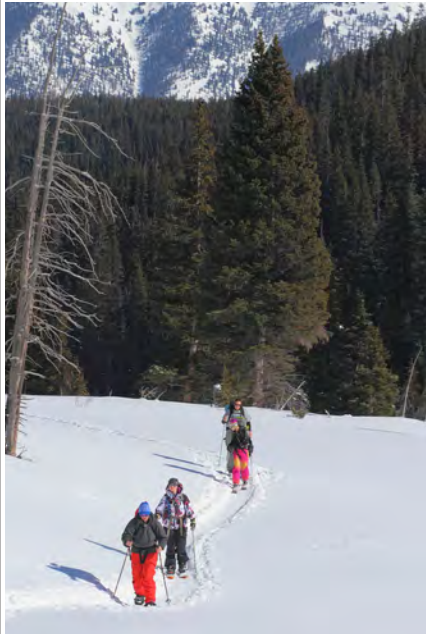




SUMMIT HUTS ASSOCIATION PROPOSED WEBER GULCH BACKCOUNTRY HUT ENVIRONMENTAL ASSESSMENT



June 2015

USDA Forest Service
White River National Forest
Dillon Ranger District



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**SUMMIT HUTS ASSOCIATION
WEBER GULCH BACKCOUNTRY HUT PROJECT
ENVIRONMENTAL ASSESSMENT
SUMMIT COUNTY, COLORADO**

Proposed Action:

Summit Huts Association

Responsible Official:

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White River National Forest
Summit County, CO

Lead Agency:

USDA Forest Service
Dillon Ranger District
White River National Forest
Summit County, Colorado

Abstract: The Summit Huts Association (SHA) is a 501-(c)(3) non-profit corporation based in Breckenridge, Colorado. It operates four backcountry huts under special use permit (SUP) from the Forest Service in Summit and Park counties. SHA emphasizes non-motorized, self-reliant backcountry travel and an intimate connection with the natural environment. This Environmental Assessment (EA) has been prepared to analyze a proposal designed to respond to current and anticipated consumer demands for public enjoyment and dispersed winter and backcountry recreation on the White River National Forest (WRNF) in Summit County.

A final Decision Notice accompanies this EA. The draft Decision Notice and EA were previously subject to the pre-decisional objection process. In an attempt to clarify and resolve the objections, the Forest Service held meetings and conference calls with the objectors. The objection reviewing officer recommended changes that resulted in this EA and final Decision Notice. Approved projects may be implemented immediately.

The purpose of the proposed project is for the construction of a new hut on National Forest System (NFS) lands administered by the Dillon Ranger District of the WRNF. The proposed Weber Gulch backcountry hut site is located at an approximate elevation of 11,500 feet on the northern aspect of Bald Mountain, east of Breckenridge. Bald Mountain is a popular year-round recreation destination for backcountry skiers, snowshoers, mountain bikers, and hikers. Weber Gulch provides backcountry skiing opportunities, especially in the northern-aspect trees. This EA discusses the Purpose and Need for the proposal, the process used to develop alternatives, potential direct, indirect, and cumulative impacts of implementing the No Action Alternative (Alternative 1) and the Proposed Action (Alternative 2), and Management Requirements.

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LIST OF ACRONYMS

AMSL	Above Mean Sea Level
ATV	All Terrain Vehicle
BA	Biological Assessment
BBS	Breeding Bird Survey
BCR	Bird Conservation Region
BE	Biological Evaluation
BEIG	Built Environment Image Guide
BMP	Best Management Practice
CDA	Connected Disturbed Area
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CPIF	Colorado Partners in Flight
CPW	Colorado Parks and Wildlife
CRCT	Colorado River Cutthroat Trout
CWA	Clean Water Act
CWD	Coarse, Woody Debris
DAU	Data Analysis Unit
DSH	Diurnal Security Habitat
DRD	Dillon Ranger District
EA	Environmental Assessment
EPA	Environmental Protection Agency
EPT	Ephemeroptera (mayflies), Plecoptera (stoneflies), and Tricoptera (caddisflies)
ESA	Endangered Species Act
FSM	Forest Service Manual
ID Team	Interdisciplinary Team
LAU	Lynx Analysis Unit
LCAS	Canada Lynx Conservation Assessment and Strategy
LHCF	Live, Horizontal, Conifer Foliage
MDP	Master Development Plan
MIS	Management Indicator Species
MOU	Memorandum of Understanding
MPB	Mountain Pine Beetle
NDIS	Natural Diversity Information Source
NEPA	National Environmental Policy Act
NFS	National Forest System
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
OHWM	Ordinary High Water Mark
PIF	Partners in Flight

PDF	Project Design Feature
PUD	Planned Unit Development
R2	Forest Service Region Two
SHA	Summit Huts Association
SIO	Scenic Integrity Objective
SIVC	Species with an Identified Viability Concern
SMS	Scenery Management System
SRLA	Southern Rockies Lynx Amendment
SRLMD	Southern Rockies Lynx Management Direction
SUP	Special Use Permit
TEP	Threatened, Endangered, and Proposed species
TES	Threatened, Endangered, and Sensitive species
TMHA	10th Mountain Division Hut Association
TMP	Travel Management Plan
USFWS	United States Fish and Wildlife Service
WCPH	Watershed Conservation Practices Handbook
WIZ	Water Influence Zone
WRNF	White River National Forest

Chapter 1

Purpose and Need

1. PURPOSE AND NEED

A. INTRODUCTION

The Proposed Action analyzed in this document constitutes a federal action on public lands administered by the United States Forest Service (Forest Service), which has the potential to affect the quality of the physical, biological and human environment on public lands. Therefore, these projects must be analyzed pursuant to the National Environmental Policy Act of 1969 (NEPA). Under NEPA, federal agencies must carefully consider environmental concerns in their decision-making processes and provide relevant information to the public for review and comment.

The White River National Forest (WRNF) has prepared this Environmental Assessment (EA) in compliance with NEPA and other relevant federal and state laws and regulations. This EA contains analyses consistent with NEPA, Council on Environmental Quality (CEQ) regulations, and Forest Service policy. It discloses potential direct, indirect, and cumulative environmental effects on the human and biological environment anticipated to result from implementation of the Proposed Action. Additionally, it is intended to ensure that planning reflects the environmental and social values of the Project Area and that potential resource conflicts are minimized or avoided.

The *draft* Decision Notice (DN) and accompanying EA were published for an objection period from July 31, 2014 to September 12, 2014 in accordance with 36 CFR 218. Three objections were received. Objection resolution meetings were held with the objectors and the Objection Deciding Officer. Consequently, this EA provides additional information that addresses those objections and is relevant to the Selected Alternative identified in the attached DN. Additional information included in this EA pertains to:

- the range of alternatives;
- Management Requirements and Project Design Features (Table 2-2);
- the cultural resources analysis; and
- the wildlife analysis.

Minor clarifications to the response to comments (Appendix D) on the EA have also been made.

The document is organized into the following seven chapters and five appendices:

- **Chapter 1 – Purpose and Need:** 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. Chapter 1 also details how the Forest Service informed the public of the proposal and how the public responded (scoping).

- **Chapter 2 – Description of Alternatives:** provides a detailed description of the two alternatives that are analyzed in detail—No Action and the Proposed Action—along with Management Requirements and design features. This discussion also includes alternatives and design components considered but eliminated from further analysis.
- **Chapter 3 – Affected Environment and Environmental Consequences:** provides a description of the affected environment (i.e., existing conditions) according to resource area and describes the environmental consequences of implementing the No Action Alternative and the Proposed Action. Chapter 3 is organized by resource topic.
- **Chapter 4 – Finding of No Significant Impact:** judges “significance” in terms of both *context* and *intensity* per 40 CFR 1508.27(b).
- **Chapter 5 – Consultation and Coordination:** provides a list of preparers and agencies consulted during the preparation of this EA.
- **Chapter 6 – References:** provides complete references for documents cited within this EA.
- **Chapter 7 – Figures:** includes the figures that are referred to throughout the analysis.
- **Appendices:**
 - **Appendix A: Cumulative Effects Projects,** includes a table of projects and project descriptions that are considered for cumulative effects.
 - **Appendix B: Civil Rights Impact Analysis,** includes the Civil Rights Impact Analysis pertaining to the Forest Supervisor’s closure of NFS lands at the Weber Gulch Backcountry Area.
 - **Appendix C: Alternate Hut Locations,** includes hut locations that were considered but not analyzed in the EA.
 - **Appendix D: Response to Comments,** includes the Forest Service’s responses to comments submitted on the EA.
 - **Appendix E: Weber Gulch Backcountry Hut Monitoring Plan,** includes the monitoring plan to quantify the amount of use occurring in the timber north of the hut site.

Additional documentation, including more detailed analyses of Project Area resources, may be found in the project administrative record located at the Dillon Ranger District office of the WRNF.

B. BACKGROUND

The Summit Huts Association (SHA) is a 501-(c)(3) non-profit corporation based in Breckenridge, Colorado. It operates four backcountry huts under special use permit (SUP) from the Forest Service in Summit and Park counties. SHA emphasizes non-motorized, self-reliant backcountry travel and an intimate connection with the natural environment.

SHA has proposed the construction of a new hut on National Forest System (NFS) lands administered by the Dillon Ranger District of the WRNF. The proposed Weber Gulch backcountry hut site is located at an approximate elevation of 11,500 feet on the northern aspect of Bald Mountain, east of Breckenridge. Refer to Figure 2 for the location of the proposed hut.

Bald Mountain is a popular year-round recreation destination for backcountry skiers, snowshoers, mountain bikers, and hikers. Weber Gulch provides backcountry skiing opportunities, especially in the northern-aspect trees.

The popularity of backcountry huts and associated skiing has grown exponentially in Colorado, and SHA has been operating at capacity throughout the winter season for many years. SHA has long identified the need for an additional hut in Summit County that is not only accessible from Breckenridge, but also provides a linkage for hut-to-hut travel throughout the greater hut system (though this accounts for a small percentage—less than 5 percent—of total use). These topics are discussed in greater detail in the following sections.

C. RELATIONSHIP TO PREVIOUS ANALYSES AND APPROVALS

SHA completed a Master Development Plan (MDP) in 1989, which identified five primary hut sites on the WRNF and three secondary sites that could be located on private property. Over the past two decades, two of these huts were analyzed, approved and built on WRNF. In 1989 the Forest Service completed an EA that approved construction of Janet’s Cabin, which opened for public use in January 1991. The EA for Francie’s Cabin—the second hut of the SHA system—was completed in November 1990 and the hut opened to the public in January 1995. In addition, the Section House and Ken’s Cabin—at the top of Boreas Pass—are restorations of historical buildings; these two buildings are owned by the Forest Service.

As part of each hut, SHA plans for parking and access trails. Portions of the travel route proposed in conjunction with the Weber Gulch backcountry hut are within the “Golden Horseshoe,” an area of Summit County (composed of National Forest System, Town of Breckenridge and Summit County lands) valued for its diversity of natural resources, recreation opportunities and cultural resources. The route is located on both WRNF and Town of Breckenridge/Summit County Open Space property. The proposal to use Town of Breckenridge/Summit County Open Space property for travel routes has been reviewed and

is supported by the Breckenridge Open Space Advisory Committee, Breckenridge Town Council, Summit County Open Space Commission and the Summit County Board of County Commissioners.

D. PURPOSE AND NEED FOR THE PROPOSED ACTION

Colorado has one of the most well-established and heavily used networks of non-motorized backcountry huts in the United States. These huts have been very popular with the public since the founding of the 10th Mountain Division Hut Association (TMHA) in the mid-1980s, which manages and acts as reservation agent for 29 huts, including those managed by SHA. Since 1995 the TMHA has operated near capacity during the high season (defined as between late December through late March). Additionally, many of the huts experience moderate levels of use throughout the summer season.

The primary purpose of this proposal is to respond to demand for backcountry huts in Summit County. The secondary purpose is to provide the public with, and to improve upon, an interconnected series of huts that were originally envisioned by SHA. As an indicator of demand, hut operators generally observe that as new huts are built, reservations for weekends and popular weeks are nearly immediately filled without decreasing the reservations of existing huts.¹ As defined under the Proposed Action, numerous potential locations for a new hut in Summit County were considered by SHA and the WRNF; however, there were certain critical factors that ultimately led to the proposed location in Weber Gulch. (Refer to the Proposed Action description as well as “Alternatives Considered but Eliminated” in Chapter 2 and Appendix C for more information on the factors that go into a hut location, as well as other alternative locations that were considered but eliminated.)

E. SUMMARY OF THE PROPOSED ACTION

In response to the Purpose and Need, and prior to the selection of the Weber Gulch site, the WRNF and SHA considered numerous other potential locations for a backcountry hut. The Weber Gulch location on the northern aspect of Bald Mountain in Breckenridge was selected for consideration based on numerous factors, including its ability to provide the public with the best overall hut experience, quality and quantity of skiing, views, access, and other factors (described in depth in Chapter 2).

The Proposed Action is to amend SHA’s SUP to include construction and operation of a backcountry hut on NFS lands on the northern aspect of Bald Mountain in Weber Gulch. Specific elements include:

- Location – The proposed Weber Gulch backcountry hut site is located at approximately 11,500 feet in elevation on the northern aspect of Bald Mountain, east of Breckenridge on the WRNF. The proposed travel routes are located on WRNF lands and also within the Golden Horseshoe planning area on Summit County Open Space and Breckenridge Open Space property.

¹ Filled reservations do not necessarily equate to 100 percent occupancy, as many parties will reserve an entire hut for a group that does not completely fill all of its beds. Mid-week availability is common throughout the season. Zobbe, 2013

- Recreation Opportunities – The proposed hut is intended for winter use only, primarily backcountry skiing and snowshoeing. In order to minimize disturbance to Canada lynx, elk and forest carnivores, the proposed hut and a section of the associated access trail would be closed to summer use.
- Hut Specifications – The proposed hut would be either one or two stories and would incorporate a variety of “green” building elements. It is proposed to accommodate up to 16 guests, plus a small hut master’s quarters. Heat would be provided through a combination of passive solar and a wood or propane stove. Potable water would be accommodated by melting snow. The site would also include a leach field to handle grey water from kitchen sinks and discharge from composting toilets.
- Recreation Access – Non-motorized winter access to the proposed hut would be provided through a combination of existing and proposed trails, including the *Sallie Barber Road*, *Nightmare on Baldy*, and new segments of trail on NFS and non-NFS lands leading to the hut location.
- Maintenance Access – The existing *Trail of Tears* (which branches off of Mt. Baldy Road), in conjunction with a proposed new trail segment, would be used for motorized (ATV) access to the hut during the summer for on-going maintenance needs.
- Construction Access – Since there is no road access to the proposed hut site, SHA proposes to use a helicopter to ferry heavy building materials and construction machinery to the site. Transportation of light building material would occur via the maintenance access route, as previously described on the existing *Trail of Tears* and on the new trail segment.
- Parking – A new, dedicated parking area is proposed to be located east and north of the existing parking area for the *Sallie Barber Road* Trailhead. The proposed lot would consist of approximately 17 spaces, with a portion allocated for overnight parking by non-hut users. The vehicle capacity of the lot is necessary to accommodate overlap between arriving and departing groups of hut users.

F. PUBLIC INVOLVEMENT

On October 24, 2011 a scoping notice was released to the public initiating a 30-day comment period. Additionally, a public open house was held on November 3, 2011 at the Stephen C. West Ice Arena in Breckenridge. Representatives were present from the WRNF and SHA to answer questions and provide additional information on the project.

The 25 letters that were received during scoping were utilized by the Forest Service Interdisciplinary (ID) Team to identify substantive issues and to consider potential alternatives to the Proposed Action. The issues that provide the foundation of this environmental analysis are discussed below, and are specifically addressed in Chapter 3 – Affected Environment and Environmental Consequences.

A public notice for review of the 2013 Weber Gulch Backcountry Hut EA was published in the Glenwood Post Independent on August 12, 2013. The comment period on the EA extended through September 11, 2013, yielding thirteen comment letters—both oppositional and supportive. A petition advising against the hut’s proposed location was signed by approximately sixty people.² Substantive comments were addressed in the Response to Comments document, and names and affiliations of commenters were entered into a master database.

Finally, a draft Decision Notice (DN) was released on July 30, 2014. This initiated a 45-day objection filing period, in which three objections were received. Conference calls or meetings were held with all objectors, who had the chance to clarify their issues. Attempts were made to resolve objections. As a result, the objection reviewing officer recommended changes to the EA regarding management requirements/project design features, the range of alternatives, the cultural analysis, and the wildlife analysis as well as changes to the final DN.

G. ISSUES AND INDICATORS

Based on the results of internal and public scoping, the Forest Service identified specific issues to address in this EA. Issues generally require in-depth analysis and disclosure, and are utilized to generate alternatives, if necessary. In some cases, they can be addressed by Project Design Features or mitigation measures. Each of the following issue statements includes a list of indicators that is a means of measuring or quantifying the anticipated level of impact on a particular resource. While some indicators are necessarily qualitative in nature, every effort was made to utilize indicators that are quantitative, measurable, and predictable.

HUMAN ENVIRONMENT

Recreation

Due to its close proximity to Breckenridge, and because *Sallie Barber Road* is one of the first trails to hold snow each season, the *Sallie Barber Road* Trailhead and associated trails receive some of the highest winter backcountry and Nordic skiing/snowshoeing use in the area. Per the 2002 WRNF Land and Resource Management Plan, motorized travel is prohibited in the Project Area except when authorized by SUP for administration of permitted facilities, for Forest Service administration, or for emergency purposes.

Issue: The proposed Weber Gulch backcountry hut has the potential to alter the recreational experience for backcountry and Nordic skiers as well as snowshoers in the Project Area, including the nearby Bald Mountain backcountry terrain and surrounding trails (Sallie Barber, Little French, Minnie Mine, Gold Run, B&B, Turk’s, Bald Mountain, Nightmare on Baldy and Upper Trail of

² Many signatures on the petition were illegible.

Tears). The potential effects include quality of snow and trail conditions, increased use of trails, backcountry user capacity and loss of solitude values.

Analytical Indicators & Requirements:

- Miles of existing/proposed trails served by the *Sallie Barber Road* Trailhead
- Estimated number of current winter trail users (daily + annual) in the Project Area
- Estimated number of winter trail users associated with the proposed Weber Gulch backcountry hut (daily + annual)

Parking and Traffic

Issue #1: A hut with an overnight capacity of 16 people would increase traffic volumes on French Gulch Road and past the Wellington neighborhood during the winter.

Issue #2: Parking for the Sallie Barber Road Trailhead is already constrained throughout the year. Adding a dedicated overnight parking area for hut users may induce additional parking issues, and may be difficult to enforce, even if the general public is allocated a certain number of day use spots.

Issue #3: Snow removal along French Gulch Road and at the proposed Weber Gulch backcountry hut parking area needs to be coordinated with Summit County Road and Bridge to ensure that safe and efficient access and parking is provided.

Issue #4: In order to eliminate much of the vertical gain needed to access the proposed hut, some hut users may choose to park at the Mt. Baldy Road Trailhead instead of at the proposed dedicated parking area proposed near the Sallie Barber Road Trailhead. This could displace users at the Mt. Baldy Road Trailhead during the winter.

Analytical Indicators and Requirements:

- Estimated current daily vehicular traffic on French Gulch Road
- Estimated potential daily vehicular traffic on French Gulch Road related to the proposed hut
- Potential for huts users to park overnight at the Mt. Baldy Road Trailhead

Scenery

Issue: The Project Area is relatively undeveloped and has high scenic qualities. The potential visibility of the proposed hut needs to be analyzed and disclosed.

Analytical Indicators and Requirements:

- Disclosure of the level of visibility of the hut location from key viewpoints (trails, Town of Breckenridge, etc.)

Cultural Resources

Issue: The Project Area on the north aspect of Bald Mountain (including the parking lot location) includes both recorded and unrecorded historic archaeological features in the form of graves, cabins, adits, and prospect pits. If any sites are determined to be eligible for the National Register of Historic Places, then appropriate design criteria will need to be formulated to mitigate impacts to the resource. This project requires a Class III inventory, a full Section 106 report including site forms, and SHPO correspondence.

Analytical Indicators and Requirements:

- Summary of result of cultural surveys completed to date in the vicinity of the Project Area
- Management measures to minimize potential impacts to known cultural resources

BIOLOGICAL ENVIRONMENT

Wildlife

Issue #1: The proposed hut is located within a lynx movement area and both deer and elk summer range and movement corridors.

Issue #2: The parking lot, road and lower section of the access trail are in close proximity to boreal toad habitat, requiring site-specific surveys.

Issue #3: The Project Area is in a cutthroat trout watershed and additional protection measures may need to be implemented.

Issue #4: Implementation of the proposed project (including construction and use) would necessitate vegetation removal and ground disturbance and would increase human presence in the winter. Increased winter use of the area, loss of habitat, and habitat fragmentation could affect Threatened, Endangered and Sensitive (TES) and Management Indicator (MIS) wildlife and aquatic species.

Analytical Indicators and Requirements:

- Acreage of tree removal for construction of proposed hut, parking lot and trail segments
- Net increase in snow compacted trails associated with the proposed hut
- Estimated number of current winter trail users (daily + annual)
- Estimated number of winter trail users associated with the proposed Weber Gulch backcountry hut (daily and annual users) in the Analysis Area
- Identification of Lynx Analysis Unit (LAU) boundaries, lynx habitat loss and lynx habitat connectivity in relation to the Analysis Area
- Impacts to Region 2 MIS and TES Listed and Candidate species and habitat (acres)

- Identification and analysis of impacts to threatened and endangered aquatic species and habitat (acres)
- Analysis of physical stream health in the Analysis Area and the effects on aquatic life
- Assessment of trout and macroinvertebrate populations in Project Area on streams and at reference sites, as based on field surveys
- Documentation of presence/absence of sensitive amphibians and their habitat within the Analysis Area

Vegetation

Issue: Plant communities (including TES species, WRNF Species with an Identified Viability Concern [SIVC] and invasive plant species) may be impacted as a result of construction of the proposed hut, parking lot, and new trail segments. In addition, snow compaction may impact special status plants.

Analytical Indicators and Requirements:

- Identification of threatened and endangered plant species and habitat present in the Analysis Area
- Identification of Region 2 sensitive plant species and habitat present in the Analysis Area
- Identification of WRNF species with an identified viability concern and habitat present in the Analysis Area
- Quantification (acreage) of proposed ground disturbance and overstory vegetation removal associated with the proposed hut
- Identification of invasive species in the vicinity of the Project Area and use of Best Management Practices (BMPs) to limit their spread

Soil Resources

Issue #1: Soil and geologic conditions (i.e., erosivity and hydrologic function) could be altered or affected by the implementation of the proposed trail and hut construction.

Issue #2: On-site disposal and treatment of wastewater from the proposed hut could have deleterious effects to soil and water conditions if the system is not sited, designed, and installed properly.

Analytical Indicators and Requirements:

- Discussion of site-specific soil conditions and baseline inventory of soil organic matter.
- Area (acres) of temporary and permanent disturbance according to high/moderate/low erodibility soils classes.
- Analysis of increased erosion hazard due to ground disturbance.
- Analysis of slope stability and geological constraints associated with project components.

Water Resources

Issue: Ground disturbing activities associated with the construction of the proposed parking lot, the hut and new trail segments (particularly at stream crossings) may result in increased erosion and sedimentation, thereby impacting stream health within the immediate vicinity of disturbance.

Analytical Indicators and Requirements:

- Identification/quantification of waters of the U.S., including wetlands in the Analysis Area
- Narrative description of effects to wetland functions and values
- Quantification of connected disturbed areas (CDA) in the vicinity of the Analysis Area (stream health)
- Identification of clearing in the Water Influence Zone (WIZ) (stream health)
- Identification of any Clean Water Act (CWA) impaired or threatened waterbody segments in the Analysis Area
- Full description(s) of proposed trail alignments, particularly at stream crossings

H. ISSUES NOT CARRIED FORWARD FOR DETAILED ANALYSIS

- *Air Quality*: Due to the scope and scale of this proposal, air quality was not a resource that warranted further analysis. Aside from short-term, construction-related impacts to air quality (which can be addressed with Best Management Practices), the proposed facilities do not include anything that results in measurable output of pollutants to the atmosphere. The effects to air quality in the Project Area would be negligible.
- *Social and Economic Resources*: Due to the scope and scale of this proposal, social and economic impacts were not deemed necessary for detailed analysis in this EA. SHA would construct and maintain the hut primarily with its staff and volunteers. Beyond that, any short-term, construction-related employment would be expected to be minimal. No additional County services would be required.
- *Trespass*: Trespass concerns were raised early in the planning process, when the hut was being considered for summer use. Owners of patented mining claims in the project area expressed concern that hut users would be inclined to explore the area, especially during the summer. However, this issue was not further analyzed because the proposal now only includes winter use. Should a request for summer use of the hut be submitted, and accepted, in the future, a separate NEPA evaluation would be required.

I. SCOPE OF ANALYSIS

Scope consists of the range of actions, alternatives, and impacts to be considered within this EA. Furthermore, it includes the spatial and temporal boundaries associated with the actions, alternatives, and impacts. Individual project elements that compose the Proposed Action are discussed in detail in Chapter 2, and are illustrated in associated figures. The scope of this environmental analysis varies by resource. Therefore, the scope of analysis is presented at the beginning of each resource section in Chapter 3. This EA analyzes direct, indirect and cumulative impacts on a resource-by-resource basis.

J. FOREST SERVICE POLICY AND DIRECTION

2002 LAND AND RESOURCE MANAGEMENT PLAN DIRECTION

The 2002 WRNF Land and Resource Management Plan (2002 Forest Plan) identifies the NFS lands in the vicinity of the proposed Weber Gulch backcountry hut site as within Management Area 1.31: Backcountry Recreation-Non-Motorized.³ Motorized travel is prohibited in Management Area 1.31, except where authorized by SUP for administration of permitted facilities, for Forest Service administration, or for emergency purposes.

- The **Theme** of this management area is “*Backcountry, non-motorized recreation areas are managed to provide recreation opportunities in a natural-appearing landscape.*”
- The **Desired Condition** for this management area includes: “*A variety of non-motorized recreation opportunities are provided in a natural or natural-appearing setting...improvements such as trailheads, trails, signs, bridges, fences, huts or shelters that enhance the recreational experience may be present.*”⁴

As part of this analysis, the Proposed Action and Purpose and Need were reviewed to identify potential inconsistencies with the Forest-wide Goals and Objectives as well as the specific Standards and Guidelines for Management Area 1.31. No inconsistencies were identified.

2008 SOUTHERN ROCKIES LYNX MANAGEMENT DIRECTION

The 2008 Southern Rockies Lynx Management Direction (SRLMD) amended the 2002 Forest Plan with respect to Forest-wide and Management Area Canada lynx standards and guidelines. The Proposed Action was compared against pertinent Forest-wide and Management Area standards and guidelines; no inconsistencies between the proposal and pertinent standards and guidelines were identified.

³ USDA Forest Service, 2002 p. 3-12

⁴ Huts are permitted by the Forest Service under a Forest Service Manual (FSM) 2721.14, Shelter Permit – 114 use code, which includes “trail shelters, waiting sheds, and similar structures of a recreational nature.”

2012 SOUTHERN SUMMIT COUNTY LYNX ASSESSMENT

The Southern Summit County Lynx Assessment was prepared by the WRNF to aid land management planning efforts in southern Summit County by providing a large-scale view of current and projected Canada lynx habitat needs, and providing a focus area for lynx conservation and habitat management projects that can improve habitat effectiveness. The 2012 Assessment was prepared to address the Problem Statement: *Existing, past, and potential future land use can cumulatively lead to the severing of landscape connectivity and reduction of the availability and effectiveness of functional habitat for Canada lynx (and other wildlife species)*. It is designed to be a planning tool that decision makers can use to understand the contextual impacts of land management decisions and the cumulative impacts to lynx habitat from a holistic viewpoint. The 2012 Assessment contains four Objectives:

- 1) Develop a lynx cumulative effects analysis for southern Summit County;
- 2) Identify a lynx conservation corridor within southern Summit County where the Forest Service can promote and implement lynx habitat conservation;
- 3) Develop a list of management practices and opportunities that can conserve or improve the functionality of lynx habitat and promote lynx conservation; and
- 4) Communicate a lynx conservation strategy in southern Summit County to both internal and external partners.

K. DECISION TO BE MADE

Based on preliminary internal Forest Service analysis and external public scoping, and a preliminary evaluation of the context and intensity factors contained in 36 CFR 1508.27, the Forest Service determined early on that an EA is appropriate to review, analyze, and document the potential impacts to the human, physical and biological environment anticipated to result from implementation of the Proposed Action. This EA is a disclosure rather than a decision document and its purpose is to determine if there are any potentially significant impacts.

A Finding of No Significant Impact (FONSI) is included as a part of this EA (Chapter 4). In addition, a Decision Notice has been released in conjunction with this EA.

L. OTHER NECESSARY PERMITS, LICENSES, ENTITLEMENTS AND/OR CONSULTATION

The Forest Service decision would apply only to NFS lands analyzed within this EA. However, other federal, state, and local entities may also have jurisdiction. Decisions by jurisdictions to issue or not issue approvals related to this proposal may be aided by the analyses presented in this EA. While the Forest Service assumes no responsibility for enforcing laws, regulations, or policies under the jurisdiction of other governmental agencies, Forest Service regulations require permittees to abide by applicable laws

and conditions imposed by other jurisdictions. In addition to requisite Forest Service approvals, consultation with the following entities, or permits, may be required to implement any approved projects:

- This project meets all criteria for programmatic concurrence under the Colorado Lynx Project Decision Screens. Therefore, consultation for Canada lynx is considered complete for this proposed project.
- Compliance with Colorado Department of Public Health and Environment Stormwater Construction Activities Permit
- Summit County General Construction Permit, Conditional Use Permit and/or other current county process
- Summit County Conditional Use Permit for trail construction

Chapter 2

Description of Alternatives

2. DESCRIPTION OF ALTERNATIVES

A. INTRODUCTION

Chapter 2 describes the alternatives considered within this environmental analysis. Management Requirements and Project Design Features (PDF) included in the Proposed Action to lessen or avoid impacts are also detailed.

The Proposed Action was modified in response to scoping, which is discussed following the Proposed Action description in Alternatives and Design Components Considered but Eliminated from Detailed Analysis.

B. ALTERNATIVES CONSIDERED IN DETAIL

ALTERNATIVE 1 – NO ACTION

A No Action Alternative has been included in this analysis for review alongside the Proposed Action. By definition, the No Action Alternative represents a continuation of existing management practices without changes, additions, or upgrades to existing conditions. Existing conditions of the Project Area are depicted on Figure 1.

Under the No Action Alternative, there would be no hut constructed in Weber Gulch, or associated access trails and parking improvements.

ALTERNATIVE 2 – THE PROPOSED ACTION

The Proposed Action is to amend SHA's SUP to include construction and operation of a backcountry hut (including access trails and a dedicated parking lot) on NFS lands on the northern aspect of Bald Mountain. Components of the Proposed Action are depicted on Figure 2. Photos of the proposed hut location are included in Chapter 3 Section C – Scenery.

The proposed Weber Gulch backcountry hut site is located at an approximate elevation of 11,500 feet. The proposed travel routes (discussed below) cross NFS lands within the Golden Horseshoe planning area, Summit County Open Space and Breckenridge Open Space property. The proposal to use Summit County and Breckenridge Open Space land for travel routes has been reviewed and approved by the Summit County Open Space Commission and the Summit County Board of County Commissioners.

Hut Design and Specifications

As part of the Proposed Action, SHA intends to incorporate green building techniques with construction of the proposed hut, including passive solar. Construction would include post and beam with prefabricated panels of high insulation properties. In general, the design parameters of the structure are:

- One- or two-story
- Between 1,400 and 2,000 square feet in size
- Accommodations for up to 16 guests
- Private hut master's quarters to accommodate two to four people
- Heat provided by a combination of passive solar design and wood or propane burning stove
- Composting toilets
- A wood burning sauna (either part of the building or a separate structure)
- A leach field to handle grey water from kitchen sinks and discharge from the composting toilets
- Electricity for lights provided by photovoltaic cells

Guest Access to the Weber Gulch Backcountry Hut

Guests would access the hut by following a route composed of a mix of existing and proposed roads/trails beginning at a proposed parking area at the existing *Sallie Barber Road* Trailhead. These routes are identified (Trail Segments A through E) in Figure 2, as well as in Table 2-1, below. Hut users would access the hut as follows:

1. Climb (typically with backcountry/touring gear or snowshoes) *Sallie Barber Road* for approximately 1.3 miles (350 vertical feet). This is labeled as Trail Segment A.
2. At the Sallie Barber Mine (at the summit of the climb up *Sallie Barber Road*), hut users would turn left (south) and ascend approximately 0.9 mile (200 vertical feet) of the existing *Nightmare on Baldy* trail to the intersection with *True Romance*. This is labeled as Trail Segment B.
3. At that point, hut users would turn left (east) onto a new segment of single track trail that is proposed to be constructed. This new segment of single track would climb approximately 0.6 mile and 300 vertical feet (passing *Upper Trail of Tears*), continuing eastward for approximately 0.7 mile (200 vertical feet) to the proposed hut. These are labeled as Trail Segments C and E, respectively.

The final segment of trail between the *Upper Trail of Tears* and the hut site (Segment E) would be constructed to accommodate non-motorized users in the winter, as well as all-terrain vehicles (ATVs) for construction/maintenance of the hut during the summer and early fall only. Segment E would be closed to summer use (discussed below).

In total, the proposed access route would extend 3.5 miles. It would utilize 2.2 miles of *Sallie Barber Road* and *Nightmare on Baldy*, and would involve 1.3 miles of new trail construction. Total vertical gain between the proposed parking area and the hut is roughly 1,050 feet. SHA proposes to construct this route with minimal tree removal and to follow Forest Service standards for cross country skiing and snowshoeing trails.

**Table 2-1:
Summary Table of Trail Segments**

#	Trail Name	Distance (miles)	Existing/Proposed
A	<i>Sallie Barber Road</i>	1.3	Existing
B	<i>Nightmare on Baldy</i>	0.9	Existing
C	<i>Nightmare on Baldy Extension</i>	0.6	Proposed
D	<i>Upper Trail of Tears (ATV only)</i>	0.6	Existing
E	<i>Upper Trail of Tears Extension</i>	0.7	Proposed

SHA would be responsible for the cost of construction and maintenance of new travel routes. Possibilities for construction include utilizing large crews of volunteers to build the trail by hand and the use of trail building machinery such as a SWECO dozer. Travel routes to the hut would be maintained by SHA and would be clearly marked with appropriate signage.

Forest Supervisor's Closure

The Analysis Area is functional as foraging, denning, diurnal security habitat, and is part of a lynx movement corridor. Accordingly, a wildlife conservation measure—in the form of a Forest Supervisor's closure—has been included in the Proposed Action to minimize disturbance to Canada lynx, also benefitting other forest carnivores and elk. The Forest Supervisor's closure is explained here, and included in Table 2-2, as well.

Proposed Trail Segment "E" would be closed (signed and gated) at its intersection with *Upper Trail of Tears* (Trail Segment D) and proposed Trail Segment "C". This Forest Supervisor's closure is designed to prevent hiking and biking use of proposed Trail Segment E to the hut outside the winter operating season. Refer to Figure 2 for the location of proposed Trail Segment "E".

Parking

The existing *Sallie Barber Road* trailhead experiences considerable day use throughout the year and is a major access portal to the Golden Horseshoe area. A dedicated overnight parking area (approximately 17 spaces) is approved to be constructed east of the existing *Sallie Barber Road* Trailhead, on the north side of French Gulch Road (immediately west of Humbug Hill Road). The proposed parking area is shown in Photo 3C-5 (refer to Chapter 3 Section C – Scenery).

The proposed parking area would accommodate Weber Gulch backcountry hut users during winter months. Approximately two parking spaces would be allocated to non-hut user overnight parking. Non-hut users would need to obtain authorization from Summit Huts Association to park overnight in the parking lot. As discussed in Chapter 3 Section D – Cultural Resources of this EA, a headstone identifying the William H. Milner grave is located near (and outside of) the proposed parking lot. The Forest Service

and SHA are committed to maintaining the integrity of this cultural resource; refer to Table 2-2 for Management Requirements and PDF that are designed to minimize/avoid impacts to the grave.

One other parking option exists for hut users—the Stephen C. West Ice Arena. This parking option would be identified in the general hut use information packet provided by SHA. Hut users would be able to leave their cars at the Ice Rink overnight (after they acquire a permit from the Town of Breckenridge) and take the Summit Stage to the Mt. Baldy Road Trailhead. Overnight parking is currently, and will remain, strictly prohibited at the Mt. Baldy Road Trailhead.

Ultimately, the final location of the proposed parking lot was selected based on numerous factors. The goal was to achieve the County standard for a small, overnight parking lot. This location has an access point off French Creek Road with a low-to-moderate grade that would access the entry to the lot. It is likely that excavated material could be balanced, creating a parking platform. Final design will occur in the field prior to ground disturbance. When the Weber Gulch backcountry hut is not in operation (late spring, summer, and fall) the parking lot would be closed to public use.

Water

As is the case with all huts managed by SHA, potable water would come from melted snow that the hut user could then treat for consumption.

Construction and Maintenance Access to the Proposed Weber Gulch Backcountry Hut

There currently is no road access to the proposed Weber Gulch backcountry hut site. The closest road that is suitable for full size vehicle traffic is Mt. Baldy Road (FDR 5-520W.3).

Designing the building so that it can be assembled in modular sections would enable much of it to be constructed off-site and transported to the site. For transportation of light building materials and construction equipment, as well as for long-term maintenance of the hut (including seasonal stocking), a motorized access route to the hut is required. The most logical solution to meet this need is to utilize the existing Mt. Baldy Road. Beyond the Iowa Mill, an existing 4WD road would be utilized for approximately 1,000 feet. At that point, the *Upper Trail of Tears* (a singletrack trail on NFS lands) is proposed to be widened and improved for 3,815 feet to create a 50-inch wide ATV trail. The improved ATV trail would intersect the previously-identified non-motorized access trail. From that point, the trail would become a dual-purpose access route for the final 3,270 feet to the hut, accommodating non-motorized hut users in the winter, as well as motorized administrative use in the summer. These are identified as Trail Segments D and E on Figure 2. SHA may choose to use a helicopter to expedite construction of the hut. In the event that a helicopter is used, staging areas would be defined. Construction-related parking areas would be identified by SHA in the Summit County's Conditional Use Permit process.

Public motorized use of the ATV route would be strictly prohibited. Gates and signage would be installed at key intersections along the proposed ATV route to preclude public motorized use. Cuts and fills resulting from construction of the proposed ATV route would be revegetated to promote soil stabilization. As previously indicated, a Forest Supervisor's closure is also proposed at the intersection of Trail Segments C, D and E to prevent use of Trail Segment E during the summer. SHA and the Forest Service will ensure that maintenance trips involving the use of ATVs are conducted outside of the hunting season each year. Motorized use of this trail during the winter would only occur in the event of an emergency; SHA does not own a snowmobile and does not plan to use one for maintenance or operations.

Hut masters would be expected to travel to the hut approximately once a week during the winter for routine maintenance and upkeep. They would be expected to spend the night approximately half of the time, and typically have a guest with them approximately half of the time. SHA tightly manages the use of hut masters' quarters to regulate the timing of occupancy.

Backcountry Ski Terrain Associated with the Proposed Weber Gulch Backcountry Hut

The Weber Gulch backcountry hut is proposed for winter use, between approximately the third week in November and April 30th. Backcountry ski terrain exists throughout Weber Gulch, primarily in northern-aspect treed slopes on the north side of Bald Mountain. There are several above tree line bowls to the southwest of the site that provide skiing opportunities with appropriate slope and snow coverage for backcountry skiing (refer to Figures 1, 2 and 3). Avalanche terrain dominates slopes to the southeast of the proposed hut site, but can be easily recognized and avoided by anyone with basic backcountry skills and awareness.

C. MODIFICATIONS MADE TO THE PROPOSED ACTION

The Weber Gulch backcountry hut was originally proposed (and scoped to the public) for year-round use. However, as a result of both public and internal Agency concerns, summer use of the hut was dropped from the proposal to minimize impacts from summer recreation in the Project Area to Canada lynx and elk. Should a request for summer use arise in the future, and should that request be accepted by the Forest Service, a separate NEPA evaluation would be required.

D. ALTERNATIVES AND DESIGN COMPONENTS CONSIDERED BUT ELIMINATED FROM DETAILED ANALYSIS

HUT LOCATION

Based on experience and an examination of hut reservation data and hut user surveys, SHA has a clear understanding of what characteristics make a hut successful and popular with the public. A multitude of qualities are important—from both operational and user perspectives. Critical components of hut location selection include, but are not limited to:

- *Solar Exposure and Views:* Good views and sunny decks (preferably south-facing) contribute to the public's enjoyment of the hut experience and appreciation of their public lands. Furthermore, good solar gain is critical for the photovoltaic cells to generate electricity and for a passive solar design to heat a hut.
- *Terrain Quality:* Good backcountry terrain is very important for the success of a hut. Huts that do not have quality backcountry terrain nearby, and/or do not have easy access, will not be as popular with the public. A hut site with good skiing opportunities will generally have north/east aspect slopes that are between 20 and 30 degrees.
- *Travel Routes:* Most huts have some sort of regulatory travel restriction surrounding them, which preserves the quiet, non-motorized nature of the backcountry hut experience. Non-motorized access into huts is preferred and most huts have at least one non-motorized route; however, shared (i.e., motorized and non-motorized) routes are also common.
- *Operational Considerations:* Other operational considerations include: a flat building site, soils that are appropriate to accommodate a septic system, and summer access for stocking/maintaining the hut.
- *Hut-to-Hut Touring:* The original concept of the TMHA system and the SHA system was founded on the hut-to-hut vision and the original MDPs for these organizations were devised with an emphasis on this concept.

The proposed Weber Gulch backcountry hut location was thoroughly vetted and studied. In the planning phase of this proposal, SHA created a committee to identify and evaluate potential new hut sites that would realize the goals of the 1989 SHA MDP. The group identified numerous potential sites to examine and several group field visits were made. Dillon Ranger District representatives participated in these site visits. These potential sites included:

- Weber Gulch
- Wise Mountain
- Humbug Gulch
- Farncomb Hill
- Lower Cataract Lake
- Ophir Mountain
- South Peak

The ability to fulfill the 1989 SHA MDP and provide a connection relatively free of avalanche danger between the Breckenridge area and the Montezuma/Keystone area weighed heavily in the final selection. All hut sites examined had positive and negative traits but two sites were selected as the preferred sites (Wise Mountain and Weber Gulch) for their ability to provide the public with the best possible hut experience.

These two preferred sites offered a combination of excellent ski touring, spectacular views, and a remote feel. They have flat building sites that are free of wetlands. These sites offer not only recreation opportunities near the huts themselves, but provide the potential for hut-to-hut tours between them. The routes between the huts are consistent with the original and current SHA master plan and vision and give the backcountry tourer the potential to connect from Breckenridge to Montezuma via a marked, maintained trail system.

The Wise Mountain site was eliminated from consideration at the direction of wildlife specialists due to issues with Canada lynx habitat and lack of consistency with the 2002 Forest Plan, as the site was within a 5.5 Management Area-Landscape Linkage Area that specifies light or minimal impact from human use.

During the planning phase, SHA seriously considered a hut site east of Weber Gulch in Black Gulch. However, it was determined that its location was on an unpatented mining claim. The owner of the unpatented mining claim was contacted regarding use/purchase of these NFS lands, but an agreement could not be reached. SHA also proposed to the Summit County and Breckenridge Open Space Advisory Committees to utilize their jointly-owned Black Gulch site, but they determined this was not an appropriate use of their land.

Other site alternatives were Humbug Gulch and Lower Cataract Lake. Humbug Gulch had many good attributes; however, it was determined that it does not have sufficient acreage of quality backcountry terrain to support a 16-person hut. A great deal of the Humbug Gulch area is private property owned by Climax mine and Climax management has in the past indicated little interest in entering an agreement with SHA for access to a hut through their property for the general public. Lower Cataract Lake was determined to have limited backcountry terrain and questionable snow quality and length of snow season due to its low elevation.

Farncomb Hill, Ophir Mountain and South Peak were eliminated for a number of reasons, including: proximity to a trailhead; quantity/quality of backcountry terrain; elevation; private land issues; motorized use nearby; and location within Keystone's SUP boundary (South Peak).

Refer to Appendix C – Alternate Hut Locations, which includes a matrix of criteria for an ideal hut location, and how each site met the criteria.

Furthermore, numerous other locations for a backcountry hut were suggested by commenters during the scoping period. These suggestions were made in response to the proposed hut's location, capacity and access, and included:

- | | | |
|-------------------|--------------------|---------------------------------------|
| • Peru Creek | • Glacier Mountain | • North Tarryall Creek/Deadwood Creek |
| • Chihuahua Gulch | • Horseshoe Basin | • French Pass |
| • Saints John | • Ptarmigan Peak | • Indiana Creek |

- Cinnamon Gulch
- Monitor Gulch
- Grizzly Gulch
- Hunkidori Mine
- Black Gulch
- Wise Mountain

Each of these locations was considered by SHA and the Forest Service, but for a mix of operational, recreational, and environmental factors, was not carried forward into detailed analysis.

HUT DESIGN

Suggestions were made to minimize the overnight capacity of the proposed Weber Gulch backcountry hut in order to preserve a more intimate guest experience. The proposed hut's size/capacity was thoroughly considered in light of the hut user's experience, resource impacts, and SHA's financial realities (i.e., the cost of construction and operations). Backcountry huts have high overhead for management, operations, and upkeep; a capacity of 16 people, plus hut master's quarters, was determined to best balance these factors. For reference, other SHA-managed huts range in capacity from 12 to 20 people.

TRAILHEAD LOCATIONS

Alternative trailhead locations from which to access the proposed Weber Gulch backcountry hut were suggested by commenters in the scoping period—including at the end of Mt. Baldy Road and at the Mt. Baldy Road/Sallie Barber intersection. Neither of these locations was deemed suitable due to limited available parking space, current recreational use at these trailheads, and the unavailability of overnight parking.

TRAIL ACCESS

The suggestion was made to confine hut users—both arriving and departing—to the old *Nightmare on Baldy* alignment. This was suggested to avoid/minimize trail conflicts with day users on the realigned *Nightmare on Baldy* trail. However, the old *Nightmare on Baldy* was realigned into its current configuration precisely because of its steepness and difficulty for ascending/descending on snow. Confining hut users to the old alignment was considered but eliminated from detailed analysis as it is too steep for people who are approaching/descending with heavy packs. In addition, skier traffic on *Nightmare on Baldy* is light, especially during the timeframe when hut users would be approaching and descending.

PARKING LOT LOCATIONS

Four alternative parking lot locations were considered for providing dedicated overnight parking for SHA's guests; three of these are located in the Lincoln Townsite. These four locations, and the reasons for not analyzing them in detail in this EA, are discussed below. The reader is referred to Figure 4 for additional information on parking lot locations.

Lincoln Townsite (“Cat Cabin”)

Approximately 1,000 feet west of the Sallie Barber Road trailhead, an area of the Lincoln Townsite was initially considered as a potential location for overnight parking for SHA guests. Historic remnants of the Lincoln Townsite (referred to as the “Cat Cabin”) exist in this location, and it was thought that, in addition to providing overnight parking for SHA’s guests, some existing structures could be preserved while providing opportunities for historic interpretation as well as development of a connecting trail.

However, further review by the Forest Service and SHA eliminated this location from further consideration for numerous reason, including:

- Impacts to historic structures
- The distance that SHA guests would need to walk to access the Sallie Barber Road trail (approximately 0.25 mile)

Lincoln Townsite (“East Humbug Hill”)

In addition to the William H. Milner grave, in the vicinity of the Alternative 2 parking location there is the potential for unmarked graves to be present, dating back to when Lincoln City was occupied. Therefore, an area on the north side of French Gulch Road, just east of Humbug Hill Road (and approximately 175 feet east of the parking lot proposed in Alternative 2) was considered for accommodating overnight parking for SHA’s guests.

As discussed in Chapter 3 Section D – Cultural Resources of this EA, additional archival research was performed focusing on the historic cemetery of Lincoln City, the possibility that unmarked graves might be present, and where they may be located. However, there is no clear or consistent information on the location of the Lincoln City cemetery, and nothing was found that could provide a scientifically defensible identification of the location of the cemetery.

Furthermore, due to steep natural grades in this location, construction of the East Humbug Hill parking lot would require a greater amount of cut and fill than the lot included in Alternative 2.

Expanded (Overnight) Parking at the Existing Sallie Barber Trailhead on the Cobb and Ebert Placer

Within the Lincoln Townsite, the existing Sallie Barber Road Trailhead was considered for its potential to be expanded to provide more space for day users (including vehicles with trailers) as well as SHA’s guests. In particular, a snow storage area to the west side of the existing Sallie Barber Road Trailhead was thought to provide potential for an expanded parking area.

The Sallie Barber Road Trailhead is limited topographically, as well as by property boundaries; any potential future expansion would therefore be challenging from a construction and maintenance

standpoint. Furthermore, and more importantly, the Continental Divide Land Trust (CDLT) holds a conservation easement on Cobb and Ebert Placer—173 acres located on the south side of French Gulch Road, where County snowplowing stops. In 2009, the Breckenridge Open Space Advisory Commission (BOSAC) and Summit County Open Space Advisory Council (OSAC), as recommending bodies to the Town Council and Summit Board of County Commissioners, respectively, reviewed an initial SHA concept to permit a hut and/or associated parking infrastructure on Town, County or joint Town/County open space lands. Trailhead parking was discussed at that time. Both BOSAC and OSAC rejected the proposal from SHA to expand the current Sallie Barber Road Trailhead to accommodate parking for overnight hut users.⁵

Occasionally, this parking area fills to capacity, typically during winter months. Expansion of the trailhead had been discussed to accommodate existing and expanding day use levels, *not* overnight use. The project team explored the option of utilizing CDLT land interests for a parking alternative and this option was dismissed from detailed study because the June 2014 Cobb and Ebert Placer Open Space Management Plan (jointly prepared by Summit County and Breckenridge Open Space and Trails Departments) did not contemplate expansion of parking. However, there are existing parking capacity issues on French Gulch Road, and there may be opportunities to work jointly with Summit County and the Town of Breckenridge to resolve these issues outside of this project analysis.

Use of the Ice Rink for Overnight Parking

The concept of providing overnight parking at the Stephen C. West Ice Arena, combined with bus transportation to the Mt. Baldy Road trailhead, was explored. As discussed previously, the option of overnight parking at the Ice Arena and utilizing public transportation would be available under Alternative 2. However, after further consideration, it was determined that, while this is a good option to offer SHA's guests, it is not desirable as the sole means of overnight parking for the hut.

E. MANAGEMENT REQUIREMENTS

In order to minimize potential resource impacts from construction and implementation of any approved projects, Management Requirements have been incorporated into Alternative 2. These are identified in Table 2-2.

Management Requirements are composed of PDF which are devised in the pre-analysis and analysis phases to reduce environmental impacts to comply with law, regulation or policy. They include, but are not limited to, BMPs, standards and guidelines, and standard operating procedures.

PDF were designed by Forest Service and consulting resource specialists involved in this analysis. They come from federal, state, and local laws, regulations and policies, forest plans, scientific research, and

⁵ Town of Breckenridge, 2014

from experience in designing similar projects. The bulk of the PDF are considered common practices that have been 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.

The potential effects of implementing the Proposed Action (provided in Chapter 3) were analyzed with these PDF applied.

Responsibility for ensuring that required PDF are implemented rests with SHA and the Forest Service. In all cases, the ultimate authority mechanism for implementation of the specified PDF would be the Decision Notice, and would extend from the Forest Supervisor to the District Ranger, to the Forest Service SUP Administrator.

**Table 2-2:
Management Requirements and Project Design Features**

CULTURAL
If undocumented historic and/or prehistoric properties are located during ground disturbing activities or planning activities associated with approved construction activities, all construction in the immediate vicinity would cease and they would be treated as specified in 36 CFR 800.11 concerning Properties Discovered During Implementation of an Undertaking.
The Lincoln Townsite grave will be avoided during construction and maintenance of the proposed parking lot to ensure that its integrity is not compromised.
Prior to construction of the parking lot, ground-truthing methods of determining if unmarked graves are present will be employed.
A qualified archaeological monitor will be present during all surface-disturbing and excavation activities for construction of the proposed parking lot. Further, the archaeologist should coordinate directly with the construction contractor to provide for careful removal of topsoil and subsoils on the east side of the parking area, at least until it appears clear that no unmarked graves are present.
The engineering of the proposed parking lot will be modified to allow for a retaining structure to prevent disturbance or subsequent erosion from coming in close proximity to the Milner grave. A distance of at least 30 feet between the grave and the extent of any surface modification will be maintained. This should also help prevent the grave from being impacted by snow storage when the parking area is plowed. Doing so will also help prevent exacerbating erosion that may result from changes to the slope in the vicinity of the grave.
SCENERY
Conform site development, sustainability, and architectural character of the Weber Gulch backcountry hut to the Forest Service's Built Environment Image Guide (BEIG).
WILDLIFE
All construction activities will be confined to daylight hours, excluding emergencies.
SHA's guests and construction workers are prohibited from bringing dogs to the hut site.
If boreal owl nests are detected within impact areas, direct mortality of eggs and/or nestlings will be avoided by avoiding trees that could support nest cavities, limbing (vs. cutting) trees to provide the required clearance, or conducting tree removal in potential nesting habitat outside of the May 21 to July 15 nesting (with eggs/young) period.
If olive-sided flycatcher nests are detected within impact areas, direct mortality of eggs and/or nestlings will be avoided by avoiding trees that could support nest cavities, limbing (vs. cutting) trees to provide the required clearance, or conducting tree removal in potential nesting habitat outside of the June 1 to July 15 nesting period.
If American marten dens are detected within impact areas, direct mortality of current year recruitment will be avoided by avoiding trees that could support dens, limbing (vs. cutting) trees to provide the required clearance, or conducting tree removal in potential denning habitat outside of the March 1 to June 15 period.

**Table 2-2:
Management Requirements and Project Design Features**

To minimize impacts to Canada lynx, elk, and forest carnivores, the new trail extension to the hut, where it departs from the existing <i>Upper Trail of Tears</i> (Segment E), shall be closed (signed and gated, via a Forest Supervisor's closure) to prevent hiking and bike access to the hut outside the winter operating season. Limiting hut use to the winter season only (i.e., no summer use) and preventing summer human access along those corridors to the hut is important to minimize potential impacts to lynx habitat use (including, but not limited to movements, denning, and diurnal security use) within this portion of the Southern Summit County lynx conservation corridor. A monitoring plan (refer to Appendix E) will be developed to identify unauthorized summer use of the area that is subject to the Supervisor's closure. The monitoring plan will identify trigger points for adaptive management actions.
Precluding skier use in terrain below (north of) the hut would reduce snow compaction while minimizing disturbances to lynx habitat (including potential denning) in a large, intact, higher quality habitat block. Display posters and other informational educational materials at the hut to inform guests about the local lynx issue, lynx natural history, the lynx movement corridor, proper waste disposal, and the habitat below the hut and access trail (see below).
Implement adaptive management to more effectively close the higher quality habitat block below the hut and access trail if periodic monitoring suggests that non-compliance is reaching levels that could adversely affect habitat values of lynx and its prey base. The monitoring plan will identify trigger points for adaptive management actions.
SHA and the Forest Service will ensure that maintenance trips involving the use of ATVs are conducted outside of the hunting season each year.
Minimize outdoor lighting at the hut and utilize downcast lighting to further minimize fugitive light.
The Great Flume Trail is identified on the WRNF's 2002 Baseline Snow Compaction map as a "compacted route." However, after two years of winter monitoring, it was documented that the Great Flume trail is not being used in the winter. This lack of use is likely due to thick timber in the area, combined with the fact that it is a single-track trail in the summer months, making it quite difficult to find in the winter. Because in reality the 8-mile long Great Flume trail is <i>not</i> compacted, the trail was removed from the WRNF's 2002 Baseline Snow Compaction map. This resulted in 8 fewer miles of mapped snow compaction in the Swan River LAU. For the access trail into the proposed Weber Gulch backcountry hut site, approximately 1.5 miles of new snow compaction will be created. When 1.5 miles is added to the 8-mile reduction, the net result is a reduction of 6.5 miles of mapped compaction in the LAU. This allowed the new trail to be consistent with the Southern Rockies Lynx Amendment (SRLA) HU G 10 (designated over-the-snow routes or designated play areas should not expand outside baseline areas of consistent snow compaction). <i>This was strictly an accounting exercise</i> ; the wildlife analysis contained in the Biological Assessment, and Chapter 3 Section E – Wildlife of this EA, discusses the biological impacts of snow compaction on lynx.
VEGETATION
As needed, re-vegetation would be completed around the proposed hut site and parking area using native species where feasible, preferably collected from local genetic stock or seed available from local Forests' Native Plant Materials programs. (Forest Plan Biodiversity Standard #1; Forest Plan Biodiversity Guideline #1; FSM 2070)
All mulch, hay and straw used will be certified weed-free. A seed mix will be approved by the USFS. (Forest Plan Weeds Standard #3)
Tree clearing limits would be adequately marked to minimize mistakes in clearing limits during construction.
Any Engelmann spruce that is felled must be either removed from the area or treated within one year after felling to prevent the buildup of spruce bark beetle. Treatments can include burning, burying or peeling the bark off felled Engelmann spruce.

**Table 2-2:
Management Requirements and Project Design Features**

A vegetation management plan would be prepared by SHA (in conjunction with the Forest Service), including measures to minimize overstory vegetation removal and adequately establish desirable vegetation in disturbed areas.
SOIL RESOURCES
Stabilize and maintain disturbed areas such as the parking lot, trail and the hut site during and after construction to control erosion (Forest-wide Standards and Guidelines for Soils, #1)
Construct the parking lot, trail and hut site to minimize sediment discharge into streams, lakes, and wetlands (Forest-wide Standards and Guidelines for Soils, #3)
Maintain or improve long-term levels of organic matter and nutrients on all lands. Stockpile topsoil and return surface soils after construction to restore site organic matter where possible surrounding hut, parking lot and trail disturbance (WCPH Management Measure 14).
WATER RESOURCES
Manage land treatments to conserve site moisture and to protect long-term stream health from damage by increased runoff. Specifically (a) minimize connected disturbed area by ensuring that parking areas, roads, road ditches, trails, and other disturbed areas drain to undisturbed soils rather than directly to streams; and (b) manipulate drainage from disturbed areas as necessary using natural topography, rolling dips, waterbars, ditch-relief culverts, etc., to disconnect disturbed areas from streams (WCPH Management Measure 1)
Slope disturbed sites, the parking lot and trail away from French Gulch and the Weber Gulch drainage. Use rolling grades, grade reversals and drain dips on trails, particularly where trails approach streams or swales, to minimize the length of trail surface that drains directly to streams.
Keep heavy equipment out of streams, swales, riparian areas, and wetlands, except to cross at designated points.
Keep logging slash and debris out of ditches and drainage channels.
Reclaim disturbed areas promptly to prevent resource damage and invasion of noxious weeds. (WCPH Management Measure 12)
After operations are completed provide stable drainage to disconnect disturbed areas.(WCPH Management Measure 12)
Keep equipment on designated trails. (WCPH Management Measure 13)
Locate vehicle service and fuel areas on gentle upland sites at least 100 feet away from streams to prevent pollutants from contaminating water. (WCPH Management Measure 15)
Design and construct water bars to discharge surface runoff originating from the parking area and trail areas away from the WIZ and into well-vegetated areas, effectively disconnecting disturbed areas from the stream channel.
Design water bars to encourage sediment separation and dispersion of flow by using straw bales and fiber logs or other appropriate management at discharge points.
Mulch and seed disturbed areas promptly upon project completion. Use appropriate revegetation tools such as weed-free straw, wood chips, bark, jute mat, etc.

**Table 2-2:
Management Requirements and Project Design Features**

NOXIOUS WEEDS
To minimize the spread of noxious weeds during construction, the following measures would apply: - Clean construction equipment prior to entry onto NFS land. - Equipment may require USFS inspection prior to moving it from areas infested with invasive species of concern to areas free of such invasive species. Coordinate with the USFS Weed Program Manager. Take reasonable measures to make sure equipment is free of soil, seeds, vegetative matter, or other debris that could contain noxious weed seeds before moving into the Project Area. - All equipment surfaces should be cleaned, especially drive systems, tracks and “pinch points” to ensure removal of potentially invasive debris. Reasonable measures include pressure-washing or steam cleaning in an offsite location so oil, grease, soil and plant debris can be contained and provide optimal protection of project areas. - A USFS Representative shall be notified at least 24 hours in advance of off-road equipment arriving on the Forest, to provide the option of inspecting the equipment to ensure it has been cleaned as required. - Equipment may also require inspection prior to moving it from areas infested with invasive species of concern to areas free of such invasive species. Those areas can be identified prior to project implementation with the USFS Weed Program Manager. - Before implementing any approved ground-disturbing activities, coordinate with the Forest Service District Weed Coordinator to determine if surveys would be needed within project areas to document the presence of any pre-existing weed infestations. Treat infestations prior to ground-disturbing activities and remove all weed seed and propagules to prevent spread.
PARKING
SHA will prepare an annual operations plan that clearly articulates the management/maintenance of the parking area and submit it to the Dillon Ranger District. The Operations Plan will be developed in coordination with the Town of Breckenridge and Summit County. The Plan will address, but not be limited to, the following issues: - Parking lot maintenance - Snow removal - Monitoring and Enforcement - Signage - Overnight parking authorization and limits - Summer parking management - Design/appearance of parking lot - Access to adjacent authorized uses

Chapter 3

Affected Environment and Environmental Consequences

3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

INTRODUCTION

Chapter 3 describes the existing physical, biological, social, and economic components of the project area which have potential to be affected by implementing any of the alternatives (i.e., the Affected Environment). Each Affected Environment description is followed by an Environmental Consequences discussion that provides an analysis of the potential effects of implementation of each of the alternatives.

Chapter 3 is organized by resource area, and follows the organization of issues and resources requiring further analysis (and indicators) as presented in Chapter 1. Each resource section in Chapter 3 is organized in the following order:

SCOPE OF ANALYSIS

The scope of analysis briefly describes the geographic area(s) potentially affected by the alternatives for each issue. The scope of analysis varies according to resource area and may be different for direct, indirect, and cumulative effects.

AFFECTED ENVIRONMENT

The Affected Environment section provides a description of the environment potentially affected, as based upon current uses and management activities/decisions.

DIRECT AND INDIRECT ENVIRONMENTAL CONSEQUENCES

This section provides an analysis of direct and indirect environmental effects of implementing each of the alternatives, according to the issues or resources requiring additional analysis and indicators identified in Chapter 1. Cumulative effects are discussed separately.

Direct effects are caused by the action and occur at the same time and place. Indirect effects are caused by the action and occur later in time or are farther removed in distance, but are still reasonably foreseeable (i.e., likely to occur within the duration of the project).

CUMULATIVE EFFECTS

Cumulative effects are the result of the incremental direct and indirect effects of any action when added to other past, present, and reasonably foreseeable future actions, and can result from individually minor but collectively major actions taking place over a period of time.

Past, present and reasonably-foreseeable future projects are identified in Appendix A.

A. RECREATION

SCOPE OF ANALYSIS

Summit County and the WRNF are popular recreation destinations. A myriad of activities draw people there year-round, from biking and hiking, to fishing, boating, mountaineering, camping, skiing and snowshoeing.

While year-round recreational activities are abundant across the WRNF and Summit County, this analysis focuses on wintertime activities within the Weber Gulch backcountry area, which typically occur from November through April, depending on snow conditions. For the purposes of this analysis, the Weber Gulch backcountry area, or “Project Area” is defined as the north-easterly aspect of Bald Mountain. The area is comprised of not only NFS land, but also Summit County Open Space, Summit County/Town of Breckenridge Open Space, and private lands. Tree line occurs at approximately 11,800 feet in elevation, above which is popular for open bowl skiing. Generally, the *Illinois Gulch* trail and the *Upper Trail of Tears* form the western perimeter of the Weber Gulch area; Mt. Baldy Road provides the southern perimeter; and the northern and eastern boundaries are defined by very steep, gladed terrain and the Bald Mountain ridgeline.

Photo 3A-1:
View West of the Ten Mile Range – Above the Proposed Weber Gulch Backcountry Hut Site



As stated in Chapter 1, the Project Area includes lands owned by Summit County and Breckenridge Open Space, as well as those administered by the Dillon Ranger District of the WRNF. The 2002 Forest Plan identifies the NFS lands in the Project Area as within Management Area 1.31: Backcountry Recreation – Non-Motorized. The Desired Condition for this management area states: “*A variety of non-motorized recreation opportunities are provided in a natural or natural-appearing setting...improvements such as trailheads, trails, signs, bridges, fences, huts or shelters that enhance the recreational experience may be present.*” Per the 2002 Forest Plan, motorized travel is prohibited in the Project Area except when authorized by special use permit for administration of permitted facilities, for Forest Service administration, or for emergency purposes.

In addition to the 2002 Forest Plan, the 2011 WRNF Travel Management Plan (TMP) prescribes the allowable use and management guidelines for NFS-designated trails within the Project Area.

AFFECTED ENVIRONMENT

Overview

Refer to Figure 3 for the recreational context of the project area on and around Bald Mountain.

Dispersed Recreation

On NFS lands, “developed” recreation takes different forms: downhill skiing/riding at resorts that operate within defined special use permit areas, and camping at designated campgrounds are two such examples. Dispersed forms of recreation—both in winter and summer, including within designated wilderness areas—occur across NFS lands both on and off designated trails and roadways.

Millions of people recreate every year in Summit County, especially in the winter. Developed, lift-served skiing is the primary winter attraction, with Breckenridge Ski Area reporting an average of 1.6 million skier visits annually between the 2008/09 and 2010/11 seasons.⁶ Beyond developed skiing, Summit County offers an array of dispersed winter recreational opportunities, primarily on WRNF lands, but also on Town of Breckenridge and County lands. Recreationists have access to hundreds of miles of cross-country ski and snowshoe trails. Many of the trails in the Project Area that are used for hiking and mountain biking in the summer are also used as cross country skiing and snowshoeing during the winter.

Backcountry Uses

For those who are knowledgeable, experienced, and prepared, there are numerous backcountry areas that provide varying levels of opportunity for open bowl and tree skiing/riding throughout Summit County. Bald Mountain and the Project Area are no exception. Backcountry activities are typically human-powered (with the exception of snowmobiles, where authorized). The potential for solitude, abundance of

⁶ USDA Forest Service, 2012

terrain, and necessary self-reliance offer an experience that cannot be found at a developed ski area; however, the experience is also one that is accompanied by inherent difficulty and risks. Backcountry users should be knowledgeable of the inherent dangers associated with backcountry travel, including avalanche safety and outdoor protocols, and must be fit enough to participate in strenuous activities.

The popularity of backcountry recreation has grown exponentially in recent years, and different people/users value different aspects of backcountry recreation. Many factors have contributed to this growth trend, including advances in technology and gear, increases in avalanche and backcountry education, the proliferation of backcountry-focused movies and media, and the increased desire amongst the general public for more adventurous and/or remote experiences that cannot be obtained at developed ski areas. According to industry reports, sales of specialty backcountry ski gear (including Alpine touring, telemark, split boards, and associated ascent/safety gear) doubled between 2010 and 2011.⁷

Backcountry Hut System

In Colorado, backcountry huts play an important role in the realm of year-round dispersed and backcountry recreation, offering destinations for overnight and multi-day excursions. Colorado has one of the most well-established and heavily-used non-motorized backcountry hut networks in the United States. In total, there are over 60 backcountry huts in Colorado. Of those, the 10th Mountain Division Hut Association (TMHA) acts as the reservation agent for 30 huts—including the 10th Mountain Division Huts, with nineteen huts mostly in Eagle County; the SHA, with three huts in Summit County; the Braun and Friends Huts, with seven huts mostly in Pitkin County; and the Grand Huts, with one hut in Grand County. There are approximately 350 miles of suggested routes that connect these huts.

The TMHA manages operations and administration only for the huts it owns. The other huts are owned and managed by entities listed above. The three huts operated by SHA in Summit and Park Counties are Francie's Cabin, Janet's Cabin, and Section House (Ken's Cabin is associated with Section House, and both are in Park County).

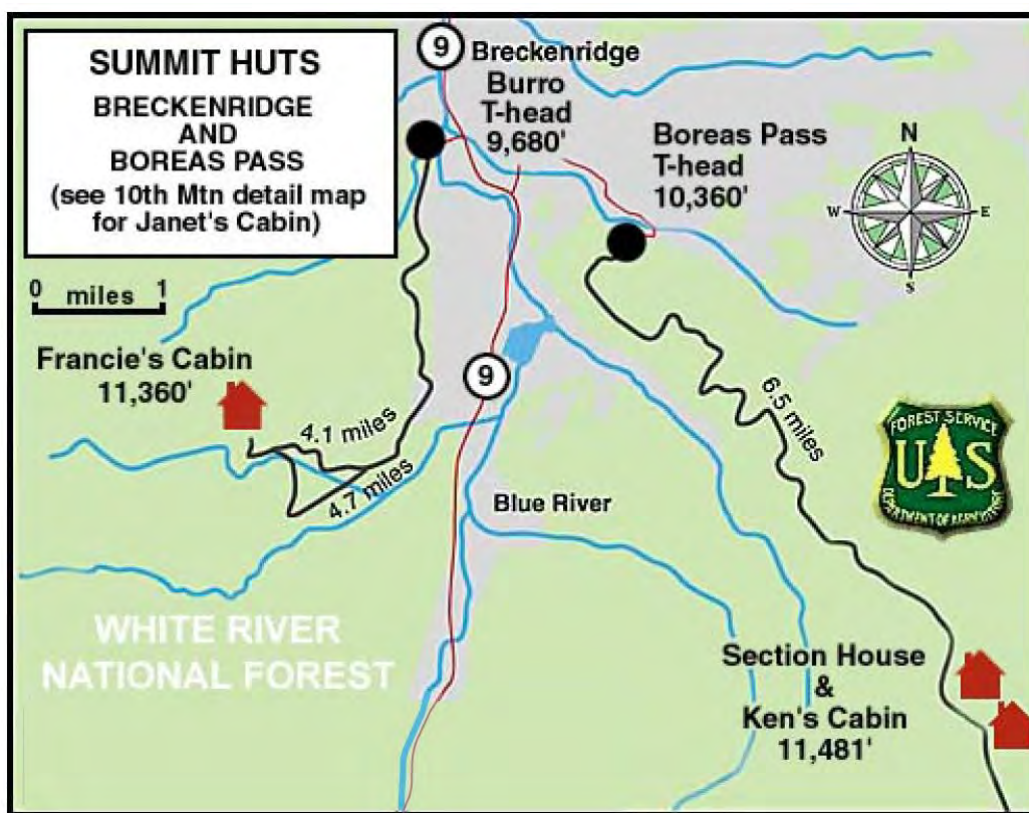
Huts have been especially popular with the public since the TMHA and SHA were founded in the mid-1980s. Since 1995, huts whose reservations are recorded by TMHA have operated near-capacity during the high season (defined as between late December through late March). As a general observation from hut operators, as new huts are built, they meet existing demand.⁸ This is indicated by the fact that they fill up without impacting (i.e., decreasing) the reservations of other huts. Such has been the case during the 2012/13 season with the recently built Broome Hut in Grand County and the Opus Hut near Telluride.

⁷ Welch, 2012

⁸ Zobbe, 2013

SHA completed a MDP in 1989 which identified five potential hut sites on the WRNF and three secondary sites that could be located on private property. At that time, there were no SHA huts in existence. In 1989 the WRNF completed an EA that analyzed construction of Janet's Cabin. Upon approval, Janet's opened for public use in January of 1991. The EA for Francie's Cabin—the second hut of the SHA system—was completed in November 1990 and the hut opened to the public in January of 1995. Section House and Ken's Cabin are restorations of historical buildings and are owned by the WRNF and managed by SHA. The following map illustrates the locations of SHA's existing huts in relation to Breckenridge (Janet's Cabin is not on the map).

Existing SHA Hut Location Map



Existing Recreation in the Project Area

A substantial network of designated trails is found on WRNF, Summit County and Town of Breckenridge lands throughout the Weber Gulch backcountry area. These allow for a range of recreational activities, including hiking, mountain biking, skiing, snowshoeing, and horseback riding. Within a 3-mile radius of the proposed Weber Gulch backcountry hut location, there are approximately 116 miles of existing trails. A portion of those have been decommissioned or are scheduled to be decommissioned by the WRNF, per the 2011 TMP; however, given the ubiquitous nature of trails in this area, they will likely continue to be used to some degree by recreationists until they are actively closed (e.g., barriers put in place, restored, revegetated).

Trailhead Access for the Project Area

French Gulch Road is the primary access point for most recreationists accessing the Weber Gulch backcountry area from the north. There are two feeder roads into French Gulch Road: Wellington Road, which originates off of Main Street in downtown Breckenridge, and French Gulch Road, which stems off of Highway 9 just north of Breckenridge. Both travel through residential neighborhoods before intersecting with each other near the Wellington neighborhood. From there, French Gulch Road continues past the Wellington neighborhood for another 2.8 miles before meeting *Sallie Barber Road* and its associated parking area and trailhead (refer to Photos 3B-1 and 3B-2 in Chapter 3 Section B – Parking and Traffic). French Gulch Road continues for 0.7 of a mile to the Mountain Meadows gate. There are several trailheads accessible from French Gulch Road, which is maintained by Summit County in the winter to the *Sallie Barber Road* Trailhead.

Due to its close proximity to Breckenridge, and because *Sallie Barber Road* is typically one of the first trails to hold snow each season, the *Sallie Barber Road* Trailhead and associated trails receive some of the highest winter backcountry and Nordic skiing/snowshoeing use in the area. Most recreational use originating from the French Gulch side of the Project Area during the winter is people skiing or snowshoeing up *Sallie Barber Road*, to the historic Sallie Barber Mine (about 1.3 miles), and back. It is possible to continue on *Sallie Barber Road* past (west of) the mine, and descend to Mt. Baldy Road. Some snowmobilers park at the *Sallie Barber Road* Trailhead and venture up French Gulch Road and elsewhere, though they are not permitted on *Sallie Barber Road*.

The primary access point to the Project Area from the south is Mt. Baldy Road, which is paved. Mt. Baldy Road stems off of Boreas Pass Road, both of which travel through dense residential development above the Town of Breckenridge. Recreationists have two options from this direction. At approximately 0.9 mile past the turnoff of Boreas Pass Road onto Mt. Baldy Road, it intersects with *Sallie Barber Road*. Skiers and snowshoers can park at a small trailhead and continue onto *Sallie Barber Road* to the mine. Many people who reside or are staying in this part of Breckenridge can easily access this route. The second option is to continue another 0.4 mile up Mt. Baldy Road to a parking area (this is the end of pavement on Mt. Baldy Road. The Summit Stage has a bus stop here). From this point, Mt. Baldy Road

becomes a recreation trail. After a 1.3-mile climb to the Iowa Mill, recreationists can access a number of routes leading into the Weber Gulch backcountry area.

Existing Trail Network

The following trails are described in detail, as they are key to accessing the proposed hut location in Weber Gulch. The reader is referred to Figures 1 and 2 for the locations of the following trails.

Sallie Barber Road

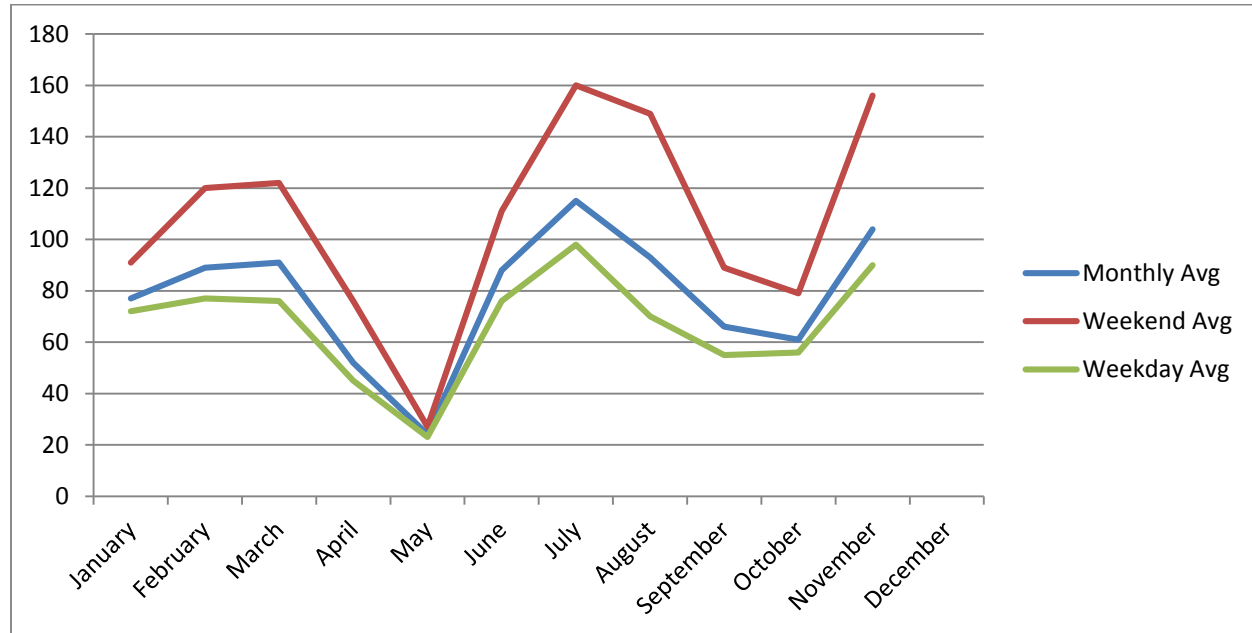
As previously indicated, the *Sallie Barber Road* Trailhead and associated trails receive some of the highest winter backcountry and Nordic skiing/snowshoeing use in the area. Due to its relatively short distance (1.3 miles), width (approximately 18 feet), and modest elevation gain (393 feet) to the Sallie Barber mine, it is popular with recreationists of a wide range of ages and fitness levels. *Sallie Barber Road* receives particularly high use in the early season (November, and sometimes October) because it tends to receive and hold snow when other local trails do not. As other trails and backcountry areas throughout Summit County open, use of *Sallie Barber Road* decreases.

Many different types of equipment are used for backcountry travel, and different users tend to prefer slightly different conditions: backcountry skiers use skins to ascend *Sallie Barber Road* en route to their skiing destination; Nordic skiers tend to prefer light snow or tracks over untracked powder; and snowshoers prefer a variety of conditions. Regardless of their mode of travel, people who use *Sallie Barber Road* should expect to encounter others throughout their experience, as well as a variety of snow conditions—from new snow to packed-out conditions.

During the summertime, *Sallie Barber Road* is also used for hiking, horseback riding and mountain biking. *Sallie Barber Road* continues past the mine for another 1.5 miles before intersecting with Mt. Baldy Road, as described earlier under “Trailhead Access.”

Based on an infrared counter located on the road at the trailhead, in the 2013 season daily usage of *Sallie Barber Road* peaked in July and November. Average monthly, weekend and weekday use of *Sallie Barber Road* between January and November 2013 is included in Chart 3A-1.

Chart 3A-1:
Average Use of Sallie Barber Road – January 2013 to November 2013



Source: Town of Breckenridge Open Space and Trails Department

Solitude is appreciated by almost any backcountry recreationist, and it means different things to different people—ranging from no encounters with other people on less travelled routes, to infrequent and frequent encounters on more heavily travelled routes. This depends on the individual, the location and the context of their experience. Opportunities for varying degrees of solitude are abundant on public lands throughout Summit County, including within the Project Area. However, due to the Project Area’s proximity to the Town of Breckenridge and its popularity for locals and visitors alike, it is expected that one will encounter other people on *Sallie Barber Road*, and, to a lesser extent, on the network trails that are accessible from *Sallie Barber Road*.

Two popular non-motorized trails—*Nightmare on Baldy* and *Trail of Tears*—branch off of *Sallie Barber Road* near the Sallie Barber Mine. These trails provide links to a network of trails across the Weber Gulch backcountry area and across Bald Mountain. *Sallie Barber Road* provides a critical connection to these, and many other, trails. Both of these trails receive considerably less use than *Sallie Barber Road*.

Nightmare on Baldy

Nightmare on Baldy is a single-track trail that begins at the Sallie Barber Mine (refer to Figure 1). It is approximately 1 mile long, and intersects with *True Romance* (discussed below) after 400 feet of vertical gain and five switchbacks. Prior to 2008, *Nightmare on Baldy* was a steep, narrow, severely eroded trail that was not suitable for climbing on bikes or skis. However, through an effort coordinated by the Town of Breckenridge, Summit County and Volunteers for Outdoor Colorado, approximately 4,800 linear feet of the trail were reconfigured (with switchbacks) into its current alignment.

The trail has since become popular with dispersed/backcountry skiers accessing terrain and trails on Bald Mountain. However, as most people stay on *Sallie Barber Road*, use of *Nightmare on Baldy* declines sharply as compared to *Sallie Barber Road*.

Other Trails

From *Nightmare on Baldy* and *Sallie Barber Road*, other trails and trail segments can be linked throughout the summer and winter to offer additional opportunities. These trails are identified on Figures 1 and 2. They include:

- *Trail of Tears*: a short section of single track between the *Weber Gulch Trail* and the Sallie Barber Mine. This trail receives considerable winter use and some summer use. Another segment, “*Upper Trail of Tears*,” extends from Mt. Baldy Road (just above Iowa Mill) for approximately 0.5 mile to the north.
- *Weber Gulch Trail*: intersects with *Sallie Barber Road* and connects *Trail of Tears* with *True Romance*. This segment of trail is highly eroded and steep, and nearly impassable. It is planned to be realigned in 2015 to make it more accessible for recreationists.
- *True Romance*: a popular single-track route for mountain bikers, hikers and skiers, connecting Mt. Baldy Road with both the *Weber Gulch Trail* and *Nightmare on Baldy*

In addition to the trails described in detail above, there are hundreds of miles of other trails in the Project Area that receive high use throughout the year. These include (but are not limited to): *Little French*, *Minnie Mine*, *Gold Run*, *B&B*, *Turk’s*, *X10U8*, and *Humbug Hill*. Many of these trails are identified on Figures 1 and 2.

Backcountry Skiing in the Project Area

Bald Mountain, particularly the west face and the Illinois Gulch area (northwesterly drainage), is regularly used by backcountry skiers due to the quality of the terrain and accessibility from the Mt. Baldy Road Trailhead. Weber Gulch, on the northeast face of Bald Mountain, is not known for its backcountry skiing. As a result, it is less-frequently skied compared to other portions of Bald Mountain. SHA and the Forest Service estimate that approximately one party per day uses this area throughout the winter, with higher use on the weekends.⁹ Most people access this terrain from Mt. Baldy Road, as the route leads to backcountry terrain and is the most direct from the Mt. Baldy Road Trailhead. Furthermore, the Summit Stage, Summit County’s free public transportation system, has a bus stop at the end of Mt. Baldy Road at the trailhead.

⁹ Ibid.

Current use of the Weber Gulch backcountry area depends largely on snow conditions. Skiable areas are identified on Figures 1, 2 and 3, which complement the following description of backcountry terrain in the Project Area.

In Weber Gulch specifically, the best skiable terrain is in the north aspect trees above the proposed hut location. In the greater area, the best skiable terrain occurs in the northern-aspect trees on the north side of Bald Mountain in Baldy Bowl, as well as an area known as Lentil Bowl. SHA's observations are that Baldy Bowl, on a weekend with good snow, can see four-to-five parties per day with an average of three people per party. Lentil Bowl has less frequent usage, about half that of Baldy Bowl; its southwest aspect makes it more prone to sun crusts and wind slab, and thus, more dependent on snow conditions. Avalanche terrain dominates slopes to the southeast of the proposed hut site, but can be easily recognized and avoided by anyone with basic backcountry awareness.

DIRECT AND INDIRECT ENVIRONMENTAL CONSEQUENCES

Alternative 1 – No Action

No changes to the trail network or other recreational resources would occur under Alternative 1. *Sallie Barber Road* and French Gulch Road would remain popular day use Nordic skiing and snowshoeing trails during the winter. Bald Mountain and Weber Gulch would continue to be used for backcountry skiing. Primary access to skiing on Bald Mountain and Weber Gulch would be from the Mt. Baldy Road Trailhead, continuing on the road past Iowa Mill, into the Project Area. A small number of backcountry skiers would continue to access the Project Area via the *Sallie Barber Road* Trailhead.

Under Alternative 1, SHA would continue to operate three backcountry huts in Summit County: Francie's Cabin, Janet's Cabin, and Section House. SHA has operated near capacity since 1995 and, combined with the increasing popularity of backcountry skiing (previously discussed), selection of the No Action Alternative would lead to existing demand for backcountry huts continuing to go unmet.

Alternative 2 – Proposed Action

Winter Recreation in the Project Area

Dispersed Recreation and Backcountry Use

The proposed Weber Gulch backcountry hut is likely to be used frequently by families and groups with non-skiers due to its relatively easy approach and proximity to Breckenridge. Hut users would be expected to be comprised of those seeking the backcountry experience—AT and telemark skiers and snowboarders, as well as snowshoers and Nordic/cross country skiers. Although backcountry terrain in the Project Area is considered good, Weber Gulch is not known as an exceptional backcountry skiing area and thus might appeal less to the experienced skiers compared to other backcountry huts in the TMHA system.

Based on data from SHA, it is reasonable to assume that roughly half of the total guests staying at the hut throughout the season would remain within 100 yards of the hut, while the other half would be expected to venture out farther in search of backcountry terrain.¹⁰ Based on the hut's capacity, average occupancy rate, and a 160-day operating season, the best approximation for annual use of the hut is approximately 2,300 "annual user days."¹¹ Roughly half of these users (1,150) would be expected to participate in backcountry skiing. If that is divided over the course of the season (160 days between late November and the end of April), that equals an estimated 7.2 additional skiers per day. This is based on the following assumptions and calculations:

- $(160 \text{ days}) \times (16 \text{ people per day}) \times (90\% \text{ occupancy}) =$
approximately 2,300 total annual visitor days
- $2,300 / 2 = 1,150$
- $1,150 / 160 = 7.2 \text{ skiers per day}$

Use at the hut, and the associated backcountry areas, would likely be more intense on weekends and over holiday periods. During an exceptional snow year, the percentage of hut users who would use the Weber Gulch backcountry area would be expected to be higher. Likewise, dry years would likely see less utilization. Backcountry use by locals and visitors who are not staying at the Weber Gulch backcountry hut, but are aware of the new trail access to the area, could also be expected.

The roughly 7.2 additional backcountry skiers per day across the season would be expected to have some impact on backcountry use, and the backcountry experience (i.e., solitude) within the Weber Gulch backcountry area, especially given that current day use is quite limited. The proposed hut's presence and associated access trails would not hinder day users' ability to use backcountry terrain throughout the Project Area.

For context, in 1995 Francie's Cabin was located in a popular day use backcountry area just south of Breckenridge. There has not been a detrimental impact to backcountry use there, as it is still frequented by day use skiers who are not deterred by the presence of the hut. Conversely, hut users are apparently not deterred by the presence of day users.

Trailhead Access for the Project Area

Sallie Barber Road Trailhead and Parking Area

An increase in recreationists (i.e., SHA guests) utilizing the *Sallie Barber Road* Trailhead would occur under Alternative 2 as a direct result of the proposed hut. It is expected that, in general, the trailhead would be more crowded during peak times, given that this is the primary access point from which to reach

¹⁰ Ibid.

¹¹ One annual user day equates to one person using the Forest, for any length of time, in a single day.

the proposed hut. However, given that a separate, dedicated parking area is proposed to accommodate hut users, impacts to the Sallie Barber parking area are anticipated to be negligible. Refer to Chapter 3 Section B – Parking and Traffic for more information on effects to traffic and parking.

Bald Mountain Trailhead and Parking Area

As discussed, the west face of Bald Mountain and the Illinois Gulch area (northwesterly drainage), are regularly used by backcountry skiers due to the quality of the terrain and accessibility from the Mt. Baldy Road Trailhead. Because overnight parking is not allowed at the Mt. Baldy Road Trailhead, use related to the proposed Weber Gulch backcountry hut would be expected to remain the same at the Mt. Baldy Road Trailhead and parking area. The presence of the Weber Gulch backcountry hut could generate more knowledge of the Weber Gulch area for backcountry skiing. Some day skiers may therefore choose to access the Weber Gulch backcountry area from the Mt. Baldy Road Trailhead, even though this would not be the most direct route. Though the associated increase in use could be marginal, it could lead to a minimal impact to the day use parking lot at Mt. Baldy Road.

Existing Trail Network

In general, encounters with other people on *Sallie Barber Road* and *Nightmare on Baldy* would be expected to increase throughout the season due to approaching and descending hut users. This would be less noticeable on *Sallie Barber Road* due to the already high level of use that it receives. Because less people use *Nightmare on Baldy*, increased encounters there would be more noticeable. For some people, this impact on solitude would be more pronounced than for others.

However, during the early season when *Sallie Barber Road* is one of the best and only options for cross country skiing/snowshoeing, impacts from hut use would be minimal or nonexistent, as the hut would not open until the third week of November. Hut registration generally does not reach full capacity until January. As other trails and backcountry areas throughout Summit County open, use of *Sallie Barber Road* lessens.

Sallie Barber Road

An increase in skiers and snowshoers traveling on *Sallie Barber Road* during the winter would occur as a direct result of the proposed Weber Gulch backcountry hut. Based on 100 percent occupancy of the hut, this could technically be as many as 32 people per day—in the event that one full party is leaving the hut with another one arriving; however, this scenario would be highly unlikely, as hut parties typically do not all arrive or leave at one time. Nevertheless, on the busiest of days, this could result in an incremental impact to the recreation experience on *Sallie Barber Road*, given the dozens of people that would also be skiing or snowshoeing as day users. On weekdays, if this situation were to occur, the impact would be more evident and slightly greater.

In most cases, the arriving and departing parties would not overlap entirely. Hut users often travel as smaller groups within themselves, skiing or snowshoeing to the hut at their own pace and convenience. A

full party of 16 might have several small groups arriving at different times of the day and leave in a similar manner. On weekend days, hut groups could integrate with the existing recreation use on *Sallie Barber Road*. The existing experience is not expected to be degraded, as the presence of small groups of skiers and snowshoers traveling along *Sallie Barber Road* during the winter is normal.

Hut-related trail use would happen largely between 11:00 a.m. and 3:00 p.m. This is because hut turnover time is 1:00 p.m., so visitors from the previous night have to be out of the hut by that time, and arriving visitors cannot arrive earlier than that time.

The additional use that would be generated by the proposed Weber Gulch Backcountry hut would have a negligible impact on the recreational experience along *Sallie Barber Road*. As explained in earlier sections, this road is heavily traveled and has compacted snow conditions throughout the winter season. Due to its size and width, *Sallie Barber Road* is capable of accommodating existing day users as well as hut guests with a negligible impact on the recreational experience. Additional skiers and snowshoers would incrementally add to the snow compaction that already exists on this heavily used trail.

Nightmare on Baldy

Due to the minimal width and relatively low use of *Nightmare on Baldy* (compared to *Sallie Barber Road*), the Proposed Action would directly impact the recreation experience and conditions on this trail. The first segment of *Nightmare on Baldy* is 0.9 mile in length and has several switchbacks (refer to trail segment “B” on Figure 2). All of the recreationists travelling to and from the proposed Weber Gulch backcountry hut would travel on this existing single track route, primarily during 11:00 a.m. and 3:00 p.m., as directed by the hut check-in/check-out time of 1:00 p.m. Increased use of *Nightmare on Baldy* (up to 32 people/day under 100 percent occupancy conditions) would lead to more packed-out conditions on the trail, and more encounters with people. Packed out conditions can be viewed both favorably and unfavorably by skiers and snowshoers. In situations where a number of hut visitors are passing by day users along *Nightmare on Baldy*, this could pose an impact to their backcountry experience and sense of solitude. The width of *Nightmare on Baldy* and its current minimal use would make this experience more out of the ordinary than on a larger, more heavily utilized trail like *Sallie Barber Road*, and could therefore be viewed as degrading the existing recreation experience for some users. Nonetheless, impacts are expected to be minimal and short term. This would occur during the middle of the day, and occur infrequently, as 100 percent hut occupancy would be infrequent.¹²

Proposed Trail Segment “C” would be identical to the width of *Nightmare on Baldy* and would continue for 0.6 mile to the east. Many recreational trails already exist within the Project Area—both system trails

¹² 100 percent occupancy would be expected to occur on the busiest of weekends during the winter; however, during the remainder of the season it is more appropriate to assume partial or nearly-full capacity due to groups booking out the entire hut, but not filling all of the beds, or simply the inability to fill all beds. As mentioned in Chapter 1, completely booked huts do not necessarily equate to 100 percent occupancy.

and non-system trails and trails resulting from dispersed recreation and the mining era. Proposed Trail Segment “C” would provide an additional link in the Bald Mountain trail network for all winter (and summer) recreationists.

Upper Trail of Tears

Upper *Trail of Tears* is an important component of Alternative 2, as it provides administrative access to the proposed hut. Trail segment “D” (refer to Figure 2) is 0.6 mile in length and would necessitate minor widening and grading, which may represent an overall improvement to the recreational character of this trail. The existing alignment would suffice for an ATV during the summer for maintenance activities, as explained in Chapter 2. No impacts to recreation would occur along this segment of *Trail of Tears*, because administrative access trips would be so infrequent. Approximately 15 trips are anticipated during the summer and fall (approximately 5 trips for routine maintenance between late June and the end of August, and approximately 10 trips between September and late October to deliver firewood, propane, and general supplies). Approximately 24 non-motorized trips are anticipated per winter, generally on weekdays.

The final leg of the proposed hut access route—segment “E” on Figure 2—would be 0.7 mile in length. It has no connections to the greater trail system, terminates at the proposed hut, and would be signed accordingly. It would not increase utilization of nearby, non-connecting trails because it is intended to serve a specific purpose. Nonetheless, winter day users would have access to it, as well. Note that Segment “E” would be closed to summer use to minimize/avoid impacts to Canada lynx, elk and forest carnivores.

Overall, the Proposed Action would contribute to increased use of some trails in the area, but would have a relatively minor impact to the recreation resources and conditions currently found within the Project Area.

Other Trails

As discussed in Affected Environment, there are hundreds of miles of other trails in the Project Area that receive moderate-to-high use throughout the year. These include (but are not limited to): *Little French*, *Minnie Mine*, *Gold Run*, *B&B*, *Turk’s*, *X10U8*, and *Humbug Hill*. Many of these trails are identified on Figure 1. None of these trails are anticipated to be impacted in any way as a result of the Proposed Action because hut users would have no incentive to use them given their distance from the *Sallie Barber Road* Trailhead.

CUMULATIVE EFFECTS

Year-round recreation demand within the French Creek/Bald Mountain area has grown over the years, and in response, the WRNF, Town of Breckenridge and Summit County have developed and improved trails throughout the area, including (but not limited to) the *Nightmare on Baldy* realignment, construction of *B&B* and *X10U8*. Joint efforts by the Town of Breckenridge, Summit County and the WRNF to

improve, construct and relocate trails throughout the Analysis Area are anticipated in the future. Thus, opportunities for both winter and summer day use have grown along with demand, and year-round use of these trails is anticipated to increase in the future.

The Proposed Action would contribute to increased winter use of *Sallie Barber Road, Nightmare on Baldy* and a new trail to provide access to the proposed backcountry hut; however, it is anticipated to have a relatively minor direct/indirect impact to day skiers and snowshoers on these trails. Impacts would be further offset by the dedicated parking lot for hut users near the *Sallie Barber* trailhead. Therefore, because direct and indirect impacts to recreation in the Project Area are anticipated to be negligible, no cumulative effects with past, present or reasonably-foreseeable future projects in the Project Area are anticipated.

B. PARKING AND TRAFFIC

SCOPE OF ANALYSIS

Recreation is a primary generator of traffic in Summit County. Many people travel each weekend, throughout the year, to the area to enjoy the abundance of developed and dispersed recreation opportunities. This influx of people, and vehicles, is particularly noticeable on arterial and collector roads that provide access to trailheads. Residents also generate traffic and demand for parking at popular trailheads and recreation areas throughout the year.

This analysis focuses on traffic on roads that feed into the Weber Gulch Backcountry Area (Project Area), and the existing parking at subsequent trailheads. These include French Gulch Road and the *Sallie Barber Road* Trailhead as the primary access point into the Project Area, as well as Boreas Pass and Mt. Baldy roads and associated trailheads/parking areas. As the proposed Weber Gulch backcountry hut would not be operational in the summer, this analysis focuses on traffic and parking patterns during the winter.

AFFECTED ENVIRONMENT

Overview of Road Network

The network of roads east of Breckenridge—between French Gulch Road on the north and Boreas Pass Road on the south—are mostly comprised of residential roads that serve a variety of neighborhoods. There is an intermix in this part of Breckenridge of full-time residences and vacation properties, which leads to regular daily usage, as well as spikes in traffic during peak visitation periods, such as holidays and weekends.

Also, as explained in the Recreation analysis of this document, there are a number of popular trailheads located in this area, adding to traffic volumes throughout the year. Many of these trailheads are used for winter recreation, in particular the *Sallie Barber Road* Trailhead and the Mt. Baldy Road Trailhead. Vehicular access and parking are discussed separately, below.

Access Roads

French Gulch Road

French Gulch Road (County Road 2) serves as the main point of access to *Sallie Barber Road* and numerous other trailheads. Along with two feeder roads coming into it, French Gulch Road also serves several residential areas east of Breckenridge, including (from west to east): French Creek, Vista Point, and The Wellington Neighborhood.

The two roads that feed into French Gulch Road are Wellington Road, which originates off of Main Street in downtown Breckenridge, and Reiling Road which stems off CR 450 (Huron Road), after turning off of Highway 9 just north of Town. After passing through the residential areas described above, the roads

intersect with each other and French Gulch Road near the Wellington Neighborhood. From there, French Gulch Road continues for another 2.8 miles before meeting *Sallie Barber Road* and the trailhead (described in detail, below).

Sallie Barber Road provides access to a mix of trails located on Forest and Town/County Open Space, and is closed to motorized use throughout the year. Past the *Sallie Barber Road* Trailhead, French Gulch Road continues for approximately 2.5 more miles, though, as discussed below, it is not maintained by Summit County in the winter (refer to Photos 3B-1 and 3B-2).

**Photo 3B-1:
Sallie Barber Road Trailhead**



**Photo 3B-2:
Intersection of French Gulch Road and Sallie Barber Road**



French Gulch Road is paved to the point at which the Wellington Neighborhood ends and the Country Boy mine property begins. Summit County plows French Gulch Road up to the *Sallie Barber Road* Trailhead, Monday through Friday, as well as on Saturdays and Sundays if they receive more than 4 to 6 inches of snow. One spot in the parking area is dedicated to snow plow turn-around during the winter.

The Wellington Neighborhood represents the eastern-most residential area on French Gulch Road. Beyond the *Sallie Barber Road* Trailhead, dispersed residential development exists along French Gulch Road in the Mountain Meadows subdivision (approximately one dozen residences). Homeowners in Mountain Meadows can drive to their homes in the summer, but during the winter the only vehicular access beyond the *Sallie Barber Road* Trailhead is via snow machine. Mountain Meadows currently has a conditional use permit with Summit County to plow to their properties, but plowing beyond *Sallie Barber Road* Trailhead is infrequent.

Due to the dense residential population along French Gulch Road, this area's proximity to Breckenridge, and the number of trailheads, it receives not only vehicular traffic, but also a high number of pedestrians, runners and cyclists, even in the winter months. Because the traffic generated by Mountain Meadows homeowners is inconsequential, essentially all traffic beyond the Wellington Neighborhood is related to recreation throughout the year. Speed limits on French Gulch Road through French Creek, Vista Point, and The Wellington Neighborhood are posted as 25 or 30 mph. Speeds are moderated by speed bumps (through French Creek) and stop signs.

Traffic counts from Summit County Road and Bridge are unavailable for French Gulch Road, although it is evident that French Gulch to the Wellington Neighborhood experiences relatively heavy traffic simply due to the number of residences there. There are currently 194 homes in the Wellington Neighborhood, with 80 more planned to be built.¹³ All of the existing residents utilize French Gulch Road on a daily basis. A conservative estimate of this daily use is over 300 vehicles leaving and arriving per day (assuming 1 to 2 driving adults per household X 1 trip out and back per day). Traffic is heaviest during the morning and evening commutes during the week, and similar on the weekends during the winter with ski traffic.

Boreas Pass and Mt. Baldy Road

Mt. Baldy Road (CO Road 520) stems off of Boreas Pass Road (which intersects Highway 9 south of Breckenridge). Both of these roads travel through dense residential developments east of Breckenridge. Traffic on Mt. Baldy Road and Boreas Pass Road is generally comprised of full-time residents, visitors who are staying at vacation properties, and recreationists traveling to parking areas and trailheads across Mt. Baldy Road. These roads are also popular for sightseeing, as they are situated above the town and directly across the valley from Breckenridge Ski Resort and the Ten Mile Range. There is bicycle and pedestrian traffic in the summer.

At approximately 0.9 mile past the turnoff from Boreas Pass Road, Mt. Baldy Road intersects with the southern extent of *Sallie Barber Road* (approximately 1.6 miles southwest of Sallie Barber mine). There is a small trailhead at this location that accommodates day use throughout the year (overnight parking is prohibited). Another 0.4 mile up Mt. Baldy Road is the Mt. Baldy Road Trailhead/Summit Stage bus stop. This is the end of pavement on Mt. Baldy Road (refer to Figure 3). The Mt. Baldy Road Trailhead provides access to numerous trails (non-motorized) on Bald Mountain, and is therefore a popular trailhead throughout the year. From the Mt. Baldy Road Trailhead, the Iowa Mill is 1.3 miles further up the Mt. Baldy Road. The road is unmaintained from the trailhead.

Winter traffic counts from Summit County Road and Bridge are unavailable for Mt. Baldy Road; however, based on their observations, they estimate that traffic is in the thousands of cars daily due to the number of residential units that exist there.¹⁴

Parking Areas

Sallie Barber Road Trailhead/Parking Area

The *Sallie Barber Road* Trailhead and parking area is located approximately 2.2 miles past the Wellington Neighborhood on French Gulch Road. The unpaved lot has the capacity to fit approximately 13 vehicles, though overflow parking frequently occurs along French Gulch Road on weekends, and at

¹³ Kenady, 2013

¹⁴ Polhemus, 2013

peak times. During the winter, snow banks further limit the parking capacity, and vehicles pulling snowmobile trailers reduce parking even more. The Sallie Barber trailhead does experience parking constraints throughout the year, primarily in the winter (refer to Photo 3B-1).

There is no fee to park at the *Sallie Barber Road* Trailhead, and overnight parking is prohibited per Summit County. As discussed, the lot is currently plowed by Summit County Road and Bridge.

Based on trailhead counts (people) inventoried between November 2011 and April 2012, use at the *Sallie Barber Road* Trailhead peaks in the middle of January. Weekend numbers are typically much higher than weekdays. For example, the tables below illustrate visitation on Martin Luther King weekend and the following weekend, which was the busiest on record for winter 2011/12.

Table 3B-1:
Counts at Sallie Barber Road Trailhead
MLK Holiday Weekend 2012

Date	Day	Count (people)
1/13/12	Friday	18
1/14/12	Saturday	48
1/15/12	Sunday	58
1/16/12	Monday	82

Source: Town of Breckenridge Open Space and Trails Department

Table 3B-2:
Counts at Sallie Barber Road Trailhead
Busiest Weekend, Winter 2011/12

Date	Day	Count (people)
1/20/12	Friday	20
1/21/12	Saturday	176
1/22/12	Sunday	311
1/23/12	Monday	18

Source: Town of Breckenridge Open Space and Trails Department

Mt. Baldy Road Parking Areas

Though they are not proposed as the primary parking area for the Weber Gulch backcountry hut, there are two parking areas accessible from Mt. Baldy Road that are important to the area's capacity for access to recreation, traffic patterns, and daily use. As discussed previously in this section and in the Recreation section, the first parking area is located 0.9 mile past the turn off of Boreas Pass Road, at the southern extent of *Sallie Barber Road*. The lot is small, with room for just a few vehicles for daily use. No overnight parking is permitted.

Approximately 0.4 mile further up Mt. Baldy Road is the second parking area. It has the capacity for approximately ten vehicles during the summer, closer to five in the winter (depending on snow storage) and also prohibits overnight parking. Overflow parking regularly occurs along Mt. Baldy Road during peak periods. Though counts are not available, it can be inferred that usage spikes during the same periods as seen at the main *Sallie Barber Road* Trailhead. Additionally, the Summit Stage bus stops here at the highest point on its Boreas Pass route, which offers recreationists many options to leave their vehicles elsewhere.

Boreas Pass Trailhead and Parking Area

In addition to the other parking areas mentioned thus far that provide access (direct and indirect) to the Weber Gulch Backcountry Area, the Boreas Pass Trailhead and parking area are an important point of access for the greater Bald Mountain trail network (refer to Figure 1). The Boreas Pass Trailhead and parking area have the capacity for approximately 18 to 20 vehicles, with additional parking along the road. This capacity is frequently reached, especially on weekends.

Skiers and snowshoers who are venturing to SHA's Section House or Ken's Cabin park here and travel 6.5 miles to their destination, up Boreas Pass Road. At approximately the 3-mile mark, at Baker's Tank, there are several more trails that spur off of Boreas Pass Road that provide alternative routes into the Project Area.

DIRECT AND INDIRECT ENVIRONMENTAL CONSEQUENCES

Alternative 1 – No Action

No changes to access or parking areas would occur under Alternative 1. The Project Area would continue to serve residential areas east of Breckenridge, as well as a number of popular trailheads accessing WRNF Town/County Open Space lands. There would be no changes to the existing parking regulations. The *Sallie Barber Road* Trailhead and parking area would continue to allow overnight parking on a first-come, first-serve basis, and cars would continue to park on French Gulch during peak times. The Mt. Baldy Road Trailhead and parking area would remain open for day use.

Alternative 2 – Proposed Action

Traffic and Access on French Gulch Road

Under Alternative 2, a small amount of new traffic would be generated on the roads feeding into the Project Area due to the proposed Weber Gulch backcountry hut. SHA data indicates that 70 percent of hut users historically originate from the Front Range, approximately 15 percent come from the western slope/intermountain region, and another 15 percent are local. The same pattern of use would most likely result for the proposed hut, especially given its proximity to the Front Range and Summit County. It can therefore be assumed that most of the hut-related traffic would travel from Interstate 70 (east or west) to Highway 9 north of Breckenridge, and then east on Highway 450 (Huron Road) to the *Sallie Barber Road* Trailhead.

SHA data for Francie's, Janet's and Section House indicate that average hut users typically carpool, averaging 2.8 people-per-vehicle. Historically, SHA huts are 90 percent occupied between January and March, and nearly always 100 percent on the weekends during that time. Occupancy in November/December and April is much lower.

For example, at 2.8 people-per-vehicle, a single night at 100 percent occupancy (16 people) would equate to six vehicles attributable to Weber Gulch backcountry hut users. (A lower people-per-vehicle ratio would lead to more hut user vehicles.) It is reasonable to assume that between six and eight vehicles could be attributable to Weber Gulch backcountry hut users on any given night with 100 percent occupancy. Factoring in the overlap between arriving and departing hut users, daily hut-related traffic on French Gulch Road could range between 12 and 16 vehicles (6 to 8 vehicles both east-bound and west-bound).

Hut-related travel would happen largely between 11:00 a.m. and 3:00 p.m. This is because hut turnover time is 1:00 p.m., so visitors from the previous night have to be out of the hut by that time, and arriving visitors cannot arrive earlier than that time.

The average hut stay is two nights.¹⁵ One hundred percent occupancy would be anticipated on weekends between January and March. Therefore, it is reasonable to assume that the actual daily contribution to traffic on French Gulch Road—even on days in which the hut is fully occupied—would be less than six vehicles both east-bound and west-bound.

Viewed in the context of the existing residential and recreational traffic on French Gulch Road between Highway 9 and the *Sallie Barber Road* Trailhead, daily hut-related traffic is considered inconsequential. Therefore, considering the existing frequency of traffic on the overall road network feeding into the Project Area, the impacts to the greater road network would also be inconsequential.

¹⁵ Zobbe, 2013

Traffic and Access on Mt. Baldy Road

No impacts to Mt. Baldy Road are anticipated due to the proposed Weber Gulch backcountry hut. This road would not be recognized by SHA as an access point to the proposed hut, due to its lack of legal overnight parking, and, therefore, would not be included in the informational material (maps or directions) provided to registered hut users.

A small number of hut users may opt to use the Summit Stage as their means to reaching the Mt. Baldy Road Trailhead, and ski/snowshoe to the hut site from there. However, the logistics of parking in town, riding the bus with gear, and coordinating the return would likely preclude most hut users from pursuing this option. Regardless, there would be no changes to the existing bus route or schedule needed to accommodate this, thus no impacts to Mt. Baldy Road would occur.

A minimal number of vehicle trips would be attributed to maintenance vehicles, but these trips would not be noticeable.

Parking Areas

Sallie Barber Road Trailhead and Parking Area

A dedicated parking lot north and east of the *Sallie Barber Road* Trailhead has been included in the Proposed Action to specifically accommodate SHA guests and to address potential parking constraints associated with this popular day use area. Because the proposed parking lot has been designed to account for the overlap of vehicles associated with arriving and departing huts users, this would eliminate any potential impacts to day use parking at the *Sallie Barber Road* Trailhead. Furthermore, the proposed lot would be located farther up (east) French Gulch Road from the existing Sallie Barber lot, and hut users would be able to stage or unload there without interrupting day skiers. This would eliminate added congestion at the existing parking area. Although vehicles would pass through the existing Sallie Barber lot en route to the proposed lot, this is not anticipated to cause a noticeable impact. SHA would be responsible for enforcing the no day use parking for the proposed parking lot. SHA would also be responsible for coordinating the snow plowing necessary for the parking lot. This would be specified in an annual operations plan (refer to Table 2-2 for more information).

Mt. Baldy/Boreas Pass Parking Areas

As discussed in the Proposed Action (Chapter 2) the option to park at the Stephen C. West Ice Arena would be identified in the general hut use information packet provided by SHA. Hut users would be able to leave their cars at the ice rink overnight (after they acquire a permit from the Town of Breckenridge) and take the Summit Stage to the Mt. Baldy Road Trailhead, where they would begin their trek to the hut. However, as discussed previously, Mt. Baldy Road would not be recognized by SHA as a parking option due to the prohibition of overnight parking. Administrative vehicles may occasionally park in this location, but this use would be relatively infrequent and generally only require one vehicle. Therefore, no

impacts to the Mt. Baldy Road Trailhead or parking would occur as a result of Alternative 2. Overnight use at the Mt. Baldy Road Trailhead and parking area would continue to be prohibited.

No measurable impacts would occur at other nearby parking areas, such as the Boreas Pass Trailhead/parking area. The occasional hut user who travels from hut-to-hut, such as between Section House and the proposed Weber Gulch backcountry hut, could utilize this access point; however, the number of users who do this would be negligible.

CUMULATIVE EFFECTS

Since the effects of the Proposed Action on parking and traffic are inconsequential, there would be no cumulative effects with past, present or reasonably-foreseeable future projects.

C. SCENERY

SCOPE OF ANALYSIS

Bald Mountain and the Weber Gulch area are important visual resources to the WRNF and surrounding community. The Analysis Area for scenery resources includes the northern aspect of Bald Mountain, including Weber Gulch, which is visible from portions of French Gulch Road and the surrounding locations—both on and off Forest.

MANAGEMENT OF THE SCENIC ENVIRONMENT ON NATIONAL FOREST SYSTEM LANDS

The Scenery Management System (SMS) was adopted in 1995 as the primary scenery management direction by the Forest Service. In brief, the SMS is a systematic approach for assessing scenic resources in a Project Area to help make management decisions on the project.

Scenic Integrity Objectives and Landscape Character

An action can cause changes to scenic resources that can be objectively measured. By assessing the existing scenic character of an area in terms of pattern elements (form, line, color and texture) and pattern character (dominance, scale diversity and continuity), it is possible to identify the extent to which the scenic character would exhibit scenic contrast with the landscape, or its converse—scenery compatibility.

The 2002 Forest Plan establishes acceptable limits of change for Scenic Resources.¹⁶ 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. SIOs provide a measure of visible disruption of landscape character, ranging from “*Very High*” to “*Unacceptably Low*.” In order of least-to-most altered, SIOs are:

- **Very High** (unaltered)
- **High** (appears unaltered)
- **Moderate** (slightly altered)
- **Low** (moderately altered)
- **Very Low** (heavily altered)
- **Unacceptably Low** (extremely altered)

¹⁶ USDA Forest Service, 2002

For reference, *Very High* SIOs are typically found in designated wilderness areas and special interest areas. As indicated in the 2002 Forest Plan, Management Area 1.31 has a wide range of SIOs—from *Moderate* to *Very High*.¹⁷ The Weber Gulch Project Area has an SIO of *Moderate*.

The *Moderate* SIO is defined as:¹⁸

Noticeable deviations must remain visually subordinate to the landscape character being viewed. See section below on meeting integrity levels.

The *High* SIO is defined as:¹⁹

Deviations may be present but must repeat the form, line, color, texture, and pattern common to the landscape character so completely and at such scale that they are not evident.

The *Very High* SIO is defined as:²⁰

Very High scenic integrity refers to landscapes where the valued landscape character is intact with only minute if any deviations. The existing landscape character and sense of place is expressed at the highest possible level.

Scenery Management System Distance Zones

Viewing distance is important in determining how change is perceived across a landscape. Distance zones are divisions of a particular landscape being viewed, and are used to describe the part of a characteristic landscape that is being inventoried or evaluated.

- *Immediate Foreground*: This zone begins at the viewer and extends to about 300 feet. Individual leaves, flowers, twigs, bark texture, and other details dominate this view.
- *Foreground*: This zone is usually limited to areas within 300 feet to 0.5 mile (not to exceed 0.5 mile) of the observer, but it must be determined on a case-by-case basis, as should any distance zoning. Generally, detail of landforms is more pronounced when viewed from within the foreground zone.
- *Middleground*: Alterations in the middleground (0.5 to 4 miles from the observer) are less distinctive. Texture is normally characterized by the masses of trees in stands or uniform tree cover.
- *Background*: This zone extends from middleground (minimum of 4 miles between the observer and the area being viewed) to infinity. Shape may remain evident beyond 10 miles, especially if it

¹⁷ SIO designations within the Analysis Area are depicted graphically in the Project File.

¹⁸ USDA Forest Service, 1995

¹⁹ Ibid.

²⁰ Ibid.

is inconsistent with other landscape forms. Beyond 10 miles, alteration in landscape character becomes obscure.

Forest Plan Standards and Guidelines

In addition to the SMS, the 2002 Forest Plan contains forest-wide standards and guidelines which apply to resources across the WRNF.²¹ While the 2002 Forest Plan contains no forest-wide standards for scenery management, it offers the following guidelines that are applicable to this project:²²

- Management activities should be designed and implemented to achieve, at minimum, the level of scenic integrity shown on the Scenic Integrity Objective Map.
- Plan, design and locate vegetation manipulation on a scale that retains the color and texture of the landscape character, borrowing directional emphasis of form and line from natural features.
- Choose facility and structure design, scale, color of materials, location and orientation to meet the scenic integrity objective on the Scenic Integrity Objective Map.

Management Area 1.31 provides the following information on the desired condition for lands managed for backcountry, non-motorized recreation:²³

A variety of year-round non-motorized recreation opportunities are provided in a natural or natural-appearing setting. Improvements such as trailheads, trails, signs, bridges, fences, huts, or shelters that enhance the recreational opportunities may be present. Trails provide challenging hiking, horseback riding, cross-country skiing, snowshoeing, or mountain biking opportunities. No road building occurs within the area. Noise from motorized use is a rare exception away from the area boundary.

The 2002 Forest Plan includes a single guideline that is relevant to scenery management in Management Area 1.31 (Backcountry Recreation – Non-motorized): “Structures should be made of native and natural appearing materials.”²⁴

The 2002 Forest Plan further states that it is a regional goal to “provide for scenic quality and a range of recreational opportunities that respond to the needs of the forest customers and local communities.”²⁵

²¹ A *standard* is a course of action which must be followed; **adherence is mandatory**. A *guideline* is a preferred course of action designed to achieve a goal, respond to variable site conditions, or respond to an overall condition.

²² USDA Forest Service, 2002

²³ Ibid.

²⁴ Ibid. page 3-12

²⁵ Ibid.

The Built Environment Image Guide

The Built Environment Image Guide (BEIG) was prepared by the Forest Service for the “thoughtful design and management” of the built environment contained within the National Forests.²⁶ The Forest Service defines the built environment as “the administrative and recreation buildings, landscape structures, site furnishings, structures on roads and trails, and signs installed or operated by the Forest Service, its cooperators, and permittees.”²⁷ The BEIG divides the United States into eight provinces which combine common elements from the ecological and cultural contexts over large geographical areas; Bald Mountain, Weber Gulch, and adjacent NFS lands are within the Rocky Mountain Province. Site development, sustainability, and architectural character should conform to BEIG guidelines described for this Province.

AFFECTED ENVIRONMENT

The Weber Gulch area, and portions of Bald Mountain, are currently consistent with (and in many cases exceed) the 2002 Forest Plan SIO designation of *Moderate*, as well as Forest-wide guidelines for scenery management. The existing recreational trail system and few roadways on this portion of Bald Mountain contribute to the *Moderate* to *High* SIO designations for this area, while the undeveloped portions of the Forest meet the *Very High* scenic integrity objectives.

The proposed Weber Gulch backcountry hut site is a sparsely vegetated and rocky area at an elevation of 11,480 feet on the northern aspect of Bald Mountain. This location is near tree line and overlooks French Gulch to the north (refer to Photos 3C-1 through 4, below). The forest in this area is surrounded by coniferous trees on all sides, with some small trees and saplings present at the site. No critical viewpoints (defined as key locations from which large numbers of people are likely to view an area) have been identified from which the proposed hut site can be seen. Most viewers of this location are dispersed recreationists using Forest System and County/Town trails in the area.

Photo 3C-5 is of the location for the proposed parking lot.

²⁶ USDA Forest Service, 2001

²⁷ Ibid.

Photo 3C-1:
View (East) of Proposed Weber Gulch Backcountry Hut Site from the Proposed Access Trail



Photo 3C-2:
View (Southwest) from the Proposed Weber Gulch Backcountry Hut Site



Photo 3C-3:
View (Northeast) from the Proposed Weber Gulch Backcountry Hut Site



Note: for reference, The Outback at Keystone, and Gray and Torres peaks, are on the right side

Photo 3C-4:
View of Proposed Weber Gulch Backcountry Hut Site from Top of Humbug Hill

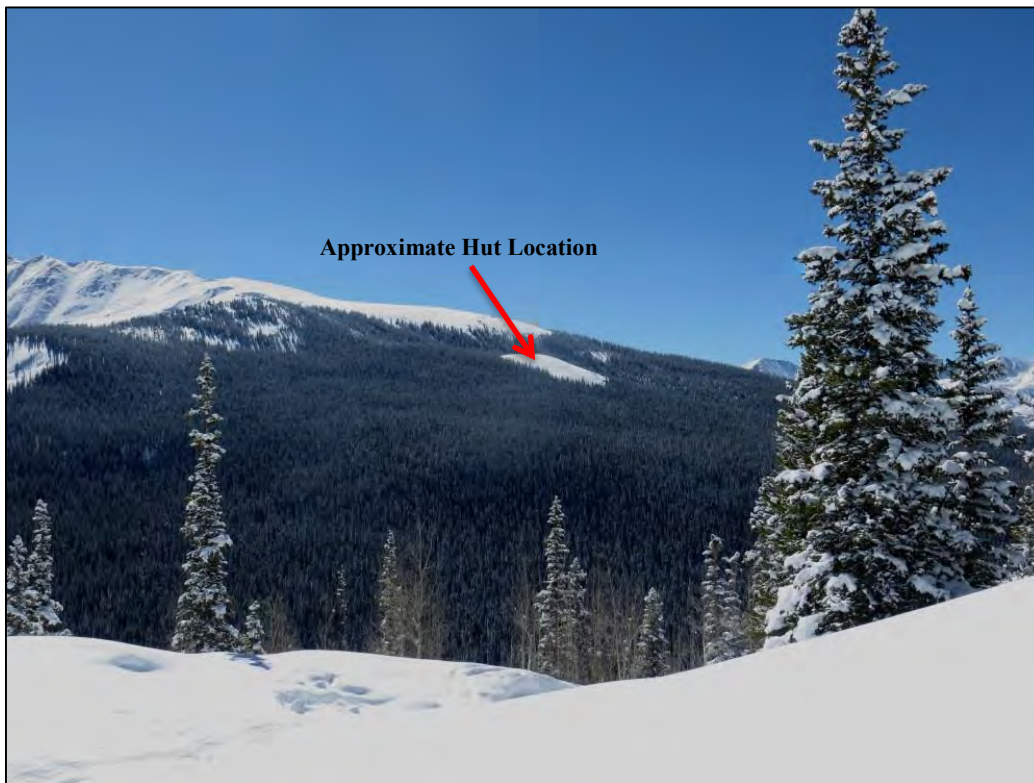


Photo 3C-5:
Proposed Weber Gulch Backcountry Hut Parking Area Location Along Sallie Barber Road



DIRECT AND INDIRECT ENVIRONMENTAL CONSEQUENCES

Alternative 1 – No Action

Under the No Action Alternative, no changes or modifications would be approved that would affect the scenic quality of the Weber Gulch or Bald Mountain area. As discussed under Existing Conditions, Weber Gulch follows the *Moderate* SIO (“slightly altered”) to *Very High* SIO (“unaltered”) classification for the Project Area.

Under the No Action Alternative, developed and undeveloped portions of Bald Mountain and the Weber Gulch area would continue to meet the *Moderate* to *Very High* SIO.

Alternative 2 – Proposed Action

Construction of the proposed hut and associated trails would require minimal tree removal (approximately 1 acre), due in part to the sparsely-vegetated nature of the hut location, and also because of the small footprint of the proposed hut. The proposed hut location is entirely on NFS lands. The proposed ATV and access trails would be constructed on a mix of town, county, private and NFS lands.

The proposed hut location is on the eastern side of a rocky outcropping that would provide a visual barrier of the hut from the west, where the majority of recreational activities in the area occur. The surrounding forest and rocky outcropping would largely prevent the hut from being visible from most locations along the valley floor. The hut would be visible from across the valley—refer to Photo 3C-4 (Humbug Hill). The hut may be partially visible from the summits of Bald Mountain, Mount Guyot, or areas northeast of

the hut (across French Gulch), but it is unlikely that the hut would be noticeable or visible from these locations due to the forest surrounding the hut. The hut would not be visible from the Town of Breckenridge, Breckenridge Ski Resort, or the other recreation trails in the *Sallie Barber Road* area. The ATV/access trails would not be expected to be visible due to their minimal width and thickness of the forest canopy.

The construction of an ATV access trail and a ski/snowshoe trail to the Weber Gulch backcountry hut would require minor tree and vegetation removal. Although a design criteria has been included in the Proposed Action that requires preparation of a vegetation management plan for construction of new trails, the surrounding forest canopy is anticipated to completely mask the visibility of these proposed access routes within the Analysis Area. Approximately 6,870 feet of new trail is proposed to be constructed between *Nightmare on Baldy* and the new hut (proposed trails segments “C” and “E” on Figure 2). Approximately 4,370 feet of new trails would be developed on private lands or county/town Open Space lands. The remaining 2,500 feet of new trails would be constructed on NFS lands, including access for ATVs (for administrative use only). Ground/vegetation disturbance associated with trail construction would total approximately 1 acre. The proposed access trails would be constructed in relatively dense forest, and because it is the WRNF’s/SHA’s intent to retain as many green trees along these routes as possible, scenic impacts are anticipated to be minimal.

The extension of the trail network to the proposed Weber Gulch backcountry hut is anticipated to be consistent with the Forest Service regulations for scenery management within Management Area 1.31. In addition, the hut would need to be designed/constructed to meet BEIG requirements for the Rocky Mountain Province.

CUMULATIVE EFFECTS

No past, present or reasonably-foreseeable future projects have been identified that, when combined with the Proposed Action, would affect scenery resources, to the extent of not meeting the SIOs, in the Project Area.

D. CULTURAL RESOURCES

SCOPE OF ANALYSIS

Section 106 of the National Historic Preservation Act (NHPA) requires that federal agencies take into account the effects of a federal undertaking on any cultural resource that is included in or eligible for inclusion in the National Register of Historic Places (NRHP). Cultural resources may refer to sites, areas, buildings, structures, districts, and objects which possess scientific, historic, and/or social values of a cultural group or groups as specified by 36 CFR 296.3.

NRHP eligibility is evaluated in terms of the integrity of the resource; its association with significant persons, events, or patterns in history or prehistory; its engineering, artistic, or architectural values; or its information potentially relative to important research questions in history or prehistory.²⁸ NRHP eligibility of cultural resources is determined by the Forest Archaeologist (assisted by consulting archaeologists) in consultation with the State Historic Preservation Officer (SHPO).

In conjunction with this EA, Metcalf Archaeological Consultants (MAC) conducted a Class III inventory of the proposed Weber Gulch backcountry hut location, access trails, and parking area between 2011 and 2013, and conducted additional archival research in 2014 and 2015. All information contained herein is based on two reports prepared by MAC specifically in support of this EA.²⁹ Both reports are contained in the project file.

The area of potential effect (APE) is defined as a 100-foot wide corridor for the 1.9-mile proposed access trail. For the proposed parking area and hut location, the APE was defined as the extent of the existing and proposed forest clearing with a minimum 100-foot buffer, pending topographic limitations. Special attention was paid to areas of enhanced subsurface visibility such as road cuts, drainage cutbanks, and animal trails for artifacts, features, or buried cultural horizons. Approximately 27.4 acres were covered by the Class III inventory.

AFFECTED ENVIRONMENT

Topographically, the somewhat rugged nature of the Project Area provides only limited areas suitable for prehistoric cultural sites. Because of this, expectations for the discovery of prehistoric cultural materials were low. However, historic mining-related sites were expected to be numerous. Historically, the Project Area was used heavily for hard rock and placer mining of gold, silver, and zinc.

MAC conducted files searches of the Office of Archaeology and Historic Preservation online database prior to fieldwork in September of 2011. In the Project Area, five previous inventories have occurred within, or overlapping, its boundaries. These previous inventories are, for the most part, small block areas

²⁸ 36 CFR Section 60.4

²⁹ Metcalf Archaeological Consultants, 2013 and 2015

and linear surveys conducted for Forest Service land exchanges, forest treatment, and to document historic mining resources.

Twenty-two cultural resources are located within a mile of the Project Area (refer to Table 3D-1). All of these resources are historic and related to mining. Two of these sites (Gold Belle Mine/Mill and Golden Edge Mine/Mill) are located within the APE and were revisited. Both of these previously recorded sites have been recommended as not NRHP-eligible. In addition, the recorded boundary of the previously recorded Lincoln Townsite overlies the proposed parking lot, and has been previously determined to be NRHP-eligible.

Table 3D-1:
Previously Recorded Archaeological Sites Near the Project Area

Site Name	Resource Class	Resource Type	NRHP Eligibility	Date Recorded
Sallie Barber Mine	Historic	Mine Complex	Eligible (field)	2003, 1975
Reiling Dredge	Historic	Equipment Machinery	Not Eligible (field)	1976
Lincoln Townsite	Historic	Townsite	Eligible (officially)	2010, 1974
n/a	Historic	Water Control	Not Eligible (officially)	1990, 1989
n/a	Historic	Mining Complex	Not Eligible (field)	1991
n/a	Historic	Isolated feature	Not Eligible (field)	1991
n/a	Historic	Isolated feature	Not Eligible (field)	1991
n/a	Historic	Isolated feature	Not Eligible (field)	1991
n/a	Historic	Isolated feature	Not Eligible (field)	1991
n/a	Historic	Isolated feature	Not Eligible (field)	1991
n/a	Historic	Isolated feature	Not Eligible (field)	1991
n/a	Historic	Isolated feature	Not Eligible (field)	1991
n/a	Historic	Isolated feature	Not Eligible (field)	1991
Golden Edge Mine	Historic	Mine Shaft	Not Eligible (officially)	2003, 1991
n/a	Historic	Mine Shaft	Not Eligible (officially)	1991
Juventa	Historic	Mine	Not Eligible (officially)	1991
Little Sallie Barber Mine	Historic	Mine Complex	Not Eligible (field)	2003
Gold Belle Mine and Mill	Historic	Mine Complex	Not Eligible (field)	2003
Corporal Mine	Historic	Mine Complex	Eligible (field)	2003
Golden Edge Mine and Mill	Historic	Mining Complex	Not Eligible (field)	2003
Tommy Mine	Historic	Mine	Not Eligible (field)	2003
Carbonate Mine	Historic	Mine Complex	Eligible (field)	2003

Historic Overview

The historic period in Breckenridge begins in 1859/60 with the discovery of gold in the Blue River Valley. Breckenridge soon became the first town established on Colorado's western slope. An estimated 8,000 miners flocked to the area, but a swift decline in profits meant that by 1869 only 20 to 30 homes remained occupied in Breckenridge.

Although silver discoveries kept the mining boom going in other parts of Summit County, the lull in gold mining activities and a series of fires hindered the growth of the Breckenridge area. It was not until rich, gold lode deposits were discovered in the area, in 1878, that the young township's fortunes again turned upward. Also spurring this second gold mining boom was the arrival of the Denver, South Park and Pacific Railroad in Breckenridge in 1882. After more ups and downs, including another devastating fire, gold mining and the landscape in the Blue River Valley were profoundly affected by the introduction of hydraulic mining and dredging which became highly successful and hugely profitable in the early twentieth century. Although these mining operations were most profitable from 1910 to 1925, they were used in the area until World War II. Finally, in December 1961, Breckenridge Ski Area opened, transferring the economy of this mountain town from mining to the tourist industry, which continues today.

The Project Area's mine complexes were the result of a small mineral mining rush that occurred on Bald Mountain in the 1890s. This rush was localized and short-lived, but resulted in small-scale mine development and an influx of temporary residents to the area who likely utilized the facilities in Lincoln.

Within the Project Area, there are two previously recorded mines that exemplify local mining history. One is the Gold Bell Mine and Mill. According to claim and patent information, a mine company drove a tunnel there for gold and silver mining in 1904 and purchased a used mill and moved it to the site location in 1909. Little activity occurred at the mine until 1916, when the mine was worked briefly before closing permanently. The site consists of a collapsed tunnel, the waste rock dump, numerous building platforms, the remains of two structures, one of which was a boardinghouse; and the collapsed remnants of the mill which include the bodies of several jigs (mill appliances).

The other site is the Golden Edge Mine and Mill. In 1898, a mining company drove exploratory workings including a tunnel and shaft at the site and built a mill downslope. The company quit work in 1901 due to unprofitable ore. Over the next 16 years, the mine changed ownership several times, operated briefly in 1908, and then was permanently abandoned. The site consists of the collapsed remnants of the mill including a toppled stamp battery frame, several platforms including an engine room and ore bin foundation, the remains of three cabins, a corral, and a refuse scatter.

Lincoln Townsite

Lincoln City was a historic mining town located in French Gulch several miles above the gulch's confluence with the Blue River, north of Breckenridge. The names Paige City and Farncomb Hill have also been applied to this town, though it is clearly best known and documented as Lincoln City.

Today the historic Lincoln Townsite consists of a large complex of residential and commercial buildings along French Gulch, the vast majority of which have been removed from the site; only foundations or platforms remain. In addition, there are numerous mine features related to exploration near the town. Lincoln was a small settlement from its founding in 1860 until about 1908. A few individuals also lived in

the town during the 1930s and from around 1960 into the 1980s. The town was occupied continuously for almost 50 years, but it was important during two narrower historic periods of significance. During the first period between 1860 and 1865, Lincoln was center to a substantial placer mining industry in upper French Gulch. At that time, the town had a large population of miners employed at the nearby operations, and it supported a business district. This period ended in 1865 when most of the population left due to the exhaustion of the placers.

The second period began in 1875 and ended in 1908. Hardrock mining replaced placer operations during this time. By 1878, hardrock mining was booming in the area. Lincoln's role shifted in response to the scattered locations of the hardrock operations. Although some miners, with short commutes to work, lived in town, many resided closer to the mine operation. Therefore, Lincoln became more important as a commercial and transportation center, rather than a direct residence for miners. The town was also a milling center which helped the local mining industry to thrive by allowing them to produce otherwise unprofitable grades of ore.

In 1893, due to an economic depression and a collapse in the value of silver, this second florescence was interrupted, not to resume until 1898 when the economy improved and the local mining industry revived. Lincoln again took up a role as a local commercial center, but the mills were no longer operating at that time. There was a sharp decline in mining in the 1910s, and the majority of Lincoln businesses closed by the late 1910s.

The Lincoln Townsite is recorded as site 5ST381 and has been recommended to be NRHP-eligible under Criterion A, C, and D.³⁰ The Colorado SHPO has concurred with that assessment. Lincoln City was directly associated with trends that were important on a local level in the late 1800s and early 1900s such as mining and community planning and development. Furthermore, it is a sound example of a small, remote mining camp of the Rocky Mountains during the turn of the twentieth century. The site's material remains illustrate the demography and lifestyle of mine residents, and the remaining two standing structures are a good example of that period's vernacular architecture.

Lincoln City Cemetery

The Lincoln City Cemetery is mentioned on the Summit Historical Society's website in the discussion of the Valley Brook Cemetery (<http://www.summithistorical.org/ValleyBrookCemetery.html>): "...in 1904 the Lincoln City Cemetery was moved to Valley Brook because placer mining forced the relocation of that entire town." This is one of several references to the town of Lincoln City being moved on one or more occasions to a new location historically.

³⁰ Associated with known events or people significant to local or regional history, and exhibit essential integrity or the potential to yield additional information important to regional history.

The issue of the possible presence of other unmarked graves at the Lincoln townsite has been raised related to this project. Records found on-line through the RootsWeb website indicate that the marked and known graves at the Lincoln townsite cemetery were removed in 1904 and reinterred at the Valley Brook Cemetery just north of Breckenridge (<http://www.rootsweb.ancestry.com/~cosummt/cemdir.html>). There is very brief mention that “at least 7 graves remain” in the entry for the Lincoln Cemetery on this web page. The reason why these reported seven graves were not moved in 1904 is unknown, but may be due to a lack of markers or other evidence to pinpoint locations from which to recover remains for reinterment elsewhere. The abandonment of a historic cemetery and subsequent removal of the bodies interred there is not uncommon, nor is the presence of unmarked graves within a formal cemetery. Further, many cemeteries had a “Potters’ Field” where unclaimed or indigent persons were buried, also sometimes called paupers’ graves. These graves were often unmarked, and placed in an area not well defined or delimited, usually outside of the formal cemetery.

Related to the Proposed Action analyzed in this EA, the concern that unmarked graves may remain at Lincoln City is grounded primarily in a reference to the Lincoln City Cemetery found in the Colorado Council of Genealogical Studies (CCGS) cemetery directory for Summit County (CCGS n.d.). The entry for the Lincoln Cemetery includes the following:

- “At site of Lincoln, 4 miles east of Breckenridge in French Gulch (Sec. 34, T6S, R77W, 6th P.M.)”
- “Est. in 1860s, only remaining marker 1864; at least 7 graves remain” [Emphasis added.]
- “Abandoned; most burials remove to Valley Brook Cemetery c 1904”

The “only remaining marker,” dating to 1864, is almost certainly the Milner grave (discussed in more detail, below).

In an effort to try and determine the location of the Lincoln City cemetery, additional research (including site visits) was conducted between October 4, 2014 and November 20, 2014.³¹ This research proceeded under an overall assumption that unmarked graves would most likely be at, or in the immediate vicinity of, the location of the historic cemetery, and were not moved in 1904 because they could not be found, or because they were located just outside the cemetery boundary in a potter’s field, as was common with pauper’s graves.

There is no clear or consistent information on the location of the Lincoln City cemetery; there is an abundance of conflicting information. Nothing was found that could provide a scientifically defensible

³¹ Sources searched or contacted include: on-line resources at the BLM, the Summit Historical Society, and Breckenridge Heritage Alliance; basic Google searches for information using key words; e-mail and phone communications with local avocational historians, and with historian Eric Twitty; in person research at several libraries; in-person research at the repository of GLO records at the BLM 4 state office in Lakewood; and in-person research at the Summit County offices.

identification of the location of the cemetery, nor whether or not there were graves left after 1904. However, a few things became clear:

First, Lincoln City was moved on at least one occasion and maybe as many as four times; the dates of which are unknown as are the earlier townsite locations

Second, the graves in the town's cemetery were moved in 1904, and reinterred at Valley Brook Cemetery. One on-line published source indicates this occurred prior to moving the townsite to allow for the advancement of placer mining. If that is true, it is very possible that the cemetery location, and any graves that were not moved, are gone. The valley floor of French Gulch has been heavily placer-mined west of the current townsite.

One map plots the town on the section line of section 34 and 35, which is about one quarter to three quarters of mile from the present townsite, depending on which part of the townsite one measures from. The Milner grave is about 1,600 feet west of the section line.

There is inconclusive information that unmarked graves were left following the 1904 move. The only published reference to this comes on-line from the CCGS and this reference, in turn, cites two other sources, one of which is an informant, and one an unpublished manuscript. The report by Mr. Skovlin of having located several unmarked graves by means of dowsing, while intriguing, is a contention that should be tested and verified by more scientific means before placing much weight on his conclusions.

Finally, one anecdotal reference, from Mr. Hague, says that the Milner grave was not part of the cemetery, though it is unclear whether that means it was truly an isolated grave, or if it was outside of, but near, the cemetery.

Milner Grave

The William H. Milner Grave is a single, marked, historic grave located at the east end of the historic Lincoln City townsite. Date of death is 1864, which would be around or just after the founding of the Lincoln City. In conjunction with this NEPA process, the William H. Milner grave was recorded as its own site since its association with Lincoln City is not firmly established. It does lie within the current defined boundary of Lincoln City (5ST381) but is now recorded as 5ST1489.

Association between Mr. Milner and Lincoln City is unknown, and although his grave lies at the eastern end of what is today recorded as the Lincoln City townsite, there are multiple references to Lincoln City having been moved as many as four or five different times in the late 1800s and early 1900s, as placer mining consumed the valley floor of French Gulch. Hence, this grave may have been some distance from where the townsite was located in the 1860s. References to Mr. Milner in local histories are generally lacking, except for mentions of this grave. The second in a thread of five messages on the Ancestry website provides that Mr. Milner was the son of immigrants from Yorkshire who came originally to

Canada, and then to the US (Illinois), and that he came to the Colorado gold fields seeking a livelihood and to help his parents who had lost their construction business in part due to the Civil War's effect on the economy. His parents apparently followed in his footsteps, but upon arrival in Colorado, found that their son had recently died of an unspecific illness.

The grave consists of a single interment, marked by a picket fence enclosure, a headstone, and a footstone. No other cultural materials or evidence of other graves exists at or in the immediate vicinity of the grave. The marble headstone is a simple round-topped slab, about 2.5 feet tall (extending from ground surface). The footstone is a similar simple round-topped slab, about 8 to 10 inches tall (extending from ground surface).

The enclosure fence around the Milner grave is a simple wood picket fence made of widely spaced milled lumber pickets. The wire nails, which would post-date the 1880s, and the condition of the wood, clearly indicate this is not an original enclosure.

The Milner grave is recommended to be not eligible for the NRHP; marked graves are typically not eligible unless they meet one of the eligibility criteria for qualities separate and distinct from the person interred there. If the person interred is what gives the grave its significance, that person must be of "outstanding" historical importance, and the grave must be the last remaining vestige associated with him/her (Criteria Consideration C). The latter is clearly not the case. The absence of Mr. Milner from the examined historic record, the lack of clear association with Lincoln City, the lack of any significant architectural characteristics of his grave markings, and the absence of any known information potential that might be recovered from his remains, leaves the grave not meeting any of the four NRHP criteria for eligibility.

Inventory Results

Table 3D-2 details the previously recorded sites updated during this project and Table 3D-3 lists the newly recorded sites. Inventory resulted in discovery and documentation of seven new sites and updates of two previously recorded sites. All of the sites are historic and, with the exception of Lincoln Townsite, all are recommended as **not eligible for the NRHP**.³²

**Table 3D-2:
Previously Recorded Sites Updated by MAC**

Site Type	NRHP Eligibility
Historic Lincoln Townsite	Eligible (Official)
Historic Gold Belle Mine	Not Eligible (Field)
Historic Gold Edge Mine and Mill	Not Eligible (Field)

³² The Lincoln Townsite has been determined to be NRHP-eligible. Refer to Table 3D-2.

**Table 3D-3:
Newly Recorded Sites**

Site Type	NRHP Eligibility
William H. Milner Grave	Not Eligible
Historic Prospect Pits	Not Eligible
Historic Mine Complex	Not Eligible
Historic Prospect Pits	Not Eligible
Historic Mine Complex	Not Eligible
Historic Prospect Pits	Not Eligible
Historic Isolated Mine Features	Not Eligible

Previously recorded and newly recorded/not eligible sites are not discussed further in this document (the reader is referred to the Project File for detailed information).

Four isolated finds were documented during the current inventory, all of which are historic. All of the isolated finds are recommended as **not eligible for inclusion on the NRHP**.

SHPO Consultation

Consultation on the inventory findings was conducted with the Colorado State Historic Preservation Office (SHPO). They concurred with the recommendation that the following historic properties were not eligible for listing on the National Register of Historic Places (NRHP): 5ST988, 5ST990, 5ST1450, 5ST1451, 5ST1452, 5ST1453, 5ST1455, 5ST1456, 5ST1457, 5ST1458, and 5ST1459 (letter dated May 30, 2013). SHPO concurred with the finding of *no adverse effect* under Section 106 for the proposed project.

Results from further research into the Milner Grave and possible associated cemetery were also shared with SHPO. The field eligibility recommended the Milner Grave as Not Eligible. SHPO, however, recommended treating the Milner Grave (5ST1489) as eligible for the NRHP for the purpose of this project (letter dated March 23, 2015). They state “if there are further burials at this site that date to the 1860s era, which is the era of significance for the Lincoln City townsite (5ST381), we recommend that this area would be a contributing element to the townsite.”

SHPO recommended a finding of *no adverse effect* for the project providing annual monitoring of the grave is conducted to ensure it is not being vandalized due to the easy access from the proposed parking lot. SHPO also strongly recommended that non-invasive ground-truthing of the proposed lot be conducted prior to construction.

DIRECT AND INDIRECT ENVIRONMENTAL CONSEQUENCES

Alternative 1 – No Action

Under the No Action Alternative, neither the Weber Gulch backcountry hut, nor associated parking or access trails, would occur in the Project Area. Because no ground disturbance is proposed under the No Action Alternative, there is no potential to affect the historic sites surveyed within the APE.

Alternative 2 – Proposed Action

Twenty-two cultural resources are known to be within a mile of the Project Area, all related to mining. The Sallie Barber Mine, the Lincoln Townsite, the Corporal Mine, and the Carbonate Mine are the only resources that are NRHP eligible (refer to Table 3D-1). All other resources are found not-eligible based on field studies. Seven new historic sites were documented and two previously recorded sites were revisited for the current inventory. Seven of these sites are recommended ineligible to the NRHP and no further work is recommended for them. Thus, only the potential impacts associated with the proposed parking area are addressed further in this analysis.

Lincoln Townsite

The proposed parking area for the trailhead to the Weber Gulch backcountry hut is located on the north side of French Gulch Road, within the boundary of the Lincoln Townsite. In May 2013, the Forest Service consulted with the SHPO on this project. The cultural resource investigations indicated that the recorded boundary of previously recorded Lincoln Townsite overlies the proposed Weber Gulch backcountry hut parking area. MAC recommended to the Forest Service that the portion of the site within the proposed parking area does not support eligibility of the larger resource because of the absence of any evident artifacts or features clearly associated with the site.

While the Lincoln Townsite will be impacted, which results in a finding of “effect” (36 CFR §800.4(d)), the impacts will not extend to the structures, archaeological remains, or other qualities that cause the site to be eligible, thus resulting in a further finding that the effect is not adverse (36 CFR §800.5(b)). No further work was recommended and a determination of *no adverse effect* to historic properties was recommended for this proposed project. The Forest Service received SHPO concurrence with that assessment in a letter to Forest Supervisor Fitzwilliams on May 30, 2013.

Further review of potential impacts to the Lincoln Townsite was conducted in 2015. In a letter to Forest Supervisor Fitzwilliams on March 23, 2015, SHPO recommended treating the resource as NRHP eligible and concurred with the finding of *no adverse effect* (36 CFR §800.5(b)), provided the Forest Service provides for a yearly monitor of the resource to ensure it is not being vandalized. SHPO also advised that they be involved in the consultation process with local government and with other consulting parties.

Thus, the Forest Service's obligations under Section 106 of the NHPA have been met as they pertain to this site and the impacts of the Weber Gulch backcountry hut project.

Lincoln City Cemetery and the Milner Grave

Irrespective of its importance as a cultural resource, it would be appropriate for the Forest Service to require that the grave be left undisturbed and that reasonable actions be taken to facilitate its avoidance and protection, especially in the winter season when it may be covered by snow.

In the context of Section 106 of the NHPA, marked graves and cemeteries are, in and of themselves, considered to be not eligible for the NRHP (National Register Bulletin 15, *How to Apply the National Register Criteria for Evaluation*, National Park Service) unless they meet one of two "criteria considerations" which require exceptional importance or association to trigger eligibility. Criteria Consideration C applies to graves and birthplaces. Criteria Consideration D applies to cemeteries. Nothing about this particular marked grave would rise to the level of exceptional significance needed to meet Criteria Consideration C. The marked Milner grave, which is clearly evident with a headstone, footstone, and small enclosure fence, is a feature that is adequately protected by laws other than cultural resource regulations.

The Forest Service and SHA have no intention of disturbing the Milner grave and have agreed to work to help protect it given the proximity of the proposed uses. Based on fieldwork and reporting for the original (2013) inventory for this project, the supplemental archival research, and field visits to the Lincoln City townsite in October of 2014, two conditions are recommended to mitigate potential impacts of the proposed parking lot on any known/unknown cultural resources.

It is recommended that a distance of at least 30 feet be retained between the grave and the extent of any surface modification. This distance should be maximized, as feasible. This should also help prevent the grave from being impacted by snow storage when the parking area is plowed. Doing so will also help prevent exacerbating erosion that may result from changes to the slope in the vicinity of the grave.

Second, it is recommended that a qualified archaeological monitor be present during all surface-disturbing and excavation activities for construction of the parking lot. Further, the archaeologist should coordinate directly with the construction contractor to provide for careful removal of topsoil and subsoils, at least until it appears clear that no unmarked graves are present.

Metcalf does, however, feel that there is insufficient evidence to suggest a significantly heightened risk of encountering unmarked graves in the present location proposed for Parking Area 2. Graves and burials are always a possible, though very rare discovery, in essentially all areas where human occupation has occurred. The presence of an archaeological monitor during construction can help ensure human remains are appropriately handled and protected in the very unlikely event something is encountered.

SHPO consultation resulted in the recommendation of the use of ground-truthing technology prior to construction. This will ensure that the parking lot disturbance area does not interfere with the grave site. Consultation with a specialist in these techniques is recommended if this becomes a preferred strategy, as different techniques have different levels of effectiveness depending on what is sought and on the soil and surface conditions.

CUMULATIVE EFFECTS

No effects to NHRP-eligible cultural resources were identified within the APE related to the Proposed Action; therefore, by definition, no cumulative effects would occur or require further analysis.

E. WILDLIFE

SCOPE OF ANALYSIS

This section provides a general discussion of common terrestrial and aquatic wildlife species known to occur on NFS lands in and near the Project Area. The Project Area is located on the north and northwestern slopes of the ridge extending north off Bald Mountain (13,684 feet). Elevations associated with Project Area disturbance areas range from approximately 10,300 feet at the proposed parking area on French Gulch Road to 11,480 feet at the proposed Weber Gulch backcountry hut site.

A Biological Assessment (BA), Biological Evaluation (BE) and Management Indicator Species (MIS) report were prepared for this project. The BA analyzed the potential effects on federally listed Threatened, Endangered, and Proposed (TEP) species. The BE provided a similar analysis regarding the potential effects of the Proposed Action on Forest Service Region 2 (R2) Sensitive Species in the area. The MIS report addresses species that the Forest Service uses as a means to monitor selected issues on the Forest as required by regulation.³³ In addition, migratory birds were addressed per the 2008 Forest Service Memorandum of Understanding with the U.S. Fish and Wildlife Service (USFWS) to promote the conservation of migratory birds.

The following analysis is a summary of the BA, BE and MIS report that are contained in the project file.³⁴ Additional information can be obtained by reviewing the larger documentation there. All references are contained therein.

AFFECTED ENVIRONMENT

Threatened, Endangered and Proposed Species

A wildlife species that is listed as endangered under the Endangered Species Act (ESA) is in danger of extinction throughout all or a significant portion of its range. A wildlife species listed as threatened under ESA is one that is likely to become an endangered species within the foreseeable future throughout all or part of its range.

Table 3E-1 includes species that were identified as potentially present on the WRNF, potentially present on the Dillon Ranger District (DRD), and/or potentially affected by management decisions associated with the Proposed Action. These were species are addressed in detail in the BA. Other listed and proposed species known to occur elsewhere on the WRNF and/or in Colorado were considered, but dropped from detailed analysis. This could be due to a number of factors, including: they were not identified by the USFWS or Forest Service as potentially present on the DRD; their habitats do not occur on the DRD or in the Project Area; they have no affinities to Project Area habitats; the Project Area is outside of the

³³ 36 CFR 219.19

³⁴ Thompson, 2013a,b

species' range or does not contain occupied habitat; and/or the management decisions associated with the Proposed Action would have "no effect" on the species, on their habitats, or on designated critical habitat.

**Table 3E-1:
Federally Listed and Proposed Animal Species Potentially Affected**

Common name, <i>Scientific Name</i>	Status	Rationale for Occurrence^a (Habitat)
Uncompahgre fritillary butterfly, <i>Boloria acrocneuma</i>	E	No suitable habitat (alpine snow willow stands >12,000 ft. on peaks ≥ 12,600 ft.). Project far outside species' distribution.
Humpback chub, <i>Gila cypha</i>	E	Potentially affected by Colorado River water depletions (far downstream in Colorado River)
Bonytail chub, <i>G. elegans</i>	E	Potentially affected by Colorado River water depletions (far downstream in Colorado River)
Colorado pikeminnow, <i>Ptychocheilus lucius</i>	E	Potentially affected by Colorado River water depletions (far downstream in Colorado River)
Razorback sucker, <i>Xyrauchen texanus</i>	E	Potentially affected by Colorado River water depletions (far downstream in Colorado River)
Greenback cutthroat trout, <i>Oncorhynchus clarkii stomias</i>	T	Not part of historic range; no occupied or potential habitat present (isolated mountain stream headwaters)
North American wolverine, <i>Gulo gulo luscus</i>	P	Historic range (remote mountains and alpine areas). Known individual that uses portions of the action area.
Canada lynx, <i>Lynx canadensis</i>	T	Present in analysis, potential foraging, denning, and travel habitat (montane and subalpine forests)

Source: Thompson, 2013a

Federal status, listed after species, is as follows: **E** = Endangered, **T** = Threatened, **P** = Proposed.

Of these species, only Canada lynx was carried forward for detailed analysis in the BA.

Canada Lynx

Canada lynx in the contiguous United States was listed as threatened effective April 24, 2000. The Canada lynx has been classified by the State of Colorado as a State endangered species since 1976. On September 17, 2010, the CDOW announced that the lynx reintroduction project had successfully accomplished its goal of establishing a breeding population in the Southern Rockies.

The Southern Rockies Ecosystem represents the extreme southern edge of the range of lynx in North America. Canada lynx occur primarily in spruce-fir and lodgepole pine forests, at elevations between 8,000 and 12,000 feet. On a landscape scale, Canada lynx habitat includes a mosaic of early seral stages that support snowshoe hare populations and late seral stages of dense old-growth forest that provide high quality denning and security habitat.

Using 1999 to 2006 data from the lynx reintroduction, Theobald and Shenk (2011) developed lynx use maps for the Southern Rockies Ecosystem. The maps displayed areas that lynx have used the most over

the last ten years. One of those areas (extending from Highway 91, on the west side of the Tenmile Range, to I-70, on the east side of Loveland Pass) was used by 26 different lynx. That area contains the southern Summit County lynx corridor and the Weber Hut site within a bottleneck of that corridor. Ivan et al. (2012) extended the work of Theobald and Shenk (2011) and produced a map of predicted lynx use on a statewide scale to identify areas that should contain high quality lynx habitat regardless of whether it was used by the radio-telemetered lynx monitored during the reintroduction program. The area north of the Continental Divide running through southern Summit County and containing the Weber Hut site was identified as high quality summer and winter lynx habitat.

Because of the patchy, discontinuous distribution of lynx habitat in Colorado, maintaining landscape-level habitat connectivity may be paramount to maintaining a viable population. Colorado lynx habitats are not only constrained by broad alpine zones and non-forested valleys, but also by towns, reservoirs, highways, and other human developments that fragment and isolate montane and subalpine lynx habitats. Any continuously forested corridor between mountain ranges supporting lynx habitat that is relatively free of human development has the potential to be an important landscape linkage.

Southern Summit County, which includes the proposed Weber Gulch backcountry hut Project Area, is relatively well connected with forested habitats in adjacent mountain ranges to the south and west, the main sources of lynx entering the County via dispersal from the two Core Areas (San Juans and Taylor Park). The closest, most viable lynx landscape linkage to the Proposed Weber Gulch backcountry hut Project Area is Georgia Pass (to the East/SE, North Taryall Creek and Pennsylvania/Indiana Creeks (to the South/SW, French Pass (to the SW), then Hoosier Pass (to the SW), all of which likely conduct movements over the Continental Divide.

The proposed Weber Gulch backcountry hut site is located in a continuously forested band of largely compatible land uses that facilitate lynx habitat connectivity through southern Summit County. The Lynx Conservation Corridor defined by Roberts et al. (2012) was divided into three priority areas to assist land managers in the prioritization of lynx conservation within the designated conservation corridor. The priority areas were ranked based on biological importance for lynx and lynx habitat. Each priority area focuses on lynx conservation actions that best fit the location. More specifically, these priority areas help Forest Service managers implement the most appropriate habitat improvement projects and recommend design criteria for proposed projects. Priority Area 1 is located on the east side of the conservation corridor and contains the proposed Weber Gulch backcountry hut Project Area. Priority Area 1 is considered the highest priority of the three areas for habitat improvement. This area is surrounded by private land and has the highest amount of recreation.

Lynx Analysis Units

The Canada Lynx Conservation Assessment and Strategy (LCAS) indicated that project planning should evaluate the effects to lynx habitat within designated Lynx Analysis Units (LAU) exceeding 25,000 acres

in the southern Rocky Mountain Geographic Area. LAUs are intended to provide the smallest scale at which the effects of management actions on lynx habitat are quantitatively evaluated. LAUs do not represent actual lynx home ranges, but their scale should approximate the size of an area used by an individual lynx. The two LAUs considered in this analysis: the Swan and Snake River LAUs

Lynx Linkages

The 2002 Forest Plan identified “Forested Landscape Linkages” (Management Area 5.5 on the WRNF) to be managed as key landscape linkages providing areas for landscape-scale movement, migration, and dispersal of forest carnivores and other wide-ranging wildlife species. These areas provide safe travel connections between large blocks of forested landscapes across the forest. They provide security from intensive recreational and other human disturbances.

More recently, the Southern Rockies Lynx Amendment identified “lynx linkage areas.” The goal of linkage areas is to ensure population viability through population connectivity. Linkage areas are areas of movement opportunities between habitat blocks that may be separated by intervening areas of “non-habitat” such as basins, valleys, agricultural lands, or where lynx habitat naturally narrows between blocks. They exist on the landscape and can be maintained, degraded, or severed by management activities and human infrastructure, such as high-use highways, subdivisions, or other developments. The Southern Rockies Lynx Amendment (SRLA) does not consider lynx linkages to be “corridors” (which imply only travel routes), but broad areas of habitat where animals can find food, shelter, and security that also provide connectivity between larger habitat blocks. However, characteristics of some of the linkages considered herein are largely limited to highway crossing locations. Such linkages zones would be expected to support greater use by transient or nomadic individuals. Linkages are also important for maintaining genetic diversity throughout the Southern Rockies population.

Two lynx linkages mapped within the Southern Rockies Geographic Area, Herman Gulch and Loveland Pass, are bisected by high speed highways that would seasonally contain traffic associated with the hut.

The Herman Gulch Lynx Linkage Area (336 acres, 0.5 square mile) straddles I-70 for approximately 4 miles between the Herman Gulch area and Bakerville on the east side of the Continental Divide. While this linkage connects quality habitat on both sides of I-70, this is one of the linkages that was defined largely because of highway crossing concerns. In July 2005, a lynx was killed on I-70 within this linkage when traffic volume was 27,600 vehicles per day. This linkage is considered because most highway traffic associated with the proposed Weber Gulch backcountry hut would travel through this linkage between the resort and Denver.

The Forest Service identified the Loveland Pass Lynx Linkage Area (22,272 acres, 34.8 square miles) to provide for north-south movements near and across I-70 at the Continental Divide, Peru Creek, Loveland Pass, Laskey Gulch, and Jones Gulch. It includes portions of the WRNF and the Arapahoe-Roosevelt National Forest. Some portions of the linkage are highly developed, with I-70, ski areas (A-Basin,

Loveland, and Keystone), and a town (Keystone). Portions of this linkage are bisected by I-70 east and west of the Eisenhower/Johnson Tunnels under the Continental Divide and by U.S. Highway 6 over the Continental Divide at Loveland Pass. This linkage is considered because some traffic associated with the proposed Weber Gulch backcountry hut would travel through this linkage between the hut and Denver. Highway 6 over Loveland Pass is frequently closed for hours to days in winter because of snowfall.

Some proposed Weber Gulch backcountry hut guests may also travel through other lynx linkages (e.g., Officer's Gulch, Vail Pass, etc.). However, the potential adverse effects to lynx from the small proportion of proposed Weber Gulch backcountry hut-related traffic to baseline traffic volumes in those areas would be minor and discountable, so they are not considered in detail herein.

Snow Compaction

Guideline HU G10 of the SRLA says that designated over-the-snow routes should not expand outside of the baseline areas of consistent snow compaction. Snow compaction is an issue for lynx because they are adapted to moving through deep, unconsolidated snow thought to exclude predators (that could kill lynx) and competitors (that could eat prey otherwise only available to lynx). Additional snow compaction associated with trails is thought to allow these increased risk factors into lynx habitat.

Baseline snow compaction mapping on the WRNF was established in 2002. In 2011, the WRNF Travel Management Plan (TMP) was finalized, identifying travel systems and balancing the Forest's physical, biological, and social values. The baseline 2002 mapping data will need to be updated because the 2011 TMP did not analyze winter routes; it assumed that all summer routes were also used in the winter, as well. However, while some summer trails are used in winter, not all are used in winter and some non-designated summer trails are used in winter.

Region 2 Sensitive Species

Sensitive species are those that need special management to maintain and improve their status on National Forests and Grasslands, and prevent a need to list them under the ESA.

Table 3E-2 includes R2 sensitive species that were identified as potentially present on the WRNF, potentially present on the Dillon Ranger District (DRD), and/or potentially affected by management decisions associated with the Proposed Action. Species in bold are potentially present and/or are discussed individually in the BE text. The BE that is included in the project file includes complete life history information for certain R2 sensitive species. Other R2 sensitive animals are not listed because they have not been found on the WRNF, they have no affinities to habitats on the Project Area, the Project Area is outside of the species' range or elevational distribution, and the Proposed Action would have no impact on those species.

Table 3E-2:
Region 2 Sensitive Animal Species that Occur on the WRNF
and their Potential Occurrence in the Proposed Weber Gulch Backcountry Hut Project Area

Common name, <i>Scientific name</i>	Rationale for Potential Project Effects (Habitat Affinity)
INSECTS	
Great Basin silverspot, <i>Speyeria nokomis nokomis</i>	No habitat (Wetlands supporting violet populations)
FISH	
Roundtail chub, <i>Gila robusta robusta</i>	No suitable habitat (CO River up through Glenwood Canyon)
Mountain sucker, <i>Catostomus platyrhynchus</i>	No suitable habitat (small to medium streams below 7000'; 4 populations documented on the Rifle and Blanco Districts)
Bluehead sucker, <i>Catostomus discobolus</i>	No suitable habitat (CO River up to Alkali Creek) Canyon)
Flannelmouth sucker, <i>Catostomus latipinnis</i>	No suitable habitat (CO River & larger tribs.)
Colorado River cutthroat trout, <i>Oncorhynchus clarkii pleuriticus</i>	Suitable unoccupied habitat (Isolated, headwater streams and lakes)
AMPHIBIANS	
Boreal western toad, <i>Anaxyrus boreas boreas</i>	No breeding habitat (Subalpine marshes and wet meadows; ponds, margins of streams; 8,500' to 11,000')
Northern leopard frog, <i>Lithobates pipiens</i>	No habitat (Permanent wetlands)
BIRDS	
Northern goshawk, <i>Accipiter gentilis</i>	Pot. habitat (Closed montane forests > 7,500')
Northern harrier, <i>Circus cyaneus</i>	No habitat (Grasslands, agricultural lands, marshes, & alpine)
Ferruginous hawk, <i>Buteo regalis</i>	No habitat (Plains, grasslands)
American peregrine falcon, <i>Falco peregrinus anatum</i>	No habitat (Cliffs, habitats concentrating/exposing vulnerable prey)
Bald eagle, <i>Haliaeetus leucocephalus</i>	No habitat (Open water bodies, big game winter range)
White-tailed ptarmigan, <i>Lagopus leucurus</i>	Pot. habitat (Alpine habitat and upper elevation willow stands)
Greater sage grouse, <i>Centrocercus urophasianus</i>	No habitat (Sagebrush)
Columbian sharp-tailed grouse, <i>Tympanuchus phasianellus columbianus</i>	No habitat (Sagebrush and mountain shrub)
Flammulated owl, <i>Otus flammeolus</i>	No habitat (Old-growth ponderosa pine and aspen)
Boreal owl, <i>Aegolius funereus</i>	Pot. habitat (Mature spruce-fir & mixed conifer)
Black swift, <i>Cypseloides niger</i>	No local nesting habitat (Waterfalls, cliffs)
Lewis' woodpecker, <i>Melanerpes lewis</i>	No habitat (Ponderosa pine and cottonwoods)
Olive-sided flycatcher, <i>Contopus cooperi</i>	Pot. habitat (Open, upper elev. conifer forests)
Loggerhead shrike, <i>Lanius ludovicianus</i>	No habitat (Plains, low valleys, shrublands)
Purple martin, <i>Progne subis</i>	No habitat (Old-growth aspen)
Brewer's sparrow, <i>Spizella breweri</i>	No habitat (Sagebrush and other structurally similar shrublands)
Sage sparrow, <i>Amphispiza belli</i>	No habitat (Low elevation big sagebrush and sage/greasewood)
MAMMALS	
Pygmy shrew, <i>Microsorex hoyi montanus</i>	Pot. habitat (Variety of subalpine habitats)
Fringed myotis, <i>Myotis thysanodes</i>	No habitat (Forests/woodlands to 7,500'; unknown on WRNF)
Hoary bat, <i>Lasiurus cinereus</i>	Pot. habitat (Including mixed conifer and lodgepole pine forest)
Spotted bat, <i>Euderma maculatum</i>	No habitat (Cliffs, arid terrain)

Table 3E-2:
Region 2 Sensitive Animal Species that Occur on the WRNF
and their Potential Occurrence in the Proposed Weber Gulch Backcountry Hut Project Area

Common name, <i>Scientific name</i>	Rationale for Potential Project Effects (Habitat Affinity)
Townsend's big-eared bat, <i>Corynorhinus townsendii townsendii</i>	No habitat (Structures, tree cavities <9,500')
American marten, <i>Martes americana</i>	Present (Conifer forests)
North American wolverine, <i>Gulo gulo luscus</i>	Pot. travel habitat (Mountains)
River otter, <i>Lontra canadensis</i>	No habitat (Year-round open water and streamflows of ≥ 10 cfs)
Rocky Mountain bighorn sheep, <i>Ovis canadensis canadensis</i>	No habitat (High visibility habitat near escape terrain)

Source: Thompson, 2013a

Note: Other R2 species are not listed because they have not been found on the WRNF, they have no affinities to Project Area habitats, the Project Area is outside of the species' range or elevational distribution. Potential pre-field survey occurrence on the Project Area, potential for project effects, and habitat affinity is summarized for each species. Species in bold are potentially present and/or are discussed in the text. Wildlife are listed phylogenetically.

Insects

One species of R2 sensitive insect is potentially present on the WRNF. The Great Basin silverspot (*Speyeria nokomis nokomis*) does not have potential habitat within the area of influence of the Project Area nor have known distributions overlapping the WRNF.

Fish

Five species of sensitive fish—roundtail chub (*Gila robusta*), mountain sucker (*Catostomus platyrhynchus*), bluehead sucker (*Catostomus discobolus*), flannelmouth sucker (*Catostomus latipinnis*), and Colorado River cutthroat trout (CRCT) (*Oncorhynchus clarkii pleuriticus*)—occur on the WRNF. None of the four former species occur within French Gulch or within the hydrologic influences of the Project Area.

The CRCT analysis area for this project extends downstream from those reaches that could be affected by the proposed project to, and including, the Blue River upstream of Dillon Reservoir. The stream reaches draining the Project Area represent historic and potential CRCT habitat. However, there are no stream reaches known to be occupied by CRCT in or downstream of the Project Area that would be influenced by the Proposed Action. The cutthroat trout that are in French Creek are more closely aligned with Yellowstone cutthroat trout and specific CRCT standards are guidelines do not apply to that cutthroat trout subspecies.

Amphibians/Reptiles

Two species of sensitive amphibians—boreal western toad (*Anaxyrus [formerly Bufo] boreas boreas*) and northern leopard frog (*Lithobates [formerly Rana] pipiens*)—and no species of sensitive reptile occur on the WRNF. Both amphibians are discussed below.

Boreal Western Toad

The boreal western toad inhabits marshes, wet meadows, and the margins of streams, beaver ponds, lakes, and glacial kettle ponds between 7,000 and 11,860 feet in Colorado. They may be active both day and night, hiding beneath rocks, logs, or in rodent burrows when inactive. These toads emerge from winter chambers during May and begin moving back to the hibernaculum in late August and early September. By October, most toads have entered hibernation. Breeding begins in late spring as the winter snow pack recedes. Strings of eggs are usually deposited in shallow pools or along pond margins in late May to early June. Tadpoles metamorphose their first or second summer depending on elevation and water temperature. Post-breeding dispersal of adult toads may extend considerable distances into upland habitats from breeding sites. While males appear to have home ranges within an approximate 300-meter radius of breeding sites, females generally disperse farther (uncommonly up to 2.5 miles) and into drier habitats than males. For impact analyses, a 1.5-mile radius is the general distance within which project effects are considered on the WRNF. Although this toad was once widespread in Colorado's mountains, and while suitable habitat is still widespread, this species has declined in recent years, with chytrid fungus (*Batrachochytrium dendrobatidis*, "Bd") thought to be the primary agent.

There are nine known, extant boreal toad breeding sites on the DRD, but all are beyond the 1.5-mile radius dispersal distance (from the proposed Weber Gulch backcountry hut Project Area) that is considered for project analyses on the WRNF. In 2011, boreal toad surveys were conducted in French Creek by Forest Service biologists. No occupied habitat was found.

Northern Leopard Frog

Northern leopard frogs are widespread across North America, inhabiting the banks and shallow portions of marshes, ponds, lakes, reservoirs, beaver ponds, streams and other bodies of permanent water, especially those having rooted aquatic vegetation. After hibernation, leopard frogs become active in April or May.

There are no recent records of this frog's presence in the vicinity of Weber Gulch or the surrounding area. Leopard frogs have only been collected on the Rifle and Blanco Districts of the WRNF, far from the Weber Gulch Project Area. Boreal toad surveys conducted in French Creek by Forest Service biologists did not detect leopard frogs. The northern leopard frog analysis area for this project is the Swan River basin above Dillon Reservoir.

Birds

Seventeen species of sensitive birds are known or expected to occur on the WRNF. Thirteen of those species are associated with habitats that are not found in the Project Area. Those habitats include plains, and semi-arid shrublands, grasslands, agricultural lands, marshes, cliffs, open water (in winter) and big game winter ranges, lowland conifer and riparian complexes, sagebrush and mountain shrub habitats, late-successional aspen forest, and waterfalls. The remaining four species are addressed individually, below.

Northern Goshawk

Goshawks (*Accipiter gentilis*) are a forest-interior species generally associated with mature aspen and conifer forests between 7,500 and 11,300 feet on the WRNF. Goshawks nest in mature to old-growth aspen and mixed aspen and coniferous forests with a depauperate understory on gently sloping north or east aspects near the bottom of stream courses. Nests are typically composed of a branch and twig platform 2 to 4 feet in diameter, located in a fork along the main trunk, two-thirds to three-quarters of the way up the tree. Nest trees are often the largest trees in the stand and are frequently next to breaks in the canopy, such as old logging trails or openings created by fallen trees. Goshawks exhibit high breeding-territory fidelity and nests may be reused in subsequent years.

The Forest Service monitors known goshawk nest sites on the DRD. Natural Diversity Information Source (NDIS) data indicate that goshawks are uncommon in Summit County and that one to two individuals can be observed daily in appropriate seasons and habitats. The goshawk analysis area for this project is the upper Swan River basin above Dillon Reservoir, which would include the furthest extent of any nest territories that might overlap proposed Alternative 2 disturbance areas.

Goshawk surveys, following Kennedy and Stahlecker (1991), as modified by John Verner (1996), were conducted along all proposed new and upgraded access routes. Nine calling stations were surveyed on July 12, 2011. No evidence of goshawks was detected during the calling surveys or during other wildlife-oriented fieldwork. Goshawks have not been detected within the French Gulch drainage. It is unlikely that goshawks nest within the proposed Weber Gulch backcountry hut Project Area because of the high elevation forest stand characteristics and superior nesting and foraging habitat at lower elevations in the surrounding area. However, it is possible that goshawks could utilize portions of the Project Area as part of a local pair's large hunting range. Primary prey species abundance within the Project Area and the larger surrounding landscape is relatively moderate (e.g., small and medium-sized birds, red squirrels, snowshoe hares, and blue grouse). Therefore, habitats within the Project Area represent potential foraging habitat.

White-tailed Ptarmigan

White-tailed ptarmigan (*Lagopus leucurus*) are residents of the alpine, although they (especially females) may vertically migrate to winter in subalpine basin and water courses containing willow stands. They inhabit all alpine regions of Colorado except the Wet Mountains and Spanish Peaks. The white-tailed ptarmigan analysis area for this project extends outward from the proposed Weber Gulch backcountry hut disturbance and alpine use areas to the furthest female winter ranges in the surrounding area. The upper Blue River and Snake River basins above Dillon Reservoir, Tenmile and West Tenmile Creeks, and South Park drainages on the south side of the Continental Divide would likely include all potential, female, winter habitats for birds potentially nesting in the alpine above the proposed Weber Gulch backcountry hut.

Ptarmigan have not been detected during summer or winter field surveys in and around the Project Area, although winter surveys did not extend into the alpine. It is unlikely that ptarmigan winter in anticipated alpine use areas above the proposed hut because the areas that would be skied do not support willows and they are snow deposition areas that ptarmigan actually avoid as foraging habitat in winter. However, if some male ptarmigan occur in or around the ski play area, they may be occasionally displaced by skiing activity, but they should continue to use such activity areas, as they do at Breckenridge Ski Resort and Copper Mountain Resort, both ski areas.

Boreal Owl

Boreal owls (*Aegolius funereus*) are rare to locally uncommon residents of Colorado's mountains, mainly above 9,000 feet. They inhabit mature and late-successional spruce-fir and spruce-fir/lodgepole pine forests interspersed with small meadows, streams, and wetlands.

The boreal owl analysis area for this project extends outward from the proposed Weber Gulch backcountry hut Project Area to the furthest extent of any boreal owl home range that could overlap the project component areas. Because boreal owl home ranges can be in the range of 3,447 to 3,894 acres (e.g., for two males), the boreal owl analysis area could extend 3 to 4 miles beyond the proposed Alternative 2 disturbance areas.

Boreal owl surveys, following a modified version of the Verner (1993) protocol that reduced the spacing between calling stations (n=10) from 0.5 mile to 0.25 mile to compensate for potentially windy conditions, were conducted on March 1, 2011 along flagged, existing and proposed new and upgraded trails to the proposed Weber Gulch backcountry hut site, at and above Sally Barber Road. Survey coverage included all areas that could represent potential nesting habitat that could be affected by the Proposed Action. Survey conditions were excellent with clear skies and maximum wind speeds of 4 miles per hour. A completed owl survey form is contained in the project file. No owls were detected during the survey.

In addition to the calling survey, a nest cavity survey was conducted along flagged, existing and proposed new and upgraded trails to the proposed Weber Gulch backcountry hut site, at and above Sally Barber Road on July 12, 2011. This survey sought any nest cavities in all trees along the existing and proposed access trails that could possibly be removed for trail creation and widening that could potentially support a boreal owl nest. No nest cavities of any type were detected.

While no evidence of boreal owls was detected in or near the proposed Weber Gulch backcountry hut project component areas, during field surveys associated with this project, it is likely that the Project Area occurs within an active boreal owl territory. A male boreal owl was heard calling approximately 1.5 to 2.1 miles west southwest of the proposed Hut site during the 2010 to 2012 breeding seasons. Although the locations of that male were relatively close to the Project Area, it is possible that the Project Area could support another nesting pair of owls. Furthermore, many of the mature, closed canopy, spruce-fir and

mixed conifer stands in the Project Area and along access trails are structurally suitable as foraging habitat.

Olive-sided Flycatcher

Olive-sided flycatchers (*Contopus cooperi*) are uncommon summer residents of higher Colorado mountains and migrants through lower elevations. In Colorado, most nest building begins in June, incubation takes 16 to 17 days, and the young fledge in 21 to 23 days, with most young fledging in July. Birds may re-nest or have second broods. In Colorado, they breed from 7,000 to 11,000 feet, primarily in dense, mature spruce-fir and Douglas-fir forests, especially on steep slopes or near cliffs, and less often in other coniferous forests, montane and foothill riparian forests, and aspen forests. Requisite habitat components for this species are snags and conifers. An analysis of summer (boreal forests) and winter (tropical rain forests) habitat suggests that this flycatcher depends more on forest structure than on tree species composition. Within these habitats they are often associated with forest openings and forest edge habitat where they sally for flying insects from the tops of uncommonly tall snags and trees. They may occupy early successional forests (i.e., those resulting from fires and logging), provided snags and/or residual tall trees are available for foraging and singing perches. This flycatcher's affinity to such forest structure may limit its local abundance or distribution. For this analysis, suitable habitat is narrowly defined as spruce-fir and mixed conifer, Stages 4B, 4C, and 5.

The olive-sided flycatcher analysis area for this project extends outward to the furthest extent of any home range that could overlap the proposed Weber Gulch backcountry hut project component areas. Olive-sided flycatchers were not detected in or around project component areas during the two summer surveys when they may have been present. However, some forest stands in the vicinity of the Project Area, including some that would be bisected by new and expanded access trails, fall within the general habitat continuum known to be inhabited by this species.

The MPB epidemic will likely decrease foraging and nesting opportunities, and the effects to these flycatchers will vary by forest type. Olive-sided flycatchers now associated with lodgepole stands may be completely displaced over the long term until lodgepole stands succeed back to mature, closed canopy, communities with openings and suitable snag densities. Flycatchers associated with suitable mixed conifer stands may be affected by reduced foraging opportunities, but birds should persist, perhaps at lower densities. Flycatchers associated with suitable spruce-fir stands may be unaffected by MPB effects.

Mammals

Nine species of sensitive mammals occur or are expected to occur on the WRNF. Five species—fringed myotis (*Myotis thysanodes*), spotted bat (*Euderma maculatum*), Townsend's big-eared bat (*Corynorhinus townsendii townsendii*), river otter (*Lontra canadensis*), and Rocky Mountain bighorn sheep (*Ovis canadensis canadensis*)—have not been detected on or near the Project Area, do not have affinities to Project Area habitats, have elevation and/or distributional ranges that do not overlap the Project Area.

Those five species are dropped from further consideration herein. The remaining three species have affinities to habitats present within the Project Area, may be present, and are addressed below.

Pygmy Shrew

Pygmy shrews (*Microsorex hoyi montanus*) are a species associated with the northern boreal forests of Canada and the northern United States. Until 1961 this shrew was unknown from the Rocky Mountains south of Montana. Since that time, specimens have been captured in Colorado, though they are still very rare. More recent research by Siemers (2009) on the WRNF included capture sites on a variety of habitat types, including pond margin surrounded by spruce-fir woodland, willow riparian shrubland, subalpine meadow, spruce-fir woodland, and subalpine mesic meadow with spruce-fir. Two capture locations were in Summit County, Peru Creek and Elliot Ridge. The pygmy shrew analysis area for this project extends outward (on the order of several hundred yards) to the furthest extent of any home range that could overlap the proposed Alternative 2 disturbance areas.

No suitable trapping surveys have been conducted within the Project Area to detect this rare species. Until Siemers (2009) study, pygmy shrews had not been detected in Summit County (NDIS data) or anywhere else on the WRNF. Nevertheless, this species remains uncommon on the landscape, although trapability is likely a contributing factor. Based on the species' broad habitat affinities, forested habitats associated with Alternative 2 disturbance areas fall within the broad habitat continuum known to be occupied by this species.

Hoary Bat

The hoary bat (*Lasiurus cinereus*) is a solitary species, roosting primarily among foliage in deciduous and coniferous trees, often along the edges of clearings. They have been observed in a number of forested cover types, including mixed conifer, lodgepole pine, ponderosa pine, pinyon-juniper, and riparian areas with cottonwood and willow. Hoary bats forage on a wide variety of insects, especially moths.

Because of this species' dependence on trees with foliage for summer roosts, insect, disease and large-scale disturbances, such as the current MPB epidemic, pose a substantial, imminent threat to hoary bat populations. The only known roost locations of hoary bats in R2 were in live lodgepole pine trees, and the individuals located in that study preferred trees that were larger and had greater canopy cover than random. The bark beetle epidemic in R2 has killed more than 3 million acres of pine forests, decreasing the quality and quantity of this vital roosting habitat. Forest lands in R2 are often surrounded by unsuitable roosting habitat, so the Forests likely provide important roosting opportunities across the Region. The species has been documented on the WRNF and is considered in detail because of insufficient information on their distribution on the Forest.

The hoary bat analysis area for this project extends outward from the proposed Weber Gulch backcountry hut Project Area to the furthest extent of any nocturnal foraging range that bats roosting in the Project

Area might use. Based on nightly foraging ranges of other similar bats, the hoary bat analysis area could extend several miles beyond the proposed Alternative 2 disturbance areas.

American Marten

Martens (*Martes americana*) are boreal weasels closely associated with dense, late-successional, spruce-fir forests in Colorado, although their seasonal distribution also extends upward into the alpine and down into lodgepole pine forests and coniferous riparian corridors). Complex physical habitat structure, particularly on the forest floor, provides three important microhabitat functions: access to subnivian space for foraging and resting, escape cover, and thermal protection. Such structure might be in the form of logs, rock piles/outcrops, stumps, windthrown trees, slash, boulder fields, and squirrel middens.

Martens are well distributed across the WRNF in suitable habitats in mid- to upper elevation zones. Although they are most commonly observed in spruce-fir forests, they are occasionally seen in lower-elevation, mixed-conifer forests. Marten are present in the proposed Weber Gulch backcountry hut Project Area, most common in spruce-fir and upper elevation mixed conifer stands, but also occasionally extending into the lodgepole pine zone.

The American marten analysis area for this project extends outward from the proposed Weber Gulch backcountry hut Project Area to the furthest extent of any marten home range that could overlap the proposed disturbance areas. Therefore, the marten analysis area could extend approximately 1 mile beyond the proposed Alternative 2 disturbance areas.

Winter tracking surveys were conducted on March 1, 2011 along all proposed access routes to the proposed hut. Tracking routes were divided into transect segments in the field, corresponding to large or relatively homogeneous habitat blocks, defined by boundaries between distinct habitat types and/or distinct locations on topographic maps. Track indices were developed from tracks ≤ 24 hours old identified to species (or taxa) and counted when they crossed or approached the transect. Total non-repetitive tracking survey distance was 6.1 kilometers and track indices were developed along 6.18 kilometers of transects. Although caution is warranted because of sample size limitations, marten track indices averaged 0.65 fresh tracks per kilometer of transect in the Project Area, generally slightly higher than indices developed at some surrounding ski areas.

Management Indicator Species

Management indicator species (MIS) are defined in Forest Service Manual (FSM) 2620.5-1 as “(P)lant and animal species, communities, or special habitats selected for emphasis in planning, and which are monitored during forest plan implementation in order to assess the effects of management activities on their populations and the populations of other species with similar habitat needs which they may represent.”

American Elk

Elk were selected as a MIS to answer the question “Does Forest motorized and non-motorized travel and recreation management result in effective use of habitat by ungulates?” Forest-wide, the elk population is increasing, but the population is decreasing in some areas as a result of intentional management (e.g., DAU E-13). Elk habitat quantity across the WRNF is expected to remain stable, habitat quality is expected to remain stable or increase, and the future elk population trend is unknown. Part of the uncertainty with future population trends is that elk numbers are affected by weather and hunting levels that are independent of Forest Service control. The main MIS concern for elk is habitat effectiveness and their ability to disperse across the Forest. Elk were selected as a project-level MIS for the proposed Weber Gulch backcountry hut project because they are seasonally present. The Forest Service is implementing the elk monitoring protocol, in cooperation with Colorado Parks and Wildlife (CPW), to monitor population and habitats trends across the WRNF.

This species was not chosen as a MIS because of any viability concerns, there is not a viability concern for this species on the WRNF, viability is not expected to become a concern through implementation of this project or continued implementation of the Forest Plan, and viability of this MIS will not be addressed further in this document. The elk analysis areas considered herein includes the furthest home ranges of elk overlapping the Project Area (generally southern Summit County) and the WRNF.

In Colorado, the breeding season for elk begins in early September, peaks during the last week of September and first week of October, and is over by late October. Calving grounds are carefully selected by the cows and are generally in locations where cover, forage and water are in close proximity. Calving sites occur in the middle to upper portions of summer range and often occur in the same general area each year. Hiking and other recreational activities in or near elk calving areas can impact reproductive success.

Elk inhabit higher elevations during spring and summer and migrate to lower elevations for winter range. The length of seasonal migration varies from just a few miles to nearly 50 miles in some cases. When early winter snows begin to accumulate, cows, calves and younger bulls begin to move down to winter ranges, where they usually remain from December through March. During winter, elk form large, mixed herds on favored winter range and more than 1,000 animals may be observed together. Mature bulls typically winter at higher elevations than cows and are found in small bachelor groups. As winter moderates in late March, elk start a gradual movement back up to their summer ranges and the cycle begins again. Winter range availability and habitat effectiveness may be the most critical seasonal range for elk survival. The Project Area is not part of, and is somewhat separated from, the Front Range endemic area where chronic wasting disease has been detected in deer and, to a lesser extent, elk by CPW.

The State of Colorado has responsibility for the management of wildlife populations. The CPW has specific elk management goals and objectives that have been developed in cooperation with landowners, the public and federal land management agencies.

The proposed Weber Gulch backcountry hut Project Area is in Data Analysis Unit (DAU) E-13, which comprises all of Summit County and the southern part of Grand County. DAU E-13 contains 1,369.2 square miles (876,288 acres), with 35 percent (479.1 square miles [306,624 acres]) of this DAU within the WRNF. The proposed Weber Gulch backcountry hut Project Area represents a small portion of the home ranges of elk herds within DAU E-13. Through liberal antlerless seasons, the CPW has been actively managing this herd to reduce it to its current (2010) DAU population objective of 4,700 to 5,500 animals. Based upon the most recent data available, the DAU E-13 herd remains above the population objective. There are no current MIS concerns about the overall population number or overall population trend for this herd. The bull elk harvest and bull:cow ratios in DAU E-13 have remained fairly stable over the past ten years.

The WRNF has begun implementing its Travel Management Plan (TMP), which will alter and reduce open roads and trails on the Forest, which continue to experience increasing use by recreationists during the summer and fall. The lack of available summer range is becoming more of an issue to elk herds in southern Summit County because of fragmentation and encroachment of human activities into elk habitat. The continued development of large portions of the winter ranges on private lands into private home sites is likely causing increased stress on the population and may contribute to reduced calf production and survival. The proposed Weber Gulch backcountry hut Project Area is used by low numbers of elk from spring through fall. Use starts in spring as animals follow receding snowlines from lower elevation winter ranges. A low level of calving could possibly occur in some of the more isolated forest blocks in the area, but such use is likely limited by higher quality, more isolated, lower elevation habitat blocks that are not as bisected by dispersed recreational activities. Some elk remain in the general for summer range. Restrictive snow depths begin pushing the elk down to lower elevation winter ranges in November. Winter range is not an issue relevant to this Project Area.

Aquatic Macroinvertebrates

On the WRNF, aquatic macroinvertebrates were selected to address trend and condition of flowing waters only. Therefore, macroinvertebrates in still water habitats will not be discussed further. Because of their wide distribution and their sensitivity to disturbance and pollutants, aquatic macroinvertebrates are widely used to monitor the health of streams and rivers. This group was not chosen as a MIS because of any viability concerns, there is not a viability concern for this species on the WRNF, viability is not expected to become a concern through implementation of this project or continued implementation of the Forest Plan, and viability of this MIS will not be addressed further in this document. The aquatic macroinvertebrate analysis areas for this project include those streams (including Weber Gulch, French

Creek, and the Blue River above Dillon Reservoir) draining the Project Area that could be affected by sediments and increased flows from proposed Alternative 2 disturbance areas.

Aquatic macroinvertebrates are those invertebrates that spend at least part of their life cycle in water. These include worms, mollusks, mites, and insects. Insects are by far the most common. Most insect species spend just the immature phase (larval or nymph phase) in water. Aquatic macroinvertebrate communities are influenced by the timing of flows and water quality in the streams in which they live. Geology, elevation, temperature, gradient, and substrate distribution are other factors that commonly influence macroinvertebrate communities. As habitats are degraded, either by chemical pollutants, increased sediment, or unfavorable changes in flow regime (especially severe reductions), the response of the macroinvertebrate community is typically a reduction in the number of species which occur there and especially the number of sensitive species. Although sensitive species occur in most insect orders, three orders are comprised primarily of species that are more sensitive to disturbance. These are Ephemeroptera (mayflies), Plecoptera (stoneflies), and Tricoptera (caddisflies), collectively known as “EPT.” Additionally, a specific WRNF metric was developed identifying local EPT taxa sensitive to sediment.

There are no baseline aquatic macroinvertebrate, water quality, or fisheries data available for Weber Gulch per se, due to intermittent character of the drainage’s lower reach. Considerable aquatic macroinvertebrate and water quality data are available for French Gulch as a result of sampling associated with the Wellington Mine. The Forest Service has sampled fisheries in reaches of French Gulch and found that the cutthroats present are more closely aligned with Yellowstone cutthroat trout. CPW has sampled fisheries in the Blue River below French Creek and found the fish community dominated by rainbow and brown trout. The EPA has aquatic macroinvertebrate and water quality data for that section of the Blue River below French Creek, as related to Wellington Mine. These data are incorporated herein by reference and are contained in the project file and available for review by the public at the DRD office in Silverthorne.

All Trout (Brook, Brown, Rainbow, & Colorado River Cutthroat)

Fish communities are used to describe the existing condition of the Project Area and potential effects of various project components. Total trout (including brook [*Salvelinus fontinalis*], brown [*Salmo trutta*], rainbow [*Oncorhynchus mykiss*], Colorado River cutthroat trout [*O. clarkii pleuriticus*], and their hybrids, hereinafter MIS trout, or trout) density, or the number of all trout individuals per 100 meters of stream, is an MIS, and a useful measure of habitat quality. Decreased habitat quality can result from changes in channel morphology and increased sedimentation. Fall spawning fish (brook and brown trout) could potentially be affected by water depletions when eggs are in the gravels. Egg mortality can result from flow reductions dewatering egg deposition areas and increasing anchor ice occurrence. This group was not chosen as a MIS because of any viability concerns, there is not a viability concern for this MIS group on the WRNF, viability for this MIS group is not expected to become a concern through implementation of this project or continued implementation of the Forest Plan, and viability of this MIS group will not be

addressed further in this document. The all trout analysis areas for this project include those streams (including Weber Gulch, French Creek, and the Blue River above Dillon Reservoir) draining the Project Area that could be affected by sediments and increased flows from proposed Alternative 2 disturbance areas.

Because trout were selected as a MIS during the 2002 Forest Plan revision, the Forest does not yet have trout population numbers and trends for reference and affected stream reaches Forest-wide. In 2003, the WRNF began its Forest-wide aquatic MIS monitoring.

DIRECT AND INDIRECT ENVIRONMENTAL CONSEQUENCES

Alternative 1 – No Action

Alternative 1 is a true No Action Alternative and provides a baseline for comparing, accurately and consistently, the effects of Alternative 2. The No Action Alternative reflects a continuation of existing operations and management practices without changes, additions, or upgrades of the existing conditions on NFS land (on Summit County Open Space and Breckenridge Open Space properties). No new facilities or recreational opportunities would be approved under the No Action Alternative. Existing to increased levels of non-motorized (Nordic skiing, mountain biking, and hiking) and motorized (snowmobiling and four-wheeling) would occur along existing roads and trails in the vicinity of the Project Area. Mountain pine beetles (*Dendroctonus ponderosae*) could continue altering lodgepole pine and mixed conifer habitat values in the vicinity of the Project Area.

Threatened and Endangered Species

The management decisions associated with Alternative 1 would have “no effect” on any threatened and endangered species, their habitats, or on designated critical habitat.

North American Wolverine

Alternative 1 would have **no effect** on wolverines because no habitat modification would be authorized.

Canada Lynx

Alternative 1 would not induce or result in any tree removal or habitat changes, or changes in land use or human activity, including snow compaction alterations from current use. The No Action Alternative would have **no additional direct or indirect impacts** or benefits to lynx or lynx habitat.

R2 Sensitive Species

Impacts to R2 sensitive species are summarized in Table 3E-3, below.

Insects

One species of R2 sensitive insect is potentially present on the WRNF, but the Great Basin silverspot does not have potential habitat within the area of influence of the Project Area nor have known

distributions overlapping the WRNF. Therefore, Alternative 1, would have **no effect** on the Great Basin silverspot.

Fish

There would be no changes to the hydrology or habitat quality of any stream as a result of Alternative 1 that could negatively affect the five sensitive fish species.

Amphibians/Reptiles

Alternative 1 would have **no impact** on boreal toads. There is no suitable leopard frog breeding habitat that would be directly or indirectly affected by Alternative 1.

Birds

Alternative 1 would have **no impact** on goshawks, white-tailed ptarmigan, boreal owl or olive-sided flycatcher. However, under the No Action Alternative, the ongoing MPB epidemic will likely reduce short- and moderate-term foraging opportunities along mid- and lower-elevation lodgepole pine and mixed conifer habitats in the Swan River drainage, including the proposed Weber Gulch backcountry hut Project Area.

Mammals

Pygmy Shrew

Alternative 1 would have **no impact** on pygmy shrews. The effects of the current MPB epidemic on pygmy shrews, which will continue under the No Action Alternative, are uncertain because the species inhabits a wide range of habitats, including clearcuts and selectively logged forests that can be similar structurally and vegetatively to forest stands affected by the MPB epidemic.

Hoary Bat

Alternative 1 would have **no impact** on the hoary bat. The effects of the current MPB epidemic on hoary bats, which will continue under the No Action Alternative, are thought to be largely negative, because of the removal of roosting habitat, and uncertain, because of unknown effects to their insect prey base.

American Marten

Alternative 1 would have **no impact** on marten. However, under the No Action Alternative, the ebbing MPB epidemic will likely reduce short- and moderate-term foraging and possibly denning opportunities along mid- and lower-elevation lodgepole pine and mixed conifer habitats, including the Project Area.

Management Indicator Species

Aquatic Macroinvertebrates

The No Action Alternative would have **no additional direct or indirect effects** to aquatic macroinvertebrates, aquatic faunal communities, or water quality in Weber Gulch, French Gulch, or the Blue River downstream of the Project Area.

The No Action Alternative would have **no indirect impacts** to aquatic macroinvertebrates or water quality. Alternative 2 is not expected to generate any secondary development or dispersed recreation effects from additional residents, employees, or guests that would affect this indicator group or water quality in the analysis area.

American Elk

The No Action Alternative would have **no additional direct impacts** or benefits to elk or elk habitat.

All Trout

While past management may have degraded the physical habitat quality for salmonids in reaches of French Gulch and the Blue River in the Weber Gulch Project Area, the No Action Alternative would contribute **no additional direct or indirect effects** to local water quality or quantity, local trout populations, or trout populations and habitat trend Forest-wide.

Alternative 2 – Proposed Action

Threatened and Endangered Species

North American Wolverine

Alternative 2 would be **not likely to jeopardize** the continued existence of North American wolverine because no habitat modification would be authorized.

Canada Lynx

For all land ownerships, Alternative 2 would result in the permanent loss of 1.51 acres of lynx habitat (non-habitat is not lynx habitat) composed of forest, and temporary disturbances to 0.46 acre (all forblands around the hut), totaling 1.97 acres. Tree removal for trails (1.17 acres) and the parking lot (0.34 acre) would affect 0.24 acre of denning habitat, 0.23 acre of winter foraging habitat, 0.7 acre of other habitat, and 0.34 acre of currently unsuitable habitat. On NFS lands only, Alternative 2 would result in the permanent loss of 0.89 acre of lynx habitat, impacts to 0.09 acre of non-habitat, and temporary disturbances to 0.37 acre of non-habitat, totaling 1.35 acres. Tree removal for trails (0.55 acre) and the parking lot (0.34 acre) on NFS lands only would affect 0.21 acre of effective denning habitat, 0.34 acre of other habitat, and 0.34 acre of currently unsuitable habitat. The habitat impacts would have nearly immeasurable effects of the Swan River LAU lynx habitat statistics. Construction and use of the proposed Weber Gulch backcountry hut and its associated trail system should have no discernible effect on continued snowshoe hare use of the Project Area. The proposed Weber Gulch backcountry hut and its associated trail system would affect a patch of habitat that appears functional as diurnal security habitat. The one summer season of hut and trail construction activities, annual maintenance, and guest use of the hut should not result in lynx injury or mortality, but it could displace individual lynx that might be moving through active construction areas and access corridors.

The proposed Weber Gulch backcountry hut would increase dispersed winter recreational activity just beyond a forested bottleneck in the southern Summit County lynx corridor. While it would be best for lynx if a hut was not put in this corridor, the proposed Weber Gulch backcountry hut would maintain habitat connectivity through the Swan River LAU and between contiguous LAUs. Hut use would have collectively insignificant and discountable effects on lynx home range efficacy. Dispersed skiing outside of areas intended for skiing should not have meaningful adverse effects on lynx habitat use. Use of the proposed Weber Gulch backcountry hut is expected to make only insignificant and discountable incremental contributions to traffic volumes along regional highways serving the hut. The proposed Weber Gulch backcountry hut is not expected to generate any secondary development from additional residents or employees.

The direct and indirect effects of the proposed Weber Gulch backcountry hut would be consistent with all applicable SRLA management direction. While the collective habitat losses, land use, and human activity within the Swan River LAU, including considerable recent habitat modifications associated with the mountain pine beetle epidemic, have degraded lynx habitat values and impaired habitat connectivity, the relatively small and benign additive impacts associated with the proposed Weber Gulch backcountry hut on lynx foraging, sheltering, breeding, and dispersal would meet the definitions of “insignificant” and “discountable” (per the USFWS and NMFS). Therefore, the Proposed Action warrants a “**may affect, not likely to adversely affect**” determination for Canada lynx. In a letter dated March 11, 2015, the USFWS concurred with this determination.

The 8-mile long Great Flume Trail is identified on the WRNF’s 2002 Baseline Snow Compaction map as a “compacted route.” That trail is located approximately 2 miles northeast of the proposed Weber Hut site in the South Fork of the Swan River drainage, the next drainage to the north of French Gulch. However, after two years of winter monitoring, it was documented that the Great Flume trail is not being used in the winter. This lack of use is likely due to thick timber in the area, combined with the fact that it is a single-track trail in the summer months, making it quite difficult to find in the winter.

Alternative 2 would not result in a net increase in designated snow compaction routes on the DRD. The 8-mile Great Flume Trail would be removed from the WRNF snow compaction map. The “new” snow compaction associated with the proposed Weber Gulch backcountry hut trails would be added to the snow compaction map. This means that snow compacting activities would not exceed the totals of the 2002 WRNF Snow Compaction Map for the Swan River LAU and the proposed project would be consistent with Guideline HU G10 of the SRLA.

However, biologically, there would be a net increase in snow compactions as a result of the proposed Weber trails because the Great Flume Trail segment that would be removed from the baseline map is not currently used for skiing. There would also be some level of snow compaction around the hut and through the forest between the hut site and treeline from skiers traveling between the Alpine bowl and hut site.

Nevertheless, the additional compacted trails and terrain around the hut should not meaningfully affect lynx or lynx prey species abundance because coyotes, the primary, potential lynx predator and competitor, are already present in the project area. Any snow compaction in the alpine would affect areas identified as “non-habitat” for lynx.

R2 Sensitive Species

Table 3E-3 summarizes effects of Alternative 2 on R2 sensitive species. Following the table, detailed information on impacts to each species is presented.

Table 3E-3:
Determination Summary of Effects on R2 Sensitive Animal Species
Resulting from Alternatives 1 and 2

Common name, <i>Scientific name</i>	Determination	
	Alt. 1	Alt. 2
INSECTS		
Great Basin silverspot, <i>Speyeria nokomis nokomis</i>	NI	NI
FISH		
Roundtail chub, <i>Gila robusta</i>	NI	NI
Mountain sucker, <i>Catostomus platyrhynchus</i>	NI	NI
Bluehead sucker, <i>Catostomus discobolus</i>	NI	NI
Flannelmouth sucker, <i>Catostomus latipinnis</i>	NI	NI
Colorado River cutthroat trout, <i>Oncorhynchus clarkii pleuriticus</i>	NI	NI
AMPHIBIANS		
Boreal western toad , <i>Bufo boreas boreas</i>	NI	NI
Northern leopard frog , <i>Rana pipiens</i>	NI	NI
BIRDS		
Northern goshawk , <i>Accipiter gentilis</i>	NI	MAII
Northern harrier, <i>Circus cyaneus</i>	NI	NI
Ferruginous hawk, <i>Buteo regalis</i>	NI	NI
American peregrine falcon, <i>Falco peregrinus anatum</i>	NI	NI
Bald eagle, <i>Haliaeetus leucocephalus</i>	NI	NI
White-tailed ptarmigan , <i>Lagopus leucurus</i>	NI	MAII
Greater sage grouse, <i>Centrocercus urophasianus</i>	NI	NI
Columbian sharp-tailed grouse, <i>Tympanuchus phasianellus columbianus</i>	NI	NI
Flammulated owl, <i>Otus flammeolus</i>	NI	NI
Boreal owl , <i>Aegolius funereus</i>	NI	MAII
Black swift, <i>Cypseloides niger</i>	NI	NI
Lewis’ woodpecker, <i>Melanerpes lewis</i>	NI	NI
Olive-sided flycatcher , <i>Contopus cooperi</i>	NI	MAII
Loggerhead shrike, <i>Lanius ludovicianus</i>	NI	NI
Purple martin, <i>Progne subis</i>	NI	NI
Brewer’s sparrow, <i>Spizella breweri</i>	NI	NI
Sage sparrow, <i>Amphispiza belli</i>	NI	NI

**Table 3E-3:
Determination Summary of Effects on R2 Sensitive Animal Species
Resulting from Alternatives 1 and 2**

Common name, <i>Scientific name</i>	Determination	
	Alt. 1	Alt. 2
MAMMALS		
Pygmy shrew , <i>Microsorex hoyi montanus</i>	NI	MAII
Fringed myotis, <i>Myotis thysanodes</i>	NI	NI
Hoary bat , <i>Lasiurus cinereus</i>	NI	MAII
Spotted bat, <i>Euderma maculatum</i>	NI	NI
Townsend's big-eared bat, <i>Corynorhinus townsendii townsendii</i>	NI	NI
American marten , <i>Martes americana</i>	NI	MAII
North American wolverine , <i>Gulo gulo luscus</i>	- ^a	- ^a
River otter, <i>Lontra canadensis</i>	NI	NI
Rocky Mountain bighorn sheep, <i>Ovis canadensis canadensis</i>	NI	NI

NI = No impact; BI = Beneficial impact; MAII = may adversely impact individuals, but is not likely to result in a loss of viability in the planning area, nor cause a trend toward federal listing.

Determinations in this table only consider NFS lands that may be directly, indirectly, or cumulatively affected by the Proposed Action, which R2 species determinations are based on.

Wolverine was proposed for listing under the ESA on February 4, 2013. As a result, it is dropped from consideration herein and is addressed in the BA.

Insects

One species of R2 sensitive insect is potentially present on the WRNF, but the Great Basin silverspot does not have potential habitat within the area of influence of the Project Area nor have known distributions overlapping the WRNF. Therefore, Alternatives 2, including the implementation of PDF, would have **no impact** on the Great Basin silverspot.

Fish

There would be no changes to the hydrology or habitat quality of any stream as a result of Alternative 2 that could negatively affect the five sensitive fish species. Therefore, Alternative 2 would have **no impact** on these five species of sensitive fish.

Amphibians/Reptiles

Boreal Western Toad

A Forest Plan Consistency Analysis was conducted for Alternatives 1 and 2 and is contained in the Administrative Record at the DRD. With the implementation of PDFs that are part of the Proposed Action, Alternatives 1 and 2 would be consistent with all standards and guidelines, and Forest direction applicable to boreal toads and leopard frogs.

Alternative 2 project components would have no impact on any known or potential boreal toad breeding habitat or surrounding terrestrial habitats that could be expected to be used post-breeding or for hibernacula. With the implementation of PDFs incorporated into the Proposed Action, no sediments

originating in Alternative 2 construction areas are likely to extend to any suitable boreal toad breeding complex on NFS or private lands. It is discountable that extreme female home range or dispersing toad movements could extend into Alternative 2 project component areas. As such, construction activity impacts (e.g., direct mortality of individuals in clearance areas and along access roads, direct effects) or impaired habitat connectivity via reduced forest cover and maintenance vehicle-induced mortality along mountain roads (indirect effects) would not impact individuals. Therefore there would be **no impact** on this species.

Northern Leopard Frog

There is no suitable leopard frog breeding habitat that would be directly or indirectly affected by Alternatives 2. For the same reasons described above for the boreal toad, Alternative 2 would have **no impact** on the leopard frog.

Birds

Northern Goshawk

The ongoing MPB epidemic will likely reduce short- and moderate-term foraging and nesting opportunities along mid- and lower-elevation lodgepole pine and mixed conifer habitats in the Swan River drainage, including the proposed Weber Gulch backcountry hut Project Area.

In addition to MPB affects, Alternative 2 would affect goshawks by removing 0.9 acre of forest on NFS lands (1.5 acres of forest under all land ownerships) in the Project Area that supports potential prey species. This habitat conversion would be inconsequential on the large foraging range of an individual pair's home range. No goshawk nests or nesting habitat associated with a known nesting block would be affected. Additional PDFs (Chapter 2, Table 2-2) that are part of the Proposed Action would incrementally reduce the above direct effects on this species. Indirect effects associated with this project would have no impacts on goshawks.

Regarding goshawks, Alternative 2 **may impact individuals, but is not likely to result in a loss of viability in the planning area, nor cause a trend toward federal listing.**

White-tailed Ptarmigan

Ptarmigan use of the Project Area and adjacent habitats for summer and breeding uses would be unaffected by Alternative 2. Alternative 2 could result in more frequent displacement of wintering male ptarmigan in alpine areas above the hut site if they are occasionally present. There would no physical loss of winter foraging habitat. There would be no indirect effects associated with this project (limited to increases in dispersed recreation extending into ptarmigan habitat).

Regarding white-tailed ptarmigan, Alternative 2 **may adversely impact individuals, but is not likely to result in a loss of viability in the planning area, nor cause a trend toward federal listing.**

Boreal Owl

Alternative 2 would affect boreal owls by removing linear forest corridors for new and expanded access trails, representing potential year-round foraging habitat and potential nesting habitat, scattered throughout one or more owl home ranges. However, while the habitat that would be affected along proposed trail corridors is part of a larger block of potential nesting habitat, it is currently unsuitable for nest sites because no nest cavities are currently present in trees that would be possibly removed for proposed trail development. Assuming (invalidly) that all forested habitat affected by the Proposed Action is suitable as boreal owl habitat, potential boreal owl foraging and nesting habitat affected would total 0.9 acre of forest on NFS lands (1.5 acres of forest under all land ownerships). This habitat conversion would be inconsequential on the large foraging range of an individual pair's home range. If new nest trees associated with an active territory occur along the 1.3 miles of new and widened trails during the construction season, direct mortality of eggs and/or nestlings would be avoided by conducting tree removal outside the May 21 to July 15 nesting period when eggs/young could be present. Given this species' primarily nocturnal habitat use, cavity nesting habit, the relatively small amount of subalpine and montane terrain that would be developed (i.e., compared to the intact terrain that would remain outside of the trail corridors), and tolerance to human disturbance, it is likely that all remaining surrounding forest that is currently suitable as boreal owl habitat would remain suitable, including possible future nesting. Increases in dispersed recreation (i.e., other than that associated with Alternative 2) extending into boreal owl habitat would have no indirect impact on this species.

Regarding boreal owls Alternative 2 **may impact individuals, but is not likely to result in a loss of viability on the planning area, nor cause a trend toward federal listing.**

Olive-sided Flycatcher

Alternative 2 would affect olive-sided flycatchers by removing linear forest corridors for new and expanded access trails, representing potential year-round foraging habitat and potential nesting habitat, possibly scattered throughout one or more nest territories. Assuming (invalidly) that all forested habitat affected by the Proposed Action is suitable as olive-sided flycatcher habitat, potential foraging and nesting habitat affected would total 0.9 acre of forest on NFS lands (1.5 acres of forest under all land ownerships). This habitat conversion would be inconsequential on an individual pair's home range. If nest trees associated with an active territory occur along the 1.3 miles of new and widened trails during the construction season, direct mortality of eggs and/or nestlings would be avoided by conducting tree removal outside the June 1 to July 15 nesting period when eggs/young could be present.

Regarding olive-sided flycatchers, Alternative 2 **may impact individuals, but is not likely to result in a loss of viability in the planning area, nor cause a trend toward federal listing.**

Mammals

Pygmy Shrew

In addition to MPB affects, Alternative 2 could impact individual pygmy shrews through direct, construction-related mortality and/or loss of potential habitat. Even considering the relative small home range size of this species, the proposed Weber Gulch backcountry hut impact areas amounting to 0.89 acre of forest on NFS lands (1.51 acres of forest under all land ownerships) extending over 1.3 miles of new and expanded trails, would represent a small portion of an individual shrew's home range, if present, and an insignificant proportion of the total potential range and habitat available to this species on the Forest. The probability that this species would be present in those potentially suitable habitats proposed for trail, parking lot, and hut development when it is so rare on the WRNF is unlikely. Indirect effects associated with this project would have no impact on this species. Impact zones associated with reasonably foreseeable projects (refer to Section 12.1 in the BE) considered in this analysis would contribute additional effects to potential pygmy shrew habitat in the Swan River basin, however the impact zones associated with those other activities and projects would not extend to potential habitat for this species that could be directly affected by the proposed Weber Gulch backcountry hut project components on NFS land. Nevertheless, because potential pygmy shrew habitat would be removed and altered and because of the small potential of direct mortality from construction activities, Alternative 2 **may adversely impact individuals, but is not likely to result in a loss of viability in the planning area, nor cause a trend toward federal listing.**

Hoary Bat

In addition to MPB affects, Alternative 2 could impact individual hoary bats through the loss of potential roosting/foraging habitat associated with mixed conifer stands and any remaining mature lodgepoles that survive the MPB epidemic. The Alternative 2 impact areas represent an insignificant proportion of the total potential range and habitat available to this species on the Forest. The probability that this species would be present in those small areas of potentially suitable habitats proposed for hut-related disturbance when it is so rare on the WRNF is unlikely. Indirect effects associated with this project would have no impact on this species. Impact zones associated with reasonably foreseeable projects considered in this analysis (refer to BE Section 12.1) would contribute no additional cumulative effects to this species because impact zones associated with those other projects would not extend to potential habitat for this species that could be directly and indirectly affected by Alternative 2 on NFS land. Nevertheless, because potential hoary bat habitat would be removed and altered, Alternative 2 “may adversely impact individuals, but is not likely to result in a loss of viability in the planning area, nor cause a trend toward federal listing.”

Because potential hoary bat habitat would be removed and altered, Alternative 2 **may adversely impact individuals, but is not likely to result in a loss of viability in the planning area, nor cause a trend toward federal listing.**

American Marten

The local, mature, closed canopy, lodgepole stands that dominate much of the lower and mid-elevations in the Swan River watershed do not represent primary marten habitat. Pure spruce-fir stands, representing the primary habitat of this species, should be largely unaffected by the MPB epidemic.

In addition to MPB affects, described under the No Action Alternative, Alternative 2 would affect martens by removing linear forest strips, which represent foraging habitat, but not denning habitat (based on no tree cavities detected in clearance areas during the July 12, 2011 survey that could support a marten den), likely extending into portions of several individuals' home ranges. The Alternative 2 impact areas represent an insignificant proportion of the total potential range and habitat available to this species on the Forest, and within individual home ranges overlapping the access trail corridors. Because there would be no den tree removal, young-of-the year would not be vulnerable to tree clearing, and no PDFs would be required to schedule tree removal outside of the March 1 to June 15 denning interval. Implementation of other PDFs should have no impact on martens.

Marten habitat effectiveness may decline in an area slightly larger than the area of tree removal as a result of fragmentation effects and tree skiing. The effects of tree skiing on the local forest prey base are unclear, but are unlikely to be beneficial. Additional and widened access trails would not restrict or block marten movements and there should be no meaningful effects on habitat effectiveness now experienced by martens in the existing area.

Indirect effects associated with this project, generally limited to increases in dispersed recreation extending into marten habitat, would have no additional impacts on this species.

Impact zones associated with reasonably foreseeable projects considered in this analysis, limited to non-project related increases in dispersed recreation and continued residential build-out in the Project Area, would contribute additional potentially negative effects to marten habitat and mortality in the marten analysis area. However, marten would persist in this analysis area. Other reasonably foreseeable projects considered in this analysis (refer to Section 12.1 in the BE) would contribute no additional cumulative effects to this species because impact zones associated with those other projects would not extend to potential habitat for this species that could be directly and indirectly affected by Alternative 2 on NFS land.

Regarding American marten, direct, indirect, and cumulative effects of Alternative 2 **may impact individuals, but are not likely to result in a loss of viability in the planning area, nor cause a trend toward federal listing.**

Management Indicator Species

American Elk

The relatively small acreage of habitat conversion to access trails and the hut would have no meaningful direct effect on elk habitat use or habitat effectiveness. One year of summer hut construction activities could displace elk from access corridors and the hut site if elk occur in those areas coincident with human activities. While ground-originating construction disturbances would be localized, but longer in duration, those associated with helicopter use would affect a larger area, though be limited to a few days during that single construction season. Construction activity displacement effects could persist for years and while full recovery cannot be assumed, it is possible that elk use could largely return to former levels after about seven years, as long as summertime human use remains near current environmental baseline levels. Full recovery to baseline levels is possible because summer elk use and winter hut use are virtually mutually exclusive. After the initial construction season, the only additional (summertime) project effects would be those associated with up to approximately 15 ATV trips per summer maintenance season, mostly in late summer and early fall, depending upon the source of supplemental hut heating (refer to Section 2.2.5 in the BE). The resulting potential displacement effects would be along the existing *Upper Trail of Tears* road and the new ATV track to the hut. This potential displacement would overlap the widespread human disruption of summer and fall transitional range use associated with the hunting seasons. Overall, construction and maintenance activities would have relatively minor effects on elk habitat effectiveness, but those effects would be additive to the reduced availability of effective summer range that is becoming an issue in southern Summit County herds because of habitat fragmentation and the encroachment of human activities into elk habitat.

Indirect effects to elk warranting consideration for this project would be those associated with the effects of any secondary or subsequent development, dispersed recreation, and highway traffic effects connected to the action area that would be induced or initiated by, or result from, Alternative 2.

Under Alternative 2, the proposed Weber Gulch backcountry hut is not expected to generate any secondary development from additional residents or employees. Temporary employees and contractors that would implement the project components would be mostly local, in-county commuters, or contractors that overnight at existing hotels.

Additional dispersed recreation resulting from the Proposed Action would be confined to winter when few, if any, elk would be present in the Project Area.

The proposed Weber Gulch backcountry hut use is expected to make only minor and discountable incremental contributions to traffic volumes along regional highways serving the hut. Hut guests would all use Highway 9 at an assumed carpooling average of 2.8 users per vehicle. This level of use (914 vehicle trips) averaged across the 160-day season would amount to 5.7 additional vehicle trips per day along Highway 9. This use would represent 0.03 percent of the 18,000 to 21,000 vehicles per day crossing

through the highway section with the best habitat connectivity for elk between adjacent winter range segments. While this hut-related traffic would be additive to highway traffic volumes that are already impairing elk movements and presenting more serious threats to mortality and habitat fragmentation, the resulting effects would be minor and discountable.

Aquatic Macroinvertebrates

Alternative 2 includes a number of required, site-specific, watershed and aquatic resources management measures that would be implemented to avoid, minimize, and mitigate effects to aquatic habitat within the Project Area, resulting from trail, parking lot, and hut construction. This includes, but is not limited to the potential for soil and slope destabilization, erosion, and sedimentation from disturbance areas, increased runoff from soil disturbance areas and areas cleared of forest into streams, increases in stream volumes and water velocities, destabilized channels, and degraded water quality that could alter aquatic faunal communities. Alternative 2 would not measurably contribute to any negative trend in the Forest-wide population or habitat trend of aquatic macroinvertebrates that would affect achieving Forest Plan MIS objectives.

Indirect effects to aquatic macroinvertebrates warranting consideration for this project would be those associated with the effects of any secondary or subsequent development and dispersed recreation that would be initiated by, or result from, Alternative 2 that would affect this indicator group or water quality in the analysis area. Alternative 2 is not expected to generate any secondary development or dispersed recreation effects from additional residents, employees, or guests that would affect this indicator group or water quality in the analysis area.

All Trout

Alternative 2 includes a number of required, site-specific, watershed and aquatic resources management measures that would be implemented to avoid, minimize, and mitigate effects to aquatic habitat within the Project Area resulting from trail, parking lot, and hut construction. This includes, but is not limited to the potential for soil and slope destabilization, erosion, and sedimentation from disturbance areas, increased runoff from soil disturbance areas and areas cleared of forest into streams, increases in stream volumes and water velocities, destabilized channels, and degraded water quality that could alter aquatic faunal communities. Alternative 2 would continue to provide effective salmonid habitat in all streams associated with the proposed Weber Gulch backcountry hut Project Area and would not measurably contribute to impaired spawning success or to any negative trend in the Forest-wide population or habitat trend of all trout that would affect achieving Forest Plan MIS objectives.

Indirect effects to all trout warranting consideration for this project would be those associated with the effects of any secondary or subsequent development and dispersed recreation that would be initiated by, or result from, Alternatives 1 and 2 that would affect this indicator group or water quality in the analysis area. Alternative 2 is not expected to generate any secondary development or dispersed recreation effects

from additional residents, employees, or guests that would affect this indicator group or water quality or quantity in the analysis area.

CUMULATIVE EFFECTS

Past, present, and reasonably foreseeable future project that have affected and will affect the resources considered herein extend from historic, persistent, mining and logging effects, to more recent transportation (e.g., I-70, Highways 9 and 6, and numerous Forest and private roads) and water developments (e.g., Dillon, Green Mountain, and other smaller reservoirs and their management affecting rivers and creeks). In addition, existing and continued build out of residential, commercial, and municipal developments related to the towns of Keystone, Dillon, Breckenridge, Frisco, Silverthorne and outlying developments are considered, as are the more widespread contemporary effects of year-round recreational development and use (e.g., alpine and Nordic ski areas, bike, hiking, and jeep trails, etc.).

In addition to the above general actions, specific past, present and reasonably foreseeable future projects are identified in Appendix A. Most of these specific projects have been approved and implemented and are now part of the environmental baseline considered under individual species accounts, below. Approved, but unimplemented components of those projects are also considered to have been implemented and part of the environmental baseline that may be further affected by Alternatives 1 and 2.

There are no reasonably foreseeable future actions on non-NFS lands warranting consideration in this analysis, although, locally, build out of individual neighborhoods within the Keystone PUD (originally approved in 1995) and in previously approved subdivisions in the upper Blue River continues.

Threatened and Endangered Species

Canada Lynx

With respect to reasonably foreseeable projects considered, the additive loss of lynx habitat and impaired habitat connectivity associated with Keystone's Dercum Mountain Improvement plan are tentatively considered to be adverse. Additional components of the Keystone Resort MDP would reduce spruce-fir forest cover, impair habitat connectivity in other portions of the southern Summit County lynx corridor extending through Keystone's Special Use Permit (SUP) area, and further expand the current development area boundary beyond current limits within the existing SUP area. Components of the Arapahoe Basin MDP would reduce spruce-fir forest cover, impair habitat connectivity in a portion of the southern Summit County lynx corridor northeast of Keystone that extends over Loveland Pass, and expand the current development area boundary beyond current limits within the existing SUP area. The Tenderfoot Motorcycle Trails proposal would increase summer through fall motorcycle-related activity and disturbances in a large area extending from the Keystone base area to I-70 that partly overlaps the 5.5 Management Area containing the southern Summit County lynx corridor northwest of Keystone and is entirely within the Loveland Pass Lynx Linkage. The collective effects of these future federal actions could further impair lynx habitat connectivity through southern Summit County and central Colorado,

along the easternmost, and possibly the most important, of four continuously forested lynx corridors on the West Slope.

R2 Sensitive and Management Indicator Species

When Alternative 2 is considered cumulatively with past, present and foreseeable future actions, none of the proposed projects are anticipated to contribute to any change in status or viability for the R2 or Management Indicator Species that are present or potentially present. Alternative 2 is not anticipated to cumulatively contribute to an increase in any current or predicted downward trend in population numbers or density, or to current or predicted downward trends in habitat capability that would reduce the existing distribution of any of the R2 or Management Indicator Species considered in this analysis.

F. VEGETATION

SCOPE OF ANALYSIS

The project area is located on the north and northwestern slopes of the ridge extending north off Bald Mountain (13,684 feet). Elevations associated with project area disturbance areas range from approximately 10,300 feet at the proposed parking area on French Gulch Road, to 11,480 feet at the proposed Hut site. Different vegetation was documented for each of the specific project components, therefore each area is discussed separately in the affected environment.

Identification of invasive species in the vicinity of the Project Area and use of Best Management Practices (BMPs) to limit their spread would be a Management Requirement (see Table 2-2).

AFFECTED ENVIRONMENT

No threatened or endangered plant species were identified or have habitat within the project area, therefore only common vegetation and Region 2 (R2) Sensitive species are discussed further in this document.

Proposed Hut Parking

The proposed parking area would be located on the north side of the unpaved French Gulch Road (at the intersection with Humbug Hill), on the opposite side of the road from French Creek. The site supports a mature, closed canopy (4B) lodgepole pine (*Pinus contorta*) stand with 90 percent Mountain Pine Beetle (MPB) mortality (red trees), sparse lodgepole and subalpine fir (*Abies bifolia*) regeneration (Stages 2 and 3), and individual Engelmann spruce (*Picea engelmannii*) up to Stage 4. The understory supported 50 to 60 percent ground cover composed of common lodgepole understory species (refer to the project file for the species list associated with this and all other project component areas). No nest cavities were present. This area represents “currently unsuitable” lynx habitat.

Sally Barber Road

The gated (to year-round motorized use), unpaved Sally Barber Road is approximately 18 feet wide and extends approximately 1.1 miles from the French Gulch Road to the Sally Barber Mine and the proximal end of the existing *Nightmare on Baldy* trail (Segment A in Figure 2). No additional disturbance or motorized vehicle use would occur along this road as a result of the Proposed Action. This road segment crosses through historically logged, mature, closed and open canopy (4B and 4A) mixed conifer, spruce-fir, and lodgepole stands. Areas within one sight-distance of the road support low to high densities of live, horizontal, conifer foliage (LHCF), and represent “other” and lynx habitat and winter foraging habitat. This area represents “currently unsuitable” lynx habitat. The Sally Barber Road is on private and NFS lands.

Nightmare on Baldy Trail

The existing 0.9 mile *Nightmare on Baldy* trail, extending between the Sally Barber Road and the *Upper Trail of Tears* trail, is a single track bike trail (Segment B in Figure 2). The only upgrading needed to make this trail suitable as a Nordic access trail would be the higher limbing of individual trees, probably affecting less than 1 percent of the trees present.³⁵ Because the current limbing clearance for mountain bikes is at least 6 to 7 feet above ground level, most of the additional limbing would be beyond the winter foraging range of snowshoe hares. This trail segment crosses through historically logged, mature, closed and open canopy (4B and 4A) mixed conifer, spruce-fir, and lodgepole stands, with local areas of up to 40 percent MPB mortality and individual fir (*Armillaria* sp.) mortality. Areas within one sight-distance of the trail support low to high densities of LHCF, and represent “other” and lynx habitat with local areas of winter foraging habitat. No nest cavities were observed in any tree or snag along the trail. This portion of the *Nightmare on Baldy* trail is on Summit County and private lands.

Existing Upper Trail of Tears

In the Travel Management Plan, the existing Upper Trail of Tears (Figure 3-1 – an unpaved road, from Mt. Baldy Road to Illinois Gulch, then a single track bike trail [Segment D in Figure 2 of this EA], neither of which are designated snow compacted routes in winter) was planned to be decommissioned. However, because Summit Huts is proposing to use the portion of it from the Mt. Baldy Road near the Iowa Mill to the intersection with the new access trail, the Forest agreed to retain it, but not show the rest of it past that point (beyond where it gets decommissioned at some point in the future). No upgrades for motorized summer hut maintenance access would be required on the Mt. Baldy Road, which is open to public motorized use in summer. Minor upgrades (no widening, but filling in puddles to improve drainage) would be required locally along the road portion of the *Upper Trail of Tears*. This trail segment crosses through a mature, open canopy (4A), historically logged, mixed conifer stand with a multilayered understory (Stage 2 and 3 trees), a low to no snag density, a low density of downed coarse, woody debris (CWD), and low LHCF density below 35 percent horizontal cover (at two sample points). About 40 percent of this trail segment borders treeline and the entire segment represents “other” lynx habitat. No nest cavities were observed in any tree or snag along the trail. The existing *Upper Trail of Tears* is on NFS, private, and Summit County lands.

New Trail Extension to the Hut

From a point on the existing *Nightmare on Baldy* trail, a new, 1.3-mile trail segment to the hut is proposed (Segments C and E in Figure 2). That trail segment would cross through three forest types. The proximal 0.45 mile of trail (proximal part of Segment C in Figure 2) would extend through a mature, closed and open canopy (4B and 4A), historically logged, mixed conifer stand with a local area of dense, closed canopy, pole stage (3C, doghair) lodgepole pine. This segment contains a multilayered understory

³⁵ Zobbe, 2011

of Stage 2 and 3 trees, a low to medium snag density, a low density of downed CWD, medium LHCF density ranging from below to above 35 percent horizontal cover, and is mostly winter foraging habitat with patches of other “other” lynx habitat (based on three sample points). The middle 0.47 mile trail segment (parts of Segments C [distal] and E [proximal] in Figure 2) would go through an open canopy, pole stage (3A), historically logged, lodgepole stand with no multilayered understory, no snags, a low density of CWD, medium LHCF density with less than 35 percent horizontal cover, that is best characterized as “other” lynx habitat. The distal 0.39 mile trail section that reaches the hut (distal part of Segment E in Figure 2) is primarily a mature, closed canopy (4B), historically logged (selectively and locally), spruce-fir stand extending up Weber Gulch proper, with a multilayered understory (Stage 2 and 3 trees), a low to medium snag density, a medium density of downed CWD, and medium LHCF density above 35 percent horizontal cover (at three sample points). While this stand is all winter foraging habitat, it contains patches of CWD piles and is adequately isolated from human activity areas that it warrants effective lynx denning habitat. No nest cavities were observed in any tree or snag out to 10 feet on each side of the flagged centerline of the proposed trail extension. The new trail extension to the Weber Gulch backcountry hut site is on Summit County, NFS, and private lands.

Hut Site

The Weber Gulch backcountry hut site, at 11,480 feet, is located in an historically logged meadow (refer to Figure 2). The meadow containing the hut site is “non-habitat” for lynx and contains 10, small, exploratory, surface mining adits. A 4.3-acre boulder field is contiguous to the northwest. Beyond the boulder field to the northwest and beyond the meadow to the southeast is a savannah (less than 25 percent canopy closure) of pole stage (3) spruce and lodgepole trees classified as forbland and field-verified “non-habitat.” Otherwise, the site is surrounded by mature, closed and open canopy (4B and 4A), spruce-fir forest that is effective winter foraging habitat if not denning habitat. The hut site is entirely on NFS lands.

R2 Sensitive Plant Species

Forest Service Region Two (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.³⁶ From the updated R2 list, a subset of sensitive species, including 33 plants was determined to be present or potentially present on the WRNF. Plant surveys adequately considered all plants on the current WRNF R2 species list.

³⁶ USDA Forest Service, 2011

Table 3F-1:
Region 2 Sensitive Plant Species, Potential Occurrence and Habitat Description

Common Name, <i>Scientific Name</i>	Pre-Field Potential Occurrence (Habitat Description)
Sea pink, <i>Armeria maritima</i> ssp. <i>sibirica</i>	No habitat (Wet sandy alpine slopes 11,900'–13,000')
Park milkvetch, <i>Astragalus leptaleus</i>	No habitat (Wet meadows/aspen; Gun. Basin, Middle Park)
Trianglelobe moonwort , <i>Botrychium ascendens</i>	Pot. habitat (Montane willow wetlands and ruderal habitats)
Slender moonwort , <i>Botrychium lineare</i>	Pot. habitat (Montane through subalpine ruderal habitats)
Peculiar moonwort , <i>Botrychium paradoxum</i>	Pot. habitat (Montane through subalpine ruderal habitats)
Smooth rockcress, <i>Braya glabella</i>	No habitat (Sparse. calcareous alpine gravels >12,000')
Lesser panicked sedge, <i>Carex diandra</i>	No habitat (Subalpine wetlands, wet meadows, w. carrs)
Livid sedge, <i>Carex livida</i>	No habitat (Fens)
Yellow lady's slipper , <i>Cypripedium parviflorum</i>	Pot. habitat (Variety of forests, incl. S-F & LP, 5,700'–12,400')
Clawless draba, <i>Draba exungiculata</i>	No habitat (Granitic alpine fellfields 12,000'–14,000')
Gray's Peak whitlow-grass, <i>Draba grayana</i>	No habitat (Gravelly alpine slopes 11,500'–14,000')
Weber's draba, <i>Draba weberii</i>	No habitat (Single location in Summit County, 11,500'–11,600')
Roundleaf sundew, <i>Drosera rotundifolia</i>	No habitat (Continuously moist or saturated fens)
Giant helleborine, <i>Epipactis gigantea</i>	No habitat (Sandstone seeps, springs, hot springs 4,800'–8,000')
Dropleaf buckwheat, <i>Eriogonum exilifolium</i>	No habitat (Sparsely vegetated, rolling, sedimentary hills <8,500')
Altai cotton-grass, <i>Eriophorum altaicum</i> var. <i>neogaeum</i>	No habitat (Peat wetlands 9,500'–14,000')
Chamisso's cotton-grass, <i>Eriophorum chamissonis</i>	No habitat (High elevation peaty wetlands)
Slender cotton-grass, <i>Eriophorum gracile</i>	No habitat (Peaty wetlands & saturated soils, 6,900'–8,000')
Hall fescue, <i>Festuca hallii</i>	No habitat (Alpine tundra and subalpine grasslands, 11,000'–12,000')
Simple bog sedge, <i>Kobresia simpliciuscula</i>	No habitat (mesic to wet tundra and fens, 8,970'–12,800')
Colorado tansy-aster, <i>Machaeranthera coloradoensis</i>	No habitat (Sparsely vegetated sandy soils 8,500'–12,500')
Kotzebue's grass-of-Parnassus, <i>Parnassia kotzebuei</i>	No habitat (Edges of standing water bodies 10,000'–12,400')
Harrington penstemon, <i>Penstemon harringtonii</i>	No habitat (Open sagebrush, pinyon-juniper habitats)
Porter feathergrass, <i>Ptilagrostis porteri</i>	No habitat (Peaty soils in willow-tuft. hairgrass >10,000')
Ice cold buttercup, <i>Ranunculus karelinii</i>	No habitat (Ridge/Mtn. top rock, scree, 12,000'–14,100')
Dwarf raspberry , <i>Rubus arcticus</i> ssp. <i>acaulis</i>	Pot. habitat (Moist montane and sub-alpine habitats, 7,000'–9,720')
Sageleaf willow, <i>Salix candida</i>	No habitat (Nutrient-rich fens and thickets, 8,800'–10,600')
Autumn willow, <i>Salix serissima</i>	No habitat (Calcareous fens, 7,800'–9,300')
Narrowleaf peatmoss , <i>Sphagnum angustifolium</i>	No habitat (Fens)
Baltic sphagnum , <i>Sphagnum balticum</i>	No habitat (Fens)
Sun-loving meadowrue, <i>Thalictrum heliophilum</i>	No habitat (Steep oil shale slopes 6,300'–8,800')
Lesser bladderwort, <i>Utricularia minor</i>	No habitat (Fens and other calm, shallow, aquatic habitats)
American cranberrybush, <i>Viburnum opulus</i> var. <i>americanum</i>	Not present (facultative wetland plant not documented in CO)

Source: USDA Forest Service, 2011; Proctor, 2012; Western Ecosystems, Inc.

Note: Other R2 plant species are not listed because they have not been found on the WRNF, they have no affinities to project area habitats, or the project area is outside of the species' range or elevational distribution. Potential pre-field survey occurrence on the project area and habitat affinity is summarized for each species. Species in **bold** are potentially present and/or are discussed in the text. Plants are listed alphabetically by scientific name.

DIRECT AND INDIRECT ENVIRONMENTAL CONSEQUENCES

Alternative 1 – No Action

Alternative 1 is a true No Action Alternative and because no ground disturbance is proposed under the No Action Alternative, there is no potential to affect vegetation resources as a result of selecting Alternative 1.

Alternative 2 – Proposed Action

Vegetation communities that would be affected by Weber Gulch backcountry hut components are quantified in Table 3F-2. For all land ownerships, Alternative 2 would result in the permanent loss of 1.51 acres of forest and 0.09 acre of forblands and temporary disturbances to 0.37 acre of forblands around the hut, totaling 1.97 acres. Tree removal for trails (1.17 acres) and the parking lot (0.34 acre) would affect 0.24 acre of spruce-fir forest, 0.67 acre of mixed conifer forest, and 0.6 acre of lodgepole pine. Temporarily disturbed areas around the hut would be revegetated with a Forest Service-approved seed mix.

Table 3F-2:
Vegetation Types for all Land Ownership

Vegetation Type	Acres Impacted	
	All Lands	NFS Lands Only
Spruce-fir	0.24	0.21
Lodgepole Pine	0.6	0.34
Mixed Conifer	0.67	0.34
Forblands	0.46	0.46
TOTAL	1.97	1.35

Source: Thompson, 2013b

R2 Sensitive Plant Species

Thirty-three species of sensitive plants are known or expected to occur on the WRNF.³⁷ The sensitive plant analysis area for this project extends to the boundaries of proposed disturbance areas. Based on plant surveys of the project area, surveys of proposed disturbance areas, surveys of adjacent areas where prior and current R2 plants were previously located, habitats that would be affected in the project area, and species' habitat affinities, five R2 sensitive plant species, trianglelobe moonwort (*Botrychium ascendens*), slender moonwort (*B. lineare*), peculiar moonwort (*B. paradoxum*), yellow lady's slipper (*Cypripedium parviflorum*), and dwarf raspberry (*Rubus arcticus* ssp. *acaulis*) had potentially suitable habitat in the project area. These species are discussed individually below to provide the required documentation. The remaining 28 R2 plant species do not occur in the habitats present in the project area,

³⁷ Proctor, 2012

do not have elevation and/or distributional ranges that overlap the project area, have not been documented in the general geographic area of the project area, would not be affected by the Proposed Action, and do not warrant detailed consideration with respect to the Proposed Action. Therefore, the Proposed Action, including the implementation of PDF, would have **no impact** on sea pink (*Armeria maritima* ssp. *sibirica*), park milkvetch (*Astragalus leptaleus*), smooth rockcress (*Braya glabella*), lesser panicled sedge (*Carex diandra*), livid sedge (*Carex livida*), clawless draba (*Draba exungiculata*), Gray's Peak whitlow-grass (*Draba grayana*), Weber's draba (*Draba weberii*), roundleaf sundew (*Drosera rotundifolia*), giant helleborine *Epipactis gigantea*, dropleaf buckwheat (*Eriogonum exilifolium*), Altai cotton-grass (*Eriophorum altaicum* var. *neogaeum*), Chamisso's cotton-grass (*Eriophorum chamissonis*), slender cotton-grass (*Eriophorum gracile*), Hall fescue (*Festuca hallii*), simple bog sedge (*Kobresia simpliciuscula*), Colorado tansy-aster (*Machaeranthera coloradoensis*), Kotzebue's grass-of-Parnassus (*Parnassia kotzebuei*), Harrington penstemon (*Penstemon harringtonii*), Porter feathergrass (*Ptilagrostis porteri*), ice cold buttercup (*Ranunculus karelinii*), sageleaf willow (*Salix candida*), autumn willow (*Salix serissima*), **narrowleaf peatmoss** (*Sphagnum angustifolium*), **Baltic sphagnum** (*Sphagnum balticum*), sun-loving meadowrue (*Thalictrum heliophilum*), lesser bladderwort (*Utricularia minor*), and American cranberrybush (*Viburnum opulus* var. *americanum*) and they are dropped from further consideration herein (Table 3F-3).

Table 3F-3:
Determination Summary of Effects on R2 Sensitive Plant Species

Common name, Scientific name	Determination	
	Alternative 1	Alternative 2
Sea pink, <i>Armeria maritima</i> ssp. <i>sibirica</i>	NI	NI
Park milkvetch, <i>Astragalus leptaleus</i>	NI	NI
Trianglelobe moonwort , <i>Botrychium ascendens</i>	NI	MAII
Slender moonwort , <i>Botrychium lineare</i>	NI	MAII
Peculiar moonwort , <i>Botrychium paradoxum</i>	NI	MAII
Smooth rockcress, <i>Braya glabella</i>	NI	NI
Lesser panicled sedge, <i>Carex diandra</i>	NI	NI
Livid sedge, <i>Carex livida</i>	NI	NI
Yellow lady's slipper , <i>Cypripedium parviflorum</i>	NI	NI
Clawless draba, <i>Draba exungiculata</i>	NI	NI
Gray's Peak whitlow-grass, <i>Draba grayana</i>	NI	NI
Weber's draba, <i>Draba weberii</i>	NI	NI
Roundleaf sundew, <i>Drosera rotundifolia</i>	NI	NI
Giant helleborine, <i>Epipactis gigantea</i>	NI	NI
Dropleaf buckwheat, <i>Eriogonum exilifolium</i>	NI	NI
Altai cotton-grass, <i>Eriophorum altaicum</i> var. <i>neogaeum</i>	NI	NI
Chamisso's cotton-grass, <i>Eriophorum chamissonis</i>	NI	NI
Slender cotton-grass, <i>Eriophorum gracile</i>	NI	NI
Hall fescue, <i>Festuca hallii</i>	NI	NI
Simple bog sedge, <i>Kobresia simpliciuscula</i>	NI	NI

**Table 3F-3:
Determination Summary of Effects on R2 Sensitive Plant Species**

Common name, Scientific name	Determination	
	Alternative 1	Alternative 2
Colorado tansy-aster, <i>Machaeranthera coloradoensis</i>	NI	NI
Kotzebue's grass-of-Parnassus, <i>Parnassia kotzebuei</i>	NI	NI
Harrington penstemon, <i>Penstemon harringtonii</i>	NI	NI
Porter feathergrass, <i>Ptilagrostis porteri</i>	NI	NI
Ice cold buttercup, <i>Ranunculus karelinii</i>	NI	NI
Dwarf raspberry , <i>Rubus arcticus ssp. acaulis</i>	NI	NI
Sageleaf willow, <i>Salix candida</i>	NI	NI
Autumn willow, <i>Salix serissima</i>	NI	NI
Narrowleaf peatmoss, <i>Sphagnum angustifolium</i>	NI	NI
Baltic sphagnum, <i>Sphagnum balticum</i>	NI	NI
Sun-loving meadowrue, <i>Thalictrum heliophilum</i>	NI	NI
Lesser bladderwort, <i>Utricularia minor</i>	NI	NI
American cranberrybush, <i>Viburnum opulus var. americanum</i>	NI	NI

Other R2 sensitive plants are not listed because they have not been found on the WRNF, they have no affinities to habitats on the project area, the project area is outside of the species' range or elevational distribution, and the Proposed Action would have no impact on those species. Species in bold are potentially present and/or are discussed individually in the text.

NI = No impact.

MAII = may impact individuals, but is not likely to result in a loss of viability on the planning area, nor cause a trend to federal listing.

Determinations in this table only consider NFS lands that may be directly, indirectly, or cumulatively affected by the Proposed Action, which R2 species determinations are based on.

Trianglelobe Moonwort

Trianglelobe moonwort was not detected during plant surveys of the project area, however, portions of the project area support some of the ruderal habitats that this species is generally associated with, including the subalpine meadow where the hut would be built. With respect to trianglelobe moonwort, for the reasons described above under slender moonwort, direct and indirect effects of the Proposed Action, including the implementation of PDF, and effects associated with other reasonably foreseeable projects considered in this analysis **may impact individuals, but are not likely to result in a loss of viability on the planning area, nor cause a trend to federal listing.**

Slender Moonwort

No *Botrychium lineare*, no other R2 sensitive moonworts, nor any other species of moonworts were detected. The subalpine meadow where the hut would be built is potential, but unoccupied moonwort habitat. Because moonworts frequently exist in genus communities that may support unexpressed plants for years before plants emerge above ground, it is possible, though extremely unlikely, that slender moonwort spores are present, but that the plants have not emerged. General Forest Service direction is that unoccupied (as determined by appropriate surveys), but apparently suitable, potential R2 sensitive plant habitats are considered to be unoccupied, based on the rationale that if habitats actually were

suitable, they would be occupied. Therefore, impacts to unoccupied habitats would have “no impact” on R2 sensitive plants. However, because moonwort spores may remain unexpressed below ground for years before plants emerge and can be detected, this general Forest Service direction is not applicable to moonworts. Indirect effects associated with the proposed action are defined and described in Thompson (2013) and are incorporated herein by reference. There would be no indirect effects associated with the Proposed Action that would affect slender moonwort. The effects of reasonably foreseeable future actions would not extend to the impact zones associated with the Proposed Action and would have no impact on any of the R2 sensitive plants considered herein. Therefore, with respect to slender moonwort, direct, indirect, and cumulative effects of the Proposed Action, including the implementation of PDF, and effects associated with other reasonably foreseeable projects considered in this analysis **may impact individuals, but are not likely to result in a loss of viability on the planning area, nor cause a trend to federal listing.**

Peculiar Moonwort

Paradox moonwort was not detected during plant surveys of the project area, however, portions of the project area support some of the ruderal habitats that this species is generally associated with, including the subalpine meadow where the hut would be built. With respect to paradox moonwort, for the reasons described above under slender moonwort, direct, indirect, and cumulative effects of the Proposed Action, including the implementation of PDF, and effects associated with other reasonably foreseeable projects considered in this analysis **may impact individuals, but are not likely to result in a loss of viability on the planning area, nor cause a trend to federal listing.**

Yellow Lady's Slipper

Habitat falling within the general continuum of this species is present within the project area, but the species was not located and is considered to be absent in the project area. Direct, indirect, and cumulative effects of the Proposed Action, including the implementation of PDF, and effects associated with other reasonably foreseeable projects considered in this analysis would have **no impact** on this species and it will not be discussed further in this document.

Dwarf Raspberry

While portions of the project area occur in the life zone and at elevations inhabited by this species, this species, and indicator species for it were not located during plant surveys and it is considered to be absent in the project area. Direct, indirect, and cumulative effects of the Proposed Action, including the implementation of PDF, and effects associated with other reasonably foreseeable projects considered in this analysis would have **no impact** on this species and it will not be discussed further in this document.

CUMULATIVE EFFECTS

Past and present actions that have affected and continue to affect the vegetation resource, including sensitive species, include mining and logging effects, transportation (e.g., I-70, Highways 9 and 6, and numerous Forest and private roads) and water developments (e.g., Dillon, Green Mountain, and other smaller reservoirs and their management affecting rivers and creeks), existing and continued build out of residential, commercial, and municipal developments related to the towns of Keystone, Dillon, Breckenridge, Frisco, Silverthorne and outlying developments, and widespread effects of year-round recreational development and use (e.g., alpine and Nordic ski areas, bike, hiking, and jeep trails, etc.). Assuming presence, these past and present actions have had negative impacts on R2 sensitive plant species and their habitats however, past actions 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.

Although there are no reasonably foreseeable future actions on non-NFS lands warranting consideration in this analysis, locally, build out of individual neighborhoods within the Keystone Planned Unit Development (originally approved in 1995) and in previously approved subdivisions in the upper Blue River continues.

When Alternative 2 is considered cumulatively with past, present and foreseeable future actions, none of the proposed projects are anticipated to contribute to any change in status or viability for the species that are present or potentially present. Cumulative effects related to Alternative 2 are not expected to contribute to an increase in any current or predicted downward trend in population numbers or density or to current or predicted downward trends in habitat capability that would reduce the existing distribution of any of the R2 sensitive plant species carried forward in this analysis.

G. SOIL RESOURCES

SCOPE OF ANALYSIS

The scope of analysis for soil resources includes areas proposed for direct disturbance in the French Gulch portion of the Upper Blue watershed on Summit County and NFS lands. This analysis is based on review of the National Resource Conservation Service Web Soil Survey, the Holy Cross Area soil survey, a field survey completed August 2012 and post fieldwork characterization of soil properties completed during the winter of 2013. In addition a sample of the B and C horizon soils at the proposed hut site was sent to the Colorado State University Soil, Water and Plant Testing Lab for hydrometer texture analysis. This sample site was selected for its location within the area proposed for an onsite wastewater system.³⁸ BMPs and PDFs (refer to Table 2-2 in Chapter 2) are included to minimize erosion sedimentation and loss of topsoils due to construction of the proposed parking lot, trails and hut.

FOREST PLAN DIRECTION

The Forest Service *Water Conservation Practices Handbook* (WCPH) provides soil management measures to guide land treatments within the WRNF. The following measures apply to the proposed Weber Gulch backcountry hut project:

Sediment Control

- 13.2 Construct roads and other disturbed sites to minimize sediment discharge into streams, lakes, and wetlands.
- 13.3 Stabilize and maintain roads and other disturbed sites during and after construction to control erosion.

Soil Quality

- 14.2 Maintain or improve long-term levels of organic matter and nutrients on all lands.³⁹

Refer to Table 2-2 in Chapter 2 for a complete table of PDFs and BMPs that are designed to minimize the resource impacts of proposed projects.

AFFECTED ENVIRONMENT

The Project Area is located on Bald Mountain, the headwaters of French Creek. The area ranges from approximately 10,300 to 13,800 feet above mean sea level (amsl), with lower portions being heavily forested and upper portions that are above tree line. The average temperature in the winter months is approximately 20 degrees Fahrenheit; average temperature in the summer is approximately 50 degrees

³⁸ Summit County, 2013

³⁹ USDA Forest Service, 2006

Fahrenheit. The climate and elevation of the project area limit the rate of soil formation. Historically, the Project Area has been developed for mining, logging and recreation; many roads and trails still provide both motorized and non-motorized access, although mining and logging in the area has ceased. Roads and trails in the Project Area require minimal management beyond installation of proper drainage such as rolling dips, water bars and periodic minor surface work to fill potholes or adjust drainage patterns.

Soils identified within the Project Area can be grouped into four soil map units. These are displayed in Table 3G-1. Drainage class ratings for these soils are generally somewhat excessively drained, have moderately rapid permeability and slow runoff potential. Revegetation limitations range from moderate to severe due to slope and low inherent fertility within the Project Area. Slope is a primary factor affecting soils in the Project Area limiting slope stability, depth of topsoil and increasing the erosion hazard.

Table 3G-1:
Soil Management Units Identified within the Project Area

Soil Management Unit	K_w^a
290B – Leighcan family, loamy-skeletal, mixed, superactive Typic Dystrocryepts, 5–40% slopes	0.15
670C – Legault-Tolby families complex, sandy-skeletal, micaceous, shallow Typic Cryorthents (Legault) or mixed Typic Dystrocryepts (Tolby), 40–65% slopes	0.10
7F (S7F) – Grenadier gravelly loam, Loamy-skeletal, isotic Entic Haplocryods, 15–55% slopes	0.20
10 – Histic Cryaquolls, nearly level	Not rated

Source: Natural Resources Conservation Service, 2008

^a The factor K represents the soil's susceptibility to erosion in their plot condition based on soil texture. Soils that are resistant to erosion have low K values (0.02 to 0.15); display moderate erosion are in the middle of the range (0.25 to 0.40); and highly erodible soils tend to have values greater than 0.4.

Surface and subsurface soil erodibility is low to moderate within the Project Area, with K-factor (K_w) values of surface soil horizons ranging from 0.10 to 0.20. Higher erosion risk ratings owe to slope/erodibility.⁴⁰ Using the whole soil (w subscript) K-factor values best reflect natural soil conditions in the field as rock fragment serve to “armor” soil and make them less erodible overall.⁴¹

Soil organic matter can also be related to soil erodibility as organic horizons allow infiltration and provide productive soils for stabilizing vegetation.⁴² Maintenance of soil organic matter and surface O and A horizon integrity minimizes erosion, compaction, and hydrology problems within a project area. Field surveys revealed no pedestals, rills or other signs of major soil erosion. Lacking common signs of surface erosion suggests that the relatively shallow organic/mineral horizons and porous B and C horizons allow for sufficient infiltration during snowmelt runoff and summer rain events.

⁴⁰ Natural Resources Conservation Service, 2012

⁴¹ McCormick et al., 1982

⁴² Franzluebbbers, 2002; McMullen, 2011

The depth of soil organic matter within the Project Area is approximately 6 inches (the profile revealed 0 to 3 inches A horizon and 3 to 6 inches B horizon). Samples were taken with soil map unit 7F (S7F). Formation of top soils in this area is limited by the climate and vegetation and therefore soil formation is limited. For additional soil characteristics, refer to the field notes contained in the Project File.

DIRECT AND INDIRECT ENVIRONMENTAL CONSEQUENCES

Alternative 1 – No Action

Because no ground disturbance is included in Alternative 1, there is no potential to affect soil resources within the project area as a result of the No Action Alternative.

Alternative 2 – Proposed Action

Implementation of the Proposed Action would result in approximately 1.65 acres of disturbance from construction of the trail, the parking lot, and the hut. These areas would be graded and compacted, and with the exception of the area surrounding the hut (which would be rehabilitated and revegetated), would be converted to impermeable surfaces. This would result in a loss of soil resources within the soil management unit; however, due to the minor amount of disturbance within these units on the WRNF, this level of loss would not affect any of the soil management units as a whole.

Table 3G-2:
Soil Management Units Identified within the Project Area under Alternative 2

Soil Management Unit	Area (acre)
290B – Leighcan family, loamy-skeletal, mixed, superactive Typic Dystrocrypts, 5–40% slopes	0.30 (trail)
670C – Legault-Tolby families complex, sandy-skeletal, micaceous, shallow Typic Cryorthents (Legault) or mixed Typic Dystrocrypts (Tolby), 40–65% slopes	0.30 (trail)
7F (S7F) – Grenadier gravelly loam, Loamy-skeletal, isotic Entic Haplocryods, 15–55% slopes	0.37 (hut) 0.26 (parking) 0.31 (trail)
10 – Histic Cryaquolls, nearly level	0.11 (parking)
TOTAL	1.65

Implementation of the following soil management requirements and PDCs would minimize erosion and impacts to topsoils:

- Stabilize and maintain disturbed areas such as the parking lot, trail and the hut site during and after construction to control erosion;
- Construct the parking lot, trail and hut site to minimize sediment discharge into streams, lakes, and wetlands; and

- Maintain or improve long-term levels of organic matter and nutrients on all lands. Stockpile topsoil and return surface soils after construction to restore site organic matter where possible surrounding hut, parking lot and trail disturbance.

Grenadier gravelly loam soils, near the hut site, were rated as very limited for septic tank absorption due to steep slopes and potential for seepage in the bottom layer. These limitations would not rule out septic systems in the area, but would require special planning and management in order to avoid contamination.⁴³ Due to the relatively shallow soils in this area, additional fill material would be needed for septic construction to meet requirements. Soil samples analyzed for soil texture revealed soils near the hut are 49 to 56 percent sand, 25 to 33 percent silt and 18 to 19 percent clay with a loamy skeletal texture. These samples were taken to establish the potential for septic at the hut site.

Management requirements and PDCs identified to minimize impacts to watershed would further decrease potential soil and watershed impacts. Refer to Chapter 2 Section E – Management Requirements and Project Design Features Incorporated into Alternative 2.

CUMULATIVE EFFECTS

As discussed briefly above (also refer to Chapter 3 Section H – Water Resources), past mining and logging resulting in graded and compacted road prisms, logging and mining access routes, and exploratory mining pits have affected the soils resource in the project area. Generally impacts can be seen as increased soil compaction and loss of organic soils within the soil map unit. Due to the minimal effects of the proposed action on the soils resource, and because no other present or future foreseeable projects within the area have been identified at this time, there are no cumulative effects to the soils resource.

⁴³ Natural Resources Conservation Service, 2012

H. WATER RESOURCES

SCOPE OF ANALYSIS

The Analysis Area for water resources focuses on the French Gulch portion of the Upper Blue Watershed. The proposed hut project would occur on the northern portion of Bald Mountain at approximately 11,400 feet above mean sea level (amsl). Bald Mountain is the site of the headwaters of French Gulch and Weber Gulch, the two primary perennial streams in the Analysis Area. The boundary of the Analysis Area stretches from the headwaters of French and Weber gulches, near the hut site, and approximately 3.5 miles downstream to the Blue River.

The Project Area for the water resource is limited to the direct impacts from ground disturbance associated with the proposed projects (the parking lot, hiking and administrative access routes and construction and operations of the hut).

FOREST PLAN DIRECTION

Pursuant to the Forest Plan, as amended, stream health standards and PDC are mandated by the R2 WCPH.⁴⁴ The WCPH contains several Management Measures of relevance to this project, regarding stream health and water resources effects:

1. Manage land treatments to conserve site moisture and to protect long-term stream health from damage by increased runoff.
3. In the water influence zone (WIZ) next to perennial and intermittent streams, lakes, and wetlands, allow only those actions that maintain or improve long-term stream health and riparian ecosystem condition.
9. Limit roads and other disturbed sites to the minimum feasible number, width, and total length consistent with the purpose of specific operations, local topography, and climate.
10. Construct roads and other disturbed sites to minimize discharge into streams, lakes, and wetlands.
11. Stabilize and maintain roads and other disturbed sites during and after construction to control erosion.
14. Maintain or improve long-term levels of organic matter and nutrients on all lands.
16. Apply runoff controls to disconnect new pollutant sources from surface and ground water.

The WRNF analyzes projects for impacts and potential for Best Management Practices (BMP) to minimize impacts to the water resource from the proposed project.

⁴⁴ USDA Forest Service, 2005

AFFECTED ENVIRONMENT

Average annual precipitation in the Analysis Area is approximately 29.3 inches.⁴⁵ Roughly 50 percent of annual precipitation occurs in the winter months of November through March. The average temperature in the winter months is approximately 20° Fahrenheit; average temperature in the summer is approximately 50° Fahrenheit.

The French Gulch Watershed

The headwaters of French Gulch are located on the eastern face of Bald Mountain and flow north and east along the base of the mountain, to the Blue River approximately 3.5 miles downstream of the project area. There are approximately 58 miles of streams mapped within the French Gulch-Blue River watershed, with nearly 30 of those miles consisting of French Gulch and tributaries to French Gulch. There are approximately 8 miles of streams adjacent or downstream of the Project Area, with nearly 5 miles of streams within 1 mile of the proposed project disturbance.

French Gulch is the primary perennial stream within the Analysis Area, with two other smaller streams, Weber and Illinois gulches. Within the Analysis Area, French Gulch ranges from 6 feet in width at the ordinary high water mark (OHWM), to 25 or more feet of braided channels and wetlands. Weber and Illinois gulches range from 2 to 6 feet OHWM.

Water Quality, Stream Morphology and Connected Disturbed Area

Although the hut site is in a relatively undisturbed area of Bald Mountain just above tree-line on the northern face, evidence of historic mining sites are prevalent throughout the Analysis Area, particularly along the 3.5 miles of French Gulch from the project area to the Blue River. Specifically, immediately downstream of the Project Area (approximately 1 mile) French Gulch was placer mined from the 1850s to 1960s resulting in major impacts to channel pattern and geometry.⁴⁶ Piles of stone line the stream for approximately 2 miles; at times the flow of water is imperceptible as it winds through the stones.

In addition to placer mining French Gulch for gold, the area was load mined for lead, zinc and silver sulfide resulting in a large quantity of sulfide-bearing minerals and formation of acidic mine dredge. Water flowing through these mine workings becomes contaminated with dissolved metals resulting in an absence of fish populations downstream of the mines. In 1989, the Environmental Protection Agency (EPA) found the Wellington-Oro mine (located adjacent to French Gulch approximately 1.5 miles downstream of the Project Area) to be a major contributor of zinc and cadmium to French Gulch. The EPA has identified French Gulch as a Colorado Cleanup site; however, it is not on the National Pollution Priority list. In 2002 the EPA initiated cleanup through a series of settling ponds to implement semi-

⁴⁵ Natural Resources Conservation Service, 2013

⁴⁶ U.S. Environmental Protection Agency, 2013

passive water treatment to improve the quality of French Gulch and reduce cadmium and zinc in the Blue River.⁴⁷ A water treatment plant was built on French Gulch Road by the Town of Breckenridge and Summit County as part of the Golden Horseshoe Open Space Purchase for ongoing treatment of the water in French Gulch.

In addition to mining, residential development and unpaved roads and trails have also influenced water quality, channel patterns and geometry of French Gulch, Weber Gulch and Illinois Gulch. Approximately 950 feet of French Gulch road (an approximate 30 feet wide gravel road) and 2,925 feet of existing trails and dirt roads (ranging from single track to 15-foot wide dirt roads) are within the French Gulch, Weber Gulch and Illinois Gulch's WIZs (refer to Figure 1). Although there are numerous stream crossings of French Gulch and Weber Gulch within the Analysis Area, within the Project Area, there are two crossings, both on Sallie Barber Road, one of French Gulch and one of Weber Gulch.

French Gulch Road is a gravel road that follows French Gulch for approximately 2 miles, ranging in distance from directly abutting the stream, to a separation of up to approximately 150 feet. Field observations recorded several areas where roadside gravel erodes directly into the stream; however, as discussed above, generally the stream is armored by large piles of rocks left behind by placer mining, or dense willow vegetation. Further downstream along French Gulch several residential neighborhoods have been developed with homes, roads and walking trails located directly adjacent to the gulch.

The other primary road within the Analysis Area is the historic Sallie Barber Road, (a popular recreation trail) that crosses both French Gulch and the other primary perennial stream within the Project Area, Weber Gulch (refer to Figure 1). Sallie Barber Road parallels the gulch for approximately 700 feet before turning south to cross the gulch. The gulch is culverted under the gravel road; willows and other bank-stabilizing herbaceous vegetation functions at this crossing. Weber Gulch originates approximately 500 feet downhill (northwest) of the hut site and drains the northern portion of Bald Mountain. Sally Barber Road intercepts Weber Gulch and the stream travels in a roadside ditch for several hundred feet, before flowing into a small pond and then both through a culvert and across the road, back into a stream channel and downhill into French Gulch. No water quality data is available for Weber Gulch; however Sally Barber Road is likely contributing sediment to this stream. Onsite observations revealed that due to the relatively small size of the stream and the distance between the intercept with Sally Barber Road, it is likely that the sedimentation is localized and is not a major contributor of sediment to French Gulch.

Although Illinois Gulch is a perennial stream within the Analysis Area (it is proximate to several switchbacks of the Nightmare on Baldy Trail), due to topography, the location of the project would not have any influence on Illinois Gulch, and is therefore not discussed further.

⁴⁷ Read more about French Gulch water quality and treatment in the "Use-Attainability Analysis, Lower French Gulch and the Blue River Downstream from French Gulch near Breckenridge, Summit County, Colorado" report to the Colorado Water Quality Control Commission.

Waters of the U.S., Including Wetlands

Approximately 56 acres of Palustrine scrub shrub wetlands are located within the Analysis Area.⁴⁸ These wetlands are fed primarily by French Gulch; however, seeps and springs have also been observed in the area. Wetland classification is based on the Cowardin classification system.⁴⁹ The Cowardin system classifies wetlands primarily by dominant plant community. These wetlands were dominated by plain leaved willow (*salix planifolia*). Wetlands within the Analysis Area serve primarily as wildlife habitats and provide water quality benefits through filtration. As discussed above, historical mining and road and trail construction have affected wetlands within the Analysis Area including disturbance from dredging, load mining and roads and trails. Within the Project Area, there is only one existing wetland crossing. This wetland crossing is the same crossing as was identified above, where Sallie Barber Road crosses French Gulch. At this crossing there is a large wetland complex adjacent to French Gulch through which the road has long been routed. Although motorized use along this road is not permitted except for administrative use, there is some contribution of sediment to the wetland due to the road crossing.

DIRECT AND INDIRECT ENVIRONMENTAL CONSEQUENCES

Alternative 1 – No Action

Alternative 1—the No Action Alternative—reflects a continuation of existing operations and management practices within the French Gulch portion of the Blue River watershed, without changes, additions, or upgrades on NFS and/or adjacent private lands. The No Action Alternative would have no additional direct, indirect, or cumulative impacts or benefits to watershed resources or wetlands. Alternative 1 would not be expected to alter watershed drainage health.

Alternative 2 – Proposed Action

Implementation of the Proposed Action would result in approximately 1.7 acres of ground disturbance from construction of the parking lot, trail, and hut. These areas would be graded and compacted, and with the exception of the area surrounding the hut (which would be rehabilitated and revegetated), would be converted to impermeable surfaces.

Parking Lot

The new parking area would require approximately 0.4 acre of tree removal and grading. This construction would occur on the north side of French Gulch road outside the WIZ; French Gulch and the adjacent wetland complex are located on the south side of the road. Although the soil in the parking area is mapped as histic cryaquolls, a wetland soil, this area is an upland. The greatest potential impact to the gulch and wetland complex is increasing the disturbed area hydrologically connected to the stream and

⁴⁸ USFWS, 2013

⁴⁹ Cowardin et al., 1979

wetland complex. The parking area has the ability to route overland water, becoming a conduit for the transport of sediment and other pollutants into streams. Therefore, to minimize the potential for drainage toward the gulch and wetlands, the parking lot would be constructed to slope away from the gulch and wetlands, onto permeable soils rather than into the stream channel. Similarly, a snow storage area would be designated in or near the lot. A drainage management plan would be submitted to the Forest Service prior to construction.

Trail Use and Construction

Under the Proposed Action, approximately 1.3 miles of trail would be constructed in upland areas across the northern face of Bald Mountain. In addition, some widening would occur on approximately 0.6 mile of the existing Upper Trail of Tears segment, also in upland areas. There are no new or upgraded trails proposed within the WIZ and no new stream or wetland crossings. The length of roads and trails within the WIZ would not change. Specifically, the two segments of the existing Sallie Barber Road (discussed in Affected Environment) that are within the WIZ (approximately 700 feet in the French Gulch WIZ and 200 feet in the Weber Gulch WIZ), as well as the associated stream crossings, would be maintained in their current conditions under the Proposed Action.

The final segment of proposed trail connecting to the hut (segment E) would cross the swale uphill of the headwaters of Weber Gulch. Although it is approximately 500 feet uphill of the channel, this trail segment would be designed using natural topography, rolling dips, waterbars, and ditch-relief culverts to disconnect disturbed areas from this swale to ensure no increase in the length of the channel and resulting connected disturbed area. Drainage features would be designed to drain onto undisturbed, permeable soils to allow for absorption.

Due to the minimal amount of trail development, PDCs would be successfully utilized to control surface flow routing in the trail and to minimized/avoid impacts to stream banks at crossings.

The Hut

The hut site would require grading approximately 0.4 acre on the north face of Bald Mountain. The site is very rocky, with naturally thin overstory vegetation. The closest stream to the site is Weber Gulch which surfaces approximately 500 feet downhill of the site. The hut would include composting toilets with a septic leach field. Soils for the leach field are discussed in the Soils Analysis (Chapter 3 Section G – Soil Resources), but generally the steep slopes and potential seepage in the bottom layer would require special planning to meet Summit County standards to ensure no impacts to water quality downstream of the hut.

Summary

In summary, with implementation of PDF, there would be no impacts to the approximate 8 miles of streams adjacent or downstream of the Project Area, despite that there are nearly 5 miles of streams within 1 mile of the proposed project disturbance. Implementation of the Proposed Action would not

permanently or temporarily impact the 56 acres of wetlands within the Analysis Area. The proposed projects have been designed to avoid wetlands and function and values for wildlife habitat and water filtration would be maintained. The project is consistent with pertinent portions of the 2002 Forest Plan and WCPH.

CUMULATIVE EFFECTS

As discussed briefly above, past mining and logging has affected the soils resource in the Analysis Area. Generally impacts can be seen as increased soil compaction and loss of organic soils within the soil map unit. PDFs have been identified to disconnect potential impacts to water resources therefore, because no direct or indirect impacts have been identified for the Proposed Action, there are no cumulative effects to the water resource.

Chapter 4

Finding of No Significant Impact

4. FINDING OF NO SIGNIFICANT IMPACT

After reviewing the EA, I have determined that the Proposed Action will not, individually or cumulatively, significantly affect the quality of the human, biological, or physical environment. The provisions of 40 CFR 1508.27(b) indicate that project significance must be judged in terms of both *context* and *intensity*. Based on a review of these provisions, I have determined that an environmental impact statement is not required. I base my findings on the following definitions of *context* and *intensity*:

A. CONTEXT

The significance of an action must be analyzed in several contexts and varies with the setting. In the case of site-specific actions, significance depends more on the effects in the locale rather than the world as a whole. Both short- and long-term effects are relevant.

The direct and indirect effects analysis contained in the EA focuses on the Weber Gulch Project Area, and extends further for cumulative effects analysis, depending on the resource. An initial screen was conducted to ensure that the Proposed Action is consistent with the 2002 Forest Plan. The EA does not indicate that anything in the Proposed Action would lead to a precedent at the local, regional, or national level.

B. INTENSITY

Intensity is a measure of the severity, extent, or quantity of effects, and is based on information from the effects analysis of this EA and the references in the Project Record. I have determined that the interdisciplinary team considered the effects of this project appropriately and thoroughly with an analysis that is responsive to concerns and issues raised by the public. They took a hard look at the environmental effects using relevant scientific information and their knowledge of site-specific conditions gained from field visits. My finding of no significant impact is based on the intensity of effects using the ten factors identified in 40 CFR 1508.27(b).

1) Impacts that may be both beneficial and adverse. A significant effect may exist even if the federal agency believes that on balance the effect will be beneficial.

The Proposed Action provides recreational benefits to many users of NFS lands, and is consistent with the terms and conditions of SHA's SUP, as well as the 1.31 Management Area from the 2002 Forest Plan. I have weighed these benefits against potential adverse impacts to the human, biological, and physical environment—all of which are thoroughly documented in Chapter 3. I find that the benefits of the proposed hut outweigh the adverse impacts. Furthermore, where necessary, Management Requirements (composed of Project Design Features and Best Management Practices) have been identified to minimize or avoid impacts to specific resources. Management Requirements are identified in Table 2-2 of the EA.

2) The degree to which the proposed action affects public health or safety.

Although there are inherent risks associated with backcountry travel and recreation, the Proposed Action does not significantly affect public health or safety.

3) Unique characteristics of the geographic area such as the proximity to historical or cultural resources, parklands, prime farmlands, wetlands, wild and scenic rivers or ecologically critical areas.

Twenty-two cultural resources are known to be within a mile of the Project Area, all related to mining. The Sally Barber Mine, the Lincoln Townsite, the Corporal Mine, and the Carbonate Mine are the only resources that are NRHP-eligible. All other resources were determined not-eligible based on field studies.

Six new historic sites were documented and two previously recorded sites were revisited for the current inventory. Seven of these sites are recommended ineligible to the NRHP and no further work is recommended for them. The Lincoln Townsite boundary slightly overlaps the proposed parking area for the proposed Weber Gulch backcountry hut. However, the portion of the site within the proposed parking does not contribute to the qualities that cause the site to be eligible (all of the existing buildings, foundations, and mine remnants associated with Lincoln's business district are located further to the west).

As discussed in Chapter 3 Section D – Cultural Resources of the EA, additional research (including site visits) was conducted to try to determine the location of the Lincoln City cemetery. This cemetery was moved from Lincoln City to the existing Valley Brook cemetery in Breckenridge in 1904. It is believed by some that unmarked graves might still be in the Lincoln City area; however there is no clear or consistent information on the location of the Lincoln City cemetery; there is an abundance of conflicting information. Nothing was found that could provide a scientifically defensible identification of the location of the cemetery, nor whether or not there were graves left after 1904. Based on fieldwork and reporting two conditions are recommended to mitigate potential impacts of the proposed parking lot on the cultural resources. First, the design/engineering of the parking lot may incorporate a retaining structure of some sort to prevent disturbance or subsequent erosion from coming in close proximity to the Milner grave. Second, a qualified archaeological monitor will be present during all surface-disturbing and excavation activities for construction of the parking lot. Additionally, prior to construction of the parking lot, ground-truthing methods of determining if unmarked graves are present will be employed.

The closest cultural site feature to the proposed parking lot is the William H. Milner grave. As documented in Chapter 3 Section D – Cultural Resources of the EA, the Milner grave is recommended to be not eligible for the NRHP. However, management requirements for construction and maintenance of the approved parking lot would ensure that the grave would not be impacted.

On NFS lands, Alternative 2 would result in the permanent loss of 0.89 acre of lynx habitat, impacts to 0.09 acre of non-habitat, and temporary disturbances to 0.37 acre of non-habitat, totaling 1.35 acres. Habitat conversion and statistical changes to LAU 27 lynx habitat resulting from the proposed Weber Gulch backcountry hut would be insignificant at the LAU level.

No other unique geographic areas, park lands, prime farmlands, wilderness, wetlands or wild and scenic rivers would be affected by the Proposed Action.

4) The degree to which the effects on the quality of the human environment are likely to be highly controversial.

The term “controversial” in this context refers to cases where substantial scientific dispute exists as to the size, nature, or effects of a major federal action on some human environmental factor rather than to public opposition of a proposed action or alternative.

As discussed in Chapter 3 Section D – Cultural Resources of the EA, additional research (including site visits) was conducted to try to determine the location of the Lincoln City cemetery. There is no clear or consistent information on the location of the Lincoln City cemetery; there is an abundance of conflicting information. Nothing was found that could provide a scientifically defensible identification of the location of the cemetery, nor whether or not there were graves left after 1904. Graves and burials are always a possible, though very rare, discovery in essentially all areas where human occupation has occurred. The use of ground-truthing technology pre-construction, and the presence of an archaeological monitor during construction can help insure human remains are appropriately handled and protected in the very unlikely event something is encountered.

No scientific dispute exists regarding the Proposed Action or the analysis contained in the EA. Based on the fact that the Forest Service has analyzed and approved numerous projects of this type, the effects of this project are not considered to be controversial, nor is there scientific dispute about these effects.

5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

Many backcountry huts very similar to the Proposed Action operate on NFS lands. The analysis shows the effects are not uncertain, and do not involve unique or unknown risks. Throughout the EA analysis, the Proposed Action was modified to address potential impacts to wildlife, particularly during the summer. Furthermore, Table 2-2 identifies Management Requirements and Project Design Features that are designed to minimize or avoid potential impacts to the human, biological and physical environment. Combined with the Forest Service’s experience with implementing these types of activities on the Forest, I have determined that there will not be significant effects on the human environment that are highly uncertain or involve unique or unknown risks.

6) The degree to which the action may establish precedent for future actions with significant effects or represents a decision in principle about a future consideration.

I have determined that this decision does not establish precedence for future actions. The Proposed Action is consistent with Forest-wide and Management Area 1.31 direction, as well as SHA's SUP. Furthermore, the proposed activities associated with the backcountry hut are typical of the dispersed recreation that currently exists on the WRNF. Prior to accepting SHA's proposal for the Weber Gulch backcountry hut, the Forest Service completed a thorough review to ensure that this project represents an appropriate use of NFS lands.

7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.

The Cumulative Effects analyses presented for each resource throughout Chapter 3 in the EA discloses past, present, and reasonably foreseeable future actions with potential to lead to effects which are cumulative in nature. Due to modifications made to the Proposed Action throughout the NEPA process, in addition to Management Requirements outlined in Table 2-2, this analysis does not identify any cumulatively significant impacts that are anticipated to result from implementation of the Proposed Action.

8) The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.

As discussed previously under Intensity Factor #3, twenty-two cultural resources are known to be within a mile of the Project Area, all related to mining. The Sallie Barber Mine, the Lincoln Townsite, the Corporal Mine, and the Carbonate Mine are the only resources that are NRHP-eligible. All other resources were determined not-eligible based on field studies.

Six new historic sites were documented and two previously recorded sites were revisited for the current inventory. Seven of these sites are recommended ineligible to the NRHP and no further work is recommended for them. The Lincoln Townsite boundary slightly overlaps the proposed parking area for the proposed Weber Gulch backcountry hut. However, the portion of the site within the proposed parking does not contribute to the qualities that cause the site to be eligible (all of the existing buildings, foundations, and mine remnants associated with Lincoln's business district are located further to the west). The closest site feature to the proposed parking lot is a grave. The grave would not be impacted by construction of the proposed parking lot.

All reports were submitted to the SHPO in completion of the NHPA Section 106 process. Implementation of the Proposed Action was determined to have “no effect” on any known NRHP listed or eligible historic properties within the APE.

Consulting and Forest archaeologists recommended that the proposed parking area be approved, with two conditions. First, the design/engineering of the parking lot may incorporate a retaining structure of some sort to prevent disturbance or subsequent erosion from coming in close proximity to the Milner grave. Second, a qualified archaeological monitor will be present during all surface-disturbing and excavation activities for construction of the parking lot. Additionally, prior to construction of the parking lot, ground-truthing methods of determining if unmarked graves are present will be employed.

There is insufficient evidence to suggest a significantly heightened risk of encountering unmarked graves in the location of the proposed parking lot. Graves and burials are always a possible, though very rare, discovery in essentially all areas where human occupation has occurred. As discussed above, the use of ground-truthing technology pre-construction and the presence of an archaeological monitor during construction can help insure human remains are appropriately handled and protected in the very unlikely event something is encountered.

9) The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

There would be no effect to any threatened, endangered or proposed species, with two exceptions. For Canada lynx, the determination is “may affect, not likely to adversely affect,” and for Northern American wolverine, the determination is “not likely to jeopardize.”

For all land ownerships, Alternative 2 would result in the permanent loss of approximately 1.5 acres of lynx habitat (non-habitat is not lynx habitat) composed of forest, and temporary disturbances to 0.5 acre, totaling approximately 2 acres. On NFS lands only, Alternative 2 would result in the permanent loss of 0.9 acre of lynx habitat, impacts to 0.1 acre of non-habitat, and temporary disturbances to 0.4 acre of non-habitat, totaling approximately 1.4 acres. The habitat impacts would have nearly immeasurable effects of LAU 27 lynx habitat statistics. Construction and use of the proposed Weber Gulch backcountry hut and its associated trail system should have no discernible effect on continued snowshoe hare use of the project area. The proposed Weber Gulch backcountry hut and its associated trail system would affect a patch of habitat that appears functional as diurnal security habitat. The one summer season of hut and trail construction activities, annual maintenance, and guest use of the hut should not result in lynx injury or mortality, but it could displace individual lynx that might be moving through active construction areas and access corridors.

The proposed Weber Gulch backcountry hut would increase dispersed winter recreational activity just beyond a forested bottleneck in the southern Summit County lynx corridor. The proposed Weber Gulch

backcountry hut would maintain habitat connectivity through the Swan River LAU and between contiguous LAUs. Dispersed skiing outside of areas intended for skiing should not have meaningful adverse effects on lynx habitat use.

The proposed Weber Gulch backcountry hut project meets all criteria for programmatic concurrence under the Colorado Lynx Project Decision Screens. The USFWS concurred with the Final BA in a letter dated March 25, 2015. Therefore, consultation for Canada lynx is considered complete for this proposed project.

10) Whether the action threatens a violation of federal, state, or local law or requirements imposed for the protection of the environment.

I have reviewed in the EA, the Cultural Resources Inventory, the Biological Assessment/Biological Evaluation/Management Indicator Species report, and the project file and have determined that no federal, state, or local laws, regulations, or requirements for protection of the environment will be violated with implementation of the Proposed Action.

Chapter 5

Consultation and Coordination

5. CONSULTATION AND COORDINATION

A. LIST OF PREPARERS

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.

Forest Service ID Team

Scott Fitzwilliams	White River National Forest Supervisor, Responsible Official
Bill Jackson	Dillon District Ranger, Line Officer
Peech Keller	Environmental Coordinator, Dillon Ranger District
Shelly Grail Braudis	Winter Sports Lead, Dillon Ranger District
Justin Anderson	Hydrologist, Supervisor's Office
Elizabeth Roberts	Wildlife Biologist, Supervisor's Office
Ashley Nettles	Wildlife Biologist, Dillon Ranger District
Donna Graham	Landscape Architect, Supervisor's Office
Jared Pierce	Landscape Architect, Supervisor's Office
Brian McMullen	Soil Scientist, Supervisor's Office
Corey Lewellen	Fisheries Biologist, Dillon Ranger District
Patrick Uphus	Archaeologist, Supervisor's Office
Paul Semmer	Lands Staff, Dillon Ranger District

CONSULTANT TEAM

This EA was prepared by:

SE Group

Jason Marks	Senior Project Manager
Kent Sharp	Principal-in-Charge
Kelly Owens	Biologist
Michael Beach	Environmental Analyst
Paula Samuelson	Production Specialist

Metcalf Archeological Consultants – Eagle, CO

Anne McKibbin Principal Archeological Investigator

Western Ecosystems, Inc. – Boulder, CO

Rick Thompson Wildlife Biologist

B. AGENCIES, ORGANIZATIONS, TRIBAL GOVERNMENTS AND PERSONS CONTACTED

FEDERAL GOVERNMENT

U.S. Fish & Wildlife	Kurt Broderdorp
U.S. Environmental Protection Agency	Larry Svoboda, Region 8

TRIBAL GOVERNMENT

Ute Mountain Ute Indian Tribe	Chairman Gary Hayes
Ute Mountain Ute Indian Tribe	Terry Knight
Ute Indian Tribe	Chairperson Richard Jenks, Jr.
Ute Indian Tribe	Betsy Chapoose
Southern Ute Indian Tribe	Chairperson Pearl Casias
Southern Ute Indian Tribe	Neil B. Cloud

STATE GOVERNMENT

Colorado Parks and Wildlife

LOCAL GOVERNMENT

Breckenridge Town Council
Summit County Commissioners
Summit County Open Space
Town of Breckenridge
Upper Blue Planning Commission

LOCAL MEDIA

Summit County Citizens Voice
Glenwood Post Independent

OTHER ENTITIES AND ORGANIZATIONS

Breckenridge Lands, Inc.
Summit Winterlands and Trails
Breckenridge Outdoor Education Center

Breckenridge Resort Chamber

Wilderness Workshop

Rocky Mountain Wild

Peter Hart

Josh Pollock and Rocky Smith

INDIVIDUALS WHO SUBMITTED COMMENTS

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Jeff Cross

Tom Daisy

Robert Dickson

Raymond Difani

Anthony DiPaola

Ryan Dorst

Elke Dratch

Todd Eastman

Sally Easy

Leigh Girvin

Robert Hamel

Peter Hart

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Ellen Hollinshead

Philip Houghton

Erin Hunter

David Jefferson

Marisa Knox

Marty Lesson

Peter Loremyer

Kanoa Lyles

Roz McClallan

Patrick McWilliams

Jim Mongan

Allyn Mosher

Barbara Munyon

Maryann Naylor

Diane Phleedey

Wells Pickard

Scott Pierce

Susan Propper

Denise Queen

Kraig Rallis

Nancy Redner

Colleen Richmond

David Rossi

Fred Santen

Shannon Schwab

Michael Shambarger

Darin Sinclair

Rocky Smith

Richard Snow

Amanda Spilman

Susan Stillwell

Janice Tessier

Patricia Theobald

Debbie Tyber

Mike Turek

John Warner

Kathy Warner

Joe and Maggie Weakley

Rose Wentzell

Jack Wolfe

Rainbow Woodall

Chapter 6

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Chapter 7

Figures

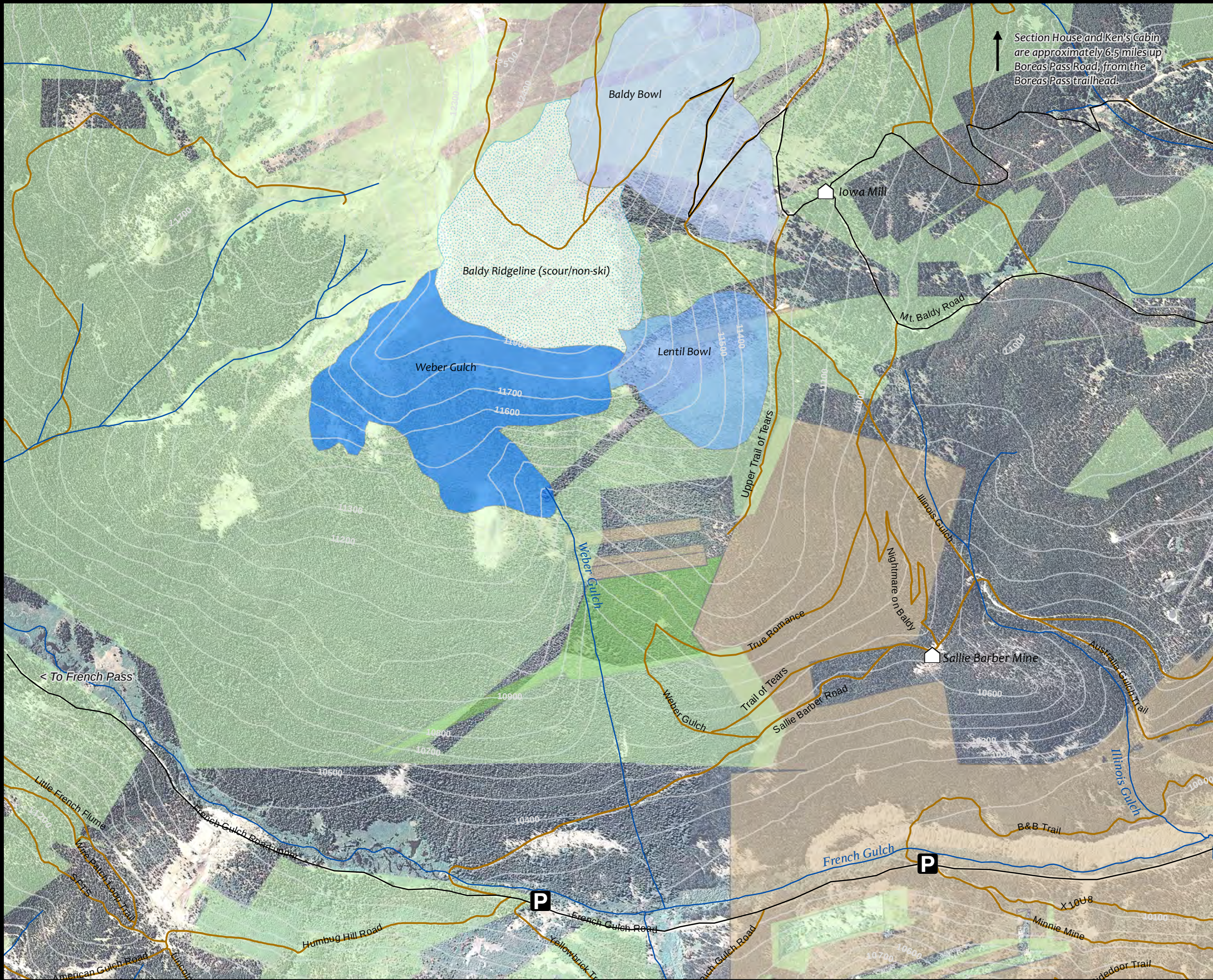
7. FIGURES

FIGURE 1: EXISTING CONDITIONS

FIGURE 2: PROPOSED ACTION

FIGURE 3: RECREATION CONTEXT

FIGURE 4: PARKING OPTIONS CONSIDERED BUT ELIMINATED FROM DETAILED ANALYSIS



**Summit Huts
Association**

**Figure 1:
Existing Conditions**

Resources

- Streams
- Mining/Mill Site

Skiable Areas

- Weber Gulch
- Lentil Bowl
- Baldy Bowl

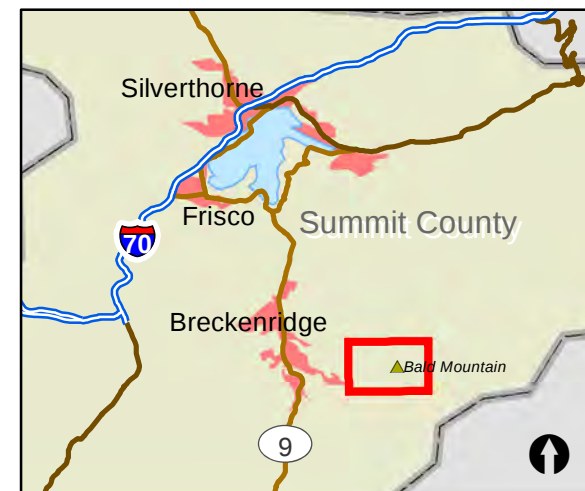
Access

- Existing Parking
- Existing Trails
- Existing Roads

Land Ownership

- Summit County
- Summit County/Town of Breckenridge
- National Forest
- Non-Shaded Indicates Private

Project Extent



0 250 500 1,000 1,500 2,000 Feet

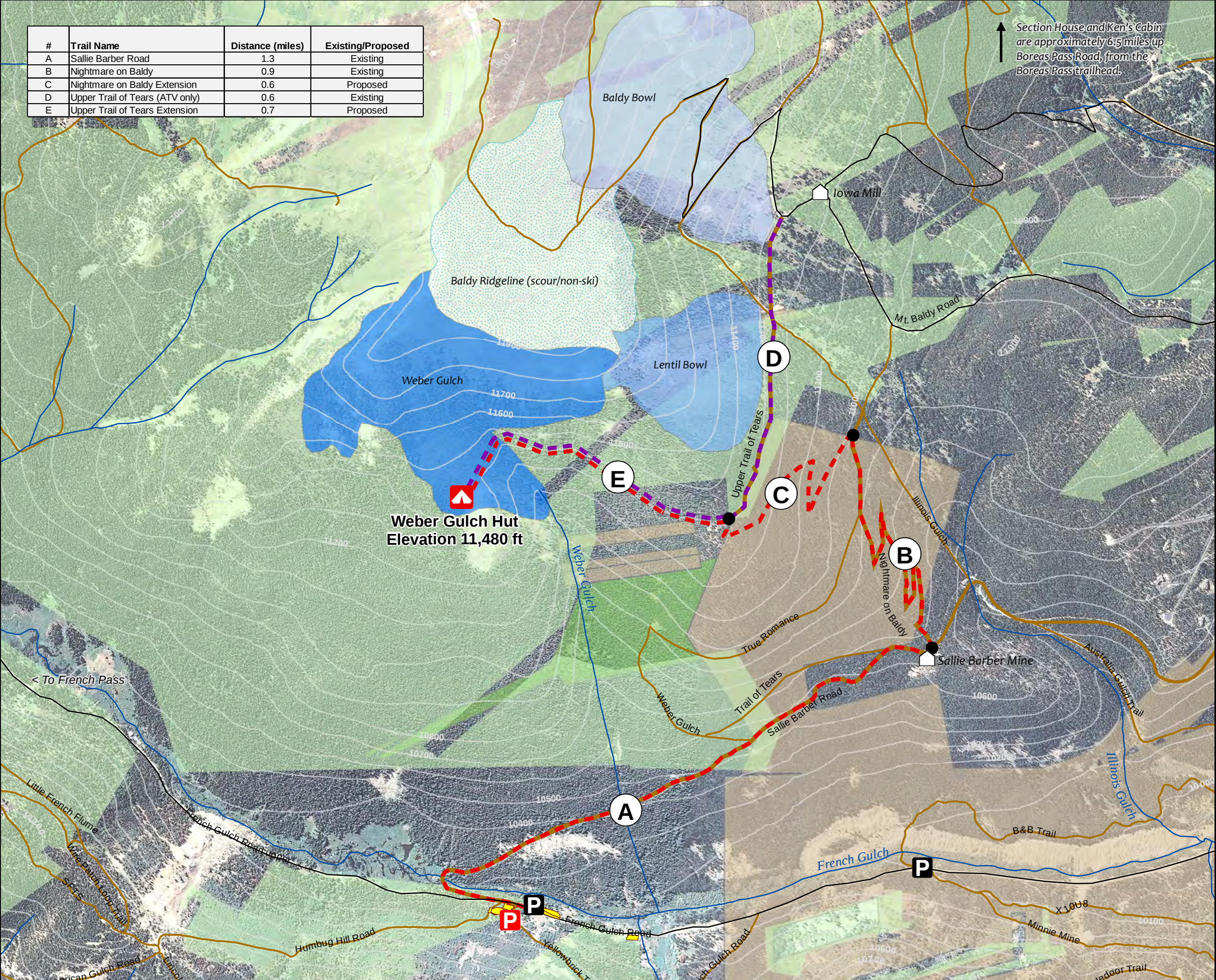
Contour Interval: 100 Feet

SE GROUP

June 2015



#	Trail Name	Distance (miles)	Existing/Proposed
A	Sallie Barber Road	1.3	Existing
B	Nightmare on Baldy	0.9	Existing
C	Nightmare on Baldy Extension	0.6	Proposed
D	Upper Trail of Tears (ATV only)	0.6	Existing
E	Upper Trail of Tears Extension	0.7	Proposed



Section House and Ken's Cabin are approximately 6.5 miles up Boreas Pass Road, from the Boreas Pass trailhead.

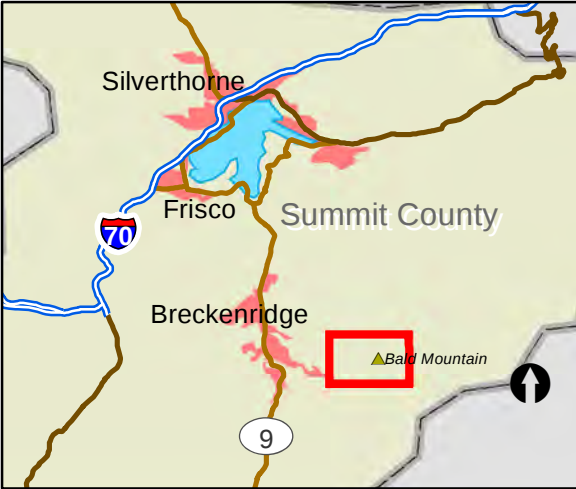


Summit Huts Association

Figure 2:
Proposed Action

- Skiable Areas**
- Weber Gulch
 - Lentil Bowl
 - Baldy Bowl
- Parking**
- Existing Parking
 - Proposed Hut Parking
 - Proposed Parking Estimated Area
- Access**
- Proposed Ski/Snowshoe
 - Proposed Administrative Access (ATV)
 - Prop. Ski/Snowshoe on Existing Trail
 - Prop. Admin. Access (ATV) on Existing
 - Existing Trails
 - Existing Roads
- Land Ownership**
- Summit County
 - Summit County/Town of Breckenridge
 - National Forest
 - Non-Shaded Indicates Private

Project Extent



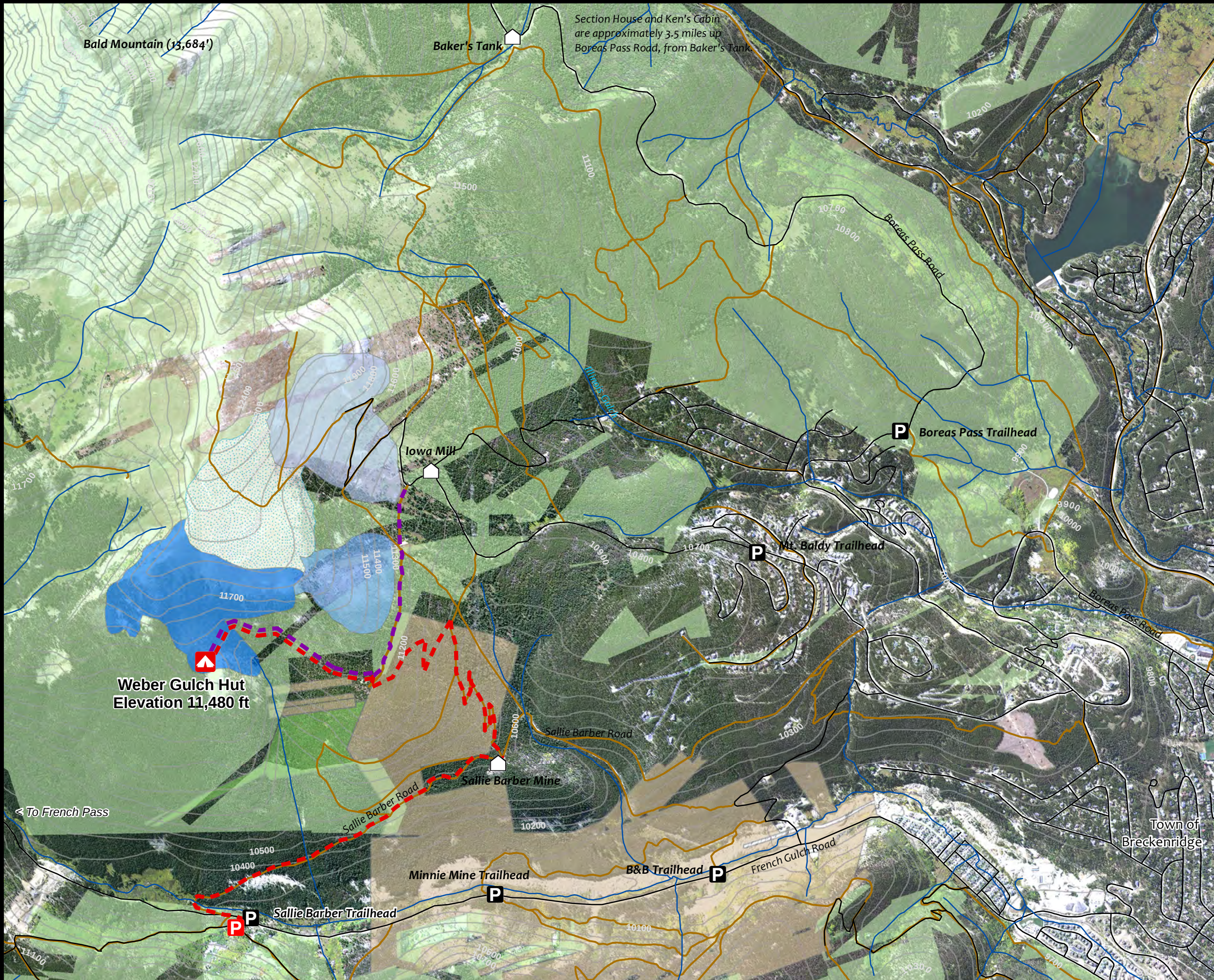
0 250 500 1,000 1,500 2,000 Feet

Contour Interval: 100 Feet

SE GROUP

June 2015



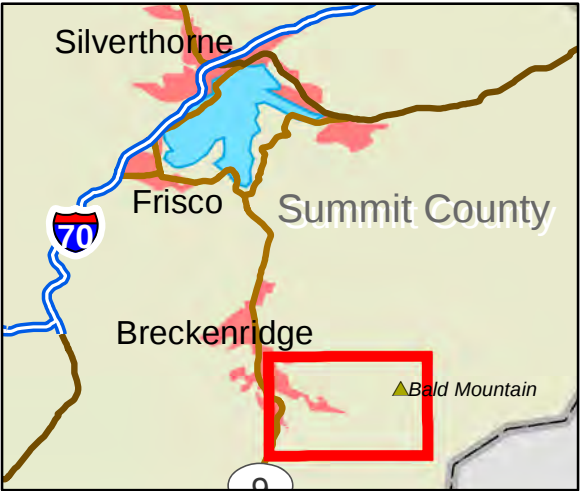


Summit Huts Association

**Figure 3:
Recreation Context**

- Proposed Weber Gulch Hut Location
- Proposed Hut Parking
- Existing Parking
- Existing Road Network
- Existing Trail Network
- Proposed Access**
 - Ski/Snowshoe
 - ATV (for Administrative Use Only)
- Skiable Areas**
 - Weber Gulch
 - Lentil Bowl
 - Baldy Bowl
- Land Ownership**
 - Summit County
 - Summit County/Town of Breckenridge
 - National Forest
 - Non-Shaded Indicates Private

Project Extent



0 500 1,000 2,000 3,000 Feet

Contour Interval: 100 Feet

SE GROUP

June 2015





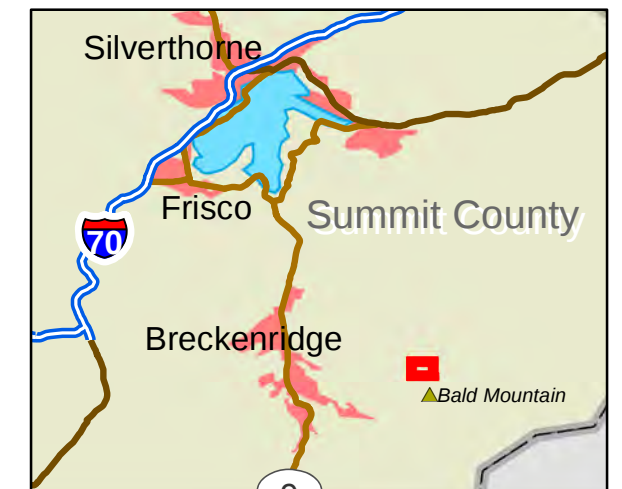
Summit Huts Association

Figure 4:
Parking Options Considered
But Eliminated from
Detailed Analysis

- Parking Locations Considered
- Proposed Hut Parking Location
- Existing Sallie Barber Trailhead Parking
- Hiking/Skiing Hut Access
- Existing Road Network
- Cobb & Ebert Placer



Project Extent



0 100 200 400 Feet

Contour Interval: 100 Feet

SE GROUP

June 2015



Appendices

Appendix A: Cumulative Effects Projects

Appendix B: Civil Rights Impact Assessment

Appendix C: Alternate Hut Locations

Appendix D: Response to Comments

Appendix E: Monitoring Plan

APPENDIX A: CUMULATIVE EFFECTS PROJECTS

Table A-1 identifies past, present, and reasonably foreseeable future projects have been identified by the Forest Service as relevant to Alternatives 1 and 2 from a cumulative effects context. Most of these projects have been approved and are part of the environmental baseline conditions for wildlife, vegetation and wetland resources. No other resources beyond wildlife, vegetation and wetland resources are considered relevant from a cumulative impacts perspective. Detailed descriptions of approved projects are provided in the technical and NEPA documents that are incorporated herein by reference. Projects are on NFS lands, unless otherwise noted.

Table A-1:
Cumulative Effects Matrix

Project #. Project Name (Project Status)	Project Location (Straight Line Distance to Hut)	Project Description	Project Approval/ Implementation	Project Area (acres/length)	LAU Containing Project	Resources Potentially (Cumulatively) Affected
SKI AREA PROJECTS						
1. Breckenridge Ski Resort – SUP area and private (Complete, part of environmental baseline)	4.2 to 6 miles	Projects 1–13 in Thompson (2012, Table 12-1; Various on-mountain and base area improvements).	Virtually all projects fully implemented	The BSR SUP area contains 7,543 acres, of which 5,755.9 acres are on NFS lands managed by the USFS.	Swan River	Wildlife Watershed Wetlands
2. Breckenridge Ski Resort – Peak 6 project (Approved, to be implemented, part of environmental baseline)	5 miles	Construction of seven, below treeline, trails totaling approx. 68 acres Lift-served, above-timberline terrain would provide approximately 339 additional acres of intermediate, advanced-intermediate, and expert skiing. Of this total, approximately 235 acres would be lift-served by the Proposed Action lift, and 104 acres would be lift-served by the existing Imperial Express SuperChair. By hiking approximately 15 min. to the summit of Peak 6 from the proposed chairlift top terminal, guests could access an additional 143 acres of expert terrain.	Approved, to be implemented	Approx. 550 acres	Swan River	Wildlife Watershed Wetlands
3. Keystone Resort – Dercum Mountain Improvements (Reasonably Foreseeable, Current and Future Federal Action)	5 miles	A subset of projects that are part of the Keystone Resort Master Development Plan largely limited to Dercum Mountain.	Analysis being completed	2,232 acres	Snake River	Wildlife Watershed Wetlands
4. Keystone Master Development Plan (Reasonably Foreseeable, Current and Future Federal Action)	5 miles	The Keystone Resort Master Development Plan (MDP) includes a new/upgraded lifts, trails, snowmaking and guest service facilities throughout the resort’s SUP. MDP components would require site specific NEPA analysis prior to implementation, but are considered reasonably foreseeable future actions.	Accepted 2009	8,536 acres across the SUP	Snake River	Wildlife Watershed Wetlands
5. Keystone Little Bowl/Erickson Bowl Snowcat Skiing EA (Complete, part of environmental baseline)	5 miles	Snowcat skiing in 580 acres of Little Bowl and Erickson Bowl within the Keystone SUP area. This terrain had previously been skied as sidecountry terrain accessible only by hiking.	Approved December 2003, Implemented 2004	580 acres	Snake River	Wildlife
6. Keystone Upper Independence Bowl Snowcat Skiing EA (Complete, part of environmental baseline)	5 miles	Snowcat skiing in 280 acres of Independence Bowl within the Keystone SUP area. This terrain had previously been skied as sidecountry terrain accessible only by hiking.	Approved/implemented 2006	280 acres	Snake River	Wildlife
7. Arapahoe Basin EIS (Montezuma Bowl) (Complete, part of environmental baseline)	10 miles	Upgraded Exhibition lift and installation of a lift in Montezuma Bowl, providing lift-serve access to 347 acres of terrain for 2,600 pph on the backside of A-Basin that was previously used as sidecountry terrain. The lift also opened up approx. 48 acres of “hike-back” terrain near the bottom of the lift and reconfigured USFS backcountry access points.	Implemented 2007–2010	Increase lift served terrain by 347 acres/ hike back terrain by 48 acres	Snake River	Wildlife
8. Arapahoe Basin MDP (Reasonably foreseeable, future federal action)	10 miles	Accepted Master Plan includes “the Beavers area” for lift-served skiing. This entails tree removal to support the construction of traditional trails as well as gladed terrain.	Acceptance October 2012, analysis forthcoming	1,872 acres	Snake River	Vegetation Watershed Wildlife

Table A-1:
Cumulative Effects Matrix

Project #. Project Name (Project Status)	Project Location (Straight Line Distance to Hut)	Project Description	Project Approval/ Implementation	Project Area (acres/length)	LAU Containing Project	Resources Potentially (Cumulatively) Affected
VEGETATION MANAGEMENT PROJECTS						
9. Breckenridge Forest Health and Fuels (Will be complete and part of environmental baseline when decision made on the Proposed Action)	1+ miles	The Forest Service proposed a forest health and fuels reduction project on approximately 5,700 acres of forest within the wildland-urban interface surrounding Breckenridge.	EA released in October, appeal period ended Nov. 29, 2010. Implementation is on-going.	~14 miles long (from Hoosier Pass to Dillon Reservoir) & up to 6 miles wide – Peak 7 neighborhood to the end of French Gulch	Swan River	Wildlife Watershed Wetlands
10. Red Tail Ranch WUI (Complete, NFS and private lands, part of environmental baseline)	6.0 miles	The Forest Service worked with the owners of Red Tail Ranch to remove 116 acres of dead lodgepole on Forest System Lands adjacent to the ranch and 300 acres of private lands. Slash piles will be removed under the long-term stewardship contract in Fall 2013 or 2014. Slash piles on private land are currently being burned as conditions allow.	Approved in 2008. Completed 2010	Tree removal occurred across ~600 acres (486 acres on the ranch and 116 acres of NFS lands)	Swan River	Wildlife Watershed Wetlands
11. 1988 Gold Hill Clear Cuts (Complete, part of environmental baseline)	5 miles	The Forest Service implemented a forest health project between Cucumber Creek and Middle Barton Creek in 1988. The cleared area is approx. 200 acres and is located in the BSR and Breckenridge Nordic Center SUP areas. To clear this timber, several timber roads were constructed.	Completed 1998	~200 acres in 10 clear cut patches	Swan River	Wildlife Watershed Wetlands
12. Ophir Mountain Forest Health and Fuels Reduction Project EA (NFS and private lands, Reasonably Foreseeable)	8.5 miles	The Forest Service proposed a forest health and fuels reduction project approximately 1,700 acres of forest within the wildland-urban interface from the Summit County Commons in Frisco, to Coyne Valley Rd. near Breckenridge.	Project approved via Decision Notice. Implementation is on-going.	~6 miles between Frisco and Coyne Valley Rd.	Swan River Snake River	Wildlife Watershed Wetlands
13. 2011 Keystone Ski Area Forest Health Project (Partly complete, part of environmental baseline)	5 miles	Implement a variety of vegetation treatments on NFS lands within the Keystone SUP area. These treatments are designed to minimize risk for users and infrastructure and to expedite forest regeneration following the ongoing mountain pine beetle epidemic. Entails removing dead and dying trees, regenerating lodgepole pine where they occur, and perpetuating mixed conifer and aspen stands throughout Keystone’s SUP area.	Decision Notice Signed May 2011 Implementation started in summer 2012	~1,647 acres	Snake River	Vegetation Watershed Wildlife
14. Dillon Reservoir Forest Health and Fuels EA (Partly complete, part of environmental baseline)	~7 miles	Developed to manage forest vegetation affected by the mountain pine beetle epidemic and reduce the threat of catastrophic wildfire to community infrastructure. Approximately 3,300 acres of NFS lands will be treated, including: 2,537 acres of forest health treatments; 290 acres of wildland urban interface defensible space fuel treatments; 304 acres of aspen enhancement treatments; and approximately 169 acres of hazard tree removal and scenery improvement along roads. Associated activities include reforestation, hazardous fuel reduction treatments, road maintenance, road reconstruction, road decommissioning.	Approved March 2007. Project activities were initiated in 2007 with expected completion by 2018.	3,300 acres	Snake River	Vegetation Watershed Wildlife
15. Forest-wide Hazardous Tree Removal and Fuels Reduction Project EA (Partly complete, part of environmental baseline)	0 to 100 miles	Remove hazard trees within 150 feet of roads and trails and 200 feet of recreation sites on the White River National Forest over the next ten years. Lodgepole pine affected by the mountain pine beetle will be targeted for removal.	Approved: 2009 Partly implemented	Forest-wide	Multiple, including Swan River	Forest Health

Table A-1:
Cumulative Effects Matrix

Project #. Project Name (Project Status)	Project Location (Straight Line Distance to Hut)	Project Description	Project Approval/ Implementation	Project Area (acres/length)	LAU Containing Project	Resources Potentially (Cumulatively) Affected
OTHER RELEVANT SUMMIT COUNTY PROJECTS						
16. Tenderfoot Mountain Motorcycle Trail System Environmental Assessment (Reasonably foreseeable, future federal action)	~12 miles	The proposal is to create an approximately 30-mile single-track trail system in the Tenderfoot/Frey Gulch area (north of Hwy 6 between Dillon and Keystone. This includes approximately 15 miles of new trail construction and approximately 15 miles of reconstruction of existing trails in the area.	Analysis being completed	30 miles of existing and new trails	Snake River	Vegetation Watershed Wildlife
17. Continued Southern Summit County Residential Build-out (Partly complete, private, part of environmental baseline; Future development will be considered reasonably foreseeable and reasonably certain)	0 to 10+ miles	As of 2009, towns and unincorporated areas in Southern Summit County are approximately 78 percent built out. Summit County planners anticipate approx. 13,955 more units to be built in these areas.	Approved, Ongoing	County-wide	Swan River Snake River	Wildlife Watershed Traffic
FOREST SERVICE PROGRAMMATIC PROJECTS						
18. White River National Forest Land and Resource Management Plan – 2002 Revision (Under implementation, part of environmental baseline)	All NFS lands within and adjacent to the project area	The decision approved Alternative K in the Final EIS as the 2002 Revised Land and Resource Management Plan. Alternative K sustains the capabilities of forest ecosystems while addressing social values and expectations, as well as managing for multiple resource outputs. Ecosystem components are actively managed to improve wildlife habitat, water quality and soil productivity. Management activities maintain or restore ecosystem structure, function and composition. Emphasis is placed on quality recreation experiences in a predominately natural setting. Recreation growth becomes more managed, while still allowing modest increases in use.	April 2, 2002, as amended; Under implementation	2,270,000 acres	Forest-wide	Wildlife Watershed Wetlands
19. WRNF Travel Management Plan (Under implementation, part of environmental baseline)	0 to 100 miles	The Forest Service approved a comprehensive travel management plan (TMP) for the WRNF. The TMP proposes ways to accommodate and balance the transportation needs of the public and provide adequate access for forest and resource management, while still allowing for protection of natural resources. The Implementation Plan outlines steps to begin implementation actions in accordance with the WRNF TMP FEIS and ROD. Full travel management implementation is expected to take several years to complete. The TMP categorizes travel designations under two seasons: summer and winter. Summer is defined as May 21 through November 22. Winter is November 23 through May 20.	Final EIS and ROD Mar. 18, 2011; Under implementation Implementation 2011–2015	Project area includes 2,482,000 acres within the WRNF	Forest-wide	Wildlife
TRANSPORTATION PROJECTS						
20. Ongoing Highway 9 widening (Complete, part of environmental baseline)	1.5 to 8.5 miles	CDOT has been conducting road construction activities on Highway 9 between Hoosier Pass and Interstate 70 since 2004 and is anticipated to continue into the foreseeable future.	Ongoing since 2004	~10.5 miles along, and including, Highway 9	Swan River Snake River	Wildlife Watershed Wetlands Traffic
21. I-70 PEIS (Approved, to be implemented, part of environmental baseline)	10 to 53 miles	CDOT and the FHA began analyzing alternatives for the I-70 Mountain Corridor in January 2000 in order to address the underlying need to reduce congestion and to improve mobility and accessibility on I-70 between Glenwood Springs and C-470.	Final PEIS approved 2011	~150 miles along, and including, I-70	Those along I-70 corridor on and off WRNF	Wildlife Watershed Traffic

Table A-1:
Cumulative Effects Matrix

Project #. Project Name (Project Status)	Project Location (Straight Line Distance to Hut)	Project Description	Project Approval/ Implementation	Project Area (acres/length)	LAU Containing Project	Resources Potentially (Cumulatively) Affected
HISTORIC DEVELOPMENT ACTIVITIES						
22. Mining Activities in Summit County (part of environmental baseline)	0 to 15 miles	The Golden Horseshoe and surrounding areas that include the Weber Gulch project area were heavily mined in the 1800s. This historic mining has led to water quality issues and past stream channel and habitat degradation in many tributaries of the Swan and Snake Rivers, some of which are still far from recovered.	N/A	County-wide	Swan River Snake River	Watershed

Source: SE Group and Western Ecosystems, Inc.

APPENDIX B: CIVIL RIGHTS IMPACT ASSESSMENT

Forest Supervisor's Order #2003-11: Closure of National Forest System lands at Weber Gulch Backcountry Area

INTRODUCTION

The Dillon Ranger District, White River National Forest, proposes to close NFS lands by a Forest Supervisor's Order at Weber Gulch backcountry area in Summit County, Colorado. The purpose of the closure is to minimize disturbance to Canada lynx, elk and forest carnivores during the summer and winter.

The closure order would close the area to all forest users during the hut's non-operational period (typically May through November). Proposed trail segment "E", which is approximately 0.7 mile in length, would be closed (signed and gated) where it departs from *Upper Trail of Tears* to discourage hiking and bike access to the hut outside the winter operating season.

CIVIL RIGHTS IMPACT STATEMENT

The closure will have no impacts on civil rights because the closure will apply to all individuals equally unless listed above as excepted individuals. No one group will be affected more than another group. Adjacent public land will remain open to recreation and other activities.

APPENDIX C: ALTERNATE HUT LOCATIONS

Table C-1 lists the site locations considered by SHA and the Forest Service, along with the criteria for an ideal hut location, and how each site met those.

Table C-1:
Alternate Hut Locations

Hut Locations	Desirable Qualities of a Hut						Operational Requirements					
	Quality of Skiing Terrain*	Accessibility	Great Views/Sun	Touring Opportunities	Low Avalanche Danger	Non-Motorized Routes or Remote	Solar Gain	Soil for Grey Water	Ability to Create Fire Buffer	No Wetlands or Sensitive Habitat	Flat Building Sites	Ability to Deliver Supplies
Weber Gulch (Preferred Location)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Wise Mountain (Preferred Location)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Humbug Gulch (Alternative)	No	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
Farncomb Hill	No	No	n/a	n/a	n/a	No	n/a	n/a	n/a	n/a	n/a	n/a
Cataract Lake	No	No	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Ophir Mountain MP Site	No	No	n/a	n/a	n/a	No	n/a	n/a	n/a	n/a	n/a	n/a
South Peak MP Site	n/a	No	n/a	n/a	n/a	No	n/a	n/a	n/a	n/a	n/a	n/a

*High quality terrain is defined as: A hut with good skiing opportunities will generally have either north or east aspect slopes that are between 20 and 30 degrees that is not so exposed to wind that they are not stripped of snow due to wind. These slopes may be above or below treeline if trees are sufficiently gladed or spaced enough for skiing.

APPENDIX D: RESPONSE TO COMMENTS ON THE ENVIRONMENTAL ASSESSMENT

A public notice for review of the 2013 Weber Gulch Backcountry Hut EA was published in the Glenwood Post Independent on August 12, 2013. The comment period on the EA extended through September 11, 2013, yielding eleven comment letters—both oppositional and supportive. Additionally, a petition advising against the hut’s proposed location was signed by approximately sixty people.¹

All comment letters were reviewed for substantive comments, and contact information for each commentor was entered into a master database. These substantive comments provide the foundation for which this Response to Comments is based. Depending on the resource or context, substantive comments were organized into 10 categories. Comments that resulted in an update to a particular component of the analysis contained in the EA are indicated as such.

Names and affiliations of people who submitted comments on the EA are provided here. Per Forest Service Handbook 1909.15, Chapter 24.1(3), copies of comment letters received by state and local agencies and elected officials are included; no tribes or federal agencies submitted comment letters.

Name	Organization
Thomas Davidson	Summit County Board of County Commissioners
Elissa Knox	Colorado Parks and Wildlife
John Warner	Town of Breckenridge
Raymond Difani	
Todd Eastman	
Leigh Girvin	
Ellen Hollinshead	
Susan Propper	
Rocky Smith	
Mike Turek	
Rose Wentzell	
Joe and Maggie Weakley	

¹ Many signatures on the petition were illegible.

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1. CONSTRUCTION & ADMINISTRATIVE ACCESS

- 1.1 *ATV Access on Bald Mountain Road - (speaking personally) Currently, the USFS travel management plan for Bald Mountain Road prohibits ATVs. Allowing SHA administrative use by ATVs on a road that is closed to ATVs is inappropriate and sends the wrong message on many levels. First of all, ATV users follow tracks - if they see another ATV or if they see tracks of ATVs, they will follow, even if the area is officially closed to them. I have seen ATV tracks on Bald Mountain Road this past summer, despite the closure in the Travel Management Plan. Secondly, other users of Bald Mountain Road will see SHA's ATV or ATV tracks and they won't know that SHA has special administrative access; their experience will be diminished, or they may be inclined to use ATVs themselves. Thirdly, to widen the Upper Nightmare trail to accommodate ATV travel goes against the mission and the message of Summit Huts Association and is inappropriate. SHA does not have motorized vehicle access to Janet's Cabin and resupplies that hut via helicopter. As the former executive director of SHA, I know that this is expensive, but it is possible and it is currently being done. I do not support ATV access to the hut for maintenance and supply. Those activities can be accomplished via helicopter, or by using a full-sized vehicle on roads that are permitted for it, and then carrying supplies via "burley" or "bob" style trailers, in backpacks, or by hand, to the hut site, as SHA currently does for Janet's Cabin.***

Administrative use of the proposed ATV route is consistent with Forest Plan direction for Management Area 1.31: Backcountry Recreation – Non-Motorized. Information has been added to page 2-4 of the EA to further explain that public motorized use of the ATV route would be strictly prohibited. This would be enforced by use of gates and signage, which would be placed at key intersections along the ATV route to preclude/deter public use. The proposal to widen approximately 0.6 mile of the *Upper Trail of Tears* would require minimal and incidental vegetation removal, and in some cases only limbing of branches, to create a 50-inch wide trail. It is not anticipated that the infrequent use of the proposed ATV access route would diminish the recreational experience for any users who encounter them, nor is it likely to drive interest in people using ATVs in this area.

As a non-profit organization, SHA struggles to minimize its administrative/overhead costs while keeping the fees it charges for renting out its huts reasonably priced. Although using a helicopter to re-supply the proposed hut is technically feasible, it is prohibitively expensive. Although long-term maintenance and resupply work would be supported by volunteers carrying supplies as described by the commenter, ATV access is deemed necessary for larger hauls. Construction of the proposed ATV access route would require minimal ground/vegetation disturbance, and is the preferred method of accommodating long-term maintenance and seasonal stocking of the hut. As discussed in the EA (page 3-14), approximately 15 maintenance and resupply trips are anticipated to be necessary throughout the summer and fall.

- 1.2 *Bald Mountain Road Administrative Access: Although the primary access to the proposed hut is identified as French Gulch and Sallie Barber Roads, the gain in elevation (10,320' at the proposed trailhead vs. 10,640' at the Bald Mountain Road trailhead) and closer proximity of the Bald Mountain Road trailhead (approximately 2, miles vs. 3, miles), would make the proposed administrative access trail a likely alternative access point for hut users. In addition, the ski-out from the hut to Sallie Barber Road is heavily forested and quite***

steep in places, while the ski-out using Bald Mountain Road is significantly more user-friendly. However, overnight parking is prohibited at the Bald Mountain Road trailhead because it lacks sufficient space to accommodate both day users and overnight parking. Bus access from the Town of Breckenridge to the Bald Mountain Road trailhead is currently available and the Town of Breckenridge already operates an overnight pay-parking program at the Breckenridge Ice Rink that could allow hut-users to park there overnight. Given these advantages, the BOCC believes that an access option utilizing the Bald Mountain Road trailhead with hut user parking at the Breckenridge Ice Rink warrants further consideration in the EA.

Information was added on page 2-4 of the EA to further explain that the Breckenridge Ice Rink parking lot would be an available option for hut users. Hut users would be able to leave their cars at the Ice Rink overnight and take the Summit Stage to the Bald Mountain Trailhead. Overnight parking is currently, and would remain, strictly prohibited at the Bald Mountain Trailhead, and thus, it is not an option for hut users.

- 1.3** ***The proposal outlines the creation of an access of sufficient width for an ATV or small utility vehicle (UTV) pulling a trailer on National Forest and Town/County Open Space. This trail alignment will also require improvements that will be subject to the County's CUP process. Issues that will need to be addressed in that CUP review process include protection of environmentally sensitive areas, especially those areas that are typically wet in the spring and summer months, preventing unauthorized motorized use of this trail, and long-term trail maintenance and management of trail use, especially during the summer months when the hut is not in operation. In addition, a significant amount of site disturbance, tree removal, and possibly spanning structures across two steeply incised drainage-ways may be required to allow for ATV/UTV-trailer access. Detailed grading plans for such access will have to be submitted as part of a CUP application to the County. Such plans will be referred to various responsible and trustee Federal, State, and local authorities (e.g. USFS, CPW, Town of Breckenridge, etc) as part of the CUP referral process.***

Information was added to Chapter 1 Section L – Other Necessary Permits, Licenses, Entitlements and/or Consultation of the EA to specify that the CUP would be necessary prior to implementation of any approved projects. SHA would be responsible for obtaining and complying with necessary permits and plans.

- 1.4** ***Please note that access from French Gulch to the hut will require a trail extension that crosses land owned by Summit County or jointly with Town of Breckenridge and zoned BC (Backcountry). Pursuant to the County's zoning regulations, this proposed extension of the existing Nightmare on Baldy Trail uphill to the potential hut site is subject to approval of a Conditional Use Permit (CUP) by the County. The EA incorrectly states that this trail extension would only be subject to a County-issued "General Construction Permit." Issues that will need to be addressed in the County's review of that CUP will include implementation of erosion control, long-term trail maintenance, and coordinated signage with that installed on land under the Forest Service's jurisdiction.***

Information has been added to Chapter 1 Section L – Other Necessary Permits, Licenses, Entitlements and/or Consultation of the EA to specify that the CUP would be necessary prior to implementation of any

approved projects. SHA would be responsible for obtaining and complying with necessary permits and plans.

- 1.5 *Use of the Bald Mountain Road trailhead by construction crews to access the project site would result in additional parking demand at the trailhead, which as noted above already experiences significant levels of use. The Board requests that the Forest Service identify and evaluate alternative construction crew parking options such as appropriate sites further up on Bald Mountain Road to ensure that construction crew parking does not adversely impact the public's access to this trailhead.***

Information was added to page 2-4 of the EA to specify that construction-related parking areas would be identified by SHA and the Forest Service in the Summit County Conditional Use Permit process.

Potential interruption of public access to the Bald Mountain Road trailhead would be one consideration.

Similar to administrative use, an appropriate construction staging area would be identified and construction use of the Bald Mountain Trailhead is not anticipated. The CUP was also identified as a necessary permit in Chapter 1 (refer to the response to comment 1.4).

2. RECREATION

- 2.1 *Thematic: Nordic skiers, snowshoers, and backcountry skiers all use different equipment and prefer different trail widths, conditions, and configurations and the proposal should consider those.***

Information was added to page 3-7 to explain that a variety of winter users recreate on Sallie Barber Road, each preferring slightly different conditions, and that trail courtesy is necessary to preserve the experience for all. SHA did consider the variety of users that would be accessing the hut as well, which is reflected in the proposed trail configurations (i.e., trail width and grade are appropriate for a variety of experience levels and equipment choices).

- 2.2 *The math formula used in this EA (3-10) to come up with the number of folks venturing beyond 100 yards from the hut, (3.6 people a day) is misleading. The equation implies that someone who spends two nights at the hut will only ski on one of those days. There might be only 1300 individuals staying at this hut over a winter season, but there will be 2600 user visits at this hut, based on 90 percent occupancy. And that means 2600 skiers out skiing. According to SHA's estimate, only half of the visitors will venture far from the hut which means that 8 people a day will venture over to the already crowded Lentil Bowl and the Tit (and not 3.6) or if it is a group more intent on skiing, it could be as many as 16 people a day. 8-16 more skiers over on Bald Mountain will double the amount of use on a daily basis, especially early winter when the snow in Weber gulch is usually bad. In addition, on the days when the powder skiing is good, a higher number of folks will be out skiing – day users and Hut users. A Hut at half the size is a more manageable number of skiers heading over to Bald Mountain – 4-8 skiers a day.***

Page 3-11 of the EA has been updated to reflect revised calculations. The revised estimate equates to 7.2 skiers per day.

- 2.3 ***“Based on data from SHA, it is reasonable to assume that roughly half of the 1,100 total guests staying at the hut throughout the season would remain within 100 yards of the hut, while the other half would be expected to venture out farther for backcountry skiing.” The number 1100 is based on one person staying two nights and makes it sound as if they only ski one day out of their two day stay. A more useful number is how many user visits will this hut see at 90 percent occupancy? 2600 total user visits. With all due respect to SHA, this statement doesn’t match the experience others have witnessed from Huts that offer good skiing.***

Changes have been made to the EA to reflect the revised calculations. Refer to the response to comment 2.2.

- 2.4 ***SHA estimates that approximately one party per day uses this area (Lentil Bowl) throughout the winter, with higher use on the weekends.” (3-8) This was the only data given in the EA on the backcountry terrain beyond Weber Hut and it is not accurate. Last winter the Tit and Lentil Bowl saw on average ten to twenty skiers a day or at least two to four parties in each location within a two hour period. There are typically numerous tracks in both zones. The intent of Backcountry skiing is to find fresh tracks and it has become more difficult to experience this on Bald Mountain because the access is easy. The impact from Weber Hut will only worsen the conditions in this area adding 8-16 skiers or almost doubling the normal number of visitors a day into these areas. A smaller hut of only 4-10 skiers a day in this area would be a significant improvement on reducing these conflicts between day users and hut users.***

The EA has been revised to more accurately describe the skiable terrain on Bald Mountain, including estimates of usage by area. The changes are found on page 3-9 and 3-10 of the EA. Figures 1 and 2, have been updated to more accurately depict the primary skiing areas on Bald Mountain. Information has also been added to page 2-7 of the EA to describe the factors that contributed to the hut’s proposed capacity of 16 guests plus hut master’s quarters.

Regarding the proposed hut’s overnight capacity, the Forest Service took many factors into consideration, including: SHA’s original proposal for a hut with an overnight capacity of 16 guests; public comments (during scoping and the EA) suggesting that the hut should be built with a smaller overnight capacity; operational/administrative costs of building and maintaining the hut; and potential direct and indirect impacts of hut users on recreation, traffic, parking and wildlife resources. Chapter 2 Section D – Alternatives and Design Components Considered but Eliminated from Detailed Analysis of the EA discusses alternatives and design components that were considered but eliminated from detailed analysis. Under “Hut Design” the capacity of the hut is discussed. The Draft Decision Notice includes a table that compares the potential direct and indirect impacts of a hut built with different overnight capacities.

- 2.5 ***“The Weber Gulch backcountry hut is proposed for winter use, between approximately mid-November and May 1. Backcountry ski terrain exists throughout Weber Gulch, primarily in northern-aspect trees on the north side of Bald Mountain. There are several above tree line bowls to the southwest of the site that provide skiing opportunities with appropriate slope and snow coverage for backcountry skiing (refer to Figures 1, 2 and 3).” The shaded “Primary Winter Use” on these Figures is the terrain described above. This***

makes it sound like the skiing opportunities are much greater than they are from the Weber Hut, when in reality there is limited and unreliable skiing adjacent to the hut, especially early winter. For most winters, backcountry skiers will have trouble skiing the north facing slope above and below the hut until later in the season. The northern aspect trees above the hut only allow lines for about 8 -10 skiers for a short 400 foot run and many of the trees are dense and difficult to navigate through. This run's shady north facing aspect and Colorado's shallower snowpack, mean that the snow takes longer to be strong enough to support a skier's weight. If the snow on Weber Gulch's mellow pitches is weak, skiers can't turn and instead sink to the bottom and can't move. If the wildlife closure is removed from lower Weber Gulch, then the run will continue for another 400 feet, but the weak snow will continue. Also this EA states on Figures 1, 2 and 3, that part of the primary winter use from Weber Gulch is above the hut and southwest, also called "Bald Mountain Open Bowl Skiing". This terrain is flat and rarely holds snow. It is usually wind scoured and rocky. To include this as part of the ski terrain for Weber Hut is misleading. All of the skiing deteriorates on Bald Mountain's westnorthwest aspect at about the 11,900 foot elevation.

Page 3-10 of the EA states: "Although the backcountry skiing is considered good, Weber Gulch is not known as an exceptional backcountry skiing area and thus might appeal less to the more experienced or extreme skiers than other backcountry huts in the TMHA system." Skiable areas have been updated on Figures 1, 2 and 3. Also, similar to the previous comment, the description and estimate of usage of those skiing areas have been revised to be more specific and accurate.

2.6 *Building a hut that could service up to some 140 "backcountry" skiers per week would impact the existing local users negatively as the trail surfaces become hardened from the extra skiers and the skin-covered skis preferred by "backcountry" skiers. Yes, there will be some snowshoers that are not impacted, but impacts to the XC skiing community have not received the necessary analysis under the current study.*

The analysis in Chapter 3 Section A – Recreation, accounts for incremental impacts to existing recreation on Sallie Barber Road and its vicinity, which includes cross country skiing. Information was added to page 3-7 and 3-8 of the EA to further explain the variety of users on Sallie Barber and their varying preferences for certain conditions. The volume of impact to existing recreationists is discussed on page 3-11 of the EA, in which an estimated 2,560 additional recreationists are anticipated between November and March (160 days, based on an average 90 percent hut occupancy), some of whom would be cross country skiers themselves.

As discussed in the Recreation analysis (Chapter 3 Section A, Chart 3A-1), Sallie Barber Road is most popular for cross country skiing in November (and likely in December). Impacts are expected to be minimal because the hut would not open until the third week of November, and SHA reservations do not typically reach full capacity until January.

2.7 *"Close the identified section of the Great Flume Trail to winter use to offset the new Weber Hut snow compaction and remove this route from the WRNF snow compaction map." (Table 2-2, page 2-8). Backcountry Skiers for years have skied on the north facing slopes off Humbug Hill and all the way towards Mt. Guyot. All of these ski runs cross over the Great Flume. This trail will see more winter nordic use since it is just now being discovered by*

summer non-motorized users who also tend to be nordic skiers or snowshoers. It is part of a good Nordic circuit using Sidedoor and Prospect Gulch. Backcountry skiers have lost Peak 6 and 5.5. This hut will double the number of backcountry skiers in an already crowded destination, Bald Mountain, the most popular backcountry skiing area in the Upper Blue. Weber Gulch will no longer be that place of solitude and instead will always be tracked and have constant traffic. Now backcountry skiers are also losing all the terrain near the Great Flume as well. Where does the Forest Service suggest backcountry skiers should go?"

The Great Flume Trail is identified on the WRNF's 2002 Baseline Snow Compaction map as a "compacted route." However, after two years of winter monitoring, it was documented that the Great Flume trail is not being used in the winter. This lack of use is likely due to thick timber in the area, combined with the fact that it is a single-track trail in the summer months, making it quite difficult to find in the winter.

Because in reality the 8-mile long Great Flume trail is *not* compacted, the trail was removed from the WRNF's 2002 Baseline Snow Compaction map. This resulted in 8 fewer miles of mapped snow compaction in the Swan River LAU. For the access trail into the proposed Weber Gulch backcountry hut site, approximately 1.5 miles of new snow compaction is needed. When 1.5 miles is added to the 8-mile reduction, the net result is a reduction of 6.5 miles of mapped compaction in the LAU. This allowed the new trail to be consistent with the Southern Rockies Lynx Amendment (SRLA) HU G 10 (designated over-the-snow routes or designated play areas should not expand outside baseline areas of consistent snow compaction). *This was strictly an accounting exercise*; the wildlife analysis contained in the Biological Assessment, and Chapter 3 Section E – Wildlife of this EA, discusses the biological impacts of snow compaction on lynx.

2.8 ***Adding 16-32 skiers daily will turn this from a soft snow great Nordic ski into a sketchy hardpack route for the nordic day users using light gear. Snowshoers and Backcountry skiers do okay on firm icy trails but nordic skiers do not. Summit Huts lacks knowledge on this type of impact because no other hut approach route has this issue. Francie's and Section House use wide roads and Janet's Cabin uses a trail that previously saw almost no winter day use. Let's say it doesn't snow for five days which is typical for most winters here. Weber Hut, sleeping 16-20 people, has been approved. Now day users who want to ski Nightmare on day five of no snow, will find that this trail has seen 100-160 skier tracks going up and down it. If the hut didn't exist, that same Day Use nordic skier would get to this trail after five days of no snow, and maybe only have 20 skier tracks previously on it. This is a substantial difference in snow conditions and could easily transform this incredible ski trail from one that can handle light use with no snow, to one that becomes icy, firm and unpleasant. Where now should a nordic skier go?***

Impacts to Nordic skiers are disclosed in Chapter 3 Section A – Recreation of the EA. Under the Proposed Action, approximately 0.9 mile of Nightmare on Baldy would experience increased use. Beyond that, SHA guests would utilize Sallie Barber Road (which currently receives heavy use throughout the winter) and new trails to access the proposed hut.

- 2.9** *Missing from the Primary Winter Use Shading. The Lentil Bowl is not part of the “Primary Winter Use” shaded hut terrain which might be an attempt to not draw attention to the fact that Lentil Bowl, one of the more popular and crowded day use backcountry destinations, will soon become even more crowded as the Hut visitors realize how easy it is to reach and how the skiing tends to be better in Lentil Bowl. Hut Skiers want untracked conditions but Weber Gulch will get tracked out quickly and Lentil Bowl will be their next destination. The northwest open glades of Lentil bowl tends to be more skiable earlier in the season than the north facing trees of Weber. These maps leave out another important zone that needs to be addressed in this EA. The most popular skiing on Bald Mountain is called the Tit, and it is just south of Iowa Mill. It is the most popular skiing destination in the County because it is so easy to reach (an hour approach) and avalanche safe. It is wide open, and mostly tree-less so the skiing is easy and the snowpack is stronger than Weber Gulch. Weber Hut visitors could get to the top of this run in fifteen to twenty minutes of easy effort. In the last few years the use on the Tit and Lentil Bowl has increased dramatically. Last year it was common to see six to eight other skiers in a two hour period and also see a lot of old tracks. Given the unreliable skiing from the hut, these areas will only get more crowded. Hybrid users also love this area.*

The EA has been revised to more accurately describe the skiable terrain on Bald Mountain, including more specific estimates of usage by area. The changes are found on page 3-9 and 3-10 of the EA. Figures 1, 2 and 3 have also been updated to more accurately depict the skiable areas on Bald Mountain.

- 2.10** *Very close to this hut location is also some of the most crowded backcountry ski terrain in the Upper Blue, on Bald Mountain’s northwest side. This EA needs much greater analysis on the impact that this hut will have on the most popular backcountry ski destination in Breckenridge. A smaller hut will certainly reduce the impact on Bald Mountain which is already crowded with skiers.*

The Recreation Analysis (Chapter 3 Section A) includes a revised analysis of backcountry terrain on Bald Mountain, as well as impacts to it. Information has been added to page 2-6 to describe the factors that contributed to the hut’s proposed capacity of 16 guests.

- 2.11** *Encounters with others are rare on Nightmare in the winter. The reason so many love to ski or snowshoe this trail is because of the solitude it offers and the improved snow conditions from Sallie Barber Road. Going from seeing no one to a guarantee of eight to sixteen people daily on this trail is more than just a ‘brief impact’. This basically eliminates a feeling of solitude, and the EA fails to address this problem. There is also no explanation as to why the EA believes that day users will not see hut users since there is no data on when Nightmare is being used. The simple solution to reducing the negative impacts on solitude and ski/snow conditions is to reduce the number of people on the trail. A hut which sleeps 8-10 is one step towards maintaining the sense of solitude which so many love from Nightmare.*

The Proposed Action incorporates a total of 3.5 miles of roads and trails to access the Weber Gulch backcountry hut. Approximately 1.3 miles of this total are attributable to Sallie Barber Road, and another 1.3 miles are new trails that would be built specifically to access the Weber Gulch backcountry hut, leaving 0.9 mile of the existing Nightmare on Baldy trail that would experience higher use. The proposed use of these roads and trails is consistent with management direction found in the 2002 Forest Plan.

Additional information was added to both 3A: Recreation and 3B: Parking and Traffic to indicate that the highest volume of hut-related travel would occur between 11:00 a.m. and 3:00 p.m., as the hut turnover time is 1 p.m. That is the latest people can leave and the earliest people can arrive. Impacts to users are expected to be focused during the middle of the day, and occur infrequently, as 100 percent hut occupancy would be infrequent, nonetheless, some users would view these impacts as degrading the existing recreation experience.

- 2.12** *Snow, Ski and Solitude impacts on Sallie Barber Road. Contrary to the EA stating that 32 more people a day “could result in a minor impact to the recreation experience on Sallie Barber Road, and is only a “minor” impact on recreation,” the opposite will be true. Currently day skiers enjoy Sallie Barber Road Monday through Friday, especially in November and December and might see only three or four other skiers. The traffic report on 3-7 is a little misleading since the majority of the traffic is on weekends. While often the snow is compacted on Sallie Barber, for the EA to say that “Additional skiers and snowshoers would not add to the snow compaction that already exists” is not accurate. Often after new snow midweek, one can head out and ski Sallie Barber and always find fresh tracks or soft tracks, especially in the morning and usually for a few days in a row midweek. With a guarantee of 16-32 more tracks every day now on this road, and usually by mid-morning, this will no longer be the case. The snow compaction will become a daily occurrence and extend further to each side of the trail where in the past the sides of this road can offer better snow conditions. Skiers love having a set ski track to follow, but the more users on this trail, the more likely the ski track will disappear. Never again, can a day skier count on solitude or soft snow on Sallie Barber midweek, since a 90 percent occupancy rate means it will constantly see traffic. This is a substantial increase and a big drawback considering that Sallie Barber is the only place in Breckenridge to find good snow early season, especially for much of November. Hundreds of Nordic skiers flock to Sallie Barber Road early season.*

While the hut would be open in late-November, it would not be expected to fully book until mid-January (this is supported by SHA data from existing huts). Therefore fewer hut users are anticipated on the trails from November through early January.

- 2.13** *We are happy to see that summer use at the hut, other than maintenance, would not be allowed. EA at 1-4. This would reduce adverse impacts to various wildlife species. However, we note that most of the 10th Mountain Huts did not allow summer use when they were first opened, but now almost all of them do allow such use. To reduce the chances of this happening with the Weber Gulch hut, should it be approved, the decision notice must clearly state that such use is not authorized and that a new decision, updated NEPA documentation, and public involvement would be required to allow summer use.*

Because summer use is not a component of the Proposed Action, no site-specific NEPA analysis was performed on summer use and it is not a component of the Selected Alternative. Should SHA propose to open the hut for summer use at some point in the future (and should the Forest Service accept the proposal), a separate NEPA evaluation would be required.

- 2.14** *EA p. 1-3 states that new huts are “immediately filled”, but p. 3-12 states that 100 percent occupancy would be infrequent. Given the popularity of huts, we believe the full occupancy is likely on almost all weekends and holidays when the snow is good. Indeed, the analysis of recreation impacts assumes 90 percent occupancy throughout the season. EA at 3-9. If this is the case, then surely the hut would be full many nights, and not just on weekends and holidays. Thus impacts to the narrow Bald Mountain Trail are likely to include more frequent encounters between day skiers and hut users earlier pack-out of snow, and more frequent hardpack conditions, decreasing the quality of the recreational experience for all winter users. See EA at 3-12.*

There is a difference between *occupancy* and *bookings*. Weekends and popular weeks throughout the season book up fast, while mid-week availability might remain throughout the season. However, a single party may book the entire hut for a night or a weekend, though their group will not fill all of the beds (i.e., the hut is booked but not 100 percent occupied).

Additional information along with a footnote on page 1-4 and page 3-13 of the EA has been added to more clearly describe how frequently huts are booked.

3. SAFETY

- 3.1** *More snow compaction and more crowds means more dangerous ski conditions. There does come a point when there are too many skiers on a trail and the skiing quality deteriorates. More winter analysis should be done on this. A smaller hut would help reduce some of these impacts. In addition, most winters Nightmare takes till December to have enough snow to allow for skiing. Please open the hut December 1st rather than November.*

At some point, too many skiers on a trail will diminish the quality and perhaps increase the inherent risks of skiing; however, the direct increase in usage associated with the proposed hut is not expected to have a measurable impact to safety in this regard, given the popularity and frequency of use that already exists on Sallie Barber and in its vicinity. Refer to the response to comment 2.1. SHA has committed to opening the hut for reservations the third week of November.

- 3.2** *Further hazard to the skiers who proceed from the hut is found in the practice of in between tree skiing. The Weber Gulch and its neighboring Black Gulch areas are thickly covered in many areas with deadfall trees, that have highly unpredictable extensions above and closely beneath the snow. With snowfall on their steep slopes being inherently uneven, tree skiing injuries particular to these gulches are both likely and potentially severe.*

There are inherent dangers associated with backcountry skiing, which are assumed by all backcountry skiers—regardless of whether they are hut users. Additional information has been added to page 3-3 and 3-4 of the EA.

- 3.3** *The vicinity of the proposed hut includes much inviting ski-terrain that is above treeline, and specifically terrain that lies south and east of the hut site and below the ridge line of Bald Mountain. This terrain is known by me, through observation over many years, to be highly prone to massive avalanche slides even with no man-produced triggering. One such avalanche demolished a cabin and swept its ruins two hundred yards downhill, well into treeline. The prospect of adventure -hungry visitors frequenting a hut within easy*

ski-distance to these avalanche faces presents extreme hazard, over the hut's lifetime, to those skiers and snowshoers.

Avalanche-prone terrain is acknowledged in the EA on page 3-9. SHA would provide basic information on avalanche awareness in the hut.

4. TRAFFIC & PARKING

- 4.1 *Day skiers and snowshoers drive this road in the morning to beat the crowds on Sallie Barber and there are a few narrow spots where intersecting a car on an un-plowed road coming the other way is scary. With 12 or more cars driving up and down this road on some days, it is critical that before this hut is built, Summit Huts gets confirmation that plowing will be completed before 9 a.m. even on days with minimal new snow. Early morning snowplowing is necessary to plow out the Hut Users parking lot so that they don't park in the day use area. SHA must have dated parking permits displayed on hut visitor's cars. SHA needs to address plowing and permitting not only to benefit their guests, but also in response to those folks who are now forced to leave even earlier to find the solitude they are losing due to more traffic on Sallie Barber, Bald Mountain and the backcountry skiing on Bald Mountain.***

Information has been added to page 3-22 of the EA, specifying that the majority of hut-related traffic would generally occur between 11:00 a.m. and 3:00 p.m. The EA discloses that "Summit County plows French Gulch Road up to the Sallie Barber Road Trailhead, Monday through Friday, as well as on Saturdays and Sundays if they receive more than 4 to 6 inches of snow." Plowing generally occurs in the morning, though the EA cannot confirm specific plowing schedules.

SHA would be required to prepare and submit an annual operations plan that defines how the parking lot would be maintained throughout the season. Refer to Table 2-2 for additional information.

- 4.2 *SHA states that the average hut stay is two nights (3-20), but this is an average and many do enjoy just one night at a hut. Also, while carpooling is hopefully popular, it is not a given that SHA's estimate of 2.8 people per car will happen and many a hut user will drive alone. The EA estimates that French Gulch Road will only see six cars per day, based on the above numbers, but twice that seems more accurate. At maximum capacity and maximum cars used, in a hut that sleeps 16-20 people, and folks are only staying for one night, and they don't carpool, the maximum could be 32-40 cars a day. This is unlikely but a more appropriate average taken from that number would be 12-16 cars a day, which seems more realistic. Speed limit signs must be posted above Wellington neighborhood.***

Page 3-22 of the EA provides average SHA-related vehicle use based on carpooling data collected by SHA, as well as reasonable assumptions. Because these are averages, on some days the number of SHA-related vehicles would be higher (e.g., weekends and holiday periods), while on others it would be lower (e.g., mid-week). It further discloses that "a lower people-per-vehicle ratio would lead to more hut user vehicles."

- 4.3 *The terrain on Bald Mountain is now closed in the Travel Management Plan to winter motorized but the road is under county jurisdiction and they will decide whether or not to gate it in the winter. SHA knows from experience that without a gate on this road, there will continue to be illegal motorized travel. Bald Mountain’s backcountry ski terrain sees substantial impact from hybrid use. Many other huts are experiencing a surge of snowmobile use to access huts as close as possible which changes the atmosphere of these huts. This EA should require that this gate is approved and built on Bald Mountain Road before this project moves forward. This gate could be paid for by SHA, which would be beneficial to not only the guest experience, but also as a gesture to help reduce the added skier impacts on Bald Mountain. In the last few years snowmobile tracks have been seen in Weber gulch and this is probably unacceptable for SHA.***

The Forest service acknowledges that illegal motorized use occurs on public lands. However, current and future illegal snowmobile use on Bald Mountain Road has not been identified as an issue by the Forest Service and SHA related to this project. Therefore, a gate on Bald Mountain Road is beyond the scope of this proposal.

- 4.4 *Also not included, is the number of cars shuttling so that they can enjoy the Hut to Hut experience since this is the primary purpose (1-3) of the Weber Gulch location. How much more traffic will the hut-to-hut experience add? The EA says: “No measurable impacts would occur at other nearby parking areas, such as the Boreas Pass Trailhead/parking area. The occasional hut user who travels from hut-to-hut, such as between Section House and the proposed Weber Gulch backcountry hut, could utilize this access point; however, the number of users who do this would be negligible.” The Hut-to-Hut experience is one of the few reasons mentioned in the purpose and need. If hut-to-hut does become popular, than the already overcrowded Boreas Pass parking area will need a few more spots. Also, if hut-to-hut skiers first stay at the Section House, and leave cars up French Gulch that means additional parking will be needed in French Gulch.***

Although the interconnectedness of huts is a part of SHA’s overall vision, hut-to-hut travel comprises a very small percentage (less than 5 percent) of SHA’s hut use. The impacts of hut-to-hut travel on parking are negligible and are disclosed on EA page 3-24.

- 4.5 *Increased vehicular traffic on French Gulch Road from hut guests appears to be thoroughly evaluated in the EA. Recreational traffic on the west face of Bald Mountain was also discussed, although the estimated number of existing daily skiers on the west face of Bald Mountain (“one party per day”) seems like a gross underestimate (p. 43 of the EA). We believe that recreational use on the west face of Bald Mountain will inevitably increase with hut-related traffic, and the north-facing area cited as the primary skiing for hut guests will also receive additional use from hut guests. We reiterate our previous request to evaluate and improve U.S. Forest Service enforcement of the no snowmobiling policy on Bald Mountain as part of this hut-related decision. A winter gate installed at Bald Mountain Road would also help with this issue.***

Information has been added on page 3-9 and 3-10 of the EA to more clearly describe the skiing areas on Bald Mountain. However, use on the west face of Bald Mountain, particularly related to snowmobiling, is beyond the scope of this analysis and is addressed by the Forest Service’s Travel Management Plan. Overnight parking at the Bald Mountain Road Trailhead is illegal and anyone that should choose to access

the proposed hut from this location would need to utilize the Summit Stage or make arrangements to get dropped off.

4.6 *Two new trail segments, segments C and E, would be constructed to provide the last part of the access to the new hut. How would the prohibition on summer use of these segments be enforced?*

Information has been added to page 2-3 of the EA to indicate that signage placed at key locations would convey that the trails are closed to summer usage. This is also disclosed in Table 2-2, PDF #8 under Wildlife.

4.7 *Bald Mountain trail head parking.*

- a. you say there are 10 spaces, there are 5 spaces on good day*
- b. you say there are 18 to 20 spaces on road -not legal*
- c. you say not to be used-Francis's hut, everyone uses spruce creek not the burro trail the same will happen here and they can ski out here easily.*
- d. since the oct 2011 a no overnight parking sign has appeared not fair the residents we need a permit ability to park there.*

Regarding point (A): the statement was revised in the EA to read “approximately ten vehicles in the summer, closer to five in the winter (depending on snow storage)”; (B): 18-20 vehicles is referring to the Boreas Pass Parking area and as such, is under the heading on page 3-21; (C): the EA specifies that the Bald Mountain Road parking area would not be recognized as a parking option for hut users (page 3-23); (D): this is beyond the scope of the EA.

4.8 *A hut housing 16-20 overnight guests will generate numerous additional cars at the French Gulch/Sallie Barber trailhead, especially during peak hours when new hut users arrive and the previous night's guests have not left yet. Consequently, the Weber hut will exacerbate parking problems in this area and further limit day access to these trails. While the EA claims that the dedicated parking lot proposed at 3-21 will include enough space for hut users to eliminate the impact to day use parking, we doubt that this will be the case. Snow buildup, late or inadequate snowplowing (due to the presence of overnight cars), trailers and other issues will limit for practical purposes the number of intended new spaces and we fear that the hut users will then take over day use parking. Day users will be the losers once again. These concerns can be addressed in two ways. First, hut users can be required to park only in the dedicated lot and can be allowed to park overnight only with a permit for the night(s) reserved that is issued by SHA and displayed on the car dashboard. This permit can easily be made part of the online reservation process and printed out by hut users. In addition, reducing the hut's capacity will reduce the number of overnight cars and should be made a condition of Forest Service approval for this project.*

SHA would need to prepare an Operations Plan to provide details on winter and summer management of the Sallie Barber trailhead, legal overnight parking options, and an effective signage plan, among other

appropriate issues. Overnight parking permits for SHA's guests would likely be a basic component of the winter parking lot management. All parking/traffic impacts have been disclosed in the EA.

- 4.9** *Trailhead design and management continues to be an issue of concern for the Town Council and BOSAC with regard to this Weber Gulch Hut proposal. As described in the EA, the proposal now limits hut reservations to winter months only. This change leads to the obvious question of how the proposed expanded parking area would be managed during summer months and whether that use supports the goals and objectives of the area land management agencies. We seek additional clarity regarding the long-term management of the parking area in Lincoln. First, if approved and constructed, we strongly recommend that overnight parking in the proposed new parking area be limited to hut guests, Mountain Meadows subdivision homeowners, and other permitted guests. Based on previous management challenges, we do not support a de-facto car camping area at the head of one of the most popular trailhead accesses in the region. Further, winter plowing schedules, gated parking lot entries, appropriate signage, and parking restrictions should be further clarified with regard to the proposed winter-only trailhead. We believe that SHA should enter into a formal agreement with the USFS, County and Town that clearly articulates the management of the trailhead, the new trail facilities, an effective signage plan, etc. This operations plan should be agreed to by all affected parties and should explicitly describe the long term management goals of the area. The vision outlined in the Golden Horseshoe Management Plan is a logical starting point for these discussions and any decisions related to trailhead management. Town representatives would like to participate in any discussions or decisions related to the summertime use of the proposed parking area.*

The Forest Service shares the Town Council's and BOSAC's concerns and would require SHA to prepare an annual operating plan to provide details on winter and summer management of the Sallie Barber trailhead, the new trail, legal overnight parking options, and an effective signage plan, among other appropriate issues. All parking/traffic impacts have been disclosed in the EA. Table 2-2 provides more information on the annual operations plan.

- 4.10** *The EA states that Bald Mountain Road Parking Area, "has the capacity for approximately ten vehicles and also prohibits overnight parking. (3-19) This might be true for summer, but in winter this area only allows for at the most, five vehicles. This parking lot will see some illegal overnight parking to the hut, because it is an easier route to the hut. SHA needs to educate hut visitors about not parking here and also monitor, enforce and sign this parking area as closed to overnight vehicles to prevent this from happening. "Some parking would occur by administrative vehicles, but this use would be relatively infrequent and generally only require one vehicle." (3-21) Given how few parking spaces there are on Bald Mountain Road and how popular this area is for day use, and that SHA is requiring a huge new parking area on French Gulch, this is unacceptable that SHA uses this parking facility for administrative vehicles. Hutmasters also should be monitoring and witnessing the impacts in the French Creek parking area as well as their approach route to the Weber Hut.*

The text on page 3-21 was revised to read "approximately ten vehicles during the summer, closer to five in the winter" to more accurately describe the parking capacity year-round.

Overnight parking at Bald Mountain trailhead is not proposed, nor is it legal (EA page 3-23); the registration information that all SHA guests receive upon making a reservation would make this clear.

Furthermore, signs at the Bald Mountain Road trailhead warn that overnight parking is prohibited, and that vehicles left there will be towed. Therefore, any SHA guests that choose to ignore the information provided by SHA *and* the signs at the trailhead would do so with full knowledge that their vehicle would likely be towed by the time they return.

4.11 *While the EA concludes there will be minimal impact based upon its estimate of 6-8 additional cars for hut users, we believe this is a gross underestimation of the additional traffic and congestion which will result from the construction of the 19-space parking area.*

The proposed parking lot has been sized to accommodate overlaps in arriving and departing hut guests. As included on page 3-22 of the EA, SHA data for Francie's, Janet's and Section House indicate that average hut users typically carpool, with approximately 2.8 people-per-vehicle.

At 2.8 people-per-vehicle, a single night at 100 percent occupancy (16 people) would equate to six vehicles attributable to Weber Gulch backcountry hut users. (A lower people-per-vehicle ratio would lead to more hut user vehicles.) It is reasonable to assume that between six and eight vehicles could be attributable to Weber Gulch backcountry hut users on any given night with 100 percent occupancy. Factoring in the overlap between arriving and departing hut users, daily hut-related traffic on French Gulch Road could be range between 12 and 16 vehicles (6 to 8 vehicles both east-bound and west-bound).

4.12 *The lack of parking at the trailhead is the only factor which has limited adverse impacts to the surrounding environment and wildlife. The opening of a new 19-space parking area will only serve to attract more recreational users who will now have more available parking irrespective of hut users. The EA recognizes this and asserts that the parking area is only needed during winter months and thus will accommodate overflow parking during other seasons. EA at 3-21. However, the EA did not assess the impact of the new parking area in terms of how much it would encourage year-round automobile traffic to the area and the resulting impacts on federal lands and native plants and species.*

The proposed 19-space parking lot would be for overnight users only. Day use recreationists to the area would be prohibited from parking in it. It is likely to attract additional recreationists to the area; all of whom would be staying at the hut. Therefore, the EA only addresses the impacts of the additional hut-related traffic on French Gulch Road.

Note that the EA has been revised to indicate that the SHA parking area would be closed during the summer.

4.13 *We question whether there will actually be parking available to the hut users when they would arrive to utilize the proposed hut. Likely, the parking lot will fill up and hut users will find no parking or will end up parked in a manner similar to the vehicles depicted in Exhibit 3, attached.*

The proposed parking lot would only be open to SHA's guests and the occasional non-hut overnight guest—each of whom would need to receive a parking validation from SHA. As a condition of any

approval, SHA would be required to prepare an annual operations plan that details, among other things, how the parking lot would be maintained for hut users only during the winter.

- 4.14** *To our knowledge, there is currently no monitoring of the trailhead parking (as can readily be seen on any weekend as depicted in Exhibit 3) and it will be up to Summit Huts to monitor and enforce the parking situation. Again, however, we are aware of no plan or dedicated resources to do so. Without such a plan and dedicated resources, it would be irresponsible to issue final findings or a decision on the EA for this project.*

As a condition of any SUP approval, SHA would be required to prepare an annual operations plan that details, among other things, how the parking lot would be maintained for hut users only during the winter. The reader is directed to Table 2-2 of the EA for more information.

- 4.15** *We respectfully request that the proposed parking area be carefully reexamined for relocation on the east side of Humbug road and that a more careful plan for operation and monitoring of the parking area be delineated before this project goes further*

Multiple options were considered for locating the proposed parking lot—including both to the east and west of Humbug Road. An overarching goal for both the Forest Service and SHA was to minimize ground and vegetation impacts. Ultimately, there were several factors that contributed to the choice to locate the parking west of Humbug Road.

First, the topography is gentler to the west side of Humbug Road. Second, there is a platform on the south side of French Gulch Road that provides the necessary large turning radius to accommodate a larger vehicle, like a snow plow, turning around for maintaining the lot. Finally, the western choice requires less road length necessary to be plowed in the winter.

5. VEGETATION

- 5.1** *DESIGN FEATURES FOR FIGHTING NOXIOUS WEEDS ARE INADEQUATE. Page 2-11 lists 6 design features for addressing noxious weeds. All of them are measures to see that equipment does not introduce or spread weeds. All are appropriate and desirable, but they are insufficient. There must also be surveys for weeds on and along areas where ground would be disturbed. This would include the construction area for trail segments C and E, widening of segment D, and hut site itself. Any weeds found must be eradicated. Follow-up surveys must also be done for at least two full growing seasons after completion of construction. Since summer maintenance trips involve motor vehicles which could introduce or spread weeds, they should also be inspected, and cleaned if necessary, prior to use for access to and maintenance of the hut.*

A project design feature has been added to Chapter 2 which states: Before implementing any approved ground-disturbing activities, coordinate with the Forest Service District Weed Coordinator to determine if surveys would be needed within project areas to document the presence of any pre-existing weed infestations. Treat infestations prior to ground-disturbing activities and remove all weed seed and propagules to prevent spread.

6. VISUALS

- 6.1 *County staff has inspected the proposed site of the hut and the surrounding area. The proposed hut site appears well screened and at least one mile distant from the closest public viewpoints which provides for some level of visual impact attenuation. However, significant visual impacts could result if the design of the structure is not appropriate for the site, inappropriate exterior materials are used, or adequate care is not given to the siting of the photo-voltaic array that will provide power to the site. As such, the Board recommends that the specific architectural/site design be consistent with the Forest Service 's Scenic Integrity Objectives (SIO) protocol and that the proposed design and location of the hut as well the associated photo-voltaic array meets the objectives of a Moderate level SIO at a minimum.*

The design of the proposed hut would follow Forest Service BEIG and SIO guidelines, as indicated in Chapter 3 Section C – Scenery of the EA. The BEIG addresses site development, sustainability and architectural character.

7. WILDLIFE & AQUATIC SPECIES

- 7.1 *Measures to protect any nests of boreal owl, olive-sided flycatcher, and marten need to be strengthened. The current wording says that impacts “could be avoided by conducting tree removal in potential [nesting or denning] habitat outside of [the nesting or denning period]”. EA at 2-9, emphasis added. “Could” must be changed to “shall”. This is especially important for marten, whose tracks were found frequently in surveys in the areas “along all proposed access routes to the hut”. EA at 3-49.*

In Table 2-2: Management Requirements and Project Design Features, Wildlife, all have been changed to “will” or “shall.”

- 7.2 *Another concern is how late Elk will use this area, since often there are signs of Elk at higher elevations up to early December and this could be another reason to consider opening the Hut December 1st rather than November 1st. Pine Martens have just recently been seen frequently up French Gulch and this is mentioned to have it on record.*

Impacts to elk, pine marten, and other species have been disclosed in the EA and supporting biological documentation.

- 7.3 *Please make sure the wildlife biologists are aware that this hut will definitely mean many more folks in the lower part of Weber Gulch and how do they propose to enforce this closure? If the wildlife biologists decide to eliminate this closure, please then think hard about supporting a smaller hut alternative, since a 50 percent reduction in the number of humans in the Lower Weber Gulch is a great way to mitigate the conflicts with wildlife.*

Refer to Chapter 3 Section E – Wildlife for an evaluation of existing conditions and environmental consequences to wildlife from the proposed projects. Information will be presented at the hut to discourage travel below the hut. Given the dense vegetation and steep terrain below the hut, the potential for people descending through this terrain is considered low. Table 2-2 specifies Management Requirements and Project Design Features that have been included to avoid or minimize impacts to wildlife impacts.

- 7.4** *Constructing the access trail to the proposed hut would fragment or destroy effective winter foraging and denning habitat. Access to and use of the proposed hut (i. e., skiing and snowshoeing near it) would increase snow compaction. This would decrease lynx’ advantage in deep snow over other predators which compete with lynx for prey, especially snowshoe hare. Operation of the hut (a permanent development), i. e., increased human use and some motorized use for maintenance in winter, would disrupt lynx use of the surrounding habitat and in a corridor, a very important area of movement for lynx in Summit County.*

Proposed vegetation removal, increased snow compaction, and increased human use has been adequately addressed in the Biological Assessment (BA). As discussed in the BA (page 60) with respect to lynx, the relatively small and benign additive impacts associated with the proposed Weber Gulch backcountry hut on lynx foraging, sheltering, breeding, and dispersal would meet the definitions of “insignificant” and “discountable.” Therefore, the Proposed Action warrants a “**may affect, not likely to adversely affect**” determination for Canada lynx. The Weber Gulch backcountry hut project meets all criteria for programmatic concurrence under the Colorado Lynx Project Decision Screens. Consultation for Canada lynx is considered complete for this proposed project. Information was added to Chapter 2, page 5 to clarify that snowmobile usage would only be in the case of extreme situations or emergencies. SHA does not own a snowmobile and does not anticipate using one for regular maintenance or operations.

- 7.5** *The hut would adversely affect a patch of land that likely functions as diurnal security for lynx. Reudiger et al, 2000, state that such areas should be protected: Where such diurnal security sites exist, they should be protected from actions or activities that would destroy or compromise their functional value. Reudiger, id., at 83 The location of the proposed hut contradicts the recommendation in Roberts et al 2012 to “[d]irect activities outside of the [Southern Summit County] lynx conservation corridor...”. Id. at 8. There is a further recommendation for recreation to “[i]dentify opportunities to reduce human use inside of biologically important areas for lynx”. The important areas include the conservation corridor. Id. at 9. Finally, recreation should “avoid new use and developments in lightly dissected areas”. Ibid. While the Sallie Barber Road is already well-used in winter, the hut site and the area along the new road that would be constructed get little or no use. See EA at 3-68.*

The project area is a movement corridor in the summertime; the proposal does not include summer use, so lynx usage of the corridor would be maintained. The May 1 closing date avoids impacts to denning season and dispersal (page 2-5 of the EA and page 48 of the BA). Furthermore, there is no evidence of resident lynx utilizing the Weber Gulch area. This is documented in the EA and supporting biological documentation what was prepared for this NEPA process.

- 7.6** *The EA even admits that “it would be best for lynx if a hut was not put in this corridor”. Id. at 3-55. The adverse effects to lynx are multiplied if hut users also go or come from two of the other SMA huts - Section House and Ken’s Cabin - in one trip. This is not addressed in the EA. Hut proponents may argue, as the EA does (see id. at 3-55, 3-56) that the construction and operation of the hut would be only a very minor intrusion into lynx habitat and the adverse impacts would be minimal. That is no excuse for approval of the hut. The effects of many, many individual projects and activities in southern Summit County have combined over the years to put lynx in the precarious position it is now in. The proposed hut would add to this permanent impact, and there are likely to be future projects*

and activities that will continue destroy and degrade lynx habitat in the future. In spite of the impact on lynx, some of these will not be prohibited because they are on private land or they are considered necessary for public safety, such as home constructions, widening of highways and other roads, and removal of dead trees. The proposed hut, on the other hand, is totally discretionary. It can be halted and it should be.

Impacts to lynx are disclosed in the Biological Assessment (BA). The BA and EA also address cumulative impacts to lynx according to NEPA and ESA, respectively. When hut-to-hut travel does occur, much of it would be above treeline (and all of it on snow), which would not impact lynx dispersal who travel during the summer within the forest canopy.

7.7 ***The proposed closures would have limited, if any, mitigative value in protecting lynx. Closing the area just north of the hut to prevent users from skiing directly down to the Sallie Barber Road, and educating users about the need to conserve an intact block of good lynx habitat (EA at 2-3) are good measures and should be made conditions of approval of the hut if it is approved. (We still believe it should not be approved.) However, we wonder how well this could be enforced. It would require very frequent law enforcement presence every weekend and some weekdays for some time after the hut opened and at some times thereafter. The presence of a hut would encourage people to ski this route, whereas now, most of the people that might stay at the hut probably do not even know it exists. Even successful closure would not mitigate additional snow compaction caused by access to the hut. Under a project design feature, a section of the Great Flume Trail would be closed to winter use to “offset... snow compaction” from the new hut. EA at 2-9. How would this trail be closed? If the trail still physically exists and has sufficient snow on it, it will get used, if there is any desire to use it.***

Table 2-2 specifies Management Requirements and Project Design Features that have been included to avoid or minimize impacts to wildlife impacts. Furthermore, the quality of terrain below the proposed hut (i.e., steep terrain with tight trees) is not considered desirable for hut users.

The EA has been revised to clarify that the Great Flume Trail would not be closed, but removed from the snow compaction map; see response to 2.7.

7.8 ***Currently, there is some confusion on the part of the Board regarding the potential impact of compacted snow on the Canada lynx. We note that this issue does not appear to be addressed in the EA but we are under the impression that snow compaction may limit the County’s ability to develop additional trails in the Golden Horseshoe area pursuant to the Golden Horseshoe Management Plan due to the potential cumulative impacts of such trail development on lynx habitat. As such, the Board requests that this issue be more thoroughly addressed in the EA.***

As discussed in the response to Comment #2.7, there is no proposal to close the Great Flume Trail; in essence, this is an “accounting exercise” for the Forest Service in relation to its monitoring of snow compacted routes. The EA has been updated to clarify this statement and to make it clear that the Great Flume Trail is not being closed.

In summary, the Great Flume Trail is shown as a “snow compacted route” on the WRNF 2002 Baseline Snow Compaction Map. Ground verification and documentation shows that this route, which is 3.8 miles long, does not receive regular use during winter months that cause snow compaction. Therefore, this route will be removed from the 2002 Baseline Snow Compaction Map. The proposed action would not expand snow compacted routes beyond what the 2002 Baseline Snow Compaction Map shows.”

- 7.9 *Use of the hut could affect ptarmigan, which winter in willow patches. These birds need large and relatively undisturbed landscapes. See more detail in our scoping comments of November 18, 2011 at pp. 3-4. Alpine areas have not been surveyed in winter (EA at 3-45), but should be. Willow patches and any other areas that ptarmigan might use in winter should be mapped, and hut users should be directed to avoid those areas. This information should be given to hut users when they reserve one or more nights at the hut, and it should also appear in the hut itself. It can be done as part of the education that would be done under wildlife design criterion 10 – educating users about the need to have an intact block of high quality lynx habitat below the hut (toward the Sallie Barber Road).***

The EA states on page 3-53: “It is unlikely that ptarmigan winter in anticipated alpine use areas above the proposed hut because the areas that would be skied do not support willows and they are snow deposition areas that ptarmigan actually avoid as foraging habitat in winter. However, if some male ptarmigan occur in or around the ski play area, they may be occasionally displaced by skiing activity, but they should continue to use such activity areas, as they do at Breckenridge Ski Resort and Copper Mountain Resort, both ski areas.”

- 7.10 *The dispersing distance analyzed for boreal toad is 1.5 miles, even though females are said to disperse up to 2.5 miles. EA at 3-33, 3-34. Surveys done in French Creek in 2011 found no boreal toads. EA at 3-44. However, adult boreal toads have been observed spending up to 90 percent of their time in upland terrestrial areas. Keinath and McGee, 2005. Areas surrounding French Gulch and other areas where boreal toads might breed should be surveyed.***

Boreal toad surveys that were conducted in French Creek by USFS biologists (2011) were adequate for this analysis. No occupied habitat was found. Additional surveys are scheduled for the 2014 field season and if toads are discovered, new design criteria would be applied to the proposed action

- 7.11 *The proposed hut location and associated trails, located on the northern aspect of Bald Mountain, fall within the highest priority area of continuously forested habitat in the Lynx Conservation Corridor defined by Roberts et al (2012), as stated in the EA (p. 3-39). This important landscape linkage, containing the proposed hut site, has been identified as high quality summer and winter habitat for lynx. Such intact forested areas free of human development within Summit County are very limited, and provide travel corridors and security from intensive recreation and other human disturbances. The cumulative effects of habitat loss, fragmentation, and increased winter recreation as a result of the proposed hut may have a negative impact on lynx by degrading habitat, altering movement and behavior, and dispersing prey out of the area.***

Proposed vegetation removal, increased snow compaction, and increased human use has been adequately addressed in the Biological Assessment (BA), in addition to cumulative effects. As discussed in the BA

(page 60) with respect to lynx, the relatively small and benign additive impacts associated with the proposed Weber Gulch backcountry hut on lynx foraging, sheltering, breeding, and dispersal would meet the definitions of “insignificant” and “discountable.” Therefore, the Proposed Action warrants a “**may affect, not likely to adversely affect**” determination for Canada lynx. The Weber Gulch backcountry hut project meets all criteria for programmatic concurrence under the Colorado Lynx Project Decision Screens. Consultation for Canada lynx is considered complete for this proposed project. Information was added to Chapter 2, page 5 to clarify that snowmobile usage would only be in the case of extreme situations or emergencies. SHA does not own a snowmobile and does not anticipate using one for regular maintenance or operations.

7.12 *The proposed hut location and associated trails also fall within elk and deer summer ranges and movement corridors. Limiting seasonal use of the hut and associated trail section “E” to mid-November through May, as proposed in Alternative 2, would lessen potential negative effects on elk and deer reproduction in the spring and early summer. A closing date for winter use was not specified in the EA, and CPW recommends amending Alternative 2 to include an annual closure of the hut and trail section “E” to recreational use prior to May 15 to minimize impacts to elk and deer during calving and fawning periods.*

The April 30 closing date is sufficient to avoid impacts to elk calving and deer fawning in early June; regardless of closing date, the conditions that are required for winter hut use (snow cover) are exactly the opposite of the conditions needed for calving and fawning (no snow), making the two mutually exclusive.

7.13 *However, due to the increased parking availability at the Sallie Barber Trailhead included in Alternative 2, increased recreational use of the lower trails will likely occur during the spring, summer and fall months despite summer closure of the hut. CPW is concerned that if the hut is constructed, there will be pressure for the Dillon Ranger District to eventually open the hut to year-round use. Such use will have negative effects on elk and deer reproduction and will likely disperse animals out of their historical summer habitat. In addition, people often recreate with dogs off leash on public lands, and dogs can harass, chase, injure and kill wildlife. Dogs can significantly impact elk and deer during calving and fawning periods. As stated under Alternative 2, construction and maintenance of the hut and trails would have additive effects “to the reduced availability of effective summer range that is becoming an issue in Summit County herds because of habitat fragmentation and the encroachment of human activities into elk habitat” (p.3-62).*

Summer use of the hut is not a component of the Proposed Action. Should SHA ever wish to open the hut for summer use, it would need to submit a proposal to the WRNF, and should that proposal be accepted, site-specific NEPA analysis and approval would be necessary

7.14 *Under Alternative 2, approximately 15 ATV trips per summer will be made to the hut for maintenance purposes during the late summer and early fall. These maintenance trips may overlap with the early hunting seasons, and CPW is concerned that motorized ATV use on the trails during the hunting seasons may disperse elk and deer out of the area and make them less accessible to hunters, who will be accessing the area on foot. CPW recommends amending Alternative 2 to limit the maintenance ATV trips to time periods outside of the designated hunting seasons to avoid dispersing game animals out of the area. The archery*

hunting season varies year to year but typically begins the last weekend of August and ends the last weekend of September. Rifle hunting season typically begins the second weekend in October but may also vary year to year.

See addition to page 2-5 that states that: “SHA and the Forest Service will ensure that maintenance trips involving the use of ATVs are conducted outside of the hunting season each year.”

7.15 *Page 3-62 states that there could be 15 summer and early fall trips to the hut for maintenance. But page 3-12 puts the number of summer trips at only 5. This is important because of the possible effect on elk and other wildlife. The EA states that summer elk habitat is becoming increasingly fragmented and becoming less effective with increased human encroachment. Id. at 3-51, 3-62.*

The correct number is 15 trips between summer and fall (approximately 5 trips for routine check-ups to make sure hut is secure, etc.— between late June and the end of August; and approximately 10 trips between September to late October to deliver firewood, propane, & general supplies). This point was corrected on page 3-14.

7.16 *In any case, closing this trail to winter use would not offset new snow compaction from the proposed hut. When surveyed over five different days during 2009, 2010, and 2011, “there were no visible tracks anywhere near the Great Flume trail and, as far as the USFS can tell, it doesn’t receive any winter use”. BA at 35. Due to the need to go up a south facing slope (Humbug Hill) to access this trail, it would not be expected to get much winter use. Thus closing it would not offset snow compaction from any use elsewhere, certainly not the increased use that would likely occur with the new hut in operation. The BA (p. 48) admits that there would be an increase in snow compaction from use of the proposed new hut. The Great Flume Trail is in an area that has been heavily mined. There are many roads, tailings piles, and other cleared areas nearby. Any lynx habitat protected by closing this trail to winter use would not be equal to that lost by constructing the new hut and the route to it.*

See response to 2.7 regarding the removal of the Great Flume Trail from the snow compaction map.

8. FOREST SERVICE POLICY/MANAGEMENT

8.1 *CDLT’s concern is that summer users will seek a direct route down Weber Creek from the hut to Sallie Barber Road to save considerable hiking distance. Despite the steepness of the hillside, density of the forest, and considerable down timber, people will still want to try it. Additionally, there is a sensitive historic site along Weber Creek just above Sallie Barber Road. Impacts from attempts to create such a social trail will likely be damaging to the environment and the historical resources. Any decision approving the Weber Gulch hut needs to include a prohibition against creating social trails and/or alternative summer routes to access the hut.*

The hut is not proposed for summer use, and as a component of the Proposed Action, Trail Segment E would be closed to summer use via a Forest Supervisor’s closure. Additional information has been added to page 2-3 of the EA to reinforce this. The Forest Service is confident that the majority of summer recreationists will respect this closure.

8.2 *The Forest Plan and the EA states that ‘huts’ are permitted in a 1.31, but there are no specifics as to what ‘hut’ means. Hut is defined as small, or a ‘shack.’ What is the appropriate size of a hut in a 1.31 prescription?*

A footnote was added on page 1-11 to convey relevant permit information: “Huts are permitted by the Forest Service under a ‘FSM 2721.14, Shelter Permit – 114’ use code, which includes ‘trail shelters, waiting sheds, and similar structures of a recreational nature’.”

9. **ALTERNATIVES**

9.1 *The Town Council is concerned about the sizing of the proposed hut. We would like the EA to further analyze the number of guests the hut should accommodate. For example, a smaller sized hut may still be able to provide the experience desired by SHA but could reduce the additional impacts created by the users. The EA dismisses the possibility of a reduction in overnight guest capacity because reduced fees would make it difficult to operate. We would urge SHA to look at possible alternative financial models for funding a smaller capacity hut (e.g., customers might be willing to pay a premium for a more intimate experience). We request that the environmental analysis include an assessment of the varying environmental impacts based on the number of guests housed in the hut.*

Potential impacts associated with different hut capacities have been considered and a table has been included in the Decision Notice to summarize these impacts.

9.2 *Leave the existing/old Nightmare on Baldy trail open for hut users.*

The original Nightmare on Baldy trail alignment was determined to be too steep for ascent or decent for hut users.

9.3 *A separate skin track for access into the hut could be a potential solution to the trail hardening impacts a hut of any size would cause. This should be a minimal condition for offsetting the impacts from increased visitor traffic.*

Neither a separate skin track on the existing Sallie Barber Road and *Nightmare on Baldy*, nor a new separate trail, are feasible options to pursue for this proposal. A separate skin track would be impossible to enforce; impacts of a new separate trail would far exceed those of adding users to existing trails.

9.4 *Parking impacts also need to be more clearly addressed as the cost of maintaining parking during winter is a burden on the municipality and County; and a considerable loss of recreational opportunity to local residents seeking what should be considered reasonable access for traditional activities. Assure that the proposed hut does not impact the limited parking used by local residents. Perhaps designing a hut of half the size (8-10 visitor capacity) of the one currently proposed would be a fair compromise for the impacts described above.*

These issues are addressed through the dedicated parking area that is included in the Proposed Action. Table 2-2 of the EA has been updated to indicate that SHA would need to prepare a detailed annual operations plan that specifies, among other things, how the parking area would be maintained throughout the winter.

- 9.5** *Weber Hut should not open until December 1st to reduce impacts on the popular Sallie Barber Road. Sallie Barber is often the only trail which has enough snow for nordic skiing for most of November. In addition, Nightmare on Baldy often is too rocky and does not hold snow until December so a later opening date makes sense.*

The EA has been revised to clarify that the proposed opening date for the hut would be the third week of November.

10. CUMULATIVE IMPACTS

- 10.1** *Such loss of local XC skiing opportunities have occurred throughout the region as many of these winter travel corridors have become heavily used by the motorized community and are de-facto snowmobile areas of little use to the XC skiers.*

The EA discloses impacts to current recreational opportunities and experiences in the Analysis Area. The Proposed Action would not lead to a loss of any cross-county skiing opportunities, as it makes use of existing trails as well as new trails—all of which would be available for winter use by the public. Impacts to the current recreational experience on existing trails and backcountry skiing terrain are disclosed in Chapter 3 Section A – Recreation of the EA.

11. CULTURAL RESOURCES

- 11.1** *An historic grave located within the proposed parking area has been given very short shrift in the EA. A photo of this grave is attached as Exhibit 4. We understand that this may be one of the oldest preserved grave sites in Summit County. The grave is within the area of disturbance for the proposed parking area and certainly within the area designated for snow storage related to the proposed parking lot. It is impossible to believe that the grave site will not be damaged or destroyed by this proposed parking area as snowplows and members of the public traverse the area.*

As noted on page 3-41 of the EA:

The cultural resource investigations indicated that the recorded boundary of previously recorded Lincoln Townsite overlies the proposed Weber Gulch backcountry hut parking area. MAC recommended to the Forest Service that the portion of the site within the proposed parking area does not support eligibility of the larger resource because of the absence of any evident artifacts or features clearly associated with the site.

In addition, a Project Design Feature has been added to Table 2-2 to avoid/protect the grave site.

APPENDIX E: MONITORING PLAN

The Monitoring Plan for the Weber Gulch backcountry hut describes monitoring that will occur in the area below (north) of the hut site.

The goal of this monitoring plan is to quantify the amount of backcountry skier/snowshoe traffic that occurs or does not occur in the timber north of the hut site.

- a) The frequency of monitoring activities shall occur once per week by the US Forest Service and/or Summit Huts Association.
- b) Winter monitoring shall occur throughout the entire hut operating season (mid-November through April 30).
- c) Monitoring will involve the observation and documentation of skier/snowshoe tracks entering the timber north of the hut. In addition to winter tracking, trail counters and cameras may also be used to supplement and verify the data. Infrared counters, which count each time an infrared beam projected across a trail is crossed, may be used to count skiers. Counters may be placed in selected locations north of the hut if regular skiing patterns are observed. Counters will be monitored by Forest Service staff to insure functionality and to download data.

The Forest Service will work closely with Summit Huts on the proper education signage to will be placed at the hut and around the area north of the hut. This signage will educate hut guests on the local lynx issues, why they need to avoid the timber north of the hut and any other topics that are deemed appropriate.

It is the expectation of the Dillon Ranger District that no use will occur in the timber north of the hut. However, if any use occurs (one track or more per week) a more aggressive management strategy will be implemented to deter use in the timber north of the hut. This management strategy will involve the construction of a physical barrier that will be installed during the hut's operating season.