objective PU – A:** Identify and develop communication tools in order to best educate and inform the public about forestry and fire issues and activities. Consider input from the public concerning forestry and fire activities.

**Standards**

**PU – A.1:** Explore and identify communication tools such as television, radio, and the Internet for communication of forestry and fire related news.

**PU – A.2:** Utilize county public information officers to inform the public using standard county protocols.

**PU – A.3:** Use the results of the 2008 BCPOS neighborhood study, “Managing Your Natural Resources: Living Near Boulder County Parks and Open Space Forest Ecosystems” (Boulder County 2008) (summary provided in Appendix B), and other public education and outreach staff efforts to incorporate data about community preferences to guide communication processes. Examples of communication mechanisms may include but are not limited to community bulletin boards and community meetings.

- PU – A.4:** Update the public on forestry and fire management activities via communication mechanisms in Boulder County such as temporary signs at affected parks; Web sites; newspapers; and direct mailings.
- PU – A.5:** Identify a staff member to serve as a public information officer prior to and during a fire event. This staff member acts as the primary informant to the public, regarding prescribed and wildland fire information on open space forested lands as well as being the liaison between the Sheriff's Office, Boulder County Parks and Open Space, and the public.
- PU – A.6:** Educate the public about forestry and fire management activities. Staff participates in training programs, such as the Volunteer Naturalist training, and volunteers events. Staff participates and leads workshops for the public.

## CHAPTER 4 – PUBLIC INVOLVEMENT AND COORDINATION

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### 4.1 SCOPING

Scoping is the term used to define the early and open process for determining the scope of issues to be addressed related to potential management of resources. The list of stakeholders and other interested parties is also confirmed and augmented during the scoping process.

During 2007 and 2008, Boulder County Parks and Open Space completed a comprehensive scoping process aimed at identifying the underlying issues and concerns, and potential goals, objectives, and standards related to managing BCPOS forested lands. This included internal meetings between appropriate County staff and other public agencies to help Boulder County Parks and Open Space successfully manage and maintain its forest resources.

### 4.2 OTHER PUBLIC OUTREACH ACTIVITIES

Prior to the distribution of the draft Forest Management Policy, BCPOS staff made presentations to the Gold Hill, Lyons, and Nederland Town Boards, describing the purpose and need of the draft Forest Management Policy and inviting them to encourage residents in their community to take part in the public review and comment period following the release of the draft Forest Management Policy.

An important vehicle used during the review of the draft Forest Management Policy to solicit comments and educate the public was the Forest Management Policy Web site. Located at [www.BoulderCountyOpenSpace.org](http://www.BoulderCountyOpenSpace.org), the Web site houses the latest information on the development of the Forest Management Policy, including background documents, meeting announcements and materials, and other documents. Users could also request to be added to the Forest Management Policy mailing list, or to submit public comments on the draft Forest Management Policy directly onto the Web site.

### 4.3 DISTRIBUTION AND AVAILABILITY OF THE DRAFT FOREST MANAGEMENT POLICY

A notice was issued via media outlets and the project Web site regarding the availability of the draft Forest Management Policy and a 30-day period for submitting public comments. The public comment period began on February 16, 2010 and concluded on March 18, 2010. The notice included the availability of the draft policy, the 30-day comment period, and information related to the public meetings held during the comment period.

Three public meetings were held during the 30-day comment period to present the draft Forest Management Policy and gather input on the content of the draft policy. The three public meetings were held over a two-week period in late February and early March 2010. The public meetings included an open house to review exhibits and discuss the draft Forest Management Policy with BCPOS staff, and a formal presentation followed by a question and answer session.

A detailed description of the distribution and availability of the draft Forest Management Policy is provided in the *Boulder County Parks and Open Space, Forest Management Policy, Summary of Public Comments* (Boulder County 2010a).

### 4.4 COMMENTS RECEIVED ON THE DRAFT FOREST MANAGEMENT POLICY

Hard-copy comment forms were provided to public meeting attendees so that their individual comments could be written and handed to a BCPOS representative or mailed to Boulder County Parks and Open Space. Written comments were also accepted via e-mail, the BCPOS project Web site, and fax resulting in a total of 13 responses, containing 48 comments. A detailed description of the public comment process, including public comments on the draft Forest Management Policy and BCPOS responses, is provided in the *Boulder County Parks and Open Space, Forest Management Policy, Summary of Public Comments* (Boulder County 2010a).

#### 4.5 DISTRIBUTION AND AVAILABILITY OF THE APPROVED FOREST MANAGEMENT POLICY

A notice of availability of the approved Forest Management Policy will be issued via the BCPOS Web site ([www.BoulderCountyOpenSpace.org](http://www.BoulderCountyOpenSpace.org)), and will be available for downloading. The approved Forest Management Policy also will be available for review and photocopying at BCPOS Department in Longmont.

All public meeting attendees and all parties who submitted written comments on the draft Forest Management Policy (some of whom are the same parties), will receive a letter via US mail or electronic mail announcing the availability of the approved Forest Management Policy.

#### 4.6 LIST OF PREPARERS

An interdisciplinary team of resource specialists from Boulder County Parks and Open Space prepared this Forest Management Policy (**Table 4-1, Project Team and Table 4-2, Forestry Team**).

**Table 4-1. Project Team**

Name	Role / Responsibility
Therese Glowacki	Resource Manager
Kevin Grady	Park Ranger, Heil Valley Ranch Caretaker
Al Hardy	Trails Supervisor
Dave Hoerath	Wildlife Specialist
Chad Julian	Forestry and Fire Supervisor/Project Manager
Jennifer Kesler	Plant Ecology Specialist
Vanessa Lane-Miller	Forestry and Fire Seasonal/Lead Author
Faulkner Merdes	Weed Resource Specialist
Chad Ricklefs	Resource Planner/Public Involvement
Susan Spaulding	Wildlife Supervisor
Ron Stewart	Parks and Open Space Director

**Table 4-2. Forestry Team**

Name	Role / Responsibility
Scott Golden	Forestry Specialist
Wayne Harrington	Forestry Technician
Chad Julian	Forestry and Fire Supervisor
Vanessa Lane-Miller	Forestry and Fire Seasonal
Shane Milne	Forestry Technician
Zach Price	Forestry Specialist
Nick Stremel	Forestry Technician



## CHAPTER 5 – GLOSSARY

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**Biomass** – The total weight of all living organisms in a biological community.

**Broadcast burn** – A prescribed fire that burns a designated area. These controlled fires can reduce wildfire hazards, improve forage for wildlife and livestock, or encourage successful regeneration of trees.

**Buffer** – A land area that is designated to block or absorb unwanted impacts to the area beyond the buffer. Buffer strips along a trail could block views that may be undesirable. Buffers can be set-aside next to wildlife habitat to reduce abrupt change to the habitat.

**Conifer** – A tree that produces cones, such as a pine, spruce, or fir tree.

**Corridor** – Elements of the landscape that connect similar areas. Streamside vegetation may create a corridor of willows and hardwoods between meadows where wildlife feed.

**Ecosystem** – Abiotic and biotic factors, the interacting biological communities they support and the complex surrounding physical environments. It is the fundamental unit of ecology.

**Ecotone** – The transition zone between two biotic communities, such as between the Ponderosa pine forest and the mixed conifer forest.

**Forest health** – A measure of the robustness of forest ecosystems. Aspects of forest health include biological diversity; soil, air, and water productivity; natural disturbances; and the capacity of the forest to provide a sustaining flow of goods and services for people.

**Frequency** – The number of years between fire events in a given area.

**Fuel** – All the dead and living material that will burn. This includes grasses, dead branches and pine needles on the ground, as well as standing live and dead trees. Also included are minerals near the surface, such as coal that will burn during a fire, and human-built structures. Fuels are broken into the following classes:

- 1 hour fuels: < 1/4 inch diameter
- 10 hour fuels: 1/4 inch to 1-inch diameter
- 100 hour fuels: 1 inch to 3 inches diameter
- 1,000 hour fuels: > 3 inches diameter

**Fuels management** – The treatment of fuels that would otherwise interfere with effective fire management or control. For instance, prescribed fire can reduce the amount of fuels that accumulate on the forest floor before the fuels become so heavy that a natural wildfire in the area would be explosive and impossible to control.

**Life zone** – Areas of “belts” of land that have distinct plant and animal characteristics determined by elevation, latitude, and climate.

**Logging residue (slash)** – The residue left on the ground after timber cutting. It includes unutilized logs, uprooted stumps, broken branches, bark and leaves. Certain amounts of slash provide important ecosystem roles, such as soil protection, nutrient cycling, and wildlife habitat.

**Management action** – Any activity undertaken as part of the administration. Management actions can include no action.

**Mitigation** – Actions taken to avoid, minimize, or rectify the impact of a land management practice.

**Monitoring and evaluation** – The periodic evaluation of forest management activities to determine how well objectives were met and how management practices should be adjusted.

**Mountain pine beetle** – A tiny black insect, ranging from 1/8 to 3/4 inch in size that bores through a pine tree's bark. It stops the tree's intake and transport of the food and nutrients it must have to stay alive, thus killing the tree.

**Open Space** – Land owned or managed by Boulder County Parks and Open Space.

**Prescribed fire** – Fire set intentionally in wildland fuels under prescribed conditions and circumstances. Prescribed fire can rejuvenate forage for livestock and wildfire or prepare sites for natural regeneration of trees. A fire is ignited under known conditions of fuel, weather, and topography to achieve specific objectives.

**Prescription** – Management practices selected to accomplish specific land and resource management.

**Public involvement** – The use of appropriate procedures to inform the public, obtain early and continuing public participation, and consider the views of interested parties in planning and decision making.

**Range of variability** – The components of healthy ecosystems fluctuate over time. The range of sustainable conditions in an ecosystem is determined by time, processes (such as fire), native species, and the land itself. Past management has placed some ecosystems outside their range of variability. Future management should move such ecosystems back toward their natural, sustainable range of variation.

**Roundwood** – Timber and fuelwood prepared in the round state, such as house logs and telephone poles.

**Sensitive species** – Plant or animal species that are susceptible to habitat changes or impacts from human activities.

**Sustainability** – The ability of an ecosystem to maintain ecological processes and functions, biological diversity, and productivity over time.

**Sustainable** – The yield of a natural resource that can be produced continually at a given intensity of management is said to be sustainable.

**Treatment area** – The site-specific location of a resource improvement activity.

**Wildfire** – Any wildland fire that is not a prescribed fire.

**Sources:**

People's Glossary of Ecosystem Management Terms. Internet Web site: [www.fs.fed.us/land/emterms.html](http://www.fs.fed.us/land/emterms.html).

Hunter, M. E., et al.

\_\_\_\_\_. 2007. A Comprehensive Guide to Fuels Treatment Practices for Ponderosa Pine in the Black Hills, Colorado Front Range, and Southwest.

Kaufmann, M.R., Veblen, T.T., and Romme, W.H.

\_\_\_\_\_. 2006. Historical Fire Regimes in Ponderosa Pine Forests of the Colorado Front Range, and Recommendations for Ecological Restoration and Fuels Management. Front Range Fuels Treatment Partnership Roundtable, findings of the Ecology Workgroup.

BCPOS staff input.

## CHAPTER 6 – REFERENCES

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### Boulder County

- \_\_\_\_\_. 2008. *Managing Your Natural Resources: Living Near Boulder County Parks and Open Space Forested Ecosystems*.
- \_\_\_\_\_. 2010a. *Boulder County Parks and Open Space, Forest Management Policy, Summary of Public Comments*. April 2010.
- \_\_\_\_\_. 2010b. *Boulder County Comprehensive Plan: Goals, Policies, and Map Elements*. Second Edition. February 12, 2010.

### Kaufmann, M.R., Veblen, T.T., and Romme, W.H. (Kaufmann, Veblen, and Romme)

- \_\_\_\_\_. 2006. *Historical Fire Regimes in Ponderosa Pine Forests of the Colorado Front Range, and Recommendations for Ecological Restoration and Fuels Management*. Front Range Fuels Treatment Partnership Roundtable, findings of the Ecology Workgroup.

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# Appendices

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Appendix A  
Boulder County Parks and  
Open Space Forested Lands

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Appendix B  
Managing Your Natural  
Resources Summary

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## **Parks and Open Space 2008 study, “Managing Your Natural Resources: Living Near Boulder County Parks and Open Space Forested Ecosystems.”**

### **EXECUTIVE SUMMARY**

In order to create a successful and sustainable forest management plan for the future, the Boulder County Parks and Open Space Department (BCPOS) will adopt a Forest Management Policy in 2008. Boulder County Parks and Open Space launched the present study to provide important sociological data for developing the Forest Management Policy, and to understand how we can best communicate these and other management activities to the community.

This survey was conducted by mail from September to October 2007. Only individuals aged 18 and older were surveyed. Addresses were randomly selected using a computerized random number generator. Out of 2,518 questionnaires mailed, 111 were undeliverable, and 1,269 were completed and returned for an overall response rate of 53 percent.

### **Living Near or Next to County Open Space**

The average property owner living near or next to a BCPOS forested property knows they live near a BCPOS area. They are apt to be “very much” satisfied with how living near the open space affects them and their property, and probably purchased their property before the County purchased the open space area.

### **Natural Resource Management**

This average property owner supports several forest management techniques. They overwhelmingly approve of mechanically thinning the forests and burning the resulting slash piles over winter. In all probability, they approve of prescribed burning both for improving forest health and for decreasing wildfire risks, but may solicit Boulder County Parks and Open Space to use it “infrequently, in selected areas.” The average property owner supports using spot herbicide application and insect bio-controls to mitigate invasive weeds, but here again may ask that Boulder County Parks and Open Space use these tools “infrequently in selected areas.”

### **Communication and Information**

The average citizen with property near a BCPOS forested area does not feel very informed about management activities happening on the nearby open space. More often than not, they get information about these activities from newspapers and neighbors. Given a choice, this person would prefer to be notified about upcoming management activities via mail, email, notices posted at the property, or meetings with BCPOS staff.

This average nearby property owner would very likely join an email listserv to receive updates about management activities, and they might also attend community meetings. More often than not, they would support a local firewood sale, and would probably support a local “cut-your-own Christmas tree” sale, both using trees thinned from County forests. However, this person might have conditions for supporting such events, such as preferring that the wood and trees be given away for free instead of sold.

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