



**SNOWMASS SKI AREA  
ENVIRONMENTAL ASSESSMENT for the  
BURNT MOUNTAIN EGRESS TRAIL**



**AUGUST 2013**

USDA Forest Service  
White River National Forest  
Aspen-Sopris Ranger District



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**SNOWMASS SKI AREA  
ENVIRONMENTAL ASSESSMENT FOR THE  
BURNT MOUNTAIN EGRESS TRAIL  
PITKIN COUNTY, CO**

**Proposed Action:**  
Snowmass Ski Area

**Responsible Official:**  
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**Location:**  
White River National Forest  
Pitkin County, CO

**Lead Agency:**  
USDA Forest Service  
Aspen-Sopris Ranger District  
White River National Forest  
Pitkin County, CO

**Abstract:** This Environmental Assessment (EA) has been prepared to analyze a proposal for Snowmass Ski Area (Snowmass) to construct a segment of egress trail on the Burnt Mountain portion of the Snowmass special use permit (SUP) area. The proposed trail is identified as part of the Proposed Conditions in Snowmass' 2003 Master Plan and is designed to facilitate egress from the Burnt Mountain Glades to the Long Shot trail.

Snowmass is located on the White River National Forest in Pitkin County, Colorado and operates in accordance with the terms and conditions of a SUP issued by the US Forest Service. This EA discusses the Purpose and Need for the proposal; the process used to identify and develop alternatives; potential direct, indirect, and cumulative impacts of implementing the No Action Alternative (Alternative 1) and Alternative 2; and proposed project design criteria to minimize resource impacts.

Following review of public and agency comments on this EA, the Forest Supervisor will make a final determination as to which alternative best serves the public interest on National Forest System lands. The Selected Alternative can be a modification of alternatives presented.

**Important Notice:** Reviewers should provide the Forest Service with their comments during the review period for the EA. This will enable the Forest Service to analyze and respond to the comments at one time, and to use this acquired information in the preparation of the Final Environmental Assessment, thus avoiding undue delay in the decision-making process. Comments on the EA should be specific and should address the adequacy of the EA and the merits of the alternatives discussed (36 CFR 215.14). Comments received, including the names and addresses of those who comment, will become part of the public record for this project and will be subject to review pursuant to the Freedom of Information Act.

**Comment Period:** The comment period for the EA will extend 30 calendar days from the date on which the Legal Notice is published in the paper of record, the Glenwood Post Independent, and public Notice of Availability is given in newspapers of local distribution. Please send comments to Matt Ehrman, Project Leader, at the aforementioned address for the White River National Forest Supervisor's Office.

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## LIST OF ACRONYMS

ASC	Aspen Skiing Company
EA	Environmental Assessment
EIS	Environmental Impact Statement
ROD	Record of Decision
LAU	Lynx Analysis Unit
ID Team	Interdisciplinary Team
NEPA	National Environmental Policy Act
NFS	National Forest System
SUP	Special Use Permit
WRNF	White River National Forest
IRA	Inventoried Roadless Area
DN/FONSI	Decision Notice/Finding of No Significant Impact
RARE	Roadless Area Review and Evaluation
CFR	Code of Federal Regulations
FSH	Forest Service Handbook
U.S.C.	United States Code
USDA	United States Department of Agriculture
FEIS	Final Environmental Impact Statement
SIO	Scenic Integrity Objective
MA	Management Area
BA	Biological Assessment
BE	Biological Evaluation
TES	Threatened, Endangered, and Sensitive
MIS	Management Indicator Species
PDC	Project Design Criteria
CEQ	Council on Environmental Quality
SAOT	Skiers-at-one-time
AADT	Average Annual Daily Traffic
R2	Region Two
FSM	Forest Service Manual
TOSV	Town of Snowmass Village
USFWS	United States Fish and Wildlife Service

# **Chapter 1**

## Purpose and Need

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# 1. PURPOSE AND NEED

## A. INTRODUCTION

Snowmass Ski Area (Snowmass) is located on the Aspen Ranger District of the White River National Forest (WRNF), approximately 5 miles west-northwest of Aspen, Colorado (refer to the Vicinity Map). Snowmass operates under a Special Use Permit (SUP) issued by the Forest Service and is administered by the Aspen Ranger District of the WRNF. The *2002 White River Land and Resource Management Plan* (Forest Plan) provides general standards and guidelines for the operation of Snowmass regarding its activities and operations on NFS lands. The SUP and associated summer and winter operating plans, as well as other resource management documents, provide more specific additional guidance for annual winter and summer ski area operations and projects.

According to the terms of its SUP, Aspen Skiing Company (ASC) is required to prepare a Master Plan to identify management direction and opportunities for future four-season management of the resort on National Forest System (NFS) lands. The current Master Plan—the *Snowmass Mountain Master Plan Amendment*—was accepted by the Forest Service in 2003. Forest Service acceptance of the 2003 Master Plan does not constitute approval. The implementation of individual projects identified in the 2003 Master Plan is contingent upon subsequent site-specific analysis/approval in accordance with the NEPA process.

This EA analyzes the construction of a segment of egress trail on the Burnt Mountain portion of the Snowmass SUP area to facilitate egress from the existing Burnt Mountain Glades to the Long Shot trail. This trail was identified as part of the Proposed Conditions in the 2003 Master Plan. The “Alternatives Considered in Detail” section in Chapter 2 provides a full description of this project under the “Alternative 2” heading.

An important component of this analysis is the issue of roadless areas. Briefly, the Burnt Mountain project area was located within a designated Inventoried Roadless Area (IRA) established by the 2001 Roadless Rule; however, in 2012 the Colorado Roadless Rule eliminated the designation of roadless areas within ski area SUP areas. Therefore, the project area is not located within a designated roadless area.

## B. DOCUMENT STRUCTURE

The U.S. Department of Agriculture Forest Service (Forest Service) has prepared this Environmental Assessment (EA) in compliance with the National Environmental Policy Act (NEPA) and other relevant federal and state laws and regulations. This EA discloses the direct, indirect, and cumulative environmental impacts that would potentially result from implementation of either of the two action alternatives or the No Action Alternative. The document is organized into six chapters:

**Chapter 1 – Purpose and Need:** This chapter includes information on the history of the project proposal, the purpose of and need for the project, and the proposal for achieving that purpose and

need. This chapter also details how the Forest Service informed the public of the proposal and how the public responded.

**Chapter 2 – Description of Alternatives:** This chapter provides a more detailed description of the Proposed Action for achieving the stated purpose, as well as the No Action Alternative and a third Alternative. This discussion also includes project design features and monitoring measures. Finally, this chapter provides a summary table of the environmental consequences associated with each alternative.

**Chapter 3 – Affected Environment and Environmental Consequences:** This chapter describes the social and environmental effects of implementing the Proposed Action, Alternative 3, and the consequences of not implementing any activity in the No Action Alternative. This analysis is organized by resource area. Based on internal and public scoping, input from specialists, and review of laws, regulation and policy, the Forest Service Interdisciplinary (ID) Team determined that the following resources be discussed in detail within this EA: Roadless Areas, Recreation, Wildlife, and Vegetation.<sup>1</sup> Within each section, the affected environment is described first, followed by the effects of the No Action Alternative that provides a baseline for evaluation, and finally, a comparison of the effects of the action alternatives. This chapter also includes a summary of resources considered by the ID Team but not analyzed in full detail.

**Chapter 4 – Consultation and Coordination:** This chapter provides a list of preparers and agencies/organizations consulted during the development of this EA.

**Chapter 5 – References:** This chapter provides a scientific bibliography of studies that support the environmental analysis.

**Chapter 6 – Figures:** This chapter includes the figures that are referred to throughout the analysis.

## **C. BACKGROUND ON THE BURNT MOUNTAIN PORTION OF THE SNOWMASS SUP AREA**

Burnt Mountain is located within the eastern most portion of the Snowmass existing SUP boundary and has been under the SUP since 1973. It is important to note that, until 2012, approximately 80 acres of the Burnt Mountain portion of the Snowmass SUP area was within the Burnt Mountain IRA. However, the 2012 Colorado Roadless Rule removed 8,300 acres of Inventoried Roadless Area acreage from within ski area special use permit (SUP) boundaries, or lands allocated in Forest Plans to ski area development, from Colorado Roadless Areas (CRAs) across the state. Therefore, the Project Area being analyzed in this EA is no longer within the Burnt Mountain Inventoried Roadless Area. Roadless management direction is discussed in detail in Chapter 3, Section 3A – Roadless Areas.

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<sup>1</sup> FSH 1909.15 Section 12.4. For a discussion of resources reviewed in this EA refer to Section H – Public Involvement and Identification of Issues in this chapter.

In the 1984 Forest Plan, all ski areas on the WRNF were within Management Prescription 1B. When the WRNF revised its 1984 Forest Plan in the early 2000s, all ski areas became managed under Management Area 8.25. Although the total number of acres within the Snowmass SUP area was reduced, a large portion of Burnt Mountain remained within the Snowmass SUP boundary in the 2002 Forest Plan, which provides current management direction for the SUP area.

The Burnt Mountain Glades are accessible by a short hike from the Elk Camp lift. Although the area has received skier use since the backcountry access point was formalized and opened in 1987, it was only in the summer of 2012 that this particular area was thinned for gladed skiing and incorporated into the ski area's operational boundary.<sup>2</sup>

As discussed in Section J later in this Chapter, Snowmass operations carried out on NFS lands within the SUP area must comply with the management direction as provided in the Forest Plan. The SUP is 4,745 acres. The Forest Plan includes 33 separate Management Areas for different portions of the Forest based on ecological conditions, historic development, and anticipated future conditions. All ski areas on the WRNF are within 8.25 Management Areas (Ski Areas—Existing and Potential), and Snowmass is no exception.

## **1985 ENVIRONMENTAL ASSESSMENT**

In 1979, ASC provided the Forest Service with a Master Development Plan for Snowmass, which included a proposal to develop ski area infrastructure on Burnt Mountain. The environmental review process for the proposed development began on 1981 and included a committee of community members including: the Town of Snowmass, State of Colorado, City of Aspen, Pitkin County, Aspen Skiing Company and the Forest Service. These parties were involved to help assess the entire range of issues in and Environmental Assessment (EA). In 1985 the Forest Supervisor signed a Decision Notice/Finding of No Significant Impact (DN/FONSI) for expansion onto Burnt Mountain. This decision was appealed by Colorado Wildlife Federation, Colorado Division of Wildlife and the State Highway Department and the grounds that the EA failed to adequately consider the off-site and cumulative effects to the human environment. Upon review, the Deputy Regional Forester found the EA did not support a FONSI and the approval for development on Burnt Mountain was remanded.<sup>3</sup>

## **1994 ENVIRONMENTAL IMPACT STATEMENT**

Development of glades and ski trails in the Burnt Mountain portion of Snowmass' SUP area was proposed in the 1994 *Snowmass Ski Area Environmental Impact Statement* (1994 EIS).<sup>4</sup> Among other projects, the 1994 EIS specifically analyzed glading and trail construction across approximately 350 acres on the Burnt Mountain portion of the SUP area (115 acres of tree clearing, 195 acres of glading, and

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<sup>2</sup> The Snowmass operational boundary is defined by the current extent to which ski patrol conducts snow safety activities and maintenance. Prior to 2012, Burnt Mountain was considered backcountry terrain within Snowmass' SUP boundary.

<sup>3</sup> Kucker, 1994

<sup>4</sup> USDA Forest Service, 1994a

skiing in 35 acres of natural openings). This was subsequently approved in the 1994 *Snowmass Ski Area Environmental Impact Statement Record of Decision* (1994 ROD).<sup>5</sup> Among other projects identified in the 1994 ROD, the Long Shot trail and the Two Creeks lift and trails were developed in the Burnt Mountain portion of the SUP as a result of this approval.

### **2001 ROADLESS RULE**

The Burnt Mountain Roadless Area included 80 acres of Burnt Mountain that were located within the Snowmass SUP area. The intent of the 2001 Roadless Rule was to provide lasting protection for IRAs across the National Forest System in the context of multiple use management. It is important to note that the preamble to the final rule, the 2001 Roadless Rule states “allows timber cutting... in inventoried roadless areas... [for] trail construction or maintenance... [and] ski runs” and “construction or maintenance of ski trails and ski runs, the use of over the snow vehicles or off-highway vehicles necessary for ski area operations” under special use permits issued prior to the adoption of the 2001 Roadless Rule.<sup>6</sup>

### **2002 FOREST PLAN**

Snowmass operations carried out on NFS lands within the SUP area must comply with the management direction as provided in the Forest Plan (also discussed further in Section J of this Chapter). In 1997, the WRNF began a roadless inventory evaluation as part of its Forest Plan Revision Process. As a result, 90 roadless areas were identified on the WRNF totaling 640,000 acres. Of these 90 areas, 37 (totaling approximately 298,000 acres) were found capable and available for recommended wilderness. The remaining 53 areas were identified as roadless but lacking sufficient wilderness characteristics.<sup>7</sup> The entire Burnt Mountain Roadless Area was not recommended for wilderness as it was found “not capable and not available.”<sup>8</sup>

The 2002 Forest Plan anticipated development of the egress trail on Burnt Mountain inside an 80-acre parcel identified as an Inventoried Roadless Area in 2001.<sup>9</sup> For more detail on this 80-acre parcel, refer to the discussion under the 2012 Colorado Roadless Areas section in this chapter and in Chapter 3, Section A – Roadless Areas.

### **2006 ENVIRONMENTAL ASSESSMENT**

In 2006, the *Snowmass Master Plan Amendment – Ski Area Improvements Environmental Assessment* (2006 EA) analyzed a traverse out of Burnt Mountain as well as ski trail development.<sup>10</sup> The traverse was proposed to measure approximately 3,200 linear feet and 30 to 40 feet wide. The project would mainly require just the removal of trees, however, approximately 500 feet of spot grading was proposed within

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<sup>5</sup> USDA Forest Service, 1994b

<sup>6</sup> 36 CFR 294 pages 3244, 3258 and 3259

<sup>7</sup> USDA Forest Service, 2002b, Appendix C, page 11

<sup>8</sup> Ibid. Appendix C, Page C-2

<sup>9</sup> USDA Forest Service, 2002 page 3-483

<sup>10</sup> USDA Forest Service, 2006a

this alignment. To minimize impacts, approximately 2,700 feet of trail was proposed to utilize an old roadbed/trail corridor (which would require tree removal), and approximately 1,200 feet was proposed to utilize existing gladed terrain, only requiring select tree removal.

The Burnt Mountain Traverse, ski trails and “select-tree” glading were approved (as proposed) in the 2006 Decision Notice and Finding of No Significant Impact (2006 DN/FONSI).<sup>11</sup> However, the middle segment of the Burnt Mountain Traverse was remanded from the 2006 DN/FONSI subsequent to an appeal regarding the trail’s location in an area that was, at that time, within the Burnt Mountain IRA.<sup>12</sup> (This pre-dated the 2012 Colorado Roadless Rule.) In the Appeal Deciding Officer’s letter, the Officer remanded the projects that overlapped the IRA citing the need for additional NEPA analysis of the effects of the Burnt Mountain Ski Traverse on that part of the IRA inside the Snowmass SUP area.<sup>13</sup> Therefore the middle segment, approximately 1,300 feet, of the Burnt Mountain Traverse that crossed the Burnt Mountain IRA could not be implemented. The remainder of the analysis and decision was upheld, and in the summer of 2012, Snowmass implemented the select-tree glading approved in the 2006 DN/FONSI. In addition, at that time Snowmass also constructed the approved upper and lower segments of the Burnt Mountain Egress Traverse (which did not overlap the IRA and were therefore upheld in the 2006 DN/FONSI) to better demarcate the egress route back to the developed ski area.

As mitigation for the “Burnt Mountain traverse and ski runs, as well as the ‘island’ stands dissected for the Big Burn ski lift replacement,” the 2006 DN/FONSI required ASC to mitigate the anticipated loss of lynx winter forage habitat within the Snowmass Lynx Analysis Unit (LAU).<sup>14</sup> Since that time, ASC has completed the lynx mitigation and this area is managed (expanding existing openings and create new openings to foster regeneration) to improve spruce and fir regeneration, benefitting hare and lynx winter forage habitat into the future.<sup>15</sup>

## **D. PURPOSE AND NEED**

The purpose and need for the proposed Burnt Mountain egress trail is two-fold: one is procedural, and the second is operational. Both are related to the 2006 EA.

### ***1) Provide the requisite NEPA analysis for the Burnt Mountain egress trail consistent with the Appeal Deciding Officer’s decision on the 2006 DN/FONSI.***

The 2006 DN/FONSI approved the Burnt Mountain Traverse, ski trails and ‘select-tree’ glading. However, the middle segment of the Burnt Mountain Traverse was remanded subsequent to an appeal regarding the trail’s location in an area that was, at that time, within the Burnt Mountain IRA. The Appeal

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<sup>11</sup> USDA Forest Service, 2006b

<sup>12</sup> Refer to Chapter 3, Section A – Roadless Areas for a discussion on the Burnt Mountain IRA, and Figure 4 that puts it into context with the Snowmass SUP area.

<sup>13</sup> USDA Forest Service, 2006c

<sup>14</sup> USDA Forest Service, 1994b

<sup>15</sup> U.S. Fish and Wildlife Service, 2004

Deciding Officer’s decision states, “If the Forest Supervisor decides to proceed with that portion of the Snowmass MPA-SAI proposal, within the Burnt Mountain Inventoried Roadless Area in Management Area 8.25 at Snowmass Ski Area, a new decision will be required...Should the EA be revised to include the effects of the Proposed Action on the Inventoried Roadless Area and a new decision made, the revision and new decision need only deal with that part of the proposal within the Burnt Mountain Inventoried Roadless Area in Management Area 8.25 at Snowmass Ski Area.”<sup>16</sup>

***2) Improve egress from the Burnt Mountain Glades for skiers and Ski Patrol.***

There is a need for an improved egress trail that provides the necessary width and snow surface to move skiers safely from the Burnt Mountain Glades, back into the developed trail network, on Long Shot trail.

There is a need for an egress trail that clearly signals the primary and preferred route back to the resort. Prior to 2012, skiers got lost or stuck in the flats below the Burnt Mountain Glades or traveled all the way down Burnt Mountain onto the Government Trail or across private lands.

Finally, there is a need for improved emergency access/egress that would provide the necessary width and grade to efficiently reach and evacuate persons needing patrol assistance. More efficient patrolling is necessary in this area to improve skier safety.

**E. SCOPE OF ANALYSIS**

Scope consists of the range of actions, alternatives, and impacts to be considered within this environmental analysis. It includes the geographical, spatial, and temporal boundaries associated with the actions, alternatives, and impacts. Individual project elements are discussed in detail in Chapter 2 and illustrated in figures 1, 2 and 3. A detailed scope of this environmental analysis is presented at the beginning of each resource section in Chapter 3. The scope of analysis for this proposal is defined by Burnt Mountain within the Snowmass SUP boundary. The temporal scope is confined to the winter ski season, and no summer use (beyond construction/maintenance) is being analyzed in this NEPA analysis.

**F. NEPA PROCESS**

The proposed improvement constitutes a federal action, which has the potential to affect the quality of the human environment on public lands administered by the Forest Service. Therefore, the proposal must be analyzed pursuant to NEPA. Under NEPA, federal agencies must carefully consider environmental concerns in their decision making process and provide relevant information to the public for review and comment.

This EA has been prepared to analyze the potential site-specific direct, indirect, and cumulative effects that are anticipated to result with implementation of the three alternatives. Additionally, this EA is intended to ensure that planning reflects the opportunities and constraints posed to the immediate and

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<sup>16</sup> USDA Forest Service, 2006c

surrounding area and that potential recreation conflicts and resource impacts are minimized. This EA documents the potential impacts that would likely occur should either of the action alternatives be implemented. Throughout internal scoping for this project, the Forest Service conducted a preliminary review of context and intensity factors at 40 CFR 1508.27 and determined that analysis under an EA (as opposed to an EIS) is appropriate at this time.

## **G. INTERAGENCY COORDINATION**

In accordance with regulatory direction and in furtherance of cooperative management among agencies charged with oversight of environmental and natural resources, federal, state, local, and tribal entities with a likely interest and/or jurisdiction in the project proposal were sent a notice of this proposal and/or consulted prior to this EA.

## **H. PUBLIC INVOLVEMENT AND IDENTIFICATION OF ISSUES**

In February 2013, a scoping notice was mailed to 69 community residents, interested individuals, public agencies, and other organizations. This notice was specifically designed to elicit comments, concerns, and issues pertaining to the Proposed Action. The scoping package provided a brief description of the Proposed Action, the Purpose and Need for action and an illustrative map. In addition, a legal notice was published in the newspaper of record—the *Glenwood Post Independent*—on February 22, 2013, initiating the scoping period. The scoping package was posted on the WRNF website and an e-mail address was provided for submitting electronic comments. In addition, a media release with a description of the Proposed Action was distributed to the WRNF media distribution list which includes over 80 media personnel. Several articles were published in local newspapers describing the project and providing information on the opportunity to comment. During the scoping period, 54 comment letters were received from interested individuals and agencies.

Comments received included the following subject matter: the NEPA process (scoping, the range of alternatives, analysis under an EA and Purpose and Need); environmental concerns (vegetation removal, impacts to wildlife, cumulative effects, and potential design criteria and mitigation measures); effects to the human environment (the recreational experience, safety, noise, scenery, and private property); and questions about the Inventoried Roadless Rule and roadless area characteristics. Based on these concerns and Forest Service Specialist input, issues were identified to guide the analysis.

The following issues are considered in this analysis: the Burnt Mountain CRA, recreation, wildlife, vegetation, cultural resources, soils and geology, traffic, scenery resources, and watershed. All of these issues will be considered by the Forest Supervisor in making a decision. With the exception of the Burnt Mountain CRA, all of these resources were analyzed in the 2006 EA (as well as in the 1994 EIS). In most cases, the baseline conditions have not changed since 2006; therefore, this EA incorporates by reference the analyses completed in the 2006 EA for cultural resources, soils and geology, traffic, scenery

resources, and watershed (refer to the Chapter 3 Introduction for a summary of these resources). Some supplementary information has been incorporated into these resource descriptions where necessary.

Since the 2006 DN/FONSI, the following actions have resulted in conditions that require new site-specific analysis:

### Burnt Mountain CRA

- The 2012 Colorado Roadless Rule eliminated the roadless designation for 8,300 acres inside ski area special use permit boundaries or lands allocated in forest plans to ski area development across the state. As a result, the roadless designation for 80 acres inside the Snowmass SUP was eliminated, and there is no overlap between the SUP area and the Burnt Mountain CRA. The 80 acre inventoried roadless area parcel identified in the 2006 Appeal Deciding Officer decision is no longer designated roadless.

### Recreation

- The Burnt Mountain Glades were thinned and incorporated into the Snowmass operational boundary in 2012. While previously within the SUP boundary, and skied regularly, the area was managed as terrain accessed through a Forest Service backcountry access point since 1987. Subsequent to the backcountry access point being formalized in 1987, the Two Creek Lift was installed in 1995 and Long Shot trail opened in 1998.

### Wildlife and Vegetation

- The Forest Plan was updated to be consistent with the 2008 Southern Rockies Lynx Amendment to be consistent with the objectives, standards, and guidelines for the Canada lynx.
- The North American wolverine has been designated as a proposed federally threatened species under the Endangered Species Act (ESA).
- The bald eagle was delisted from the ESA.
- Lodgepole pine mortality has increased due to the mountain pine beetle epidemic.
- The list of Federal (Endangered Species Act) threatened and endangered and sensitive (Forest Service Region 2) plant species has been updated.

Due to these changed conditions, the following issues were assigned specific indicators that are used to analyze impacts to that resource. While some indicators are necessarily qualitative in nature, every effort was made to use indicators that are quantitative, measurable, and predictable.

***Burnt Mountain Colorado Roadless Area***

*Prior to the 2012 Colorado Road Rule, 80 acres of the 4,745-acre Snowmass SUP area were overlapped by the Burnt Mountain IRA. The Burnt Mountain Egress Trail included in the Proposed Action was previously approved in a 2006 Decision Notice which was subsequently remanded citing the need for additional NEPA analysis of the effects of the Burnt Mountain Ski Traverse on that part of the IRA inside the Snowmass SUP area.*

**Study Area:** 1,600-acre Burnt Mountain CRA and the 4,745-acre Snowmass SUP area. In particular, the 80-acre overlap that exists between the Burnt Mountain portion of the SUP area and the Burnt Mountain IRA.

**Indicators:**

- Location of the Burnt Mountain CRA in relation to the Snowmass SUP area
- Evaluation of each alternative within the context of the 2012 Colorado Roadless Rule (including Roadless Area Characteristics, prohibitions on tree cutting, sale or removal, and prohibitions on road construction and reconstruction)

***Recreation***

*The proposed egress trail has the potential to affect the recreational experience on Burnt Mountain.*

**Study Area:** The eastern portion of Burnt Mountain within the Snowmass SUP area

**Indicators:**

- Discussion of existing and proposed recreation experience and character of Burnt Mountain Glades.
- Discussion of existing and proposed skier egress from the Burnt Mountain Glades.
- Discussion of existing and proposed emergency access and egress.

***Wildlife and Vegetation***

*Construction of the proposed egress trail would necessitate vegetation removal and grading and could affect plant communities and wildlife including Threatened, Endangered, and Sensitive (TES) species, and Management Indicator Species (MIS) that may utilize habitat within and adjacent the Project Area.*

**Study Area:** The eastern portion of Burnt Mountain portion of the Snowmass SUP area

**Indicators:**

- Identification of any TES species and/or MIS or habitat in the study area
- Discussion of impacts related to vegetation removal/habitat alteration
- Discussion of changes in habitat due to lodgepole pine mortality

## **I. ISSUES/RESOURCES ELIMINATED FROM FURTHER ANALYSIS**

The ID Team considered the potential impacts on air quality, environmental justice, social and economic resources, noise and special designations such as wilderness; however, it was determined that there would be no measurable effects to these resources from construction and operation of any of the alternatives or measurable difference between the alternatives. Therefore these resources were eliminated from further analysis in the EA. Effects to these resources from developing and operating the Burnt Mountain Glades was analyzed and approved in the 1994 EIS, the 2006 EA, and affirmed in an administrative appeal decision and subsequent litigation.

## **J. CONSISTENCY WITH FOREST SERVICE POLICY**

### **LAND AND RESOURCE MANAGEMENT PLAN**

Snowmass operations carried out on NFS lands within the SUP area must comply with the management direction as provided in the Forest Plan. The Forest Plan includes 33 separate Management Areas for different portions of the Forest based on ecological conditions, historic development, and anticipated future conditions. The Snowmass SUP area is within an 8.25 Management Area (Ski Areas–Existing and Potential), which directs:

*“Facilities may be intensively used throughout the year to satisfy a variety of seasonal recreational demands. Base areas that serve as entrance portals are designed as gateways to public lands. Forested areas are managed as sustainable cover with a variety of species and age classes in patterns typical of the natural landscape character of the area. Protection of scenic values is emphasized through application of basic landscape aesthetics and design principles, integrated with forest management and development objectives.”<sup>17</sup>*

As part of this analysis, the alternatives and Purpose and Need were reviewed to determine consistency with the Forest-wide goals and objectives as well as the specific standards and guidelines for Management Area 8.25. The alternatives were compared against pertinent Forest-wide and management area standards and guidelines, and no inconsistencies between the proposal and pertinent standards and guidelines were identified. The Forest Plan consistency analysis is contained in the official project file.

The Purpose and Need is consistent with the Forest Plan general recreation standards and guidelines. The Forest Plan (p. 2-31) acknowledges an increasing demand for recreation on the WRNF:

*“Satisfy demand for recreation services that are supplied by private-sector permittees at authorized sites or areas before new sites or areas are permitted.”*

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<sup>17</sup> USDA Forest Service, 2002a

Furthermore, the Purpose and Need is consistent with the theme of Management Area 8.25 (p. 3-80):

*“Ski areas are developed and operated by the private sector to provide opportunities for intensively managed outdoor recreation activities during all seasons of the year. This management area also includes areas with potential for future development.”*

## **2012 COLORADO ROADLESS RULE**

The Proposed Action was considered in context of the 2012 Colorado Roadless Rule, which pertains to 363 CRAs across eight national forests in Colorado. The Proposed Action was determined to be consistent with the 2012 Colorado Roadless Rule. This is explored in detail in Chapter 3, Section A – Roadless Areas.

## **K. RELATIONSHIP TO PREVIOUS ANALYSES AND APPROVALS**

This EA incorporates by reference previous NEPA documents pertaining to previously-approved activities within the Snowmass SUP area:

- 1994 Snowmass Ski Area Final Environmental Impact Statement and Record of Decision
- 2006 Final Environmental Assessment for the Snowmass Ski Area Master Plan Amendment Ski Area Improvements

This EA also incorporates previous NEPA documents pertaining to the 8.25 Management Area and Colorado Roadless Rule.

- Final Environmental Impacts Statement to accompany the Land and Resource Management Plan – 2002 Revision
- Rulemaking for Colorado Roadless Areas Final Environmental Impact Statement

## **L. DECISION TO BE MADE**

This EA is not a decision document; rather, it documents the site-specific environmental analysis for the Proposed Action and Alternative 3, as well as the No Action Alternative. The responsible official for this project is Scott Fitzwilliams, WRNF Forest Supervisor. Based on the analysis documented within this EA, the responsible official will decide whether to approve, in whole or in part, the Proposed Action, Alternative 3 or select the No Action Alternative. The Forest Supervisor is not required to choose either an action alternative or the No Action Alternative described in this EA. He may also develop an entirely new alternative created from components of the No Action and the action alternatives analyzed in this document. A Decision Notice (DN) will document the responsible official’s decision. The decision will also include a determination of the significance of the effects (a FONSI) and assess the decision’s consistency with the 2002 Forest Plan.

In addition to determining whether or not to approve implementation of an action alternative analyzed in this document, the Forest Supervisor will also specify project design criteria that may be required.

## **M. OTHER NECESSARY PERMITS, LICENSES, ENTITLEMENTS AND/OR CONSULTATION<sup>18</sup>**

This EA is designed to serve as an analysis document for parallel processes at several levels of government. While the Forest Service assumes no responsibility for enforcing laws, regulations, or ordinances under the jurisdiction of other governmental agencies, Forest Service regulations require permittees to abide by applicable laws and conditions imposed by other jurisdictions. At this time, no other permits or approvals have been identified for implementation of an action alternative.

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<sup>18</sup> Per 40 CFR 1502.25(b)

# **Chapter 2**

## **Description of Alternatives**

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## 2. DESCRIPTION OF ALTERNATIVES

This chapter describes the No Action Alternative, the Proposed Action and Alternative 3. It includes a discussion of how alternatives were developed, an overview of project design criteria, monitoring measures, and a description of each alternative considered in detail. Chapter 2 is intended to present the alternatives in comparative form, defining the issues and providing a clear basis for choice among options by the responsible official.<sup>19</sup>

### A. ALTERNATIVES CONSIDERED IN DETAIL<sup>20</sup>

The range of alternatives the Forest Service ID Team considered for this analysis was bound by the Purpose and Need underlying the Proposed Action, as well as by the issues that arose from internal and external scoping (detailed in Chapter 1). NEPA requires that an environmental analysis examine a range of alternatives, which are “reasonably related to the purpose of the project.”<sup>21</sup> Furthermore, Forest Service Handbook 1909.15 states: “*Reasonable alternatives to the proposed action should fulfill the purpose and need and address unresolved conflicts related to the proposed action. Be alert for alternatives suggested by participants in scoping and public involvement activities. Consider alternatives, even if outside the jurisdiction of the Agency.*”<sup>22</sup>

Alternatives that are considered, but are not reasonable, have been eliminated from detailed study with a brief discussion of the reasons for their elimination.<sup>23</sup> A discussion of alternatives and design components considered, but eliminated from detailed analysis, follows the description of alternatives considered in detail.

#### ALTERNATIVE 1 – NO ACTION

The No Action Alternative provides a baseline for comparing the effects of the action alternatives. The No Action Alternative essentially reflects a continuation of existing management practices without changes, additions, or upgrades. Specifically, no improvements to the current egress route on the eastern side of Burnt Mountain would be approved under the No Action Alternative. Currently, most skiers utilize the same corridor as depicted in Alternative 2, the Proposed Action, for egress out of the eastern portions of Burnt Mountain; however, skiers and snowboarders experience conditions ranging from a manageable egress to sparse snow coverage that sometimes requires hiking. Many skiers follow a bandit trail (created by members of the public) known as the Eastern Traverse (refer to Figure 1). In addition, emergency access and injured skier extrication by Snowmass Ski Patrol via the egress route is compromised due to the dense trees and undependable snow conditions.

<sup>19</sup> 40 CFR 1502.14

<sup>20</sup> Refer to Table 2-1: Alternative Comparison Matrix for a summary of the differences between the two alternatives.

<sup>21</sup> 40 CFR 1502.14(a)

<sup>22</sup> FSH 1909.15, Chapter 10, Section 14

<sup>23</sup> 40 CFR 1502.14(a)

For a map of the existing Burnt Mountain ski terrain, including the current egress route, refer to Figure 1.

### **ALTERNATIVE 2 – PROPOSED ACTION**

Under Alternative 2, the proposed trail segment would provide a more defined route from the gladed terrain on the eastern portion of Burnt Mountain to the existing Long Shot trail (refer to Figure 2). The 3,200-foot trail segment would average 35 feet in width and would be groomed when snow conditions necessitate. The trail would average 10 to 15 percent slope; however, some initial sections have close to a 30 percent slope. The trail would require up to 500 linear feet (0.4 acre) of spot grading in an area on the lower end of the trail to minimize the cross slope and provide an appropriate groomable egress platform, which would allow snowcat access for grooming. The majority of the trail would utilize an older skid trail corridor that would not require additional grading. The cleared trail would provide emergency access/egress by snowmobile or ski patrol toboggan when necessary. The exterior (skier’s right) edge of the proposed egress trail would be roped as the new ski area operational boundary. No part of the proposed trail segment is within the Burnt Mountain CRA.

Total disturbance would be approximately 2.5 acres of full clearing, including the 0.4 acre of grading. Tree removal for the egress trail would range from 25 to 45 feet in width and would be completed by hand crews using chainsaws. Trees outside of areas proposed for grading would be flushcut and removed from the area by skidding over the ground or snow, or by helicopter.

### **ALTERNATIVE 3**

Alternative 3 was developed by using concepts identified through the scoping process. It is “reasonably related to the purpose of the project,” and responds to issues/ideas raised in scoping, including:<sup>24</sup>

- minimize physical impacts of an egress trail;
- minimize potential impacts to the “character” of the eastern portion of Burnt Mountain; and
- minimize the use of snowcats within the area, including no snowcat access to the main gladed skiing portion of Burnt Mountain.

To be reasonably related to the Purpose and Need, the Alternative 3 egress trail design employs a combination of a narrower trail and gladed terrain to facilitate public and emergency egress (refer to Figure 3). It would take advantage of an existing egress route, the Eastern Traverse, and would facilitate collecting skiers from some of the more eastern portions of the Burnt Mountain Glades.

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<sup>24</sup> Ibid.

The Alternative 3 egress trail is defined below, in three segments.

1. The uppermost portion of the egress trail would be in the same location as Alternative 2; however, the egress trail segment would be 10 feet wide for the upper/initial approximately 500 linear feet. This portion of the trail maintains an approximately 6 percent grade where skiers would not need to make turns. Therefore, this segment of trail would be narrower in width compared to Alternative 2.
2. Below the 10-foot wide segment, the topography steepens to an approximate 30 percent slope. At this point the trail would be gladed, allowing for tree removal up to a 40 percent basal area reduction for a length of approximately 700 linear feet and a width of approximately 250 feet.<sup>25</sup> This width and percent of tree removal would allow skiers to make turns on this steeper portion of trail, spreading people across the terrain to provide a more sustainable egress route that would maintain more viable snow conditions than the existing egress route. It would also allow ski patrollers to negotiate the area for emergency purposes with a toboggan or snowmobile.
3. At the bottom of the gladed area, a 20-foot wide cleared egress trail would be created with 500 linear feet (0.2 acre) of spot grading to address side slope conditions that would better facilitate snowcat access for grooming. Grooming operations would not extend up-mountain on the egress trail beyond this lower segment of trail. In addition, select tree removal would occur beyond the 20-foot cleared width, extending to a total disturbance width of approximately 35 feet. Dead hazard trees within striking distance of the skiable path would also be removed.

In addition to the alignment described above, select tree removal would occur along the initial section of the existing Eastern Traverse until it intersects the gladed skiing terrain. It would serve as a secondary route out of the Burnt Mountain Glades. This trail is downhill of the primary egress route in Alternative 3 and would help to accommodate the existing skier use of the Burnt Mountain Glades. The improvement of the Eastern Traverse would help to spread skiers across both trails. The exterior edge of the Eastern Traverse and proposed egress trail would be roped as the new ski area operational boundary. No part of the proposed trail segment is within the Burnt Mountain CRA.

Disturbance under Alternative 3 would include full clearing, grading, glading (up to 40 percent basal area tree removal) and select hazard tree removal. Approximately 0.8 acre of full clearing, 4 acres of glading, and select tree removal along the initial portion of Eastern Traverse (approximately 30 trees) would be required for an egress trail that addresses the Purpose and Need. In addition, as described above, spot grading up to 500 linear feet (0.2 acre) of trail would be required to provide a consistent skiable egress. Tree removal under Alternative 3 would be flushcut and removed from the area by skidding over the ground or snow, or by helicopter.

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<sup>25</sup> Basal area is the cross-sectional area of tree trunks within an area, not the canopy cover.

## **B. ALTERNATIVES AND DESIGN COMPONENTS CONSIDERED BUT ELIMINATED FROM DETAILED ANALYSIS**

The range of alternatives considered by the responsible official includes all reasonable alternatives to the Proposed Action that are analyzed in the document, as well as other alternatives eliminated from detailed study. Alternatives not considered in detail may include, but are not limited to, those that fail to meet the Purpose and Need, are technologically infeasible or illegal, or would result in an unreasonable environmental harm.<sup>26</sup> Several alternatives were considered but eliminated from detailed analysis based on resource issues. These alternatives are discussed below.

### **DO NOT BUILD AN EGRESS TRAIL. RETURN THE AREA TO AN INVENTORIED ROADLESS AREA WITH BACKCOUNTRY SKIING**

The No Action Alternative analyzes the option of not constructing an improved egress trail out of the Burnt Mountain Glades. Historically, six primary events occurred that have led to the current state of this Project Area.

- In 1973 a new SUP was issued to include Burnt Mountain within the Snowmass SUP boundary.
- The 1994 FEIS/ROD approved development on Burnt Mountain including Long Shot ski trail and the Two Creeks lift and trails.
- In 2002 the WRNF Forest Plan identified the area as Management Area 8.25: Ski Areas – Existing and Potential.
- In 2006 the WRNF approved the development of the Burnt Mountain Glades. The approval to construct the portion of the egress trail being analyzed within this EA was remanded under an administrative appeal with direction to reanalyze the project only for the potential effects the project might have on the Burnt Mountain Inventoried Roadless Area.
- In 2012 the Colorado Roadless Rule eliminated the roadless designations for 8,300 acres inside ski area SUP boundaries, including 80 acres within the Snowmass SUP boundary.
- In 2012 Snowmass developed the Burnt Mountain Glades through select tree removal and the configuration of the operational boundary.

Due to these events, there remains a need for improved access from the Burnt Mountain Glades as the area is no longer within the Burnt Mountain IRA, and no longer characterized as Forest Service backcountry access terrain. Returning the area to the Burnt Mountain IRA is beyond the scope of this analysis. Removing the IRA from the SUP area was analyzed in the Rulemaking for Colorado Roadless Areas EIS.<sup>27</sup> Continued use of this area for managed/patrolled skiing terrain is completely consistent with the SUP, the Forest Plan and the Colorado Roadless Rule.

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<sup>26</sup> FSH 1909.15, Chapter 10, Section 14.4

<sup>27</sup> USDA Forest Service, 2012a

## **SHORT EGRESS TRAIL**

Through preliminary project planning, several other alignments for an egress trail from Burnt Mountain were considered, including shorter routes. Due to topographical constraints such as cliff bands and fall line of the glades, no alternate alignment was identified that would meet the Purpose and Need. A shorter egress trail above the proposed alignment would not effectively collect skiers in the Burnt Mountain Glades and provide a return to Long Shot trail. Skiers would continue to descend what was previously thinned and a similar experience would result as the current condition. In addition, ski patrol would not have efficient access to the area below the shorter egress trail alignment. Specifically, a shorter egress trail may be “reasonably related to the purpose of the project,” but it would not “address the significant issues and meet the Purpose and Need for the Proposed Action.”<sup>28</sup>

Moreover, no significant resource issues (in recreation, wildlife and vegetation, cultural resources, soils and geology, traffic, scenery resources, or watershed) associated with the Proposed Action were identified that would require that the analysis consider a shorter egress.

## **MINIMAL EGRESS TRAIL**

Alternative 3 was developed partially in response to comments requesting selective tree removal and a narrower egress trail for the entirety of the egress route. Ultimately, minimizing the trail width and disturbance was balanced with meeting the Purpose and Need for the project, to address existing guest safety concerns for skiers egressing from the Burnt Mountain Glades to Long Shot trail and improve emergency access/egress associated with the Burnt Mountain Glades. Alternative 3 would require a narrower snowcat to groom approximately 20 feet wide traverse and grooming would be limited to the lower half of the trail segment. Other portions of the trail would require selective tree removal, rather than clearing a 35-foot wide trail. Providing a minimal trail width for the entire length of the trail, including steeper sections, would not meet the purpose and need of providing more dependable snow conditions, and would not result in a more viable egress route for the skiing public and emergency evacuation route for the extrication of injured skiers by ski patrol. For these reasons, this alternative was eliminated from detailed analysis. Refer to the Alternative 3 description for additional information on how this option was incorporated into this alternative.

## **C. ALTERNATIVE COMPARISON MATRIX**

Table 2-1 is provided to aid the reader in comparing and contrasting the alternatives by project element.

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<sup>28</sup> 40 CFR 1502.14(a); USDA Forest Service, 2008b

**Table 2-1:  
Alternative Comparison Matrix**

	Alternative 1 No Action	Alternative 2 Proposed Action	Alternative 3
Proposed Burnt Mountain Egress Trail	N/A	3,100 feet long Avg. 35 feet wide	<b>Existing Eastern Traverse: 260 feet long</b> , tying into the alignment of the <b>Proposed Trail: 2,200 feet long</b> Avg. 10 to 20 feet wide + 4.0 acres of glading
Full Clearing (acres)	N/A	2.5	0.9
Spot Grading (linear feet)	N/A	500	500
Glading (acreage, up to 40% basal area tree removal)	N/A	--	4.0

**D. SUMMARY COMPARISON OF ENVIRONMENTAL CONSEQUENCES BY ALTERNATIVE**

For the purpose of comparison, the environmental consequences associated with implementation of the alternatives considered in detail are summarized in Table 2-2. This table is organized by the issues and indicators listed in the Chapter 3 – Introduction. For detailed discussions of potential effects resulting from implementation of either of the alternatives, including cumulative effects, refer to individual narrative discussions in Chapter 3.

**Table 2-2:  
Summary Comparison of Environmental Consequences**

Indicator	Alternative 1 No Action	Alternative 2 Proposed Action	Alternative 3
<b>Roadless Area:</b> Prior to the 2012 Colorado Road Rule, 80 acres of the 4,745-acre Snowmass SUP area were overlapped by the Burnt Mountain IRA. The Burnt Mountain Egress Trail included in the Proposed Action was previously approved in a 2006 Decision Notice which was subsequently remanded citing the need for additional NEPA analysis of the effects of the Burnt Mountain Ski Traverse on that part of the IRA inside the Snowmass SUP area.			
<i>Location of the Burnt Mountain CRA in relation to the Snowmass SUP area</i>	As a result of the 2012 Colorado Roadless Rule, the Snowmass SUP area is not overlapped by the adjacent 1,600-acre Burnt Mountain CRA.	As a result of the 2012 Colorado Roadless Rule, the Snowmass SUP area is not overlapped by the adjacent 1,600-acre Burnt Mountain CRA.	As a result of the 2012 Colorado Roadless Rule, the Snowmass SUP area is not overlapped by the adjacent 1,600-acre Burnt Mountain CRA.
<i>Evaluation of each alternative within the context of the 2012 Colorado Roadless Rule (Including Roadless Area Characteristics, prohibition of tree cutting, sale or removal, and prohibitions on road construction and reconstruction).</i>	<p>No CRA subject to the 2012 Colorado Roadless Rule exists inside the Snowmass SUP area.</p> <p>Alternative 1 includes no ground disturbance, vegetation removal or road construction. There would be not impacts to Roadless Area Characteristics of the adjacent Burnt Mountain CRA or the existing roadless area characteristics of the 80-acre parcel.</p>	<p>No CRA subject to the 2012 Colorado Roadless Rule exists inside the Snowmass SUP area.</p> <p>Alternative 2 would not create a significant effect to the Roadless Area Characteristics of the adjacent Burnt Mountain CRA or the existing roadless area characteristics of the 80-acre parcel. This would be true even if the 2012 Colorado Roadless Rule applied to the Snowmass SUP area.</p> <p>Construction of the proposed Burnt Mountain Egress Trail in Alternative 2 would include approximately 2.5 acres of tree clearing. No roads are proposed. The proposed Burnt Mountain Egress Trail would be considered and managed as a ski trail.</p> <p>In the context of the 2012 Colorado Roadless Rule's prohibition on tree cutting, sale or removal, developed</p>	<p>No CRA subject to the 2012 Colorado Roadless Rule exists inside the Snowmass SUP area.</p> <p>Alternative 3 would not create a significant effect to the Roadless Area Characteristics of the adjacent Burnt Mountain CRA or the existing roadless area characteristics of the 80-acre parcel. This would be true even if the 2012 Colorado Roadless Rule applied to the Snowmass SUP area.</p> <p>Construction of the proposed Burnt Mountain Egress Trail would include approximately 0.9 acre of tree clearing. No roads are proposed. The proposed Burnt Mountain Egress Trail would be considered and managed as a ski trail.</p> <p>In the context of the 2012 Colorado Roadless Rule's prohibition on tree cutting, sale or removal, developed</p>

**Table 2-2:  
Summary Comparison of Environmental Consequences**

Indicator	Alternative 1 No Action	Alternative 2 Proposed Action	Alternative 3
		skiing is a “management activity not otherwise prohibited” and removal of approximately 2.5 acres of timber is plainly “incidental” to implementation of the skiing activity. Thus, proposed tree clearing and grading on Burnt Mountain would be consistent even if the 2012 Colorado Roadless Rule were applied to portions of the SUP area that are no longer “roadless.”	skiing is a “management activity not otherwise prohibited” and removal of approximately 0.9 acre of timber is plainly “incidental” to implementation of the skiing activity. Thus, proposed tree clearing and grading on Burnt Mountain would be consistent even if the 2012 Colorado Roadless Rule were applied to portions of the SUP area that are no longer “roadless.”
<b>Recreation:</b> The proposed egress trail has the potential to affect the recreational experience at the ski area.			
<i>Discussion of existing and proposed recreation experience and character of Burnt Mountain Glades.</i>	There is little evidence of ski area operations and maintenance in the area, and the natural qualities would be maintained under Alternative 1. The low density skier experience is valued.	There would continue to be little evidence of ski area operations and maintenance in the area, and the natural qualities would be maintained under Alternative 2. A low density skier experience would be maintained.	There would continue to be little evidence of ski area operations and maintenance in the area, and the natural qualities would be maintained under Alternative 3. The low density skier experience would be maintained.
<i>Discussion of existing and proposed skier egress from the Burnt Mountain Glades.</i>	Egress would continue to have variable snow conditions and problematic skier egress and evacuation issues. Visitor experience would be reduced especially during low snow conditions.	The proposed egress trail would address safety concerns (through widening and grooming), better accommodate users, as well as facilitate repeat use of the glades.	The proposed egress trail would address safety concerns (through widening and grooming), better accommodate users, as well as facilitate repeat use of the glades, while providing an experience in keeping with the rest of the terrain on Burnt Mountain.
<i>Discussion of existing and proposed emergency access and egress.</i>	Emergency access would continue to require patrollers to ski into the area from the top of the Elk Camp Quad and to ski out of the area on a side slope through dense vegetation.	Addressing egress from Burnt Mountain would decrease the evacuation time, while improving comfort and safety of injured skiers. Snowmobile assisted evacuation would be possible.	Addressing egress from Burnt Mountain would decrease the evacuation time, while improving comfort and safety of injured skiers. Partial snowmobile assisted evacuation would be possible.

**Table 2-2:  
Summary Comparison of Environmental Consequences**

Indicator	Alternative 1 No Action	Alternative 2 Proposed Action	Alternative 3
<p><b>Wildlife and Vegetation:</b> Construction of the proposed egress trail would necessitate vegetation removal and grading and could affect plant communities and wildlife including Threatened, Endangered, and Sensitive (TES) species, and Management Indicator Species (MIS) that may utilize habitat within and adjacent the Project Area.</p>	<p><i>Identification of any TES species and/or MIS or habitat in the study area</i></p> <p>The list of threatened and endangered species for the Project Area was updated November 19, 2012. It includes: Canada lynx; Mexican spotted owl; North American wolverine; Colorado pikeminnow; razorback sucker; humpback chub; bonytail and Uncompahgre fritillary. Seven of the eight federally listed species were dropped from detailed analysis; only Canada lynx is analyzed in detail in this EA.</p> <p>Table 3C-1 lists R2 sensitive species, their occurrence on the WRNF, the habitat each species is associated with and whether there is potentially suitable habitat present in the analysis area.</p> <p>Four MIS—elk, snowshoe hare, macro invertebrates and alpine willow—were identified as project MIS based on Forest Plan selection criteria and the presence or potential occurrence of these organisms and their habitats on NFS lands within and adjacent the Project Area.</p> <p>There is no habitat present in the Project Area for federally listed plants. Potential habitat does exist for six R2 Sensitive plant species: trianglelobe moonwort, narrowleaf grapefern, peculiar moonwort, yellow lady’s slipper, and plains rough fescue.</p>		
<p><i>Discussion of impacts related to vegetation removal/habitat alteration</i></p>	<p>Given the current level of use observed from skiers/riders egressing Burnt Mountain, effects under Alternative 1 may affect but are not likely to adversely affect the Canada lynx. Alternative 1 would not impact any other T, E, S or management indicator species.</p>	<p>Due to proposed trail construction, there would be a loss of some lynx habitat, although the surrounding habitat would be capable of providing lynx movements and year-round foraging. Thus, Alternatives 2 and 3 “may affect but are not likely to adversely affect Canada lynx.”</p> <p>Alternatives 2 and 3 would have “no impact” on any R2 sensitive species, with the following exceptions: pygmy shrew; northern goshawk; boreal owl; olive-sided flycatcher; flammulated owl; purple martin; boreal toad; and Colorado River cutthroat trout. The determination for each of these species is: “may adversely impact individuals, but would not likely result in a lack of viability in the planning area, nor cause a trend towards federal listing or a loss of species viability rangewide.”</p> <p>For MIS, Alternatives 2 and 3 would have the following impacts: elk (would not create any negative trends that would affect achieving Forest Plan MIS objectives or create a viability concern); snowshoe hare (impacts</p>	

**Table 2-2:  
Summary Comparison of Environmental Consequences**

Indicator	Alternative 1 No Action	Alternative 2 Proposed Action	Alternative 3
		<p>would be immeasurable at the Forest scale and would not affect overall populations or trends across the Forest); macroinvertebrates (short- and long-term physical stream habitat and water quality would be maintained, the project would have no measurable effects on population trends); and Alpine willow (would not affect achieving Forest Plan MIS objectives or species viability).</p> <p>No Threatened, Endangered or Proposed plant species would be affected by either Action Alternative. R2 Sensitive plant species that could be impacted by trail construction/use in Alternatives 2 and 3 include all three moonworts, the yellow lady’s slipper and plains rough fescue. The determination for these species is “May Impact Individuals, but is not likely to cause a trend towards Federal listing or result in loss of viability in the planning area.”</p>	
<i>Discussion of changes in habitat due to lodgepole pine mortality</i>	<p>The mountain pine beetle epidemic has resulted in accelerated mortality in the lodgepole pine component of the mixed conifer stand in the Analysis Area. The pine beetle epidemic, however, has not resulted in changes to the character of the stand that would impact the species composition within the understory. The low density understory composition of the stand, in combination with the canopy density and overall species composition, provide the defining characteristics of this mixed conifer stand.</p>		

## **E. PROJECT DESIGN CRITERIA DESIGNED TO MINIMIZE ENVIRONMENTAL EFFECTS**

In order to minimize potential resource impacts from construction and implementation of the proposed projects, the Project Design Criteria (PDC) detailed in Table 2-3 have been incorporated into the Proposed Action. PDC were devised by Forest Service specialists in the pre-analysis and analysis phases to reduce potential environmental impacts associated with project elements. In addition, all appropriate PDC were incorporated from the previous NEPA approvals (the 1994 ROD and 2006 DN/FONSI). The potential effects of implementing the Proposed Action (disclosed in Chapter 3) assume these PDC are applied.

PDC come from federal, state, and local laws, regulations and policies, forest management plans, scientific recommendations, or from experience in implementing similar projects. The bulk of the PDC provided in Table 2-3 are considered common practices that ski area managers have historically used in alpine and sub-alpine environments to prevent or decrease potential resource impacts. They are highly effective methods that can be planned in advance and adapted to site conditions as needed.

In addition to the PDC prescribed below for each resource area, ASC would be required to prepare and submit for Forest Service approval the following documents:

- Project construction and grading plans
- Pre-construction erosion control/drainage management plans
- Pre- and post-construction noxious weed control plans
- Post-construction erosion control plans
- Post-construction revegetation plans

These plans would incorporate the PDC discussed below. Annual Summer Construction Plans will include strategies for monitoring compliance with the required project design criteria. Failure to comply with PDC required in any of the above mentioned plans or that are specified in the Forest Service Decision Notice would constitute a breach of the terms of the project authorization and could temporarily suspend implementation of approved projects. Responsibility for ensuring that required PDC are implemented rests with ASC management and the Forest Service.

**Table 2-3:  
Project Design Criteria Incorporated into the Action Alternatives**

<b>CULTURAL RESOURCES</b>
If undocumented historic and/or prehistoric properties are located during ground disturbing activities or planning activities associated with construction activities, they would be treated as specified in 36 CFR 800.11 concerning Properties Discovered During Implementation of an Undertaking.
<b>GEOLOGY AND SOILS</b>
Prior to construction of the egress trail an Erosion Control Plan will be developed, submitted for review, and approved by the Forest Service.
Soil-disturbing activities will be avoided during periods of heavy rain or wet soils.
<b>VEGETATION</b>
Adequately mark trail clearing limits to avoid mistakes in clearing limits during construction.
Due to the timing of this decision, a pre-construction survey for plant species with potential habitat in the trail alignment will need to take place during the appropriate biological window. If the survey detects any populations of moonworts in the alignment, all practical measures shall be implemented to avoid disturbance to the colony.
Avoid or minimize impacts to known moonwort communities or genus groups. Should <i>Botrychium</i> individuals or populations be observed within the egress trail alignment, efforts shall be made to avoid disturbance to the population.
<b>WILDLIFE</b>
To protect the security and stability of elk production range, restrict construction and maintenance between May 15–June 20 (potentially May 1–June 30, depending on winter snow accumulations and spring weather conditions) annually within identified production habitats on NFS land.
Closures and signage will be installed along the eastern edge of the Burnt Mountain traverse to mark the ski area boundary.
Conduct surveys for the boreal owl, flammulated owl and purple martin prior to implementation.
Where vegetation is removed, survey for the northern goshawk. All potential and active nests should be avoided, retaining nest trees or snags, as feasible.
Control all human foods and garbage associated with construction to make it unavailable to black bears.
If raptor nests are located within the zone of influence of the proposed project, notify the Forest Service biologist prior to any construction activity so that site-specific mitigation can be developed.
Restrict the removal of snags and coarse woody debris unless there are skier safety concerns. Leave other snags and woody material on-site to benefit species dependent upon these habitat structural elements.
<b>SCENERY RESOURCES</b>
Revegetate disturbed areas promptly upon project completion.
<b>RECREATION</b>
Stumps should be cut as low as possible to the ground to avoid safety hazard.

**Table 2-3:  
Project Design Criteria Incorporated into the Action Alternatives**

<b>WATERSHED AND WETLANDS</b>
Erosion control and revegetation efforts would commence immediately following construction as per Forest Service BMPs and an approved Erosion Control Plan.
All streams and wetlands will be avoided during ground disturbing activities.
Apply BMPs for all ground disturbing activities to avoid sediment migration from ground disturbance into wetlands.

# **Chapter 3**

## Affected Environment and Environmental Consequences

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## 3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

### INTRODUCTION

The Council on Environmental Quality (CEQ) has regulations for implementing NEPA that require federal agencies to consider the following types of actions, alternatives and impacts in an environmental analysis.<sup>29</sup> In addition, the Forest Service's NEPA Handbook provides guidance for meeting the documentation requirements of an EA.<sup>30</sup>

### ACTIONS

- Connected Actions: actions that are dependent on each other for their utility.
- Cumulative Actions: actions which, when viewed with other proposed actions, have cumulatively significant impacts and should therefore be discussed in the same analysis.
- Similar Actions: actions which, when viewed with other reasonably foreseeable or proposed actions, have similarities that provide a basis for evaluating their environmental consequences together.

### ALTERNATIVES

- The Proposed Action and alternatives.

### IMPACTS

- Direct impacts are caused by the action and occur at the same time and place.
- Indirect impacts are later in time or farther removed in distance but are still reasonably foreseeable (i.e., likely to occur within the life of the project).
- Cumulative impacts are the result of the incremental effects of any action when added to other past, present, and reasonably foreseeable future actions and can result from individually minor, but collectively significant actions taking place over an extended period of time.

### DESCRIPTION OF ANALYSIS

This chapter provides detail on both the biological and human environment as based on the issues identified in Chapter 1. Each section within this chapter presents the existing conditions for a specific resource and addresses the direct, indirect and cumulative consequences associated with implementing each of the alternatives. The Project Area includes the area surrounding the disturbance footprint of the

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<sup>29</sup> 40 CFR 1508.25

<sup>30</sup> FSH 1909.15, Chapter 40

action alternatives on the Burnt Mountain portion of the Snowmass SUP area which is approximately 20 acres in size.

For each resource analyzed throughout Chapter 3, a description of the Affected Environment (i.e., existing conditions) provides the baseline from which to assess the effects of implementation of the alternatives in the Environmental Consequences section. Therefore, a thorough analysis (both qualitative and quantitative) of the existing conditions is provided for each resource area. The extent of the Affected Environment sections will vary according to the particular scope of the analysis for each resource.

Based on an understanding of the proposal, familiarity of the Project Area and analysis of the issues raised during scoping, the line officer approved the following issues to be considered in this analysis: Roadless Areas, recreation, wildlife and vegetation, cultural resources, soils and geology, traffic, scenery resources, and watershed. With the exception of Colorado Roadless Areas, all of these issues were analyzed in detail in the 2006 EA. Of the previously-analyzed issues, recreation, wildlife and vegetation include changed conditions from the Affected Environment and the Environmental Consequences described in the 2006 EA and therefore warrant new analysis in this EA. The reader is referred to the following sections in Chapter 3 for detailed information: Section A – Roadless Areas, Section B – Recreation, Section C – Wildlife, and Section D – Vegetation.

Detailed analysis of impacts to cultural resources, soils and geology, traffic, scenery resources, and watershed was considered for detailed analysis in this EA, but the ID Team determined that conditions have not changed from the Affected Environment and the Environmental Consequences described in the 2006 EA, specific to the egress trail. Therefore, the analysis presented in the 2006 EA for these resources is incorporated into this EA, and a summary of that information is provided here. Additional information has been added as necessary for clarification of the resource within the Project Area, but this information is to be considered in concert with the information disclosed in the 2006 EA. Alternative 3 included in this EA was not described and analyzed in the 2006 EA. Proper consideration has been given to Alternative 3 for each resource described below.

## **CULTURAL RESOURCES**

Cultural resource surveys have been conducted throughout the Snowmass SUP area.<sup>31</sup> No prehistoric sites or artifacts have been found to date; however, numerous historic sites have been recorded within the Snowmass SUP. The Proposed Action or Alternative 3 are not anticipated to affect any of the recorded sites.<sup>32</sup> If undocumented historic and/or prehistoric properties are located during ground disturbing activities or planning activities associated with construction activities, they would be treated as specified in 36 CFR 800.11 concerning Properties Discovered During Implementation of an Undertaking (refer to Chapter 2 Table 2-3 for Project Design Criteria Incorporated into the Action Alternatives).

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<sup>31</sup> Metcalf-Zier Archaeologists, 1981; Western Cultural Resource Management, Inc., 1992

<sup>32</sup> USDA Forest Service, 2006a

From a cumulative perspective, since implementation of projects contained in the action alternatives would have “no effect” on any known National Register of Historic Places listed or eligible historic properties, by definition, no cumulative impacts to cultural resources are identified specifically related to the action alternatives.

All other spatially or temporally relevant projects at Snowmass or surrounding areas would require the completion of requisite cultural surveys to satisfy State and Federal requirements.

No irreversible and/or irretrievable commitments of cultural resources have been identified in association with any of the alternatives analyzed in this document.

## SOILS AND GEOLOGY

Due to proposed tree removal and grading incorporated into Alternatives 2 and 3, soil and geologic resources within the Project Area are being considered. The Project Area was reviewed in the 2006 EA and these findings have been carried forward for this analysis:

*“No severe geologic hazards are present within the Snowmass Ski Area boundary, however numerous lesser hazards exist which can dictate the placement and design of structures. These hazards may include unstable slopes, rockfall areas, and potentially unstable slopes (if altered). Most slope failures appear to have occurred along dip-slopes in either the Morrison Formation or Burro Canyon Formations, and often involve the overlaying Dakota Sandstone. No unique landforms are known to exist within the Snowmass Ski Area boundary that would need special review as a result of the proposed actions).<sup>33</sup>*

The egress trail proposed under the action alternatives would encompass soils in two soil families. The upper 200 linear feet of the egress trail identified in the action alternatives would occur within the Leadville Family (a loamy-skeletal, mixed, superactive ustic Glossocryalf). The remainder of the project for the action alternatives would occur within the Seitz family (a clayey-skeletal, smectitic ustic Glossocryalf). Both soil families are found on 5 to 40 percent slopes.<sup>34</sup>

The Leadville family consists of well drained soils underlain by ground and lateral moraines, with moderate rates of runoff. Leadville soils are very deep ranging from loam to silty loam in the surface layers to cobbly clay loam at 40 to 60 inches. Mass movement potential of the Leadville family soils is low with only slight cut and fill slope/foot trail and paths stability limitations.<sup>35</sup>

The Seitz family forms on nearly level to moderately steep mountain slopes and benches. The soils are well drained and generally have moderate rates of runoff. Seitz family soils are very deep ranging from

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<sup>33</sup> Ibid.

<sup>34</sup> NRCS, 2010

<sup>35</sup> USDA Forest Service, 1999; NRCS, 2010

very stony loam at the surface to extremely stony clay loam from 36 to 64 inches. The mass movement potential of the Seitz family soils is low with moderate road and trail limitations due to the fine grained material and moderate foot trails and path limitations due to mud during seasonal wet periods.<sup>36</sup>

All proposed construction would occur within soils with low mass movement potential. Under Alternatives 2 and 3, limited trail clearing would occur on soils within the Leadville Family. Impacts to the soil resource are not anticipated as the soils are only slightly limited for cut and fill and trail development and any stumps would be left in place which would affectively anchor the soils.<sup>37</sup>

The remainder of the trail proposed under Alternatives 2 and 3 would occur within soils in the Seitz family. Approximately 500 feet of spot grading would occur for Alternatives 2 and 3. Proper drainage features and construction practices would be required to minimize impacts to the soils resource, as well as trail stability. In addition, to comply with policy direction such as “Maintain long-term levels of organic matter and nutrients on all lands” prior to implementation, an assessment of the quantity (depths) of soil A and/or organic ground cover would be made to ensure not net loss of this material. If supplemental organic amendments are deemed necessary and practical, using woody biomass harvested from Project Area boundaries and processed on site would be preferable.

Snowmass development has resulted in tree removal, grading, and installation of facilities across Snowmass’ operational boundary. Snowmass has a current Resource Management Plan and is required by the Forest Service to implement erosion control techniques such as water bars and revegetation that are constantly monitored and managed to minimize impacts to soil and water resources. These management plans have been effective in the stabilization of soils within the operational boundary; however, soil compaction and productivity reflect changes in land use, management, and vegetative cover between pre-development and the present day conditions. In addition, snowmaking has increased site moisture and therefore, increased the potential for mass soil movement within the SUP area; although as referenced above, mass movement potential remains low within the Project Area, and no snowmaking exists or is proposed for any terrain on Burnt Mountain. Cumulatively, construction on NFS lands within the SUP area have changed sediment yield, soil compaction and impermeable surface between pre-development conditions and present day ski area development. Changes in sediment yield and soil compaction are primarily temporary and associated with construction activities; however, permanent developments such as roads and buildings would continue to result in increased impermeable surfaces.

In the context of past, present and reasonably foreseeable effects, the contribution of the action alternatives to overall long-term cumulative impacts is minimal. Again, on-going implementation of projects adhering to construction specific drainage plans and the Resource Management Plan would help manage soil movement and sedimentation within the Snowmass SUP boundary.

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<sup>36</sup> USDA Forest Service, 1999; NRCS, 2010

<sup>37</sup> NRCS, 2010

No permanent structures are proposed, however spot grading would occur on approximately 500 feet of the trails proposed under Alternatives 2 and 3. These minor irreversible and/or irretrievable commitments of soil resources have been identified, but the effect would be negligible.

## **TRAFFIC**

Currently the approved number of skiers at one time at Snowmass is 13,500 guests, which was approved in the 1994 ROD. Daily visitation is consistently below the approved SAOT, with average day visitation just under 8,000 guests and peak days reaching just over 10,000 guests. The egress trails described in Alternatives 2 and 3 would not increase the SAOT of the ski area.

ASC originally estimated that an additional 100 skiers per day may visit Snowmass to ski the Burnt Mountain Glades following incorporation of the glades into the operational boundary in the 2012/2013 ski season. While no empirical data was collected on the actual use of the glades, it was not apparent that this number was achieved. Regardless, even using the 100 skiers per day number, Alternatives 2 and 3 are not anticipated to drive additional visitation that was not previously considered and analyzed in the 1994 EIS with respect to increased traffic volumes.

Should Alternative 2 or 3 create additional visitation from guests who might not otherwise come to Snowmass, the impact to traffic would be negligible. Moreover, the Average Annual Daily Traffic (AADT) on Highway 82 at Brush Creek Road is 16,000 vehicles.<sup>38</sup> Should the project result in 100 additional guests per day, assuming a vehicle occupancy of 1.5 persons per vehicle, this increase would represent less than 0.5 of a percent increase in vehicles (67 vehicles) on Brush Creek Road. This figure also does not take into consideration the fact that the majority of skiers accessing Snowmass utilize a bus service from outlying intercept lots and from the City of Aspen.

Cumulatively, since implementation of proposed projects contained in the action alternatives are not anticipated to drive any measurable additional visitation, no impacts to traffic are expected, therefore, by definition, no cumulative impacts to traffic are identified specifically related to the action alternatives.

All other spatially or temporally relevant projects at Snowmass or surrounding areas would require the completion of site specific analysis and would need to comply with appropriate transportation guidelines.

No irreversible and/or irretrievable commitments of traffic resources have been identified in association with any of the alternatives analyzed in this document.

## **SCENERY RESOURCES**

Although the site description provided in the 2006 EA analysis remains accurate, additional information is provided here to clarify the consistency of the project with the 2002 Forest Plan. The 2002 Forest Plan

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<sup>38</sup> Colorado Department of Transportation, 2013

establishes acceptable limits of change for Scenic Resources.<sup>39</sup> The acceptable limits of change of a particular area (e.g., Management Area, as defined in the 2002 Forest Plan) are the documented Scenic Integrity Objectives (SIO), which serve as management goals for scenic resources. The SIO for the Project Area is “Low” (moderately altered). Other portions of the SUP area are managed for an SIO of “Very Low” (heavily altered).

The *Low* SIO is defined as:<sup>40</sup>

*The valued landscape character appears moderately altered. Deviations begin to dominate the valued landscape character being viewed, but they borrow valued attributes such as size, shape, edge effect, and pattern of natural openings, changes in vegetation types, or architectural styles outside the landscape being viewed. They should not only appear as valued character outside the landscape being viewed, but they should be compatible or complementary to the character within.*

Trail and infrastructure development at Snowmass is generally visible in the immediate foreground (0 to 300 feet), foreground (300 feet to 0.5 mile), and middleground (0.5 to 4 miles). Trails and lift lines require distinctive vegetation cuts that can dominate the landscape, whereas gladed areas and open bowl skiing often appear to be natural vegetation patterns on the mountain sides. Chairlifts and facilities are also visible in the closer viewpoints. Although the Forest Service strives to protect scenic values and reasonable efforts are made to limit the visibility of structures, generally, ski area development is visible in the immediate foreground all the way through to the middle ground view.

Under Alternative 2, a 35-foot wide trail would be constructed to provide egress from the Burnt Mountain Glades to the Long Shot trail. The egress trail would be constructed in an area that is currently heavily treed including lodgepole pine, Douglas-fir, Engelmann spruce and subalpine fir. The egress trail would be cut approximately one-fifth of the width of Long Shot trail (or about three times the width of the existing Eastern Traverse). This trail would be located at a slightly less visible angle due to the topography of this portion of Burnt Mountain and areas proposed for spot grading would be promptly revegetated upon completion of construction. However, despite the design of the trail to minimize disturbance, due to the linear nature of trail cutting, the egress trail would be visible from some viewpoints in the foreground and middleground. With implementation of the egress trail proposed under Alternative 2, this area would continue to meet or exceed the 2002 Forest Plan SIO of Low.

Alternative 3 was developed to minimize the cleared area required for an egress trail, while still meeting the Purpose and Need of the project (refer to Chapter 1). This alternative would utilize the existing Eastern Traverse, which is indistinguishable on the landscape, as well as creating another similar width trail, and a gladed area. These trail segments and glading would eliminate the need for the uppermost

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<sup>39</sup> USDA Forest Service, 2002a

<sup>40</sup> Ibid.

1,400 feet of 35-foot wide cleared trail that is included in the Proposed Action. The lower 1,700 feet of trail would be narrower than in the Proposed Action, and the clearing would be limited to an average 20 feet with potential glading out to an average of 35 feet. The Alternative 3 egress trail would continue to meet or exceed the 2002 Forest Plan SIO of Low.

In the context of past, present and reasonably foreseeable actions, the contribution of the action alternatives to overall long-term cumulative impacts to scenery resources is minimal. Lift, trail and infrastructure development over the last five decades have cumulatively altered the landscape. Currently, in views of Snowmass, the developed ski area dominates the setting, but is consistent with the SIO of Low and Very Low within the Snowmass SUP area.

Any tree removal that may be visible from either of the action alternatives could be restored overtime. No irreversible and/or irretrievable commitments of visual resources have been identified from either of the action alternatives.

## **WATERSHED**

The Alternatives 2 and 3 egress trails would not impact waters of the U.S., including wetlands, as none are present in the areas proposed for disturbance. Under both action alternatives, proposed tree removal would potentially increase (minimally) water yield downstream of the Project Area due to reduced evaporation and absorption as compared to the native forested vegetation. The 1994 EIS analyzed potential effects on watershed resources of substantially more tree clearing on Burnt Mountain than is analyzed in this EA, and concludes that with implementation of design measures (incorporated into the action alternatives), potential effects on watershed resources would be negligible and ecological functions would be maintained. Although the current Project Area differs from what was originally analyzed (in 1994), no additional impacts to streams or wetlands have been identified. With implementation of a construction management plan, the action alternatives would comply with the 2002 Forest Plan standards and guidelines and the management measures within the Watershed Conservation Practices Handbook.<sup>41</sup>

The temporal extent of the analysis commences with conditions before the development of Snowmass as a ski area, extending through reasonably foreseeable future developments such as those outlined in the 2003 Master Plan. Activities associated with ski area management, including trail construction and snowmaking, have cumulatively changed channel conditions in the SUP area, as compared to watersheds in undeveloped conditions. This area has been, and will continue to be, managed by the Forest Service as per Forest Plan direction. The contribution of the action alternatives to overall long-term cumulative impacts to the watershed resources from ski area and private land development in the watershed is anticipated to be minimal.

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<sup>41</sup> Ibid.; USDA Forest Service, 2005

Any impacts to watershed resources from tree removal could be restored over the long-term. No irreversible and/or irretrievable commitments of watershed resources have been identified from either of the action alternatives.

## A. ROADLESS AREAS

### SCOPE OF ANALYSIS

Roadless area management on NFS lands has been a complex issue for over a dozen years, dating back to when the 2001 Roadless Rule was released under President Clinton. In 2005, a second roadless rule was released under the Bush administration. Most recently, in 2012 the State of Colorado and the United States Forest Service finalized the Colorado Roadless Rule (replacing the 2001 Roadless Rule), which provides a high level of conservation of roadless area characteristics on approximately 4.2 million acres of NFS lands within the state. Among other things, the 2012 Colorado Roadless Rule eliminated the roadless designation for 8,300 acres in 13 existing ski area SUPs and forest plan management allocations for developed ski areas.

This analysis provides a summary of roadless area management across the National Forest System, and puts the proposed Burnt Mountain Egress Trail into context with the 2012 Colorado Roadless Rule and the Burnt Mountain Colorado Roadless Area. The Study Area for this roadless analysis includes the 1,600-acre Burnt Mountain Colorado Roadless Area which is adjacent to the Snowmass SUP area, but focuses on approximately 80 acres of the Snowmass SUP area that were formerly included in the Burnt Mountain Inventoried Roadless Area prior to adoption of the 2012 Colorado Roadless Rule. This analysis also considers the effects of the alternatives on the existing roadless characteristics of the 80-acre parcel.

Due of the complex history of roadless area management dating back to 2001, the 2006 appeal and subsequent remand of approved projects within the Burnt Mountain IRA, and because it was raised as an issue in the public scoping period, the Forest Service has considered the current roadless characteristics of the 80-acre area in relation to the adjacent 1,600-acre Burnt Mountain Colorado Roadless Area. This consideration of roadless characteristics of the 80-acre area is consistent with the Appeal Deciding Officer's May 22, 2006 Letter to the Appellant, in which he stated:

*If the Forest Supervisor decides to proceed with that portion of the Snowmass MPA-SAI [Master Plan Amendment Ski Area Improvement] proposal, within the Burnt Mountain Inventoried Roadless Area in Management Area 8.25 at Snowmass Ski Area, a new decision will be required. The new decision will be appealable under the provisions of 36 CFR 215. Should the EA be revised to include the effects of the proposed action on the Inventoried Roadless Area and a new decision made, the revision and new decision need only deal with that part of the proposal within the Burnt Mountain Inventoried Roadless Area in Management Area 8.25 at Snowmass Ski Area.*

Note that two terms—"Inventoried Roadless Areas" (IRAs) and "2012 Colorado Roadless Areas" (2012 CRAs)—are used throughout this section. They are *not* used interchangeably. In the context of this analysis, IRAs refer to areas that were identified by the Forest Service in nation-wide and forest-by-forest roadless inventories and planning across the western United States. With adoption of the 2012 Colorado

Roadless Rule, there are no longer IRAs in Colorado. All roadless areas in the state are referred to as 2012 CRAs.

## **REGULATORY HISTORY ON INVENTORIED ROADLESS AREA MANAGEMENT**

In 1972 the Forest Service began identifying roadless areas for consideration in the National Wilderness Preservation System through the Roadless Area Review and Evaluation (RARE I).<sup>42</sup> In 1979, the agency completed RARE II, a more extensive national inventory of roadless areas. The RARE II study evaluated approximately 62 million acres and recommended 15 million for Wilderness designation, 12 million as potential Wilderness requiring further study, and 36 million for non-Wilderness uses.<sup>43</sup> In the years following RARE II, Congress has designated some of these areas as Wilderness. Subsequent roadless reviews and inventories were conducted through land management planning processes on a forest-by-forest basis.

Most national forests and grasslands employed RARE II data to identify IRAs. Subsequent forest plan revisions and regional assessments have further evaluated IRAs. In order for an area to be inventoried as Roadless either in RARE I, RARE II or subsequent forest planning, it must have first met the minimum criteria that would allow it to be studied through a forest plan. These criteria include:

1. The area being undeveloped with little or no evidence of human activity.
2. It must be at least 5,000 acres in size. If less than 5,000 acres, the area must be manageable in a natural condition, self-contained ecosystem (such as an island) or contiguous to existing or proposed Wilderness areas, primitive areas, or roadless areas in other Federal ownership, regardless of their size.
3. The area must offer outstanding opportunities either for solitude or for primitive or unconfined types of recreation.<sup>44</sup>

Prior to the 2001 Roadless Rule, the Forest Service determined roadless area management through individual forest plans. The plans prescribed specific land management designations for particular roadless areas, and the Forest Service managed each roadless area to allow the uses that were permissible under the applicable management designation in the Forest Plan. Thus, roadless areas were managed on a forest-by-forest basis to provide a spectrum of multiple uses, among them developed recreation.

Beginning on October 13, 1999, President Clinton directed the Forest Service to develop, and propose for public comment, regulations that would provide appropriate long-term protection for IRAs. This was analyzed in the 2000 Forest Service Roadless Area Conservation Final EIS and ultimately resulted in the

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<sup>42</sup> *Roadless* is defined as “areas that do not contain facilities for purposes of travel by vehicles greater than 50 inches in width...” Per 36 CFR 212.1 *Definitions – Travel Management; Designated Routes and Areas for Motor Vehicle Use*, a road is a motor vehicle route over 50 inches wide, unless identified and managed as a trail.

<sup>43</sup> USDA Forest Service, 2000

<sup>44</sup> 16 U.S.C. 1131–1136

2001 Roadless Rule which prohibited road construction, reconstruction, and timber harvest in roadless areas on approximately 58.5 million acres of public lands. The intent of the 2001 Roadless Rule was to provide lasting protection for IRAs across the National Forest System in the context of multiple use management. In the preamble to the final rule, the 2001 Roadless Rule states “allows timber cutting... in inventoried roadless areas... [for] trail construction or maintenance... [and] ski runs” and “construction or maintenance of ski trails and ski runs, the use of over the snow vehicles or off-highway vehicles necessary for ski area operations” under special use permits issued prior to the adoption of the 2001 Roadless Rule.<sup>45</sup>

Another critical element of the 2001 Roadless Rule was a prohibition, *with certain exceptions*, on two activities in all IRAs: (i) the construction and reconstruction of roads, and (ii) timber harvesting, regardless of the management direction contained in forest plans.<sup>46</sup>

Section 294.13(a) of the 2001 Roadless Rule states, “*Timber may not be cut, sold or removed in inventoried roadless areas of the National Forest System, except as provided in paragraph (b) of this section.*” Section 294.13(b) (2) states the following exception: “*The cutting, sale, or removal of timber is incidental to the implementation of management activity not otherwise prohibited by this subpart.*”

Between 2001 and 2003, the 2001 Roadless Rule was challenged, enjoined, and upheld multiple times. In 2005, the heavily litigated 2001 Roadless Rule was replaced with a new management strategy. Instead of managing IRAs on a nation-wide basis, the 2005 Roadless Rule provided a process for governors of states with National Forest System IRAs to petition the Secretary of Agriculture to establish state-specific roadless management direction through rulemaking.

Once again, a lengthy legal process ensued, including:

- In 2006, U.S. District Court Judge La Porte (California) set aside the 2005 Roadless Rule and reinstated 2001 Roadless Rule.
- In 2008 District Court Judge Brimmer (Wyoming) again set aside the 2001 Roadless Rule and issued a permanent injunction barring its implementation.
- In October 2011, the Tenth Circuit Court of Appeals reversed the District Court of Wyoming’s order to set aside and permanently enjoin the 2001 Roadless Rule.

At this time, Colorado and Idaho are the only states that have adopted specific roadless rules for NFS lands within their boundaries. All other states with IRAs on NFS within their boundaries are currently subject to the 2001 Roadless Rule.

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<sup>45</sup> 36 CFR 294 pages 3244, 3258 and 3259

<sup>46</sup> 36 CFR 294.12-.13 (2001)

## 2002 FOREST PLAN

The WRNF's 1984 Forest Plan did not contain a roadless area inventory.<sup>47</sup> The WRNF began its roadless area inventory evaluation in 1997, as part of its Forest Plan revision process.<sup>48</sup> The forest plan revision process required a new and more accurate inventory to address ongoing roadless area management issues. Each undeveloped area on the Forest was identified during the inventory and marked for further study according to the following measures:<sup>49</sup>

- 5,000 acres or larger in area;
- Fewer than 5,000 acres but is manageable in its natural state, is a self-contained ecosystem, or is adjacent to existing wilderness; and
- Does not contain facilities for purposes of travel by vehicles greater than 50 inches in width.

As a result, 90 roadless areas were identified on the WRNF totaling 640,000 acres. Of these 90 areas, 37 (totaling approximately 298,000 acres) were found capable and available for recommended wilderness. The remaining 53 areas were identified as roadless but lacking sufficient wilderness characteristics.<sup>50</sup> The Burnt Mountain Roadless Area identified in the 2001 Roadless Rule included portions of Burnt Mountain that were approved in the 1994 ROD for development. Throughout the forest plan revision process, the State of Colorado, Ute Nation, local governments, and the public were informed that roadless area management was a significant plan revision topic and comments were requested. Comments were received from a variety of state and local governments, congressional representatives, and private citizens.<sup>51</sup>

The roadless area inventory was analyzed for potential wilderness recommendation based on the three tests of *capability*, *availability*, and *need* that assessed each area's wilderness characteristics, its value relative to other resources, and the perceived need to add the site to the National Wilderness Preservation System. The capability of a potential wilderness is defined in FSH 1909.12-7.21 as "the degree to which the area contains the basic characteristics that make it suitable for Wilderness designation without regard to its availability or need as Wilderness." Among the characteristics analyzed were environment, challenge, outdoor recreation opportunities, special features, and manageability. All NFS lands found to meet wilderness capability requirements are generally available for consideration as wilderness. However, this availability is constrained by a determination of the value of and need for the wilderness resource relative to the value of and need for other resources from the site. To be available for wilderness, the

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<sup>47</sup> USDA Forest Service, 2002b p. 3-524

<sup>48</sup> This inventory was also used in the 2001 Roadless Rule.

<sup>49</sup> USDA Forest Service, 2002b p. 3-525

<sup>50</sup> Ibid. Appendix C, p. C-2

<sup>51</sup> Ibid. Appendix C, pp. C-2 and C-3

wilderness values of the resource, both tangible and intangible, should exceed the value of other resources that formal wilderness designation would preclude.<sup>52</sup>

Appendix C of the 2002 Forest Plan Final EIS discusses roadless area management and recommended wilderness on the Forest. Only those roadless areas that were found to be **capable of and available for** wilderness recommendation are included in this appendix. The inventoried roadless areas that were either “capable and not available” or “not capable and not available” are listed in Table C-3 of Appendix C. *As a result of the WRNF’s 1997 roadless area inventory evaluation for the Forest Plan revision process, the Burnt Mountain IRA was identified as “not capable and not available” for wilderness recommendation.*<sup>53</sup>

## 2012 COLORADO ROADLESS RULE

Colorado has approximately 14,520,000 acres of NFS lands, distributed among eight national forests and two national grasslands. Therefore, the U.S. Department of Agriculture, the Forest Service, and the State of Colorado agreed that there was a need to provide management direction for roadless areas in the State.

The ongoing uncertainty of the 2001 Roadless Rule was a key factor that influenced Colorado to initiate a state-specific petition to manage roadless within its borders. In 2006, Colorado petitioned the Secretary of Agriculture for consideration under the Administrative Procedure Act. After reviewing the recommendation from the Roadless Area Conservation National Advisory Committee, the Secretary of Agriculture accepted the petition on August 24, 2007, and directed the Forest Service to initiate rulemaking based on the petition. Between 2007 and 2012 an environmental impact statement (EIS) was prepared to fulfill the Forest Service’s requirements under NEPA.<sup>54</sup> A notice of availability for the Final EIS was published in the Federal Register on May 4, 2012.

On July 3, 2012, the Colorado Roadless Rule went into effect with the publication of the Final Rule in the Federal Register.<sup>55</sup> To date, Colorado and Idaho are the only states to have adopted their own roadless rules.

The 2012 Colorado Roadless Rule reflects the views and comments of thousands of people who expressed interest during the rule-making process. Between July 2006 to June 2012, there were five public comment periods resulting in more than 310,000 comments from people throughout the country.<sup>56</sup>

The 2012 Colorado Roadless Rule includes an updated inventory that added high-quality roadless acres not protected by the 2001 Roadless Rule. It also eliminated areas where roadless characteristics were compromised. Instead of IRAs, the 2012 Colorado Roadless Rule refers roadless areas within the State of

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<sup>52</sup> Ibid. Appendix C, p. C-4

<sup>53</sup> Ibid. Appendix C, p. 11

<sup>54</sup> The Final EIS for *Rulemaking for Colorado Roadless Areas* relied upon roadless area inventories conducted for both the 2001 Roadless Rule and 2002 WRNF Forest Plan Revision.

<sup>55</sup> USDA Forest Service, 2012a

<sup>56</sup> As indicated on the USDA Forest Service’s Colorado Roadless Rule website:  
<http://www.fs.usda.gov/roadmain/roadless/coloradoroadlessrules>

Colorado as “Colorado Roadless Areas” (CRAs). In total, the 2012 Colorado Roadless Rule provides a high level of conservation of roadless area characteristics on approximately 4.2 million acres of CRAs across the state. The 2012 Colorado Roadless Rule identifies 409,500 acres of CRAs that were not identified as IRAs in the 2001 Roadless Rule. Conversely, approximately 459,100 acres of IRAs that were associated with the 2001 Roadless Rule were not incorporated into the 2012 Colorado Roadless Rule.

The 2012 Colorado Roadless Rule establishes prohibitions for tree cutting, road construction and reconstruction, and use of linear construction zones with limited exceptions and establishes “upper tier” acres on approximately 1.2 million acres.<sup>57</sup> On upper tier acres, exceptions to road construction and tree cutting are more restrictive and limiting than the 2001 Roadless Rule. The 2012 Colorado Roadless Rule offers a higher level of conservation for the designated CRAs than management direction under either individual forest plans or the 2001 Roadless Rule. In addition, the 2001 Roadless Rule allows management activities to occur on more acres of roadless areas than the 2012 Colorado Roadless Rule due to the upper tier designation.<sup>58</sup>

### **Prohibitions on Tree Cutting, Sale or Removal under the 2012 Colorado Roadless Rule**

Under the 2012 Colorado Roadless Rule, trees may not be cut, sold, or removed in CRAs, with some exceptions. On upper tier acres, notwithstanding the general prohibition, trees may be cut, sold, or removed in CRAs if the responsible official determines the activity is consistent with the applicable land management plan, and:

1. tree cutting, sale, or removal is incidental to the implementation of a management activity not otherwise prohibited; or
2. tree cutting, sale or removal is needed and appropriate for personal or administrative use.<sup>59</sup>

On non-upper tier acres, trees may be cut, sold, or removed in CRAs outside of upper tier acres if the responsible official determines the activity is consistent with the applicable land management plan, one or more of the roadless area characteristics will be maintained or improved over the long term, and certain (identified) circumstances exist.<sup>60</sup>

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<sup>57</sup> The Colorado Roadless Rule defines “upper tier” acres as *a subset of Colorado Roadless Areas identified in a set of maps maintained at the national headquarters office of the Forest Service which have limited exceptions to provide a high level of protection for these areas.*

<sup>58</sup> USDA Forest Service, 2012a Executive Summary

<sup>59</sup> 36 CFR 294.42(a) and (b)

<sup>60</sup> 36 CFR 294.42(c)

## **Prohibitions on Road Construction and Reconstruction under the 2012 Colorado Roadless Rule**

Under the 2012 Colorado Roadless Rule, a road may not be constructed or reconstructed in a CRA, with some exceptions.<sup>61</sup> In upper tier acres, a road may only be constructed if the responsible official determines that certain conditions are met, including: a road is needed pursuant to reserved or outstanding rights, or a road is needed to protect public health and safety. In non-upper tier acres, a road or temporary road may only be constructed or reconstructed in a CRA if the responsible official determines that one of the following exceptions exists:

- it is needed to prevent irreparable resource damage that arises from design, location, use or deterioration of a forest road and cannot be mitigated by road maintenance;
- needed to implement a road safety improvement project on a forest road determined to be hazardous;
- the Regional Forester determines a road or temporary road is needed in association with an authorized water conveyance structure;
- needed to protect public health and safety in cases of imminent threat of flood, fire or other catastrophic event;
- the Regional Forester determines a road is needed to facilitate tree cutting, sale or removal within the first half-mile of the community protection zone;
- a temporary road is needed within a CRA pursuant to exploration or development of an existing oil and gas lease that does not prohibit road construction or reconstruction; or
- a temporary road is needed for coal exploration and/or coal-related surface activities for certain lands within CRAs in the North Fork mining area of the Grand Mesa, Uncompahgre and Gunnison NF.

## **Ski Area Special Use Permits**

Under the 2001 Roadless Rule, portions of 13 existing ski area special use permit boundaries, as well as ski area management allocations in forest plans, were located within adjacent IRAs across the state. However, the 2012 Colorado Roadless Rule does not include 8,300 acres of former IRAs associated with 13 existing ski area special use permits and ski area development allocations within forest plans as CRAs. *The result is that existing ski area special use permit areas are not overlapped by CRAs.* The State requested that the Forest Service take this action to better balance the social and economic importance of ski areas with the need to conserve roadless area characteristics, as well as acres with degraded roadless area characteristics due to the proximity to a major recreational development. This represents <0.2 percent of CRAs across the state. Eliminating roadless area designations within ski area permit

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<sup>61</sup> 36 CFR 294.43(a)

boundaries was designed to ensure future ski area expansions within existing permit boundaries and forest plan allocations are not in conflict with desired conditions provided through the final rule and address one of the specific concerns identified by the State of Colorado.<sup>62</sup>

Eliminating IRA designations from SUP areas resulted in allowing road construction and tree cutting on 6,600 acres currently under SUP for ski areas as well as the additional 1,700 acres of NFS lands that are allocated to ski area management (but located outside existing special use permits) for a total of 8,300 acres under the eight forest plans.<sup>63</sup> However, the 2012 Colorado Roadless Rule does not approve any future ski area projects or expansions. Although ski area special use permits are not included in CRAs, any road construction or tree cutting requires a site-specific NEPA process.<sup>64</sup> Any expansion proposal will need site-specific environmental analysis, appropriate public input, and independent approval.<sup>65</sup>

Under the 2012 Colorado Roadless Rule these 8,300 acres are managed according to the provisions in the applicable forest plan.<sup>66</sup> However, the 2012 Colorado Roadless Rule supersedes forest plan direction within CRAs. Forest plan direction that further restricts road construction or tree cutting will be followed. The rulemaking process does not require amendments or revisions to forest plans.<sup>67</sup>

Each National Forest in Colorado contains a portion of the 363 CRAs. The breakdown is included in the following table.

**Table 3A-1:**  
**Colorado Roadless Areas by National Forest**

<b>National Forest</b>	<b>Total CRAs</b>	<b>Total Acres</b>
Arapaho and Roosevelt	28	347,100
Grand Mesa, Uncompahgre, Gunnison	76	901,100
Manti La-Sal	1	7,700
Pike and San Isabel	66	774,700
Rio Grande	53	518,600
Routt	29	433,600
San Juan	20	566,100
White River	90	636,700
<b>Total</b>	<b>363</b>	<b>4,185,600</b>

In summary, the 2012 Colorado Roadless Rule provides greater opportunities for ski area development than the 2001 Roadless Rule, except expansions of ski areas into CRAs through plan amendments are not permitted. The final rule does not authorize the implementation of any ground disturbing activities, but rather it describes circumstances under which several activities may be allowed or restricted in CRAs.

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<sup>62</sup> USDA Forest Service, 2012a Decision Rationale

<sup>63</sup> Ibid. Table 3 – Comparison of the Final Rule and Alternative 4 with Baseline Conditions

<sup>64</sup> USDA Forest Service, 2012b #17

<sup>65</sup> USDA Forest Service, 2012 Decision Rationale

<sup>66</sup> USDA Forest Service, 2012b #17

<sup>67</sup> Ibid. #18

Before authorizing land use activities in roadless areas, the Forest Service must complete a more detailed and site-specific environmental analysis pursuant to NEPA and its implementing regulations.<sup>68</sup>

### **Burnt Mountain CRA Profile**

Prior to 2012, the Burnt Mountain IRA was composed of approximately 1,700 acres of public land managed by the WRNF. Although the IRA is well under the 5,000 acres that areas typically exceed, it is adjacent the Maroon Bells Wilderness and was considered appropriate for an IRA (see the profile below). With adoption of the 2012 Colorado Roadless Rule, the 1,700-acre Burnt Mountain IRA was reduced by approximately 100 acres (the roadless designation was eliminated from approximately 80 acres inside the Snowmass SUP area and 20 acres inside the Buttermilk SUP area). As a result, the 2012 Burnt Mountain CRA is approximately 1,600 acres in size.

The 2012 Colorado Roadless Rule provides the following profile of the 1,600-acre Burnt Mountain CRA:

*“...it is located in Pitkin County on the Aspen–Sopris Ranger District. It is just west of the city of Aspen; the town of Snowmass Village is to the northwest. The northern boundary is defined by private land. To the west the area borders the Snowmass Ski Area. The Maroon Bells-Snowmass Wilderness and private lands make up the southern boundary. Private lands and the Buttermilk Ski Area border the area to the east. The Burnt Mountain CRA is in close proximity to highly developed properties such as Snowmass and Buttermilk ski areas and private housing developments. The Government Trail bisects the area and receives heavy biking and hiking use throughout the summer and fall. There is non-motorized access to the southern portion of the area via the Buttermilk Ski Area roads. Vegetation in the area generally consists of mixed stands of aspen, spruce/fir and lodgepole, with some natural openings.”<sup>69</sup>*

As per the 2012 Colorado Roadless Rule, the Burnt Mountain CRA does not include any upper tier acres.<sup>70</sup>

### **AFFECTED ENVIRONMENT**

Although the roadless area inventory for the 2001 Roadless Rule included portions of existing ski area permit boundaries/management allocations on NFS lands, the 2012 Colorado Roadless Rule eliminated the roadless designation from any lands within the ski area special use permit areas from CRAs. Therefore, the 1,600-acre Burnt Mountain CRA *does not* overlap the Snowmass SUP boundary and the Project Area is not in the CRA.

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<sup>68</sup> USDA Forest Service, 2012a Regulatory Certifications

<sup>69</sup> USDA Forest Service, 2011 pp. 16–17

<sup>70</sup> 36 CFR 294.49

The entire 4,745-acre Snowmass SUP area is managed according to both Forest-wide and Management Area 8.25 standards and guidelines from the 2002 Forest Plan. The 8.25 Management Area (Ski Areas–Existing and Potential) directs:

*“Facilities may be intensively used throughout the year to satisfy a variety of seasonal recreational demands. Base areas that serve as entrance portals are designed as gateways to public lands. Forested areas are managed as sustainable cover with a variety of species and age classes in patterns typical of the natural landscape character of the area. Protection of scenic values is emphasized through application of basic landscape aesthetics and design principles, integrated with forest management and development objectives.”<sup>71</sup>*

The 2012 Colorado Roadless Rule defines Roadless Area Characteristics according to nine resources or features that are often present in CRAs.<sup>72</sup> Below, these nine resources or features are considered within the approximately 80-acre portion of the Snowmass SUP boundary that was *formerly* within the Burnt Mountain IRA. As previously indicated, the Burnt Mountain CRA does not include any upper tier acres which, by definition, have limited exceptions to provide a high level of protection for these areas.

### **Roadless Area Characteristics of the 80-Acre Area in Relation to the Burnt Mountain CRA**

#### **1. High Quality or Undisturbed Soil, Water and Air**

No projects or developments have occurred within the 80-acre area; thus, soil, water and air resources are considered high quality. The 80-acre area is managed according to Forest-wide and Management Area 8.25 standards and guidelines in the 2002 Forest Plan. In particular, these standards and guidelines protect soil, water and air resources.

#### **2. Sources of Public Drinking Water**

No waters of the U.S., including wetlands, are present in areas proposed for disturbance.

#### **3. Diversity of Plant and Animal Communities**

The 80-acre area provides potential habitat for ESA Threatened species and Forest Service Sensitive species. In addition, the area provides a portion of potential summer range and production area for mule deer and elk and contains habitat for black bear, mountain lion, wild turkey, and a variety of raptors and bird species. The adjacent CRA would provide the primary habitat and range for most species. No development has occurred within the 80-acre area that has directly affected plant diversity and animal communities, however, development has occurred on lands within the SUP area adjacent the 80-acre area (within the developed ski area). All of the lands within the SUP boundary are subject to Forest-wide and

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<sup>71</sup> USDA Forest Service, 2002a p. 3-80

<sup>72</sup> 36 CFR 294.41

Management Area 8.25 standards and guidelines in the 2002 Forest Plan. These standards and guidelines protect resource values for plant and wildlife communities.

#### **4. Habitat for Threatened, Endangered, Proposed, Candidate, and Sensitive Species, and for Those Species Dependent on Large, Undisturbed Areas of Land**

The 80-acre area was found to have habitat for the following species:

- **Threatened and Endangered species:** Canada lynx, Mexican spotted owl, Colorado pikeminnow, razorback sucker, humpback chub, bonytail and Uncompahgre fritillary
- **Proposed Threatened Species:** North American Wolverine
- **Region 2 Sensitive Species:** marten, pygmy shrew, northern goshawk, boreal owl, northern harrier, olive-sided flycatcher, American peregrine falcon, white-tailed ptarmigan, flammulated owl, three-toed woodpecker, purple martin, brewer's sparrow, and boreal toad, northern leopard frog, mountain sucker, Colorado River cutthroat trout Hudsonian emerald, moonwort, triangle lobe moonwort, narrowleaf grapefern, peculiar moonwort, yellow lady's slipper, and plains rough fescue

#### **5. Primitive, Semi-Primitive Non-Motorized and Semi-Primitive Motorized Classes of Dispersed Recreation**

Under the 2002 Forest Plan, the 80-acre area is allocated as developed recreation within Management Area 8.25 – Ski Areas Existing and Potential. It is within the Snowmass SUP area, as well as the ski area's operational boundary (meaning that snow safety activities are conducted there and ski patrol has a presence). Furthermore, ski area guests may access terrain above, below and within the area by hiking from the top of the Elk Camp chairlift during the winter. Due to the level of skier use throughout the winter season (mid-November through mid-April) and hiking and biking use in the summer and fall on the popular Government Trail, the 80-acre area provides a semi-primitive, non-motorized recreational experience.

#### **6. Reference Landscapes**

The 80-acre area is within Management Area 8.25 (Ski Areas – Existing and Potential) and is within the Snowmass SUP area. Glading has occurred uphill of the Project Area and trail construction and lift installation has occurred downhill of the Project Area. Combined with its proximity to developed portions of the Snowmass SUP area and private land development, its potential to be a reference landscape is limited.

#### **7. Natural-Appearing Landscapes with High Scenic Quality**

As per the 2002 Forest Plan, the Project Area has a Scenic Integrity Objective (SIO) of "Low" which allows for a moderately altered landscape. Due to the lack of historic development and disturbance, the 80-acre area exceeds the area's designated SIO of Low. The rest of the Snowmass SUP area (including

the areas south, west and northwest of the Project Area) has a SIO of “very Low” allowing for a heavily modified landscape. The ski area meets or exceeds the area’s SIO of “Very Low.”

### **8. Traditional Cultural Properties and Sacred Sites**

Several cultural surveys have been completed covering the Snowmass SUP area. No traditional cultural properties and scared sites have been identified on Burnt Mountain.

### **9. Other Locally Identified Unique Characteristics**

A number of characteristics were identified through internal and external scoping that help define the Project Area, including (but not limited to): the Snowmass Lynx Analysis Unit, the area provides habitat for elk migration and elk production, it is adjacent to the Maroon-Bells Wilderness and is part of the greater Aspen/Snowmass area that is a popular year-round recreation destination.

## **DIRECT AND INDIRECT ENVIRONMENTAL CONSEQUENCES ON THE 80-ACRE PARCEL**

### **Alternative 1 – No Action**

Under the No Action Alternative, the Burnt Mountain Egress Trail would not be constructed. The 2002 Forest Plan would continue to provide management direction for the Snowmass SUP area, including the roughly 80 areas of the Burnt Mountain that were within the IRA prior to adoption of the 2012 Colorado Roadless Rule (refer to Figure 4). Because the 2012 Colorado Roadless Rule does not approve any future ski area projects or expansions, any future proposals for road construction or tree cutting would require a site-specific NEPA process.<sup>73</sup> However, the 2002 Forest Plan includes no direction that further restricts road construction or tree cutting in this portion of the Snowmass SUP area.

### **Alternatives 2 and 3**

The 80-acre area that was formerly roadless is managed according to both Forest-wide and Management Area 8.25 standards and guidelines from the 2002 Forest Plan.

**As stated above in Scope of the Analysis, the Alternatives 2 and 3 Environmental Consequences section analyzes the roadless area characteristics as if the Project Area is still located within a roadless area.** This provides further site-specific consideration of the 80-acre area within 1,600-acre Burnt Mountain CRA as a whole. **Again, the proposed project is not located within the Burnt Mountain CRA (refer to Figure 4).** The nine Roadless Area Characteristics defined in the 2012 Colorado Roadless Rule were applied to Alternatives 2 and 3. The 2012 Colorado Roadless Rule’s prohibitions on tree cutting, sale or removal and on road construction and reconstruction are discussed separately.

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<sup>73</sup> USDA Forest Service, 2012b #17

### *Roadless Area Characteristics Analysis*

The action alternatives would not affect the nine roadless area characteristics to the point of altering the characteristics of the Burnt Mountain CRA. This is due to the size of the CRA and existing characteristics stated in the Affected Environment. The nine roadless characteristics are responded to directly, below.

#### **1. High Quality or Undisturbed Soil, Water and Air**

As stated for the Affected Environment, the Project Area contains soil, water and air resources that are considered high quality. The approximate 0.4 acre of grading and 2.5 acres of tree removal for Alternative 2 or 0.2 acre of grading, 0.9 acre of clearing and 4 acres of glading for Alternative 3, is not expected to have impacts on high quality soils, water and air. In addition, the projects incorporate design criteria to remain compliant with the 2002 Forest Plan, the Watershed Conservation Practices Handbook and the Clean Water Act.<sup>74</sup> These standards and guidelines would protect these soils, air and watershed resource values. The effects of Alternatives 2 and 3 on the existing high quality or undisturbed soil, water and air are not anticipated to be significant.

#### **2. Sources of Public Drinking Water**

No waters of the U.S., including wetlands, are present in areas proposed for disturbance. Due to the scale of the proposed project, proximity to stream channels, as well as application of appropriate design criteria, neither of the action alternatives would affect public drinking water. The effects of Alternatives 2 and 3 on sources of public drinking water are not anticipated to be significant.

#### **3. Diversity of Plant and Animal Communities**

As discussed in the Affected Environment, the 80-acre area provides potential habitat for a range of species, including ESA Threatened species and Forest Service Sensitive species. The approximate 0.4 acre of grading and 2.5 acres of tree removal for Alternative 2 or 0.2 acre of grading, 0.9 acre of clearing and 4 acres of glading for Alternative 3, may affect some plant and animal communities. Impacts within the 80-acre area are of limited extent when compared with the adjacent 1,600-acre CRA. The 2002 Forest Plan standards and guidelines protect wildlife and botanical resources. No impacts to biological diversity and the long-term survival of at-risk species are anticipated. The effects of Alternatives 2 and 3 on the diversity of plan and animal communities are not anticipated to be significant.

#### **4. Habitat for Threatened, Endangered, Proposed, Candidate, and Sensitive Species, and for Those Species Dependent on Large, Undisturbed Areas of Land**

Impacts to threatened and endangered species were disclosed in a 2004 Biological Assessment (2004 BA) prepared in conjunction with the 2006 EA and a 2013 BA amendment (included in the Project File). Due to trail construction, there would be a loss of some lynx habitat, although the surrounding habitat would be capable of providing lynx movements and year-round foraging. Thus, Alternatives 2 and 3 may affect

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<sup>74</sup> USDA Forest Service, 2002b and 2005

but is not likely to adversely affect the Canada lynx. Alternatives 2 and 3 are consistent with the Southern Rockies Lynx Amendment (SRLA) objectives, standards, and guidelines for the Canada lynx. The consistency analysis is located in the Project File. The impacts have been fully evaluated and Section 7 consultation has already been completed. No additional consultation with the U.S. Fish and Wildlife Service is needed to comply with the Endangered Species Act for terrestrial wildlife.<sup>75</sup>

There would have been no direct or indirect impacts on the Uncompahgre fritillary butterfly, Colorado pikeminnow, bonytail, humpback chub, razorback sucker, and Mexican spotted owl.

A 2004 Biological Evaluation and Management Indicator Species Report and the 2013 Wildlife Addendum reviewed potential impacts to Forest Service sensitive species, management indicator species and species of local concern. For those species that may be affected (refer to Chapter 3, Sections C – Wildlife and D – Vegetation), the action alternatives could affect individuals, but would not be likely to cause a trend towards Federal listing or result in loss of viability in the planning area.

The impacts within the 80-acre area are limited to a small percentage of NFS lands in relation to the overall CRA. The effects of Alternatives 2 and 3 on habitat for threatened, endangered, proposed, candidate, and sensitive species and those species dependent on large, undisturbed areas of land are not anticipated to be significant.

### **5. Primitive, Semi-Primitive Non-Motorized and Semi-Primitive Motorized Classes of Dispersed Recreation**

As discussed in the Affected Environment, the 80-acre area is allocated as developed recreation within Management Area 8.25 – Ski Areas Existing and Potential. Human activity is expected to increase within the 80-acre area with implementation of either action alternative (refer to Chapter 3, Section B – Recreation) during Snowmass’ winter operating season and current levels of summer and fall use are expected to continue. This project is not anticipated to affect the opportunities for the primitive, semi-primitive non-motorized, and semi-primitive motorized the recreational experience. The action alternatives would include grooming machine and snow machine use within the area. The effects of Alternatives 2 and 3 on primitive, semi-primitive non-motorized and semi-primitive motorized classes of dispersed recreation are not anticipated to be significant.

### **6. Reference Landscapes**

When considered in conjunction with the existing development uphill and downhill of the Project Area, this area would still be limited in its potential to be a reference landscape. The effects of Alternatives 2 and 3 on the potential for this area to be a reference landscape is not anticipated to be significant.

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<sup>75</sup> Broderdorp, 2013

## 7. Natural-Appearing Landscapes with High Scenic Quality

Considering the approximate 0.4 acre of grading and 2.5 acres of tree removal for Alternative 2 or 0.2 acre of grading, 0.9 acre of clearing and 4 acres of glading for Alternative 3, the Project Area would continue to meet the SIO of “Low” which allows for a moderately altered landscape. The effects of Alternatives 2 and 3 on natural-appearing landscapes with high scenic quality are not anticipated to be significant.

## 8. Traditional Cultural Properties and Sacred Sites

Several cultural surveys have been completed covering the Snowmass SUP area, no traditional cultural properties or sacred sites have been identified. While numerous historic sites have been recorded within the Snowmass SUP boundary, the action alternatives are not anticipated to have an affect on any of the sites due to their location in respect to previous findings. The effects of Alternatives 2 and 3 on traditional cultural properties and sacred sites are not anticipated to be significant.

## 9. Other Locally Identified Unique Characteristics

The action alternatives are not anticipated to affect the unique characteristics of the Burnt Mountain CRA. The determination is due to the existing year-round recreational use, previously approved and implemented vegetation and ground disturbance, and the Project Areas’ location in proximity to the overall Burnt Mountain CRA.

A number of characteristics were identified through internal and external scoping that help define the area, including (but not limited to): the Snowmass Lynx Analysis Unit, habitat for elk migration and elk production, proximity to the Maroon-Bells Wilderness, and how the area is part of the greater Aspen/Snowmass area that is a popular year-round recreation destination. The effects of Alternative 2 and 3 on other locally identified unique characteristics are not anticipated to be significant.

### *2012 Colorado Roadless Rule Prohibitions on Tree Cutting, Sale or Removal and Road Construction/Reconstruction*

Construction of the proposed Burnt Mountain Egress Trail would include approximately 2.5 acres of tree clearing under Alternative 2 and 0.9 acre under Alternative 3. No roads are proposed in either alternative. The proposed Burnt Mountain Egress Trail would be considered and managed as a ski trail.

Per the 2012 Colorado Roadless Rule, road construction and tree cutting is permitted on 6,600 acres currently under ski are special use permit as well as the additional 1,700 acres of NFS lands that are allocated to ski area management (but located outside existing special use permits) under the eight forest plans that were not allowed under the 2001 Roadless Rule.<sup>76</sup> Under the 2012 Colorado Roadless Rule these 8,300 acres are managed according to the provisions in the applicable forest plan.<sup>77</sup> In the case of

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<sup>76</sup> USDA Forest Service, 2012a Table 3 – Comparison of the Final Rule and Alternative 4 with Baseline Conditions

<sup>77</sup> USDA Forest Service, 2012b #17

the Snowmass SUP area, the 2002 Forest Plan provides management direction for the roughly 80 acres that were formerly within the Burnt Mountain IRA. Because the 2012 Colorado Roadless Rule does not approve any future ski area projects or expansions, any road construction or tree cutting requires a site-specific NEPA process.<sup>78</sup>

The environmental analysis presented within this EA fulfills the Forest Service's obligations for site-specific NEPA analysis of the 80-acre portion of the Burnt Mountain SUP area that was formerly within the Burnt Mountain IRA. The 2002 Forest Plan includes no direction that further restricts road construction or tree cutting in this portion of the Snowmass SUP area.

Furthermore, under the 2012 Colorado Roadless Rule, trees may not be cut, sold, or removed in CRAs, with some exceptions. On upper tier acres, notwithstanding the general prohibition, trees may be cut, sold, or removed in CRAs if the responsible official determines the activity is consistent with the applicable land management plan, and:

1. tree cutting, sale, or removal is incidental to the implementation of a management activity not otherwise prohibited; or
2. tree cutting, sale or removal is needed and appropriate for personal or administrative use.<sup>79</sup>

On non-upper tier acres, trees may be cut, sold, or removed in CRAs outside of upper tier acres if the responsible official determines the activity is consistent with the applicable land management plan, one or more of the roadless area characteristics will be maintained or improved over the long term, and certain (identified) circumstances exists.<sup>80</sup>

Although none of the Snowmass SUP area is within the Burnt Mountain CRA, even if there was an overlap between the SUP area and the CRA, the Burnt Mountain CRA does not include any upper tier acres. In other words, the entire Burnt Mountain CRA is composed entirely of non-upper tier acres.<sup>81</sup> Also, as previously discussed, the WRNF's 1997 roadless area inventory evaluation for the Forest Plan revision process concluded that the Burnt Mountain IRA was identified as "not capable and not available" for wilderness recommendation.<sup>82</sup>

In the context of the 2012 Colorado Roadless Rule's prohibition on tree cutting, sale or removal, developed skiing is a "management activity not otherwise prohibited" and removal of approximately 2.5 or 0.9 acre of timber under Alternative 2 or 3, respectively, is plainly "incidental" to implementation of the skiing activity. Thus, proposed tree clearing and grading for Alternatives 2 and 3 within the 80-acre parcel on Burnt Mountain would be consistent with the 2012 Colorado Roadless Rule if that parcel was a

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<sup>78</sup> Ibid.

<sup>79</sup> 36 CFR 294.42(a) and (b)

<sup>80</sup> 36 CFR 294.42(c)

<sup>81</sup> USDA Forest Service, 2011 pp. 16-17

<sup>82</sup> USDA Forest Service, 2002a Appendix C, p. 11

CRA. Similarly, the proposed tree clearing and grading for Alternatives 2 and 3 within the 80-acre parcel on Burnt Mountain would be incidental to the management activity and would be consistent with the 2001 Roadless Rule if that parcel was an IRA. Furthermore, the proposal is consistent with both Forest-wide and Management Area 8.25 direction, and neither of the action alternatives would affect roadless characteristics of the adjacent Burnt Mountain CRA.

### **CUMULATIVE EFFECTS**

From a cumulative perspective, since implementation of projects contained in the action alternatives are not within the Burnt Mountain CRA, by definition, no cumulative impacts to roadless areas are identified specifically related to the action alternatives.

### **IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES**

No irreversible or irretrievable commitments of resources with respect to roadless areas have been identified in association with any of the alternatives analyzed in this document.

## B. RECREATION

### SCOPE OF ANALYSIS

The geographic scope of the recreation analysis is defined by the Burnt Mountain portion of the Snowmass SUP boundary. The temporal scope of this analysis is defined by the winter season, which typically occurs between the end of November and mid-April. No summer recreational use in the Burnt Mountain area is analyzed in this NEPA analysis; summer construction and maintenance would be included in both of the action alternatives. For a more detailed discussion of existing summer and winter recreational opportunities, refer to the Existing Conditions section of the 2003 Master Plan and the 2010 Master Plan Addendum (refer to the project file for this document).<sup>83</sup> This analysis is bound by the 2002 Forest Plan that has identified the Project Area as Management Area 8.25: Ski Areas – Existing and Potential.

### AFFECTED ENVIRONMENT

Snowmass' reputation for having a variety of terrain to suit all ability levels and interests is one of the main attractions to the Aspen/Snowmass area. The 4,745-acre SUP boundary, including Burnt Mountain, consists of developed, undeveloped (hike-to and off-piste) terrain. In addition, backcountry terrain remains beyond the SUP area and is accessed through Forest Service access points. The SUP boundary identifies the current and potential future extent of Snowmass' operations on public lands managed by the WRNF.

With the advent of shorter, shaped skis and snowboards, alternative terrain such as gladed areas and above treeline skiing has become very popular. To better meet guest expectations and provide a range of recreation experiences, Snowmass has been increasing the alternative terrain offered within the operational boundary. Most recently Snowmass thinned and incorporated the Burnt Mountain Glades into ski area operations in 2012. The Burnt Mountain Glades encompass approximately 250 acres on the eastern portion of the SUP area.

First proposed in the 1994 Snowmass Ski Area EIS, the Burnt Mountain egress trail was not implemented. The 2006 Snowmass Master Plan Amendment – Ski Area Improvements EA proposed the traverse measuring 3,200 feet in length and 30 to 40 feet wide. In the summer of 2012, the upper and lower portions of this egress trail were constructed to help guide visitors out of the recently developed Burnt Mountain Glades.<sup>84</sup>

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<sup>83</sup> Aspen/Snowmass, 2003 and 2010

<sup>84</sup> The upper and lower portions of the egress trail were approved by the 2006 DN/FONSI. The middle portion of the egress trail was remanded from the decision as discussed in Chapter 1.

### **Recreation Experience and Character of Burnt Mountain**

The forested area that makes up the Burnt Mountain Glades has been popular with skiers since the addition of the Two Creeks Lift and Long Shot trail (it was skied as backcountry terrain prior to 2012). Guests value the Burnt Mountain area for the remote character of the backcountry feel, even though the area is within the SUP boundary. In addition, because backcountry terrain is available within a range of Management Areas on the Forest with various levels of dispersed and motorized/non-motorized uses, there are many backcountry skiing opportunities on the Forest and specifically within the Aspen/Snowmass area.

Skiers accessing the Burnt Mountain Glades load the mountain at the Two Creeks Quad or the Elk Camp Gondola, and then take the Elk Camp Quad to the ridge near the Summit of Burnt Mountain. Prior to the 2012/13 ski season, with a hike, guests exited the ski area operational boundary to ski the trees on Burnt Mountain. Although, many skiers were able to traverse back into the ski area boundary, on numerous occasions, annually, Snowmass ski patrol was called to locate and evacuate lost skiers that missed the natural slope back toward the ski area or who got stuck on the flats east of the ski area. Starting in the 2012/13 ski season, the operational boundary rope marked the outermost edge of the Burnt Mountain Glades, which effectively remedied the situation in which skiers would get lost outside of the ski area boundary and require ski patrol extraction.

With the successful tree and brush removal implemented in the summer of 2012, the Burnt Mountain Glades continue to be valued for the natural experience of the forested terrain, isolation from the more traditional trails at the resort, and the longevity of good quality snow conditions. However, the often times unfavorable snow conditions and dense trees that remain in the untreated portions of the Burnt Mountain Egress trail being analyzed in this EA have compromised some visitors' recreational experience and has resulted in skiers having to take their skis off and walk. It also makes emergency egress difficult for injured skiers.

The 1994 EIS analyzed and approved a ski area capacity of 13,500 skiers at one time, which included development of terrain on Burnt Mountain. Although ASC believes the potential increase in skier visits to Snowmass with the incorporation of in the Burnt Mountain Glades to be up to 100 skiers per day, Snowmass has prioritized offering a low-density skier experience. Even on busy days Snowmass rarely has over 9,000 skiers at one time, well below the 13,500 the resort could comfortably accommodate. Therefore, this number of additional skiers would be minimal and the natural skiing experience on Burnt Mountain has been maintained with the incorporation of the glades into the operational boundary.

### **Skier Egress**

Currently, skiers must have knowledge of the terrain (to find the roadbed and avoid topographical obstacles) to return to the ski area. Slopes along the currently utilized egress route range from 10 to 35 percent. Snow conditions along the egress are variable; thin coverage can exist during early season and

low snow years, and bumps and rills can persist after snowstorms. These conditions reduce the quality of the egress route.

### **Emergency Access and Egress**

Current egress conditions (dense trees and variable snow surface) also make emergency egress difficult, particularly pulling a toboggan out through the egress route. The current state of the egress does not accommodate the use of snow machines by ski patrol for emergency evacuation purposes.

## **DIRECT AND INDIRECT ENVIRONMENTAL CONSEQUENCES**

### **Alternative 1 – No Action**

Incorporating the Burnt Mountain Glades in the operational boundary added approximately 250 acres of popular alternative terrain to Snowmass' skiable acreage. However, due to the difficult egress route out of the area, some guests that could ski the glades feel uncomfortable skiing the egress trail and even those guests that ski the glades often do not choose to return to the area more than once in a day. Under the No Action Alternative, no new egress trail would be provided from the Burnt Mountain Glades. The egress route would continue to have variable snow conditions, tight openings through the dense trees and would continue to not be well identified. Snowmass would maintain and patrol the Burnt Mountain Glades; however, emergency access would continue to require patrollers to ski into the area from the top of the Elk Camp Quad and to ski out of the area through dense vegetation and less than ideal snow conditions.

### **Alternative 2 – Proposed Action**

#### *Recreation Experience and Character*

The Proposed Action is not anticipated to measurably increase visitation. With the addition of the Burnt Mountain Glades and a viable skier egress trail, the overall recreational experience at Snowmass would be expected to be enhanced. The 1994 EIS analyzed and approved a ski area capacity of 13,500 skiers at one time; however, as discussed above, busy days at Snowmass rarely occur above 9,000 skiers at one time. The increase of up to 100 skiers per day at Snowmass due to incorporating the Burnt Mountain Glades into the ski area boundary in 2012 is well within the number of visitors Snowmass can comfortably accommodate. The egress trail would not affect the number of skiers at one time accommodated by the resort, and although more people would likely ski the Burnt Mountain Glades if an improved egress is provided, Snowmass' lift and trail network has capacity to disperse people across the SUP area.

Again, in the summer 2012, the Burnt Mountain Glades were incorporated into the operational boundary and the backcountry skiing experience was displaced due to that project (approved through the 2006

EA).<sup>85</sup> Because there is no longer a true backcountry experience, with implementation of the Proposed Action there would be no change to the backcountry character, operational boundary or SUP boundary.

The proposed egress trail would not directly affect the gladed terrain on Burnt Mountain. Although the glades were selectively thinned, there is little evidence of ski area operations and maintenance in the area, and the natural qualities would be maintained under Alternative 2. Although a cleared trail (an average of 35 feet wide) would be provide a maintained route out of the glades, and be groomed when conditions necessitate, the popular skiable terrain would remain intact; no tree removal within the area identified as gladed skiing is proposed. In addition, the glades would not be groomed, and the snowcat would not travel into the terrain above the cleared trail.

Providing improved egress is likely to increase the number of people skiing the Burnt Mountain Glades and the number of trips skiers make within the glades, which may indirectly impact the recreational experience on the Burnt Mountain portion of the SUP area mainly due to a slight increase in compacted snow conditions. The Burnt Mountain Glades currently comprise approximately 250 acres of intermediate to expert terrain. Typically gladed, expert terrain is designed to accommodate approximately 0.5 skier-per-acre, on average.<sup>86</sup> Given that skier visitation is not contemplated to measurably increase overall, it is not anticipated that foreseeable skier usage in the Glades will exceed the designed skier density. Snowmass is committed to providing a low density skiing experience.

### *Skier Egress*

The proposed trail would provide a clearly defined method of egress and provide a skiable slope for visitors to return to the developed ski area. Furthermore, the proposed egress trail would better accommodate users as well as facilitate repeat use of the glades. The proposed egress trail would be wide enough to allow skiers to make turns on steeper sections of the egress and allow for slower moving skiers to stop on the sides of the egress to allow others to pass. The entire length of the trail would be groomed to maintain consistent snow coverage if skier use started to negatively affect the snow conditions. Providing this width and consistent surface would improve the egress trail. Spot grading would occur where the trail has cross slope to facilitate snowcat access for trail grooming.

### *Emergency Access and Egress*

Improving the egress trail would also provide more immediate emergency egress to injured skiers evacuated from the glades. Although snow machine use would be limited to the proposed trail, this would greatly improve the evacuation time, comfort of the patient.

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<sup>85</sup> The Burnt Mountain area referenced is within the SUP boundary and is not considered a true backcountry experience due to the accessibility from the ski area, as well as the ability to ski back into the operational boundary and return to a chairlift.

<sup>86</sup> According to typical ski area planning desired density calculations.

### **Alternative 3**

#### *Recreation Experience and Character*

Alternative 3 would minimize the potential physical impacts to Burnt Mountain while also maintaining the undeveloped natural skiing experiences that defines the character of Burnt Mountain. It would also take advantage of the existing Eastern Traverse (requiring minimal tree removal) while meeting the Purpose and Need. This alternative would minimize the width and length of a more traditional cleared trail required to meet the Purpose and Need, thereby maintaining the undeveloped, natural character of Burnt Mountain to the greatest extent possible. In addition, it would restrict the snowcat to the lower portion of the cleared trail (refer to Figure 3), responding to concerns that Burnt Mountain Glades might someday be groomed, changing the natural experience visitors currently value.

As discussed under Alternative 2, tree removal and maintenance proposed for the egress trail under Alternative 3 would not directly affect the gladed skiing area on Burnt Mountain. The approved CCC would be maintained at 13,500, with actual peak visitation days being well below that. As discussed above, the increase of up to 100 skiers per day at Snowmass due to incorporating the Burnt Mountain Glades into the ski area boundary in 2012 is well within the number of visitors Snowmass can comfortably accommodate. The proposed egress improvements under Alternative 3 would be within the existing operational and SUP boundary. The backcountry experience and character was previously diminished with the development of the Burnt Mountain Glades; therefore, Alternative 3 would have no further impact to the backcountry experience.

As discussed for Alternative 2 above, improved egress may result in higher rates of use of the area, which could result in faster skier snow compaction of the area. However, this terrain density would not ever be likely to exceed 0.5 skier-per-acre, as is appropriate for this terrain.<sup>87</sup>

#### *Skier Egress*

Providing improved access on the Eastern Traverse would allow skiers to continue skiing additional fall-line terrain through the glades (past the upper egress route) for approximately 80 vertical feet and 800 linear feet. The Eastern Traverse would have selected trees removed along the outside to create a path that better accommodates existing use. This traverse would lead into the newly gladed area and ultimately onto the approximate 20-foot wide cleared trail, with glading to a maximum of 35 feet. The experience provided by this trail under Alternative 3 would be consistent with the rest of the gladed terrain on Burnt Mountain. The proposed egress trail would provide a more accessible and clearly defined route from the Burnt Mountain Glades to the Long Shot trail and the lift served portions of the mountain.

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<sup>87</sup> According to typical ski area planning desired density calculations.

### *Emergency Access and Egress*

Improving the egress trail would also reduce the time for evacuation, and improve the skiable terrain for patrollers pulling out injured skiers on a toboggan.

## **CUMULATIVE EFFECTS**

### **Scope of Analysis**

#### *Temporal Bounds*

The temporal bounds for this cumulative effects analysis for recreational resources extends from 2002 with the allocation of the Project Area as Management Area 8.25 in the Forest Plan, through the foreseeable future in which Snowmass can be expected to operate (Snowmass' current 40-year SUP expires December 31, 2034; however, this analysis assumes the SUP would be reissued after the 2034 date).

#### *Spatial Bounds*

The spatial bounds for this cumulative effects analysis focuses on NFS lands on the eastern portion of Burnt Mountain within the Snowmass SUP area.

### **Past, Present, and Reasonably Foreseeable Future Actions**

Past, present, and reasonably foreseeable actions that affect recreation resources within the analysis area are related to development of public lands. These past, present, and reasonably foreseeable actions include:

- 2002 Forest Plan
- 2003 Snowmass Master Plan, as amended
- 2006 Burnt Mountain EA
- 2012 Colorado Roadless Rule

#### *2002 Forest Plan*

As discussed in Chapter 1, the Snowmass SUP is within the 8.25 Management Area (Ski Areas-Existing and Potential), which directs intensive use for a variety of seasonal recreational demands. When the 2002 Forest Plan was approved, approximately 2 percent of the WRNF was assigned this management designation for developed skiing. Combined with either Alternative 2 or 3, there has been considerable development across the Forest within areas designated as Management Area 8.25. However, the proposed project and other cumulative actions are a relatively small portion of the WRNF, and other portions of the Forest would continue to be managed to provide and protect other uses such as habitat, dispersed recreation, and forest goods.

### *2003 Master Plan*

The Forest Service must analyze the cumulative effects of the Burnt Mountain Egress Trail project—which, again, is intended to improve skier egress from the Burnt Mountain Glades. The 2006 Burnt Mountain EA is discussed below. Snowmass has constructed new ski lifts and trails from the 2003 Master Plan that has increased the number of skiers at Snowmass. Specific to the proposed projects, approximately 250 acres of terrain on Burnt Mountain was gladed in 2012 and incorporated into the operational boundary. In the future, as identified in the 2003 Master Plan, the terrain on the eastern flank of Burnt Mountain could be cleared minimally as necessary to provide gladed skiing from top to bottom. Additional clearing included in the 2003 Master Plan would be subject to Forest Service authorization if not previously authorized via the NEPA process. From a recreation resource perspective, the proposed project, combined with the past, present and reasonably foreseeable projects in the 2003 Master Plan, would enhance the overall recreation experience at Snowmass and maintain low skier densities.

### *2006 Burnt Mountain EA*

The DN/FONSI for the 2006 Burnt Mountain EA approved development of the Burnt Mountain Glades and partial development of an egress trail. The entire Burnt Mountain Glades project with the proposed egress trail is anticipated to result in up to 100 additional skiers per day at Snowmass and Burnt Mountain in particular. The majority of these additional skiers began skiing the glades in 2012 without the complete egress trail. When construction of the final segment of the egress trail (as proposed in this EA) is considered cumulatively with the overall development of Burnt Mountain, including incorporating the area into the Snowmass operational boundary, it is likely to result in a nominal increase of skier use (within the projected 100 skiers per day) on Burnt Mountain. Increased visitation to Snowmass, particularly users of glades, could alter the quality of the recreation experience at Snowmass. In one regard the project could reduce the longevity or quality snow conditions within glades due to increased use. The Forest Service also anticipates Alternative 2 or 3 to improve the overall guest experience of the glades with the egress trail. Snowmass is committed to providing a low density skier experience, and because the potential increase in skiers due to the egress trail is so minimal (and the area is already skied), and existing levels of visitation are below the approved 13,500 skiers at one time with average day visitation just under 8,000 guests and peak days reaching just over 10,000 guests, the recreation character at Snowmass is expected to be retained. In summary, although it was already skied, these projects along with the decision to maintain and patrol the area starting in 2012 have increased use of the area.

### *2012 Colorado Roadless Rule*<sup>88</sup>

In 2001 the Forest Service released a Final Roadless Rule under President Clinton. In 2005, a second roadless rule was released under the Bush administration. Both of these roadless rules have been subject to multiple legal challenges. However, in 2012, the state of Colorado and the United States Forest Service

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<sup>88</sup> The reader is referred to Chapter 3, Section A – Roadless Areas for more information on the 2012 Colorado Roadless Rule.

finalized the Colorado Roadless Rule, which provides a high level of conservation of roadless area characteristics on approximately 4.2 million acres of NFS lands within the state.

Under the 2001 Roadless Rule portions of 13 existing ski area special use permit boundaries, as well as ski area management allocations in forest plans, were located within adjacent Inventoried Roadless Areas (IRAs) across Colorado. However, the 2012 Colorado Roadless Rule eliminated the roadless designation for 8,300 acres inside ski area SUP areas. The result is that existing ski area special use permit areas are *not* overlapped by CRAs.

Specific to the Snowmass SUP area, the 2012 Colorado Roadless Rule eliminated the roadless designation for approximately 80 acres of the Burnt Mountain IRA that overlapped the Snowmass SUP. While the 2012 Colorado Roadless Rule supersedes forest plan direction *within* CRAs, the 8,300 acres within ski area SUP boundaries that were eliminated from roadless designation are managed according to the provisions in the applicable forest plan. Therefore, the 80 acres on the Burnt Mountain portion of the Snowmass SUP area that were *formerly* within the Burnt Mountain IRA are subject to Forest-wide and 8.25 Management Area standards and guidelines.

Removing IRA acreage from within ski area permit boundaries in Colorado was designed to facilitate better management of ski area operations that more closely reflect the direction and desired future conditions identified for individual permitted ski areas, or in the case of the WRNF, the 8.25 Management Area.

The 2012 Colorado Roadless Rule does not approve any future ski area projects or expansions. Although ski area SUPs are not within CRA boundaries, any road construction or tree cutting requires a site-specific NEPA process. Any expansion proposal will need site-specific environmental analysis, appropriate public input, and independent approval.

As a result of the 2012 Colorado Roadless Rule, the Snowmass SUP area does not contain any Colorado Roadless Area acres. Therefore, neither of the action alternatives has any cumulative impacts to the adjacent Burnt Mountain CRA.

## **IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES**

No irreversible or irretrievable commitments of resources with respect to recreation have been identified in association with any of the alternatives analyzed in this document.

## C. WILDLIFE

### SCOPE OF ANALYSIS

This wildlife analysis is tiered to the 2002 WRNF Forest Plan FEIS, and incorporates by reference the 2002 Forest Plan, as amended, as well as the 2008 Southern Rockies Lynx Amendment.<sup>89</sup> Species analyzed were identified as listed proposed, threatened, endangered, sensitive or management indicator species (MIS). Potential impacts and design measures for federally listed terrestrial species are addressed in the 2004 *Snowmass Mountain Ski Area Master Plan Amendment and Ski Area Improvement Projects Biological Assessment* (2004 BA). Likewise, potential impacts and design measures for Forest Service Region 2 (“R2” – Rocky Mountain Region) sensitive terrestrial species and terrestrial species of viability concern under the 2002 Forest Plan are addressed in the 2004 *Snowmass Mountain Ski Area Master Plan Amendment and Ski Area Improvement Projects Biological Evaluation* (2004 BE), and 2002 Forest Plan Management Indicator Species (MIS) are addressed in a 2005 evaluation document for the 2006 EA (2005 MIS Evaluation).<sup>90</sup> Additionally, a 2013 Addendum to the 2004 BA, 2004 BE and 2005 MIS Evaluation (2013 Wildlife Addendum) has been prepared and is in the project file.<sup>91</sup> All of these documents are hereby incorporated by reference. The following is a summary of more detailed wildlife analyses for this EA.

### AFFECTED ENVIRONMENT

The Forest Service wildlife biologist reviewed the Project Area and confirmed that there are no changed conditions of the habitat within the Project Area. Overall, the mortality of some lodgepole pine trees across the mixed conifer vegetation has had little influence on habitat use by evaluated species. Effects to habitat from beetle mortality are discountable for species evaluated in the project BA, BE, and MIS report. Thus, tree mortality does not represent a quantifiable change to species present or the condition of their habitat and was not a changed condition from the initial evaluation.

#### Threatened and Endangered Species

The Forest Service wildlife biologist has reviewed the 2004 BA and found that there are no changed conditions for federally listed terrestrial species that require additional analysis or design measures to minimize potential impacts. The low density understory composition of the mixed conifer stand in the Project Area, plus the canopy density and overall species composition provide the defining habitat capabilities of this vegetation.

Listed and proposed wildlife species that were initially considered for the Burnt Mountain egress trail included those identified by the United States Fish and Wildlife Service (USFWS) and Forest Service as potentially present on the WRNF in the Aspen-Sopris Ranger District or potentially affected by

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<sup>89</sup> USDA Forest Service, 2002a and 2008a

<sup>90</sup> Colfer 2004a, b and USDA Forest Service, 2005a

<sup>91</sup> USDA Forest Service, 2013

management decisions associated with the Proposed Action. This list included the following listed species: Canada lynx (*Lynx canadensis*), Mexican spotted owl (*Strix occidentalis lucida*), Colorado pikeminnow (*Ptychocheilus lucius*), razorback sucker (*Xyrauchen texanus*), humpback chub (*Gila cypha*), bonytail (*G. elegans*) and Uncompahgre fritillary (*Boloria acrocneuma*); and the North American wolverine (*Gulo gulo*) which is proposed to be listed as a threatened species.

The list of threatened and endangered species for the Project Area was updated November 19, 2012. There are no changes in the list of species from those analyzed in the 2004 BA, except that the bald eagle was delisted on August 9, 2007 and is currently a R2 sensitive species, and the North American Wolverine has been designated as a proposed federally threatened species. The evaluation provided in the 2004 BA is still applicable to the current action.<sup>92</sup>

Seven of the eight federally listed species identified above were dropped from detailed analysis because their range distributions do not include the analysis area, and/or habitats necessary during their life history are not found within the Project Area, and/or their habitats would not be affected by the proposed project. These species and habitats are described in the 2004 BA. The Canada lynx is subject to detailed analysis and the 2004 BA environmental baseline information applies. In addition, the 2008 Southern Rockies Lynx amendment (SRLA) replaced the objectives, standards, and guidelines for the Canada lynx in the 2002 Forest Plan, therefore the current proposal was analyzed against these updated objectives, standards and guidelines.

As a component of the 2006 DN/FONSI approving the Burnt Mountain Glades and portions of the Burnt Mountain Traverse, lynx habitat conservation measures were implemented on 43 acres of spruce/fir habitat to maintain movement and foraging capability across Snowmass Mountain Ski Area. A Biological Opinion was issued on August 20, 2004, from the USFWS. The opinion of USFWS was that the proposed trail, as part of the 2004 BA, is not likely to jeopardize the continued existence of the Canada lynx.

### **Region 2 Sensitive Animal Species**

R2 has designated “sensitive species,” representing species declining in number or occurrence or whose habitat is declining, either of which could lead to federal listing if action is not taken to reverse the trend, and species whose habitat or population is stable but limited.<sup>93</sup>

The 2004 BE (located in the project file) includes a full discussion of every R2 sensitive species that was known or suspected to occur on the WRNF with the exception of hoary bat and Rocky Mountain Bighorn Sheep, which were not sensitive species in 2004.<sup>94</sup> The 2013 Wildlife Addendum includes the updated 2011 species list.<sup>95</sup> The Forest Service biologist determined that no other changed conditions exist for

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<sup>92</sup> R2 Supplement FSM 2600, chapter 2670, supplement no. 2600-2011-1

<sup>93</sup> Colfer, 2004b

<sup>94</sup> Ibid.

<sup>95</sup> USDA Forest Service, 2013

evaluated species and therefore the 2004 analysis is still valid for those species. The following table lists sensitive species, their occurrence on the WRNF, the habitat each species is associated with and whether there is potentially suitable habitat present in the analysis area. Additional information on species with potentially suitable habitat present in the analysis area such as species status, distribution and ecology is contained in the BE in the project file.

**Table 3C-1:  
Forest Service Sensitive Animal Species Occurring or Potentially Occurring on the  
White River National Forest.**

Species	Occurrence	Habitat Association	Potentially Suitable Habitat Present in the Analysis Area
<b>MAMMALS</b>			
Spotted bat ( <i>Euderma maculatum</i> )	Rifle District (one record south rim of Glenwood Canyon)	Montane forests, P-J open semidesert shrublands; rocky cliffs for roosts	N
Hoary bat ( <i>Lasirus cinereus</i> ) <sup>a</sup>	Resident from April to November in Western WRNF including Rio Blanco, Garfield, and Mesa up to 7,600'	Primarily a solitary tree roosting bat foraging over cottonwoods, Douglas-fir, and junipers.	N
Rocky Mountain bighorn sheep ( <i>Ovis canadensis Canadensis</i> ) <sup>a</sup>	Upper reaches of the Elk Mountains from Taylor Pass to McClure Pass.	Rocky, steep, or rugged terrain for escape cover with open grass-dominated habitats nearby for foraging. Summer range at high elevation and winter range in valley bottoms or where snow depth is minimal.	N
River otter ( <i>Lontra canadensis</i> )	Rare occurrence of recent transplants, Summit and Eagle Co.	Riparian habitats that traverse a variety of other habitats. Mainly larger river systems.	N
Marten ( <i>Martes americana</i> )	Widespread in spruce/fir and lodgepole pine	Close association with mesic, dense coniferous forests with complex physical structure. During winter, prefer mature and old-growth conifer. Stand structure may be more important than species composition.	Y
Fringed myotis ( <i>Myotis thysanodes</i> )	Western portions of WRNF up to 7,500'	Low elevation conifer, oakbrush, shrublands; caves, mines, building roosts	N
Townsend's Big-eared bat ( <i>Plecotus townsendii townsendii</i> )	Documented on WRNF in several cave locations	Semidesert shrublands, P-J, open montane forests; caves and abandoned mine roosts.	N
Pygmy shrew ( <i>Sorex hoyi</i> )	Southern Rocky Mountains of Colorado, has not been documented on WRNF, but has been found both north and south of Forest.	Moist boreal environments; wide range of habitats, s-f forests, clear-cuts, boggy meadows, willow thickets, aspen and subalpine parklands. All captures in Colorado above 9,600' elevation	Y

**Table 3C-1:  
 Forest Service Sensitive Animal Species Occurring or Potentially Occurring on the  
 White River National Forest.**

Species	Occurrence	Habitat Association	Potentially Suitable Habitat Present in the Analysis Area
<b>BIRDS</b>			
Northern goshawk ( <i>Accipiter gentilis</i> )	Widespread	Open forests, mainly mixed conifer and aspen, above 7,500' elevation	Y
Boreal owl ( <i>Aegolius funereus</i> )	Widespread	Mature S-F or S-F/lodgepole pine interspersed with meadows	Y
Sage sparrow ( <i>Amphispiza belli</i> )	Not documented on WRNF, found adjacent to SW Rifle District and in western Eagle Co.	Sagebrush shrublands	N
Ferruginous hawk ( <i>Buteo regalis</i> )	Migrant on WRNF on large grassland areas	Grasslands and semi-desert shrublands	N
Greater sage-grouse ( <i>Centrocercus urophasianus</i> )	Widespread historic records on forest; Currently in northern Summit Co. and adjacent to Eagle and HX Dist in Routt and northern Eagle County, Extirpated south of I-70 on Eagle District	Large sagebrush shrublands	N
Northern harrier ( <i>Circus cyaneus</i> )	Migrant	Marshes, wetlands, alpine tundra in fall migration, shrublands	Y
Olive-sided flycatcher ( <i>Contopus borealis</i> )	Widespread	Breeds in mature spruce/fir and Douglas fir, esp. on steep slopes; ponderosa pine at Derby Mesa	Y
Black swift ( <i>Cypseloides niger</i> )	Several documented nesting areas on WRNF	Nests behind waterfalls; forage at high elevations over montane and lowland habitats.	N
American peregrine falcon ( <i>Falco peregrinus anatum</i> )	Several documented nesting aeries on WRNF	Nest on cliffs, forage over forests and shrublands	Y
White-tailed ptarmigan ( <i>Lagopus leucurus</i> )	Widespread in alpine	Alpine tundra, high-elevation willow thickets, krummholz, spruce-fir (winter)	Y
Loggerhead shrike ( <i>Lanius ludovicianus</i> )	Primary WRNF records from western portions of Flat tops; seen above Sylvan Lake (Eagle Dist.) along sagebrush edges during migration	Open riparian areas, grasslands and shrublands, esp. semidesert shrublands, and sometimes P-J. Below 9,000'.	N

**Table 3C-1:  
Forest Service Sensitive Animal Species Occurring or Potentially Occurring on the  
White River National Forest.**

Species	Occurrence	Habitat Association	Potentially Suitable Habitat Present in the Analysis Area
Lewis' woodpecker ( <i>Melanerpes lewis</i> )	Not documented on WRNF, found adjacent to Forest	Lowland and foothill riparian forests, mature cottonwood groves	N
Flammulated owl ( <i>Otus flammeolus</i> )	Scattered records across WRNF	Aspen-mixed conifer forests, P-J woodlands, ponderosa pine; to 10,000' elevation	Y
Three-toed woodpecker ( <i>Picoides tridactylus</i> )	Widespread	Mature spruce/fir or where insect outbreaks occur-ponderosa pine in Derby Mesa	Y
Purple martin ( <i>Progne subis</i> )	Western half of WRNF	Breeds in mature aspen near water and parks.	Y
Brewer's sparrow ( <i>Spizella breweri</i> )	Widespread	Sagebrush shrublands, mountain parks; may be found in alpine willow stands. Not known from Pitkin Co.	Y
Columbian sharp-tailed grouse ( <i>Tympanachus phasianellus columbianus</i> )	Potential habitat on NW corner of Blanco District, NE Eagle County and very north end of Summit Co. – population adjacent to forest in southern Routt Co.	Mid elevation mountain sagebrush/grassland habitat usually adjacent to forested areas	N
<b>AMPHIBIANS</b>			
Boreal toad ( <i>Bufo boreas boreas</i> )	Small disjunct populations across the WRNF	Subalpine forest habitats with marshes, wet meadows, streams, beaver ponds, and lakes.	Y
Northern leopard frog ( <i>Rana pipiens</i> )	2 known populations on Rifle and Blanco Districts	Wet meadows, marshes, ponds, beaver ponds, streams.	Y
<b>FISH</b>			
Bluehead sucker ( <i>Catostomus discobolus</i> )	Colorado River to Granby, Milk, Piceance, Rifle, Alkali, and Divide Creeks	Larger rivers of western slope of Colorado	N
Flannelmouth sucker ( <i>Catostomus latipinnis</i> )	Colorado River to Granby, Milk, Piceance, and Divide Creeks	Larger rivers of western slope of Colorado	N
Mountain sucker ( <i>Catostomus platyrhynchus</i> )	Numerous small to medium streams below 8600' elevation draining into the White River, Deep Creek	Throughout west on both sides of Continental Divide – prefer clear cold creeks and small to medium rivers with rubble, gravel, or sand substrate	Y

**Table 3C-1:  
 Forest Service Sensitive Animal Species Occurring or Potentially Occurring on the  
 White River National Forest.**

Species	Occurrence	Habitat Association	Potentially Suitable Habitat Present in the Analysis Area
Roundtail chub ( <i>Gila robusta</i> )	Colorado River through Glenwood Canyon, downstream on White River, Milk and Divide Creeks	Larger rivers of Colorado River basin	N
Colorado River cutthroat trout ( <i>Oncorhynchus clarki pleuriticus</i> )	Widespread localized reaches	Headwater streams and lakes	Y
<b>INSECTS</b>			
Great Basin silverspot ( <i>Speyeria nokomis nokomis</i> )	Confirmed in Moffat and Mesa Co., but not on WRNF	Dependant on wetlands fed by springs or seeps; hosts on <i>Viola nephrophylla</i> ( <i>V. sororia ssp affinis</i> )	N
Hudsonian emerald ( <i>Somatochlora hudsonica</i> )	Confirmed only in Boulder, Teller, and Park Co. – not reported west of Continental Divide in CO	Boggy ponds	Y

Notes:

<sup>a</sup> June 10, 2011 sensitive species list

Sources: Weber (1987), Andrews and Righter (1992), Fitzgerald et al. (1994), Spackman et al. (1997), Kingery (1998), Johnston (2001), Saylor (2001), USDA-Forest Service (2002b, 2003), U.S. Geological Survey (2003a, b), Hirsch (Personal correspondence), unpublished spreadsheet in Forest Service files, WRNF Supervisor’s office, Glenwood Springs, CO, and USDA Forest Service (2013).

**Management Indicator Species**

Potential impacts to MIS are addressed in the 2005 MIS Evaluation and the 2013 Wildlife Addendum.<sup>96</sup>

MIS are those species whose response to management activities can be used to predict the likely response of a larger group of species with similar habitat requirements. In addition, selected MIS should be those whose change in population would be directly attributable to the management action. Strategies and objectives found in Chapter 1 of the 2002 Forest Plan direct the Forest Service to provide ecological conditions that sustain viable populations of MIS and to demonstrate positive trends in habitat availability, quality, or other factors affecting the species. The 2002 Forest Plan has one objective and one strategy (referred to hereinafter as “forest direction” to differentiate it from the specific MIS management objective or question) that is specific to all MIS on the Forest.<sup>97</sup>

Four MIS—elk, snowshoe hare, macro invertebrates and alpine willow—were identified as project MIS based on Forest Plan selection criteria and the presence or potential occurrence of these organisms and their habitats on NFS lands within and adjacent the Project Area. Other MIS were not selected as project MIS because they do not occur on NFS lands in the Project Area and they and their associated habitats on NFS lands would not be affected by any proposed activities. The current Forest Plan MIS list is dated March 6, 2006. There are no changed conditions for evaluated terrestrial species from the 2005 MIS Evaluation, however, several species were removed from the WRNF MIS list in March 2006; all relevant MIS were fully evaluated in the 2005 MIS Evaluation document and are presented in the table below.

**Table 3C-2:  
Forest Service MIS Species Occurring or Potentially Occurring on the White River National Forest**

MIS Species	Monitoring Question Identified in 2002 Forest Plan Revision	Habitat Occupied by Species; Are species and habitat present in the project area?	Will Action alternatives affect (direct, indirect, or cumulative) the species, its habitat, or its management question?	Will Action alternatives affect Forest-wide Population or Habitat Trends?	Is species addressed in other project documents?
<b>Cave Bats</b>	Are caves being managed so that bat species will continue to use the caves, and maintain populations in the areas adjacent to the caves?"	Caves, abandoned mines; Species Presence – No Habitat Presence – No	Species – No Habitat – No Is monitoring question Applicable to Project? – No, project will not affect any cave resources.	Population trends – No Habitat trends – No	Yes, fringed myotis, spotted bat, and Townsend’s big-eared bat considered but eliminated from further discussion in the BE.

<sup>96</sup> USDA Forest Service, 2005a and 2013

<sup>97</sup> USDA Forest Service, 2002c pages 1–3; USDA Forest Service, 2006a pages 1–4

**Table 3C-2:  
 Forest Service MIS Species Occurring or Potentially Occurring on the White River National Forest**

<b>MIS Species</b>	<b>Monitoring Question Identified in 2002 Forest Plan Revision</b>	<b>Habitat Occupied by Species; Are species and habitat present in the project area?</b>	<b>Will Action alternatives affect (direct, indirect, or cumulative) the species, its habitat, or its management question?</b>	<b>Will Action alternatives affect Forest-wide Population or Habitat Trends?</b>	<b>Is species addressed in other project documents?</b>
<b>Elk</b>	Does Forest motorized and non-motorized travel and recreation management result in effective use of habitat by large ungulates?"	Wide range of forest and non-forest habitats; Species Presence – Yes Habitat Presence – Yes	Species – Yes Habitat – Yes Is monitoring question applicable to project? – Yes Project will affect recreation use of the area, but will have minimum impacts to any travel use of the area.	Population trends – No Habitat trends – No	No
<b>Brewer’s Sparrow</b>	“Is sagebrush habitat being managed adequately to provide the quality and quantity of habitat for species dependent or strongly associated with sagebrush?”	Sagebrush; Species Presence – No Habitat Presence – No	Species – No Habitat – No Is monitoring question applicable to project? No, the project will not affect sagebrush habitats.	Population trends – No Habitat trends – No	Yes, both species are discussed in the BE
<b>American Pipit</b>	“Is the alpine grassland habitat being managed to provide habitat for those species dependent or strongly associated with alpine grassland habitat?”	Alpine Grassland; Species Presence – No Habitat Presence – No	Species – No Habitat – No Is monitoring question applicable to project? – No, the project will not affect alpine grassland habitats.	Population trends – No Habitat trends – No	No
<b>Virginia’s Warbler</b>	“Does forest management maintain populations of species dependent on dense shrub habitat dispersed throughout the shrub cover types?”	Dense Shrub Habitats; Species Presence – No Habitat Presence – No	Species – No Habitat – No Is monitoring question applicable to project? – No, the project will not affect shrub habitat types.	Population trends – No Habitat trends – No	No

**Table 3C-2:  
Forest Service MIS Species Occurring or Potentially Occurring on the White River National Forest**

MIS Species	Monitoring Question Identified in 2002 Forest Plan Revision	Habitat Occupied by Species; Are species and habitat present in the project area?	Will Action alternatives affect (direct, indirect, or cumulative) the species, its habitat, or its management question?	Will Action alternatives affect Forest-wide Population or Habitat Trends?	Is species addressed in other project documents?
<b>All Trout</b>	“Does forest management maintain or improve the physical habitat quality for salmonids in mountain streams?”	Perennial streams and lakes; Species Presence – Yes Habitat Presence – Yes Brown trout in East Fork Brush Creek and in Rayburn’s Pond	Species – No Habitat – No Is monitoring question applicable to project? – No, the project will have no impact on perennial stream habitat and will not affect lake habitats.	Population trends – No Habitat trends – No	Colorado River Cutthroat trout are considered but eliminated from further discussion in the BE. None of the other species are discussed.
<b>Macro-invertebrate Communities</b>	“Does forest management maintain or improve water quality (including chemical aspects as well as sediment) such that aquatic faunal communities are similar between managed and reference sites?”	Perennial streams, intermittent streams, lakes and reservoirs; Species Presence – Yes Habitat Presence – Yes	Species – No Habitat – No Is monitoring question applicable to project? – No, the project will have no direct or indirect effect on water quality.	Population trends – No Habitat trends- No	No

## DIRECT AND INDIRECT ENVIRONMENTAL CONSEQUENCES

Determination of risks to populations of sensitive wildlife (including insects, fish, amphibians, reptiles, birds, and mammals) considers population size and density, occurrence, suitable habitat, location of the population, and consequence of adverse effect on the species as a whole within its range and within the WRNF.<sup>98</sup>

### Alternative 1 – No Action

The No Action Alternative is a true no action alternative and reflects a continuation of existing operations and management practices at Snowmass without major changes, additions, or upgrades on NFS lands (other than those mountain improvements previously approved and yet to be implemented). Effects of previously approved mountain improvements have been considered in prior documents and are considered herein as part of the environmental baseline. The current status of animal species and groups and how they have been affected by conditions under this alternative are described above in the Affected Environment section.

<sup>98</sup> Colfer, 2004a and 2004b and USDA Forest Service, 2005a and 2013

Currently, most skiers utilize the unimproved corridor depicted in Figure 1 for egress out of the eastern portions of Burnt Mountain. As a result of the way in which skiers currently egress Burnt Mountain, the area already has use from skiers as they traverse through forested areas. The presence of skiers can disturb snowshoe hare and can cause incidental damage to young conifer trees which provide forage for snowshoe hares. These effects could cause some impacts to lynx habitat. Given the current level of use observed from skiers/riders egressing Burnt Mountain, effects under **Alternative 1 may affect but are not likely to adversely affect** the Canada lynx.

### **Alternatives 2 and 3**

Under Alternative 2, the proposed trail segment would provide a more defined route from the newly (summer 2012) gladed terrain on the eastern portion of Burnt Mountain to the existing Long Shot trail (refer to Figure 2). Total disturbance would be approximately 2.5 acres of full clearing, including 0.4 acre of grading.

Disturbance under Alternative 3 would include full clearing, grading, glading (up to 40 percent basal area tree removal) and select hazard tree removal. Approximately 0.8 acre of full clearing, 4 acres of glading, and select tree removal along the initial portion of Eastern Traverse (approximately 30 trees) would be required for an egress trail that addresses the Purpose and Need. In addition, spot grading up to 500 linear feet (0.2 acre) of trail would be required to provide a consistent skiable egress.

### *Threatened and Endangered Species*

The action alternatives would have no direct, indirect, or cumulative impacts on the Colorado pikeminnow, bonytail, humpback chub, razorback sucker, Mexican spotted owl, and Uncompahgre fritillary. These Alternatives would also have no direct, indirect or cumulative impacts on the proposed threatened North American wolverine. The one remaining threatened species warranting additional discussion, Canada lynx, is addressed below.

### **Impacts to Canada Lynx Alternative 2**

Alternative 2 is the trail alignment that was initially proposed and evaluated in the 2004 BA. There are no changed conditions for federally listed terrestrial species that require additional analysis or design measures to minimize potential impacts. The potential impacts evaluated and measures designed for federally listed species are applicable to the current proposal submitted to the Forest Service. Under Alternative 2 there would be a loss of approximately 2.5 acres of lynx habitat due to the construction of the trail. This relatively small amount of habitat loss would not preclude lynx movement and foraging capability across the ski area, nor across the Lynx Analysis Unit, as per the 2004 BA. Following trail construction, skier use patterns would be similar to those that currently exist within the area.

Due to trail construction, there would be a loss of some lynx habitat, although the surrounding habitat would be capable of providing lynx movements and year-round foraging. Thus, **Alternative 2 may affect but is not likely to adversely affect the Canada lynx.**

As discussed above, the Forest Service developed conservation measures at Burnt Mountain, as part of the 2006 DN/FONSI, to maintain movement and foraging capability across Snowmass. The Biological Opinion of USFWS was that the proposed trail, as part of the master plan amendment and ski area improvement projects, is not likely to jeopardize the continued existence of the Canada lynx.

Alternative 2 is consistent with the SRLA objectives, standards, and guidelines for the Canada lynx. The consistency analysis is located in the Project File. With no further modifications to the proposal, the impacts have been fully evaluated and Section 7 consultation has already been completed. No additional consultation with the USFWS is needed to comply with the Endangered Species Act for terrestrial wildlife.<sup>99</sup>

### Impacts to Canada Lynx Alternative 3

Under Alternative 3, conifer vegetation would be gladed and a shorter and narrower linear egress trail than Alternative 2 would be constructed. There would be a loss of approximately 0.8 acre of conifer vegetation due to the construction of the trail, an additional 4 acres gladed, and select trees cleared, all of which would occur in lynx habitat. The glading would remove approximately 60 to 75 percent of the vegetation within the 4-acre area which equates to clearing of approximately 2.4 to 3 acres. In total, the clearing of lynx habitat under this alternative would be approximately 3.2 to 3.8 acres.

This small amount of habitat loss would not preclude lynx movement and foraging capability across Snowmass, nor across the Lynx Analysis Unit, as per the 2004 BA. Under this alternative, skier use patterns would also be similar to those that currently exist. Due to trail construction and tree glading, there would be a loss of some lynx habitat, although the surrounding habitat would be capable of providing lynx movements and year-round foraging. Thus, **Alternative 3 may affect but is not likely to adversely affect** the Canada lynx.

### *Region Two Sensitive Animal Species*

Based on the habitat to be affected and the habitat affinities of the R2 sensitive species (Table 3C-1), direct, indirect, and cumulative effects of additional reasonably foreseeable future actions associated with the action alternatives considered herein would have “no impact” on any R2 sensitive species, with the exception of pygmy shrew, northern goshawk, boreal owl, olive-sided flycatcher, flammulated owl, purple martin, boreal toad, and Colorado River cutthroat trout (Table 3C-3).<sup>100</sup> These excepted species are addressed below. Evaluated species information and the environmental baseline for the species evaluated are contained above in the Affected Environment and the BE and other documents within the Snowmass project file that are incorporated herein by reference.<sup>101</sup>

Species names that are bold in the table have potential to be affected by the project alternatives.

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<sup>99</sup> Broderdorp, 2013

<sup>100</sup> Colfer, 2004b

<sup>101</sup> Ibid.

**Table 3C-3:  
Determination Summary of Effects on R2 Sensitive Animal Species**

Species	Potentially Suitable Habitat Present Within Analysis Area?	Determination of Impact to Species from Project*
		Alt 2
<b>MAMMALS</b>		
Spotted bat, <i>Euderma maculatum</i>	No	NI
River otter, <i>Lontra Canadensis</i>	No	NI
American marten, <i>Martes Americana</i>	Yes	NI
Fringed myotis, <i>Myotis thysanodes</i>	No	NI
Townsend's big-eared bat, ( <i>Plecotus townsendii townsendii</i> )	No	NI
<b>Pygmy shrew, <i>Sorex hoyi</i></b>	Yes	<b>MAI: habitat removal</b>
Rocky Mountain bighorn sheep, <i>Ovis Canadensis</i>	No	NI
<b>BIRDS</b>		
<b>Northern goshawk, <i>Accipiter gentilis</i></b>	Yes	<b>MAI: tree clearing in habitat</b>
<b>Boreal owl, <i>Aegolius funereus</i></b>	Yes	<b>MAI: tree clearing in habitat</b>
Sage sparrow, <i>Amphispiza belli</i>	No	NI
Ferruginous hawk, <i>Buteo regalis</i>	No	NI
Greater sage-grouse, <i>Centrocercus urophasianus</i>	No	NI
Northern harrier, <i>Circus cyaneus</i>	Yes	NI
<b>Olive-sided flycatcher, <i>Contopus borealis</i></b>	Yes	<b>MAI: clearing could remove potential nests</b>
Black swift, <i>Cypseloides niger</i>	No	NI
American peregrine falcon, <i>Falco peregrinus anatum</i>	Yes	NI
White-tailed ptarmigan, <i>Lagopus leucurus</i>	No	NI
Loggerhead shrike, <i>Lanius ludovicianus</i>	No	NI
Lewis' woodpecker <i>Melanerpes lewis</i>	No	NI
<b>Flammulated owl, <i>Otus flammeolus</i></b>	Yes	<b>MAI: tree clearing in habitat</b>
Three-toed woodpecker, <i>Picoides tridactylus</i>	Yes	NI
<b>Purple martin, <i>Progne subis</i></b>	Yes	<b>MAI:<sup>c</sup> tree clearing in habitat</b>
Brewer's sparrow, <i>Spizella breweri</i>	No	NI
Columbian sharp-tailed grouse, <i>Tympanachus phasianellus columbianus</i>	No	NI
Bald Eagle, <i>Haliaeetus leucocephalus</i>	No	NI
<b>AMPHIBIANS</b>		
<b>Boreal western toad, <i>Bufo boreas</i></b>	Yes	<b>MAI: trail development proximate to streams and wetlands</b>
Northern leopard frog, <i>Rana pipiens</i>	No	NI

**Table 3C-3:  
Determination Summary of Effects on R2 Sensitive Animal Species**

Species	Potentially Suitable Habitat Present Within Analysis Area?	Determination of Impact to Species from Project*
		Alt 2
<b>FISH</b>		
Bluehead sucker, <i>Catostomus discobolus</i>	No	NI
Flannelmouth sucker, <i>Catostomus latipinnis</i>	No	NI
Mountain sucker, <i>Catostomus platyrhynchus</i>	No	NI
Roundtail chub, <i>Gila robusta</i>	No	NI
Colorado River cutthroat trout, <i>Oncorhynchus clarki pleuriticus</i>	No	NI
<b>INVERTEBRATES</b>		
Great Basin silverspot, <i>Speyeria Nokomis</i>	No	NI

<sup>a</sup> **NI**: No Impact **MAI**: may adversely impact individuals, but would not likely result in a lack of viability in the planning area, nor cause a trend towards federal listing or a loss of species viability rangewide.

<sup>b</sup> While martin are documented within the analysis area, because the action alternatives would not significantly reduce available marten habitat, (the No Action Alternative would not change the project baseline), all proposed alternatives would have *no impact* on this species.

<sup>c</sup> MAI Determinations marked with this symbol indicate that the species was not detected during surveys of the area. The reason for the MAI finding for these species was due to the potential for individuals that were not detected during previous surveys to occupy suitable habitat in the year following the survey, and prior to the onset of construction activities.

Source: Colfer, 2011b

The hoary bat and Rocky Mountain Bighorn Sheep were not sensitive species in 2004. The hoary bat and Rocky Mountain Bighorn Sheep are not known to occur in the Project Area. The alternatives would have no impact to these species. Potential impacts to sensitive species were evaluated in the 2004 BE. The scope and scale of potential impacts to evaluated species are the same under both alternatives because the elements of the actions would cause potential disturbance to breeding individuals and their young, incremental loss of habitat, and potential loss of nests and dens. Thus, the determinations of impact for evaluated species are the same under these alternatives.

In summary, tree clearing and trail construction may impact individual pygmy shrew, northern goshawk, boreal owl, olive-sided flycatcher, flammulated owl, purple martin, and boreal western toad, but would not likely result in a lack of viability in the planning area, nor cause a trend towards federal listing or a loss of species viability rangewide.

### *Management Indicator Species*

The current Forest Plan MIS list is dated March 6, 2006. There are no changes to the assessment of the relevant MIS from the 2005 MIS Evaluation; all pertinent MIS from the 2006 list were fully evaluated in

the 2005 MIS Evaluation.<sup>102</sup> Potential impacts to MIS correspond to those under Alternatives 2 and 3. The scope and scale of potential impacts to evaluated MIS are the same under both alternatives.

### Elk

The 2005 MIS Evaluation states that winter range has been the limiting factor for elk seasonal ranges for this data analysis unit, however the Project Area does not contain any winter range and the Proposed Action would not affect any elk winter range. Therefore the Proposed Action “would not create any negative trends that would affect achieving Forest Plan MIS objectives or create a viability concern for elk.”

### Macroinvertebrates

The 2005 MIS Evaluation concludes that there are no disturbances in riparian areas, streams or wetlands and the additional grading in the watershed would be too minimal to detect impacts to streams and therefore “short-term and long-term physical stream habitat and water quality would be maintained.” Therefore, the project would have no measureable effects on macroinvertebrate population trends.

## **CUMULATIVE EFFECTS**

### Temporal Bounds

The temporal bounds of the cumulative effects analysis extend from the initial development of Snowmass as a winter recreational area through the life of the Forest Plan (potentially year 2017) and for the foreseeable future during which recreation-related activities may affect species.

### Spatial Bounds

The physical extent of this cumulative effects analysis differs by species but comprises the Snowmass SUP area and adjacent public and private land to the extent they would be potentially impacted.

### Past, Present and Reasonably Foreseeable Future Actions

- Development and maintenance of the SUP as a recreational area
- Wildfire prevention and control
- Private land development
- Road construction and reconstruction projects

Urban expansion and development has fragmented wildlife habitat in Colorado, including in Pitkin County. Valley floor development continually erodes the amount of non-forest habitats adjacent forested habitat. The expansion of homes and some municipal facilities up mountain slopes, into forests of aspen, lodgepole pine, and to a lesser degree spruce-fir, adds to the fragmentation of a naturally fragmented

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<sup>102</sup> USDA Forest Service, 2005a

landscape. The cumulative effect of private land development and expansion of recreational facilities may reduce habitat for threatened, endangered, R2 Sensitive and MIS.

As ski areas are developed, they add to the overall fragmentation of the landscape in the Southern Rocky Mountains. If these developed areas occur jointly with other ski areas or abut the expansion occurring on private land, movement and dispersal can be affected. Highways and their continued expansion into mountain towns and resorts increase the amount of fragmentation. As described in the Direct and Indirect Effects sections, the project effects would be minor, but would add to cumulative habitat loss and fragmentation.

Additional discussion of cumulative effects is provided in the 2004 BA and BE and 2005 MIS Evaluation.

### **IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES**

Tree removal related to the egress trails would represent an irretrievable effect to some habitat for some threatened and endangered, R2 and MIS within the SUP area. However, this is not considered an irreversible commitment because the habitat (vegetation) is a renewable resource.

## D. VEGETATION

### SCOPE OF ANALYSIS

This analysis of botanical resources is tiered to the WRNF Forest Plan FEIS, and incorporates by reference the 2002 Forest Plan, as amended.<sup>103</sup> Species analyzed in this botanical resources report were identified as listed proposed, threatened, endangered, or sensitive species. The Project File includes the botany 2004 BA and 2004 BE for the current action alternatives. Potential impacts and design measures for Rocky Mountain Region Forest Service sensitive plant species under the 2002 Forest Plan were addressed in the 2004 BE. A summary of the 2004 BA and 2004 BE and the 2013 Addendum to the 2004 Botany BA and BE (2013 Botany Addendum) are summarized herein.<sup>104</sup>

### AFFECTED ENVIRONMENT

Changed conditions (since 2004) in relation to botanical species include the following:

1. The Regional Forester's list of sensitive plants has been modified. The most recent iteration of the sensitive plant species list was issued in February 2012. Some of the species were removed from the 2002 list, while others were added. Newly listed species include: trianglelobe moonwort (*Botrychium ascendens*), peculiar moonwort (*B. paradoxum*), narrowleaf grapefern (*B. lineare*), livid sedge (*Carex livida*), Weber's draba (*Draba weberi*), roundleaf sundew (*Drosera rotundifolia*), stream orchid (*Epipactis gigantea*), dropleaf buckwheat (*Eriogonum exilifolium*), plains rough fescue (*Festuca hallii*), simple bog sedge (*Kobresia simpliciuscula*), dwarf raspberry (*Rubus arcticus* ssp. *Acaulis*), sageleaf willow (*Salix candida*), autumn willow (*Salix serissima*), Jensen sphagnum (*Sphagnum angustifolium*), Baltic sphagnum (*S. balticum*), lesser bladderwort (*Utricularia minor*), and American cranberrybush (*Viburnum opulus* var. *americanum*).
2. The list of federally threatened and endangered, and proposed (TEP) species has changed since 2004. Added to the current list of TEP species for the White River National Forest are: Debeque phacelia (*Phacelia scopulina* var. *submutica*), Colorado hookless cactus (*Sclerocactus glaucus*), and Ute lady's tresses (*Spiranthes diluvialis*).
3. The mountain pine beetle epidemic has resulted in accelerated mortality in the lodgepole pine component of the mixed conifer stand through which the egress trail will pass. The pine beetle epidemic, however, has not resulted in changes to the character of the stand that would impact the species composition within the understory. The low density understory composition of the stand, in combination with the canopy density and overall species composition, provide the defining characteristics of this mixed conifer stand. Thus, tree mortality does not represent a quantifiable change to species present or condition of their habitat and is not a changed condition from the initial evaluation.

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<sup>103</sup> USDA Forest Service, 2002a

<sup>104</sup> Colfer 2004a,b and 2013

4. The ski area operational boundary was moved in 2012. The Burnt Mountain Glades area is currently utilized during the winter for ski area activities.
5. An additional alternative was added to include a gladed entry to the egress trail that should be considered.

### **Threatened and Endangered Species**

Plant surveys were conducted in 2003 and there is no habitat present in the Project Area for federally listed plants (refer to Table 3D-1). The species information provided in the 2004 BA is still applicable.

**Table 3D-1:  
TEP Plant Species Evaluated and their Associated Habitat Types**

Species	Habitat Classification							Reason for Exclusion
	Alpine	Non Forest	Forest	Riparian and Aquatic	Fen	Evaluated in 2004 BE?	Species Excluded in Current Assessment?	
Penland's eutrema ( <i>Eutrema edwardsii</i> ssp. <i>Penlandii</i> )	P			S		Y	Y	No alpine habitat over 12,150'
Debeque phacelia ( <i>Phacelia scopulina</i> var. <i>submutica</i> )		P	S			N	Y	No Utah juniper or big sagebrush habitat
Colorado hookless cactus ( <i>Sclerocactus glaucus</i> )		P				N	Y	No desert scrub habitat, beyond elevation range
Ute lady's tresses ( <i>Spiranthes diluvialis</i> )				P		N	Y	No springs, lakes, or perennial springs; beyond elevation range

P = Primary habitat  
S = Secondary habitat

### **Region 2 Sensitive Species**

Surveys have yet to be conducted in the Analysis Area for R2 Sensitive plant species since 2004. Surveys will be conducted as soon as habitat conditions warrant in 2013. Until surveys demonstrate otherwise, the analysis will assume that potential habitat exists for six Forest Service sensitive plant species: trianglelobe moonwort (*Botrychium ascendens*), narrowleaf grapefern (*B. lineare*), peculiar moonwort (*B. paradoxum*), yellow lady's slipper (*Cypripedium parviflorum*), and plains rough fescue (*Festuca hallii*) (refer to Table 3D-2). The species information provided in the 2004 BE is still applicable.

**Table 3D-2:  
Region 2 Sensitive Plant Species Evaluated and their Associated Habitat Types**

Species	Habitat Classification							Reason for Exclusion
	Alpine	Non Forest	Forest	Riparian and Aquatic	Fen	Evaluated in 2004 BE?	Species Excluded in Current Assessment?	
Sea Pink ( <i>Armeria maritime</i> )	P					Y	Y	No alpine habitat over 11,900' present
Park milkvetch ( <i>Astragalus leptaleus</i> )			S	P		Y	Y	No wetland/upland ecotone habitat present
<b>Trianglelobe moonwort</b> ( <i>Botrychium ascendens</i> )				P		N	N	
<b>Narrowleaf grapefern</b> ( <i>Botrychium lineare</i> )		P				N	N	
<b>Peculiar moonwort</b> ( <i>Botrychium paradoxum</i> )		P				N	N	
Smooth rockcress ( <i>Braya glabella</i> )	P					Y	Y	No alpine habitat present
Lesser paniced sedge ( <i>Carex diandra</i> )				P	S	Y	Y	No subalpine wetlands present
<b>Livid sedge</b> ( <i>Carex livida</i> )					P	N	Y	No fen habitat present
<b>Yellow lady's slipper</b> ( <i>Cypripedium parviflorum</i> )			S	P		Y	N	
Clawless draba ( <i>Draba exunguiculata</i> )	P					Y	Y	No alpine habitat present

**Table 3D-2:  
Region 2 Sensitive Plant Species Evaluated and their Associated Habitat Types**

Species	Habitat Classification							Reason for Exclusion
	Alpine	Non Forest	Forest	Riparian and Aquatic	Fen	Evaluated in 2004 BE?	Species Excluded in Current Assessment?	
Gray's peak whitlow-grass ( <i>Draba grayana</i> )	P					Y	Y	No alpine habitat present
<b>Weber's draba</b> ( <i>Draba weberi</i> )	<b>P</b>			<b>S</b>		<b>N</b>	<b>Y</b>	No alpine streamside habitat
<b>Roundleaf sundew</b> ( <i>Drosera rotundifolia</i> )					<b>P</b>	<b>N</b>	<b>Y</b>	No peatland habitat present
<b>Stream orchid</b> ( <i>Epipactis gigantea</i> )				<b>P</b>		<b>N</b>	<b>Y</b>	No seeps, streambanks, hanging gardens, or geothermal springs
<b>Dropleaf buckwheat</b> ( <i>Eriogonum exilifolium</i> )		<b>P</b>				<b>N</b>	<b>Y</b>	No sparsely vegetated shrub-steppe habitat
Altai cotton-grass ( <i>Eriophorum altaicum</i> var. <i>neogaeum</i> )					P	Y	Y	No fen habitat present
Russet cotton-grass ( <i>Eriophorum chamissonis</i> )					P	Y	Y	No fen habitat present
Slender cotton-grass ( <i>Eriophorum gracile</i> )					P	Y	Y	No wetlands, Project Area outside range
<b>Plains rough fescue</b> ( <i>Festuca hallii</i> )	<b>S</b>	<b>P</b>				<b>N</b>	<b>N</b>	

**Table 3D-2:  
Region 2 Sensitive Plant Species Evaluated and their Associated Habitat Types**

Species	Habitat Classification							Reason for Exclusion
	Alpine	Non Forest	Forest	Riparian and Aquatic	Fen	Evaluated in 2004 BE?	Species Excluded in Current Assessment?	
<b>Simple bog sedge</b> ( <i>Kobresia simpliciuscula</i> )					P	N	Y	No wet tundra, glacial cirques, or fens
Colorado tansy-aster ( <i>Machaeranthera coloradoensis</i> )	S	P			S	Y	Y	No open or sparsely forested sites with open exposure
Kotzebue grass-of-Parnassus ( <i>Parnassia kotzebuei</i> )				P		Y	Y	No subalpine wetland habitat present
Harrington penstemon ( <i>Penstemon harringtonii</i> )		P	S			Y	Y	No sagebrush or piñon – juniper habitat present
Porter’s feather grass ( <i>Ptilagrostis porteri</i> )					P	Y	Y	No wetland habitat present
Ice Cold Buttercup ( <i>Ranunculus karelinii</i> )	P					Y	Y	No alpine habitat present
<b>Dwarf raspberry</b> ( <i>Rubus arcticus</i> ssp. <i>Acaulis</i> )			S	P		N	Y	No boggy woods, marshes, mountain meadows, or alpine tundra
<b>Sageleaf willow</b> ( <i>Salix candida</i> )					P	N	Y	No wetland habitat present
<b>Autumn willow</b> ( <i>Salix serissima</i> )					P	N	Y	No wetland habitat present

**Table 3D-2:  
Region 2 Sensitive Plant Species Evaluated and their Associated Habitat Types**

Species	Habitat Classification							Reason for Exclusion
	Alpine	Non Forest	Forest	Riparian and Aquatic	Fen	Evaluated in 2004 BE?	Species Excluded in Current Assessment?	
<b>Jensen sphagnum</b> ( <i>Sphagnum angustifolium</i> )					P	N	Y	No wetland habitat present
<b>Baltic sphagnum</b> ( <i>Sphagnum balticum</i> )					P	N	Y	No wetland habitat present
Cathedral Bluff meadow-rue ( <i>Thalictrum heliophilum</i> )		P				Y	Y	No arid basin habitat present
<b>Lesser bladderwort</b> ( <i>Utricularia minor</i> )					P	N	Y	No aquatic habitat present
<b>American cranberrybush</b> ( <i>Viburnum opulus</i> var. <i>americanum</i> )			S	P		N	Y	No reliable water source necessary to provide sufficient hydrology

Notes:

Species listed in **Bold** were not evaluated in the 2004 BE.

Species in **Bold Red** will be assessed further in this document.

P = Primary habitat

S = Secondary habitat

## DIRECT AND INDIRECT ENVIRONMENTAL CONSEQUENCES

Surveys were conducted on 150-yard transects on the contour throughout the Burnt Mountain area for all of the species with suitable habitat within the Project Area. There were no sensitive plant species observed anywhere on Burnt Mountain. Therefore, there would be no impact to any sensitive plants as a result of the proposed project.

### Alternative 1 – No Action

The No Action Alternative provides a baseline for comparing the effects of the action alternatives. The No Action Alternative essentially reflects a continuation of existing management practices without changes, additions, or upgrades. Specifically, no improvements to the current egress route on the eastern side of Burnt Mountain would be approved under the No Action Alternative. Under Alternative 1, there would be no impact to plants or overstory vegetation.

### Alternatives 2 and 3

No Threatened, Endangered or Proposed plant species would be affected by either action alternative.

**Table 3D-3:  
Determination Summary for Threatened, Endangered, or Proposed Species**

Species	Effect	Rationale	Mitigation
Penland's eutrema <i>Eutrema penlandii</i>	No Effect	No suitable habitat or known occurrences in action area.	Not Applicable
Debeque phacelia <i>(Phacelia scopulina var. submutica)</i>	No Effect	No suitable habitat or known occurrences in action area.	Not Applicable
Colorado hookless cactus <i>(Sclerocactus glaucus)</i>	No Effect	No suitable habitat or known occurrences in action area.	Not Applicable
Ute lady's tresses <i>(Spiranthes diluvialis)</i>	No Effect	No suitable habitat or known occurrences in action area.	Not Applicable

As discussed, surveys have yet to be conducted in the Analysis Area for sensitive species since 2004. Surveys will be conducted as soon as habitat conditions warrant in 2013. Until surveys demonstrate otherwise, the analysis assumes that all three *Botrychiums*, the yellow lady's slipper (*Cypripedium*) and plains rough fescue (*Festuca hallii*) exist at the current time and could be impacted by the proposed project and described in Table 3D-4 and subsequent text.

**Table 3D-4:  
Determination Summary for Region 2 Sensitive Species**

Species	Effect	Rationale	Mitigation
Trianglelobe moonwort ( <i>Botrychium ascendens</i> )	MI	It is possible that populations of this genus may exist yet go un-detected during survey efforts.	Ground disturbance avoided if practical.
Narrowleaf grapefern ( <i>Botrychium lineare</i> )	MI	It is possible that populations of this genus may exist yet go un-detected during survey efforts.	
Peculiar moonwort ( <i>Botrychium paradoxum</i> )	MI	It is possible that populations of this genus may exist yet go un-detected during survey efforts.	
Yellow lady's slipper ( <i>Cypripedium parviflorum</i> )	MI	Until this species' presence or absence is confirmed, an impact on this species is assumed.	
Plains rough fescue ( <i>Festuca hallii</i> )	MI	Until this species' presence or absence is confirmed, an impact on this species is assumed.	

May Impact: (MI) May Impact Individuals, but is not likely to cause a trend towards Federal listing or result in loss of viability in the planning area

For moonworts, even after surveys have been completed, and if no moonworts are found, it will be feasible for moonworts to exist and go un-detected during survey efforts. Therefore, assuming they are present, the effects of the proposed egress trail on moonworts would likely be as follows.

*Botrychium* (moonwort) species may depend on a shifting mosaic of suitable habitats for long term persistence. Disturbances and land management activities may create and maintain suitable habitat for *Botrychium* species or may negatively impact existing populations depending on the disturbance timing, intensity and frequency. No disturbance may mean less available habitat for colonization, while excessive disturbance could extirpate populations, making recolonization less likely due to lack of propagules. Potential threats to occupied sites include activities that change the canopy cover, soil temperature, or soil moisture of moonwort habitat.

Disturbance during egress trail construction has the greatest potential to negatively impact habitat occupied by *Botrychium ascendens*, *B. lineare*, and *B. paradoxum*. Since these plants are small and delicate, any soil or ground disturbance that directly affects growing plants is likely to cause damage, at least to the above-ground structures. Because moonwort species appear to be at least tolerant of disturbance, activities that cause light ground disturbance, such as the winter use of the proposed trail, are not likely to significantly impact populations. Moderate to intense ground disturbing activities, such as heavy equipment work, occurring within occupied locations could negatively affect individuals and

habitat including the mycorrhizal relationships of early gametophytes which occur below the ground as well as the roots, stems, leaf primordia and fern-like structures which occur above the surface.

Noxious weed invasions often occur where habitats are disturbed. If a noxious weed invasion occurs within occupied habitat, individuals or whole populations of moonwort species could be lost as a result of the change in plant community and resulting competition.

*Botrychium* species are often found in genus groups where several species occur together in one location. They are also small and not expressed above ground every year, therefore locations where members of this genus are found are considered high potential habitat for other very rare moonwort species. A general strategy to protect rare moonwort species including R2 sensitive species would be to avoid or minimize impacts to known moonwort communities or genus groups. Should *Botrychium* individuals or populations be observed within the egress trail alignment, efforts shall be made to avoid disturbance to the population.

## **CUMULATIVE EFFECTS**

### **Temporal Bounds**

The temporal bounds of the cumulative effects analysis extend from the initial development of Snowmass as a winter recreational area through the life of the Forest Plan (potentially year 2017) and for the foreseeable future during which recreation-related activities may affect species.

### **Spatial Bounds**

The physical extent of this cumulative effects analysis differs by species but comprises the Snowmass SUP area and adjacent public and private land to the extent they would be potentially impacted.

### **Past, Present and Reasonably Foreseeable Future Actions**

- Development and maintenance of the SUP as a recreational area
- Wildfire prevention and control
- Grading
- Private land development

Past and current activities have or continue to alter sensitive plant species occurrences and their habitats. Such activities have the potential to cumulatively affect sensitive plant species in the vicinity of the Snowmass Project Area resulting in current conditions. Assuming presence; past actions including livestock grazing, ski trail clearing, timber harvest, thinning, motorized and non-motorized recreational use, road and trail building and maintenance, insect and disease outbreaks, fire suppression, prescribed fire, mining, road construction, land exchanges, urban development (sub-dividing and development of private land), noxious weed infestation and ditching are likely to have had the greatest past negative impacts on R2 sensitive plant species and their habitats. Past actions (timber harvest, ski trails, fuels

reduction, fire use and prescription burning) that cleared forest canopy while minimizing ground disturbance or soil sterilization and avoided the introduction of noxious weeds would likely have been beneficial actions for many of the species.

### **IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES**

Assuming presence, ground disturbance related to the egress trails could represent an irretrievable effect to some threatened and endangered, or R2 sensitive species within the SUP area. However, this is not considered an irreversible commitment because the habitat (vegetation) is a renewable resource.

# **Chapter 4**

## **Consultation and Coordination**

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## 4. CONSULTATION AND COORDINATION

### A. PREPARERS

Members of the project team who participated in the impact analysis and preparation of this EA are listed below, along with their areas of responsibility.

#### FOREST SERVICE TEAM

The following people participated in the initial scoping, were members of the Interdisciplinary Team, and/or provided direction and assistance during the preparation of this EA.

Scott Fitzwilliams	Forest Supervisor, Deciding Officer
David Francomb	Acting District Ranger, Aspen-Sopris RD
Jim Stark	Winter Sports Administrator, ID Team Leader, Aspen-Sopris RD (retired)
Matt Ehrman	Acting Winter Sports Administrator, Aspen-Sopris RD
Skye Sieber	West Zone NEPA Coordinator, Rifle RD
Phil Nyland	Wildlife Biologist, Aspen-Sopris RD
John Proctor	Botanist, SO

#### CONSULTANT TEAM

##### SE Group

Travis Beck	Senior Project Manager
Kelly Owens	Assistant Project Manager/Environmental Analyst
Paula Samuelson	Production Specialist

##### Western Bionomics, Inc. – Steamboat, CO

Kelly Colfer	Wildlife Biologist/Botanist
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#### PROJECT PROPONENT REPRESENTATIVE

Victor Gerdin	Mountain Planner – Aspen Skiing Company
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## **B. AGENCIES, ORGANIZATIONS, TRIBAL GOVERNMENTS, AND PERSONS CONTACTED**

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### **STATE GOVERNMENT**

Colorado Parks and Wildlife Kevin Wright

### **LOCAL GOVERNMENT**

Pitkin County Commissioners

Town of Snowmass Village Russell Forrest

### **TRIBAL GOVERNMENT**

Ute Indian Tribe Betsy Chapoose  
Chairperson Curtis Cesspooch

Ute Mountain Tribe Maxine Nanchez

Southern Ute Indian Tribe Chairman Matthew Box  
Neil B. Cloud

Mountain Ute Indian Tribe Chairman Ernest House, Sr.  
Terry Knight

### **LOCAL MEDIA**

Aspen Times

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Wilderness Workshop Sloan Shoemaker

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George Falk	Linda Koones	Tom Rockwell
Barry Farr	Matt Kornafel	Scott Schlesinger
Edward J. Field	Lincoln Lande	Don Shapiro
Cody Frickey	Hayden Laybourn	Larry Singer
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Logan Ice	Ben Morgan	Dan Thurston
Mary James	Maureen Murray	Adria Tomlinson
Mary Janss	Tom Newland	Greg Vancour
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Chris Johnson	Keating O'Brien	Lee Wilson
Timothy Johnson	Derek Oakes	Kevin Wright
Biege Jones	Anna Olsen	
Barry Kanter	Steve Parmelee	

# Chapter 5

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# Chapter 6

## Figures

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## 6. FIGURES

### VICINITY MAP

FIGURE 1: ALTERNATIVE 1 – NO ACTION ALTERNATIVE

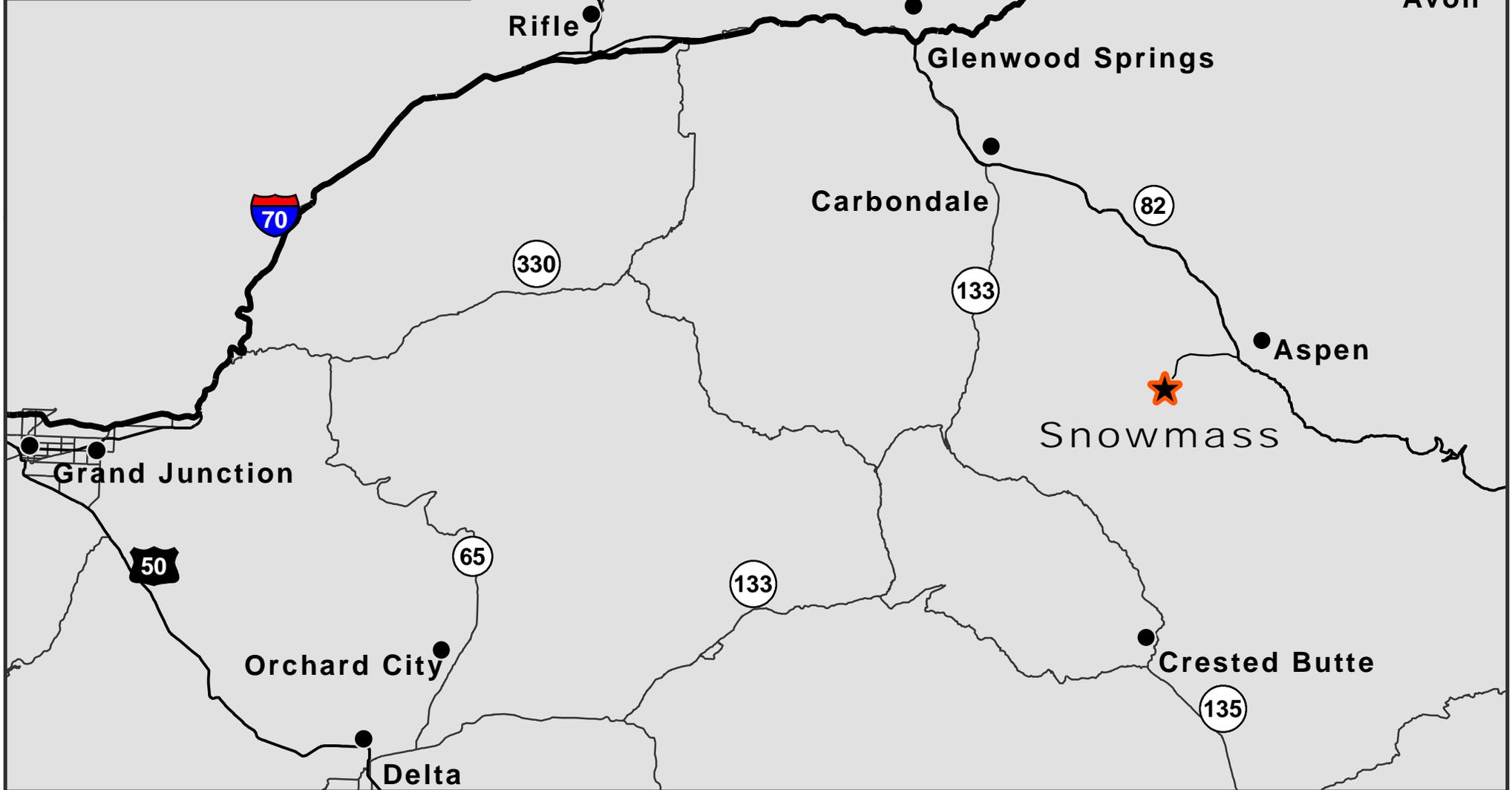
FIGURE 2: ALTERNATIVE 2 – PROPOSED ACTION

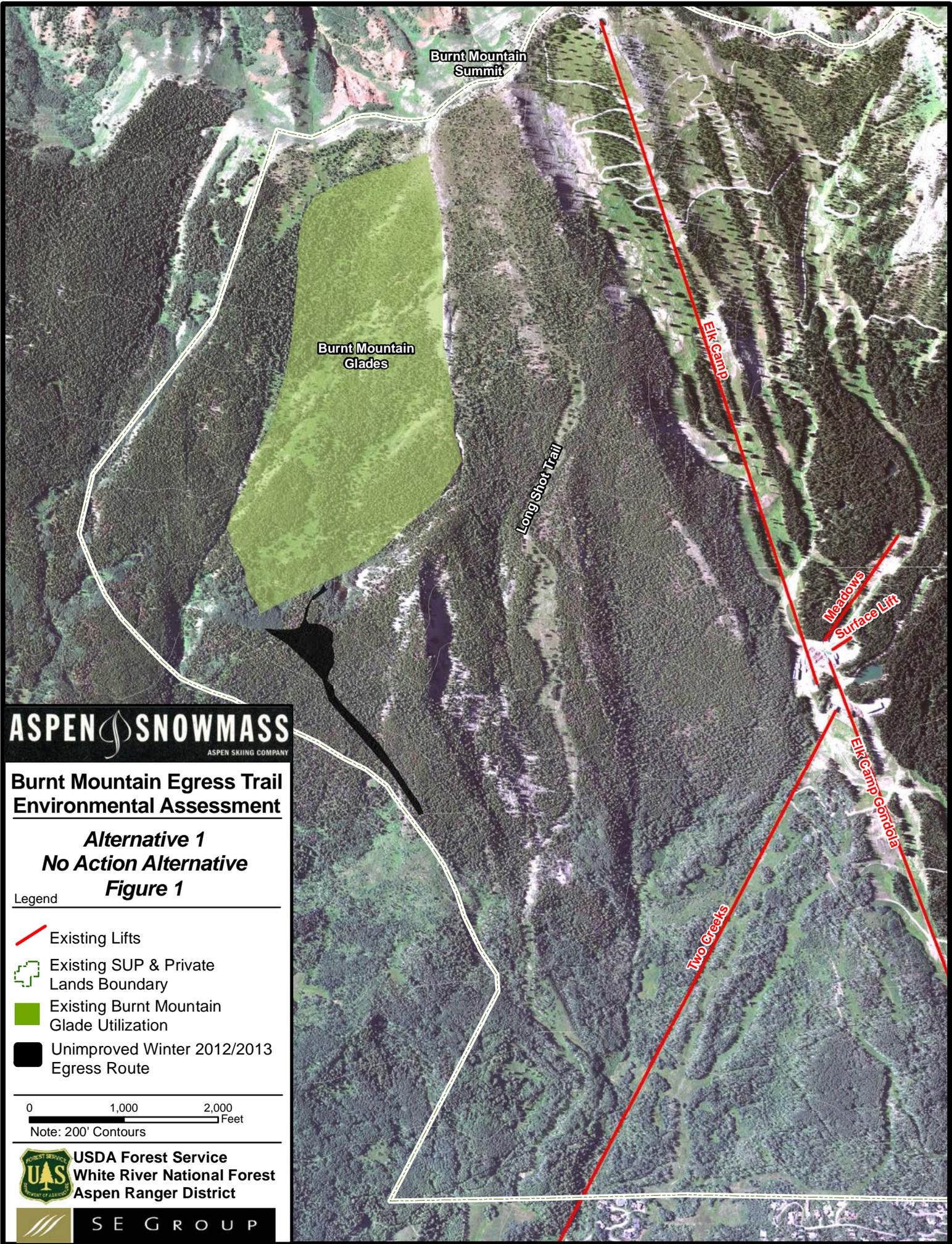
FIGURE 3: ALTERNATIVE 3

FIGURE 4: ROADLESS AREA – EXISTING CONDITIONS

**Environmental Assessment  
For The  
Burnt Mountain Egress Trail  
Vicinity Map**

May 2013  
Prepared By





Burnt Mountain Summit

Burnt Mountain Glades

Long Shot Trail

Elk Camp

Meadows

Surface Lift

Elk Camp Gondola

Two Creeks

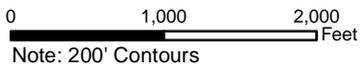
**ASPEN SNOWMASS**  
ASPEN SKIING COMPANY

**Burnt Mountain Egress Trail Environmental Assessment**

**Alternative 1  
 No Action Alternative  
 Figure 1**

Legend

-  Existing Lifts
-  Existing SUP & Private Lands Boundary
-  Existing Burnt Mountain Glade Utilization
-  Unimproved Winter 2012/2013 Egress Route



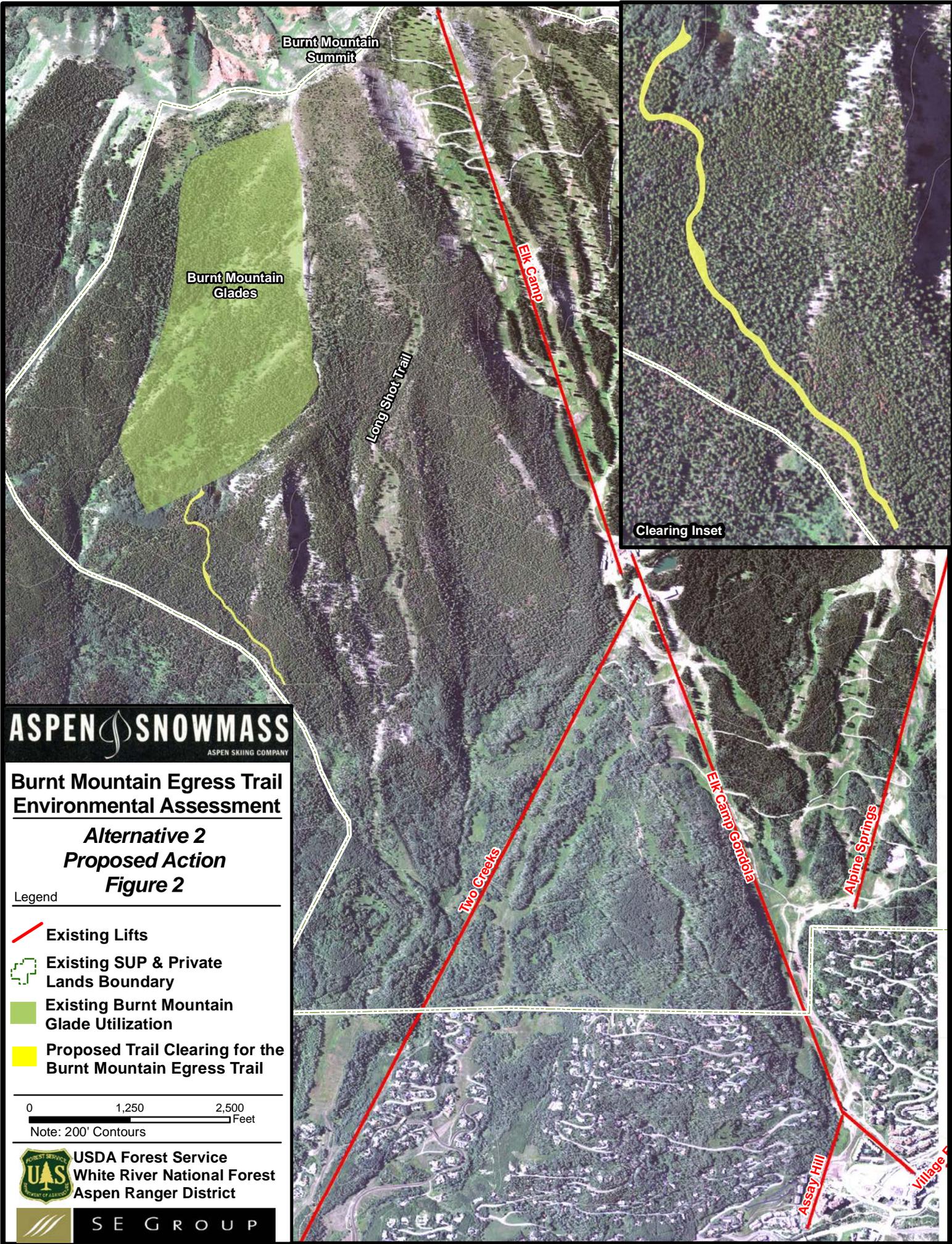
Note: 200' Contours



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ASPEN SKIING COMPANY

**Burnt Mountain Egress Trail  
 Environmental Assessment**

**Alternative 2  
 Proposed Action  
 Figure 2**

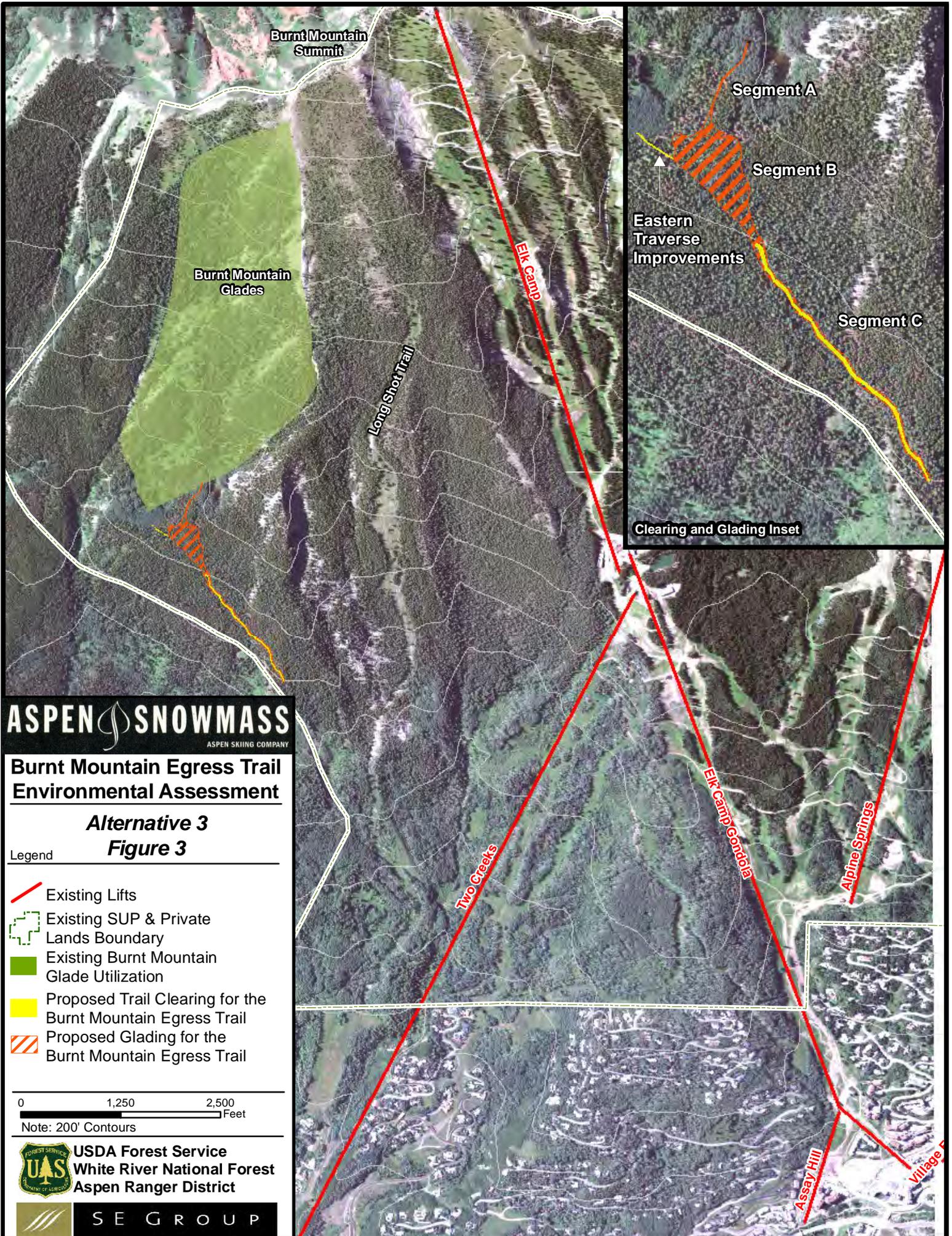
Legend

-  Existing Lifts
-  Existing SUP & Private Lands Boundary
-  Existing Burnt Mountain Glade Utilization
-  Proposed Trail Clearing for the Burnt Mountain Egress Trail

0 1,250 2,500  
 Feet  
 Note: 200' Contours

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**Burnt Mountain Egress Trail  
 Environmental Assessment**

**Alternative 3  
 Figure 3**

Legend

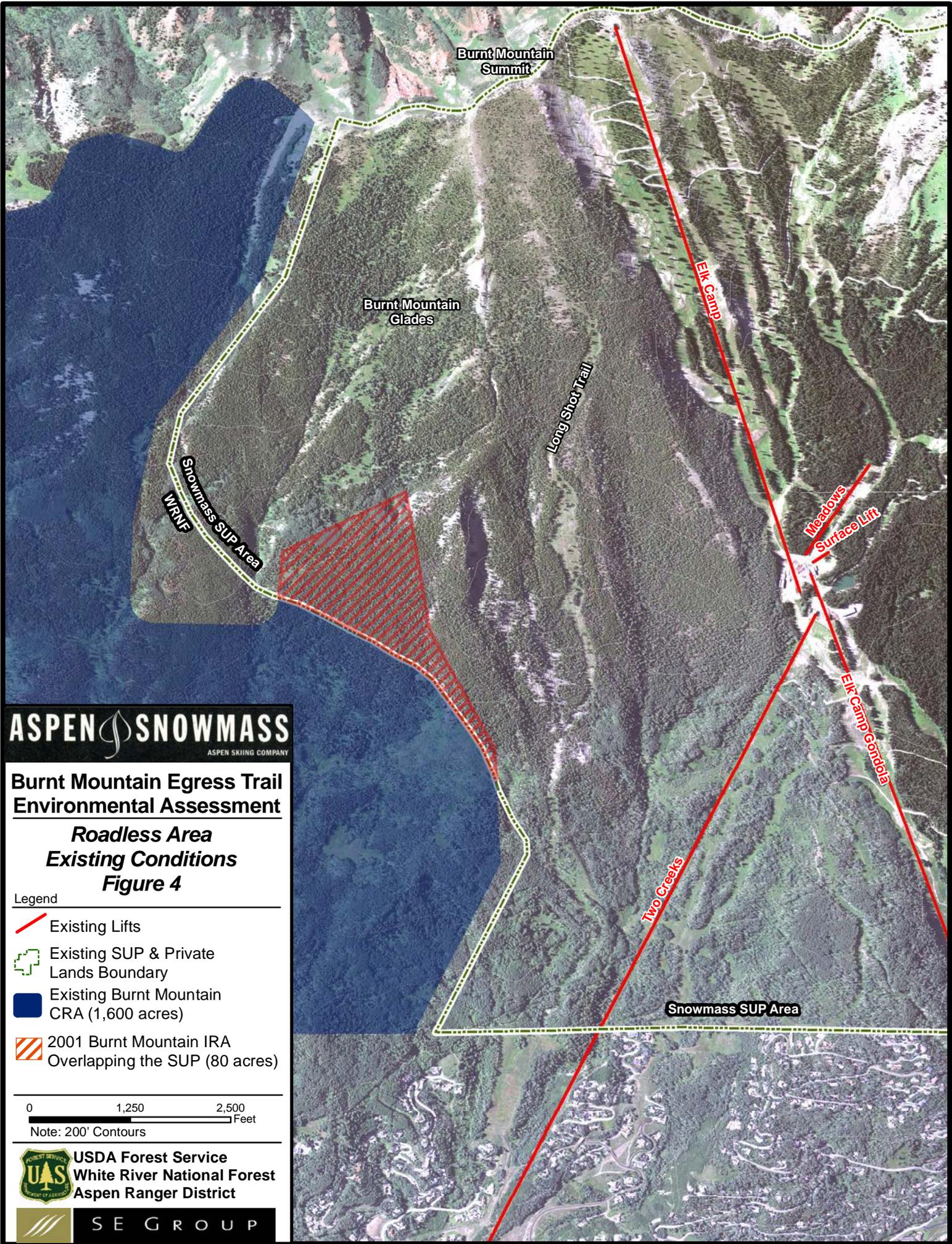
-  Existing Lifts
-  Existing SUP & Private Lands Boundary
-  Existing Burnt Mountain Glade Utilization
-  Proposed Trail Clearing for the Burnt Mountain Egress Trail
-  Proposed Glading for the Burnt Mountain Egress Trail

0 1,250 2,500  
 Feet

Note: 200' Contours

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**Burnt Mountain Egress Trail  
 Environmental Assessment**

**Roadless Area  
 Existing Conditions  
 Figure 4**

Legend

-  Existing Lifts
-  Existing SUP & Private Lands Boundary
-  Existing Burnt Mountain CRA (1,600 acres)
-  2001 Burnt Mountain IRA Overlapping the SUP (80 acres)

0 1,250 2,500  
 Feet

Note: 200' Contours

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