U.S. Department of the Interior
Bureau of Land Management

FINAL ENVIRONMENTAL ASSESSMENT

PROJECT NAME: Alpine Triangle Recreation Area Management Plan Environmental Assessment

PLANNING UNIT: Alpine Triangle Special Recreation Management Area

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42N 6W Sections 1-34.
42N 7W Sections 1-3, 9-36.
43N 3W Sections 6-7, 18-19, 30-31.
43N 4W Sections 1- 36.
43N 5W Sections 1- 36.
43N 6W Sections 1-36.
43N 7W Sections 1, 2, 12-14, 24,25, 35, 36.
44N 3W Sections 6, 7, 18, 19, 30, 31.
44N 4W Sections 1,2, 10-15, 22-36.
44N 5W Sections 25-29, 32-36.
44N 6W Sections 2, 26, 32- 36.
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Bureau of Land Management

Columbine Field Office
367 Pearl Street
P.O.Box 439
Bayfield, CO 81122
&
Gunnison Field Office
216 North Colorado
Gunnison, CO 81230

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LIST OF ACRONYMS

4WD	Four-wheel drive
ACEC	Area of Critical Environmental Concern
ATV	All terrain vehicle
BA	Biological Assessment
BCC	Birds of Conservation Concern
BLM	Bureau of Land Management
BMP	Best Management Practice
CAA	Clean Air Act
CO	carbon monoxide
CO2	carbon dioxide
CDOW	Colorado Division of Wildlife
CDOT	Colorado Department of Transportation
CDPHE	Colorado Department of Public Health and Environment
CEQ	Council on Environmental Quality
CFO	Columbine Field Office
CFR	Code of Federal Regulations
CMP	Corridor Management Plan
CRMP	Cultural Resources Management Plan
CSDO	Colorado State Development Office
CSSP	Southwest Colorado Site Steward Program
dBA	Decibels
DOT	Department of Transpiration
DR	Decision Record
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FEIS	Final Environmental Impact Statement
FHWA	Federal Highway Works Administration
FLPMA	Federal Land Policy and Management Act
FONSI	Finding of No Significant Impact
HC	Hydrocarbon
GFO	Gunnison Field Office
GMU	Game management unit
GPS	global positioning system
ID	Interdisciplinary team
IM	Instruction Memorandum
IMP	Interim Management Policy
KOP	Key observation point
LNT	Leave No Trace
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NDIS	Natural Diversity Information Source
NHPA	National Historic Preservation Act
NO2	nitrogen dioxide
NOI	Notice of Intent
NOx	Nitrogen oxides
NVUM	National Visitor Use Monitoring Survey

NRCS	National Resource Conservation Service
NSRE	National Survey on Recreation and the Environment
OHV	Off-highway vehicle
ORV	Off-road vehicle
O3	Ozone
Pb	Lead
PL	Public Law
PM	Particulate matter
PSD	Prevention of Significant Deterioration
RAMP	Recreation Area Management Plan
RMP	Resource Management Plan
R&PP	Recreation and Public Purposes
RMIS	Recreation Management Information System
RMZ	Recreation management zone
ROD	Record of Decision
ROS	Recreation Opportunity Spectrum
ROW	Right-of-way
RV	Recreation vehicle
SHPO	State Historic Preservation Officer
SJMA	San Juan Mountain Association
SO2	Sulfur dioxide
SRMA	Special Recreation Management Area
SRP	Special recreation permit
SSS	Special Status Species
U.S.	United States
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Service
VRM	Visual Resource Management
WSA	Wilderness study area

1.0 INTRODUCTION/PURPOSE AND NEED

1.1 Introduction

The Alpine Triangle Special Recreation Management Area (Project Area) includes roughly 186,252 acres of public land between the towns of Lake City, Silverton, and Ouray in southwest Colorado (Figure 1.1). These public lands are managed cooperatively by the Bureau of Land Management (BLM) and a variety of partners. In 1981, the BLM designated the Project Area as the American Flats/Silverton- Lower Lake Fork Special Recreation Management Area (SRMA) to protect the important recreational values. This administrative designation recognized the Project Area as both a highly valued recreation resource and an area requiring enhanced management for the protection of these recreation-related resources, including a notable number of unique and nationally significant historic mining sites. In 1989, Congress designated the Alpine Loop as a Scenic and Historic Byway which initiated higher levels of visitation for its scenic beauty and an increase of heritage tourism. The original SRMA together with the Alpine Loop Scenic Byway are now known and managed as the Alpine Triangle SRMA.

The Project Area has increasingly become a destination for recreation with over 600,000 visitor days each year. The most recent visitor survey conducted in the Project Area found that two-thirds of those contacted lived outside the state of Colorado, and represented 44 states in the U.S. (Virden et al. 1999). Primary recreation activities conducted by visitors to the Project Area include sightseeing and motorized recreation along the Alpine Loop Backcountry Byway, hiking, viewing wildlife, fishing, whitewater boating, touring historic sites, snowmobiling, and backcountry skiing.

As part of a proactive approach to managing and protecting the unique recreation-related resources in the Project Area, the BLM developed a recreation area management plan (RAMP) for the Project Area in 1986, the Alpine Triangle Cultural Resource Management Plan (CRMP) in 1994, and the Scenic Byway Corridor Management Plan in 1996. These three plans acknowledged that close coordination between recreation and heritage resources was necessary to achieve sustainable heritage tourism as a key component within the SRMA, and the Alpine Loop. These plans identified goals for the BLM recreation program in the Project Area and the supporting management actions necessary to achieve those goals and protect the intrinsic natural and heritage qualities of the area.

Although much of the management direction within the 1986 RAMP remains relevant, enough has changed to require a re-examination of the document and the management direction it provides. Since the initial plan was developed, the type and volume of recreation in the Project Area have changed, such as the increase in the use of All Terrain Vehicles (ATVs) and/or Off-highway Vehicles (OHV). As such, the BLM initiated this planning process to draft a new RAMP and associated environmental assessment (EA) to take a fresh look at the overall goals and supporting management actions necessary to guide a long-term, sustainable recreation program in the Project Area. In addition, the RAMP will comply with new policy direction provided in the *BLM Land Use Planning Handbook* (H-1601-1) (BLM 2005), and identify the activities, settings, and experiences that should be managed for, as well as the benefits that should result from, this management approach. Finally, the RAMP will outline a strategy for how the BLM will continue to further strengthen and develop its partnerships towards accomplishing the goals and management actions identified. This EA provides the analysis of the impacts and benefits from the updated RAMP through a systematic review of the actions proposed and discussion of associated impacts.

BLM's management of the Project Area has benefited from a long and successful partnership with local towns (i.e., Lake City, Silverton, and Ouray) and counties (i.e., Hinsdale, San Juan, and Ouray), as well as the businesses, organizations, and people that reside in them. These towns and counties have an economic base rooted in sustainable tourism, which is directly connected to the recreation resources in Project Area. Aside from this strong economic tie, the social fabric and unique quality of life enjoyed by these communities is also closely linked to the resources, amount of public lands, and recreation opportunities provided by the Project Area. Over the years, the BLM has formed successful relationships with local communities to develop a shared vision for recreation and heritage resource management in the Project Area. This collaborative approach has grown over time, in proportion to the demand for recreation in the Project Area. Recognizing the importance of this approach, a central focus of the planning process for the RAMP is to determine ways in which to sustain and further develop these partnerships.

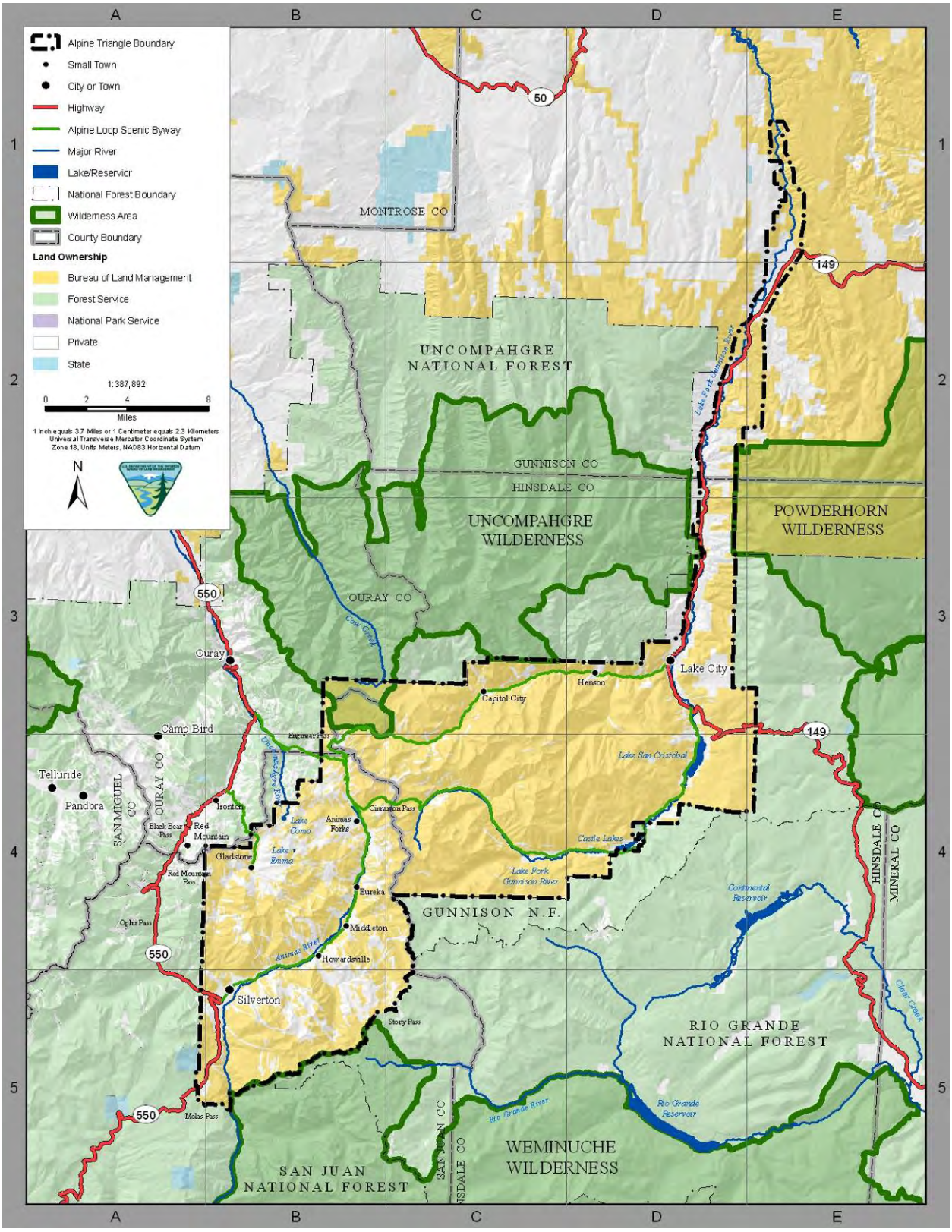

Figure 1.1 Project Location Map

As illustrated in Figure 1.1, the Project Area for this planning process includes the entirety of the Alpine Triangle SRMA. The Alpine Loop Backcountry Byway (Alpine Loop) is also included within the Project Area. The Alpine Loop is part of both the Colorado Scenic and Historic Byway and National Scenic Byway systems, and serves as a high mountain route between the towns of Lake City, Silverton, and Ouray. This 65-mile byway serves as a focal point for recreation, with 62 percent of visitors stating that the Alpine Loop was one of their primary reasons for visiting the Project Area (Virden et al. 1999).

Over 75 percent of the land within the Project Area is managed under the authority of the BLM. Management objectives and actions described in this plan pertain solely to federal lands managed by the BLM. Nothing in the management plan compromises private rights on private lands or circumvents the rights associated with existing legislation such as the 1872 General Mining Law, The Wilderness Act of 1964, and/or the Federal Land Policy and Management Act (FLPMA) of 1976.

1.2 Purpose and Need

The purpose of the RAMP is to provide comprehensive guidance and direction toward providing sustainable recreation activities, and to maintain or improve the condition of unique cultural and natural resources while creating an environment to promote the health and safety of visitors, employees, and neighboring residents. To this end, the plan will provide direction for:

- Identifying a process, along with specific opportunities to enhance collaboration between BLM, local communities, and other agencies.
- Developing and managing both natural and heritage tourism in a manner compatible with resource protection goals.
- Identifying travel management decisions necessary to sustain the prescribed character of recreation settings and the production of targeted activities, experiences, and benefits desired by visitors.
- Identifying the type and level of visitor services, including facilities, needed to support desired visitor use.
- Developing methods to assess and monitor visitor satisfaction levels and resource conditions.

As noted, the previous plan for the Project Area was completed in 1986, and the type and volume of recreation in the Project Area have since changed. This change is most evident in the case of ATVs, where their increase in use has been part of a national trend where, "from 1982 to 2000, driving motor vehicles 'off-road' became one of the fastest growing activities in the country, growing in number of participants over 12 years old by more than 100 percent" (Cordell et al. 2005). Aside from regional growth in ATV use and other more traditional recreation activities (e.g., scenic driving, sightseeing), there has also been an increased emphasis on winter recreation. Some level of winter recreation has been present in the area for decades; however, growth in both traditional winter activities (e.g., backcountry skiing, snowmobiling) and more recently practiced activities (e.g., developed downhill skiing, ice climbing, heliskiing, dog sledding) continues to increase in the winter recreation season.

1.3 Overall Vision

The following management vision for the Project Area was derived from public scoping, interagency dialogue, and the BLM's interdisciplinary (ID) team.

Recreation management for the Project Area will provide a wide variety of opportunities for motorized and non-motorized recreation in a predominately natural alpine setting. These activities will be developed and managed in a way that provides desirable experiences and benefits for the public, minimizes the impacts on natural and cultural resources, reduces the conflicts between various recreation groups, and reduces conflicts between recreation and other valid uses of public land. Recognizing the strong economic tie to surrounding towns and counties, BLM will work to build and maintain active partnerships with these stakeholders to foster collaborative working relationships and management.

1.4 Description of the Project Area

Located in southwestern Colorado, the Project Area is situated southeast of Ouray, northeast of Silverton, and southwest of Lake City. The majority of the 186,252 acres comprising the Project Area are Federal lands managed by the BLM. However, as presented in Table 1.1 below, smaller portions of the Project Area are either privately owned or managed by the Colorado Division of Wildlife (CDOW; Figure 1.1).

Table 1.1 Land Status in the Project Area

Land Owner	Acres	Percent of Total
Bureau of Land Management	145,545	78.1 %
Private	40,373	21.7 %
Colorado Division of Wildlife	334	0.02 %
Total Acreage	**186,252**	**100%**

The majority of the Project Area is located in Hinsdale and San Juan Counties, with a small portion in Ouray and Gunnison Counties. Adjacent Federal lands include the Uncompahgre, San Juan, Rio Grande, and Gunnison National Forests and the Curecanti National Recreation Area. State Highway 149 and U.S. Highway 550 provide access to the area from the east and west, respectively. Both of these highways are State Scenic Byways. The majority of visitors access the Project Area through Lake City, with a smaller number using Silverton and Ouray (Virden et al. 1999).

The majority of the Project Area is located just west and north of the Continental Divide, with extremely rugged and colorful volcanic mountains. As part of the San Juan Volcanic Field and Caldera Complex, the Project Area is characterized by numerous massive 13,000 foot mountains dissected by deep, glaciated valleys. Three mountains (i.e., Redcloud, Sunshine and Handies Peak) exceeding 14,000 feet elevation dominate the landscape. Three major rivers, the Uncompahgre, Animas, and Lake Fork of the Gunnison, have headwaters in the Project Area. The interior of the Project Area is primarily alpine tundra, while the peripheries and large portions in the eastern half are predominantly covered with spruce and aspen forests. Cirques and talus-covered slopes, along with numerous rushing streams, cascades, waterfalls, and lakes add diversity to the rugged landscape. Lands along the lower Lake Fork include steep-walled canyons and a meandering river valley with meadows, grasslands, aspen, and conifers.

1.5 Planning Process and Public Involvement

A strong collaborative process is vital to generating sound ecological, economic, and social rationale for recreation planning in the Project Area, and sets the stage for community support during implementation. With this in mind, the BLM developed and implemented a public involvement strategy at the beginning of this planning process that sought to obtain input from a diversity of stakeholders. As part of this strategy, the BLM formally initiated this planning process by publishing a Notice of Intent (NOI) in the Federal Register on September 14, 2006. The publication of an NOI to formally initiate an activity level planning process is not required; the BLM made the extra effort to notify the public. If during the planning process it was determined that an amendment to either the 1993 Gunnison or 1985 San Juan/San Miguel Resource Management Plans (RMPs) was necessary, the requirement to publish an NOI for such an amendment would also be satisfied.

Aside from publishing an NOI, the BLM, in general, follows a six step planning process in developing a RAMP and associated EA. The results of these steps have been incorporated throughout the proposed RAMP and EA, and are as follows:

Step 1. Identify Planning Issues – Issues and concerns are identified through a scoping process that includes the public, Native American tribes, other Federal agencies, and State and local governments. The scoping period began

on October 3, 2006, with publication of a press release in local newspapers (i.e., Ouray Plaindealer, Durango Herald), and ended on November 6, 2006. Scoping meetings were held in Silverton, Colorado, on October 3, 2006; in Ouray, Colorado, on October 4, 2006; and in Lake City, Colorado, on October 5, 2006. Meetings were held from 6:00 p.m. to 8:00 p.m. at each location and included informational presentations on the proposed project and the National Environmental Policy Act (NEPA) process. Forty-two individuals registered at the scoping meetings. The BLM accepted comments during scoping meetings and also throughout the scoping period via letter, fax, and electronic mail. Thirty-six respondents completed a comment form provided by the BLM, and six respondents submitted comments via letter or email. During the official scoping period, the BLM received 624 comments from 49 respondents. As part of the scoping process, the BLM also generated comments internally. The results of this scoping process were compiled in the January 2007 *Alpine Triangle Recreation Area Management Plan, Scoping Report and Summary of Public Comments* document and were posted for the public on the BLM website.

Step 2. Formulate Alternatives – A range of reasonable management alternatives is developed that address issues identified during scoping. These alternatives were developed from a range of potential management goals identified through the scoping process, ID Team meetings, and planning discussions with both field offices. As both the BLM and the public generally felt that the current management is largely effective, the alternatives were determined to a large degree by non-discretionary law, regulation, and policy. Two alternatives were developed in detail: the Current Management/No Action Alternative and the Preferred Alternative/Proposed Action. Management from the previous RAMP and associated plans was brought forward as the basis of these alternatives.

The RAMP details the BLM's preferred alternative for recreation management including the specific market niches and management objectives, and the corresponding activities, experiences and benefits. The preferred alternative includes the delineation of three Recreation Management Zones (RMZs). The RAMP defines the prescribed setting character for each RMZ. Chapter 2.0 presents a complete listing of management goals, market descriptions, monitoring actions, and administrative support actions as they will be used for planning purposes. The current management and specific actions of the proposed alternative are incorporated into one discussion and are presented in Appendix A as the Alpine Triangle Recreation Area Management Plan- Draft Proposed Action.

Step 3. Analyze Effects of Alternatives – The environmental effects of each alternative are estimated and analyzed. As each RMP/Final Environmental Impact Statement (FEIS) of the San Juan/Rio Grande and Gunnison field offices identified the Alpine Triangle SRMA, impacts associated with the designation have thus been accounted for in an FEIS. However, the proposed RMZs and corresponding market niche, management objectives, experiences and other benefit outcomes, with the prescribed recreation setting conditions were not specifically identified in the RMP, and the impacts of these decisions have not been accounted for in a NEPA document. These impacts will be addressed in this EA.

The RAMP exists as a specific document in Appendix A that identifies the market niche, management objectives and the corresponding activities, experiences and benefits along with the prescribed setting character. For convenience, the Implementation Decisions (management actions, markets and monitoring actions, and administrative support actions) from the entire RAMP have been organized in Chapter 2.0 into three groups; Management Common to All Alternatives, Alternative A-Current Management/No Action, and Alternative B-Proposed Action.

This presentation was chosen because the majority of the current management is effective and therefore being carried forward. These actions can be found in Chapter 2.0 Management Common to All Alternatives. Management common to all alternatives to a large degree is non-discretionary law, regulation, or policy, or can be handled administratively. The specific differences between Alternative A and B will be focused for the decision maker.

For example, in Alternative A-Current Management/No Action, one of the stated goals was "Under the existing plan, spring, summer and fall recreation activities were managed primarily for hiking, hunting and fishing. Under the existing plan, winter recreation is managed primarily for snowmobile use and cross-country skiing." For Alternative B-Preferred Alternative/Proposed Action, one of the stated goals was "The Project Area would be managed under a destination recreation-tourism market strategy. Activities would include heritage tourism along the Alpine Loop, hiking, mountain climbing, camping, scenic driving, heritage tourism, motorized recreation, fishing, rafting, kayaking, skiing, eco-tourism, outdoor/conservation education tourism, and snowmobiling." In

comparison with Alternative A-Current Management/No Action, Alternative B- Preferred Alternative/Proposed Action updates the plan to address the additional uses beyond traditional forms of recreation, to manage the increases in users and increases in use types, to include winter recreation and heritage tourism, and to incorporate benefits-based management.

Any impacts that will arise due to the prescribed setting character and ensuing activities (i.e. specific trails, projects, ground disturbing activities, etc.) will be fully disclosed and discussed in this EA. Impacts from the current management (Alternative A-Current Management/No Action) have essentially all been discussed in the 1986 RAMP. However, for comparative purposes Alternative A- Current Management/No Action will be discussed and summarized in this EA.

Step 4. Identify Preferred Alternative – The alternative that best resolves the planning issues is identified as the Preferred Alternative. The Preferred Alternative is defined and addressed in this document as the Proposed Action.

Step 5. Develop Recreation Area Management Plan – A Draft RAMP/Draft EA is issued and made available to the public for a review period of 30 calendar days. This document represents this step in the process. During the public review period, the BLM will hold additional public meetings to further explain the Draft RAMP/Draft EA, address public questions, and accept comments in writing. After comments to the draft document have been received and analyzed, the Draft RAMP/Draft EA will be revised and modified, as necessary, and the Final RAMP/Final EA will be published. A decision record (DR) will be signed to approve the Final RAMP/Final EA. If there are no significant impacts from the Preferred Alternative, a Finding of No Significant Impact (FONSI) will be prepared as the DR.

Step 6. Implement the RAMP and Monitor the Results – Upon approval of the DR, management actions outlined in the Final RAMP would be effective immediately and would require no additional formal planning or NEPA analysis. Upon approval of the DR, management actions outlined in the Final RAMP would be effective immediately and would require no additional planning or NEPA analysis. Site specific resource surveys would be completed prior to implementation of ground disturbing activities. Following the implementation plan (found in Appendix B) and with the development of a monitoring strategy, such as the example of draft language found in Appendix C, the effectiveness of the management actions toward meeting goals and objectives would be tracked.

1.6 Conformance with the Land Use Plan

The Proposed Action is in conformance with the objectives of the 1993 Gunnison and 1985 San Juan/San Miguel RMPs and respective FEIS. These RMPs, along with the 1986 RAMP, and the 1994 Alpine Triangle CRMP, currently prescribe the management for the Project Area.

In 1993, the BLM completed the Gunnison RMP, which states:

> Public lands in the Planning Area would be managed according to BLM's Recreation 2000: A Strategic Plan. Management would focus on resource protection, visitor services and information, and recreation facility construction, operation, and maintenance in order to provide a variety of recreation opportunities and experiences. Cooperative partnerships with agencies, the private sector, and volunteers would be expanded and strengthened to enhance local and regional recreation opportunities and tourism [BLM 1993; pp 1-5 and 2-20].

In 1985, the BLM completed the San Juan/San Miguel RMP by signing the Record of Decision (ROD) that created the Columbine Field Office's (CFO) portion of the Alpine Triangle SRMA as the Silverton Special Recreation Management Area. The RMP provides for the integrated multiple use and sustained yield of resources for the planning area. The San Juan/San Miguel RMP states:

> A wide range of outdoor recreation opportunities will continue to be provided for all segments of the public commensurate with demand. Trails and other means of public access will continue to be maintained and developed where necessary to enhance recreation opportunities and allow public use. Developed recreation facilities receiving the heaviest use will receive first priority for operational and maintenance funds. Sites

> that cannot be maintained to acceptable health and safety standards will be closed until deficiencies are corrected. Recreation opportunities will continue to be evaluated on a case-by-case basis as a part of project level planning. Such evaluation will consider the significance of the proposed project and the sensitivity of recreation resources in the affected area. Stipulations will be attached as appropriate to assure that activities are compatible with recreation management objectives. Development will only occur when an identified need cannot or is not being provided by the private sector.
>
> Continue intensive recreation management of the Silverton Special Recreation Management Area (SRMA). Provide for a blend of settings and opportunities that tend toward the resource-dependent end of the BLM's Recreation Opportunity Spectrum (ROS) system. Allow local communities to provide for facility-dependent settings and opportunities. Provide increased semi-primitive, motorized opportunities with some primitive, semi-primitive, non-motorized, and roaded natural settings and management objectives. Continue off-road vehicle (ORV) management in the Silverton SRMA as per existing management framework plan (1981). Develop and implement a recreation area management plan (RAMP) for the Silverton SRMA that outlines specific needs for recreation resource, visitor, and facilities management [BLM 1985].

The Alpine Triangle RAMP states:

> Alpine Triangle SRMA, composed of several Management Units, would be managed for a variety of recreation opportunity spectrum (ROS) settings and opportunities, including historical, scenic, and natural values, hiking, sightseeing, motorized recreation, camping, winter recreation, hunting, fishing, and float boating [BLM 1986b].

The CRMP states that it is the overall mission of the BLM to manage cultural resources for the most appropriate and beneficial use. This will be accomplished by preserving, protecting, and interpreting cultural resources; increasing public awareness; improving public safety; and co-managing the diverse heritage resources in the Silverton administrative unit of the San Juan Resource Area and the Alpine Triangle portion of the Gunnison Resource Area (BLM 1994b; 65).

This EA addresses the resources and impacts on a site-specific basis as required by the NEPA of 1969, as amended (Public Law 91-90, 42 USC 4321 et seq.). Pursuant to 40 CFR 1508.28 and 1502.21, this site-specific EA tiers to the information and analysis contained in the PRMP/FEIS. In particular, the cumulative impact analysis contained in the FEIS is coupled with discussion of recreation. Tiering to a NEPA document containing broader impact analysis allows the BLM to consider a narrower range of alternatives for a Proposed Action. Scoping conducted during the development of the RMP is also brought forward as it allows the BLM to focus on the site-specific issues or concerns of the Proposed Action.

1.7 Relationship to Statutes, Regulations, or other Plans

NEPA allows the BLM to tier to other relevant documents. In addition to the RMPs discussed above, the BLM developed a recreation area management plan (RAMP) for the Project Area in 1986 and an Alpine Triangle CRMP in 1994; these are tiered to and the mitigation, analysis, and decisions are brought forward. Much of this information is contained in the Management Common to All in Chapter 2.0.

Federal Regulations

In addition to NEPA, other authorities contain procedural requirements regarding the treatment of elements of the environment when the BLM is considering a federal action. There are program specific and Executive Orders listed in the BLM's NEPA Handbook H-1790-1, Appendix 1 that have also been considered in preparation of this EA.

Heritage resources are protected by the Antiquities Act of 1906, (Public Law [PL] 52-209); the National Historic Preservation Act (NHPA) of 1966 (PL 89-665), as amended (PL 52-209); its implementing regulations (36 CFR 800); and other legislation including NEPA and its implementing regulations. Other relevant laws include the Archaeological and Historical Conservation Act of 1974 (PL 93-291); the Archaeological Resources Protection Act

of 1979 (PL 96-95) and its regulations (36 CFR 296); the American Indian Religious Freedom Act (48 USC 1996); and the Native American Graves Protection and Repatriation Act of 1990. Executive Order 11593 also requires that cultural resources be protected. Compliance with Section 106 responsibilities of the NHPA is achieved by following the BLM – Colorado State Historic Preservation Office protocol agreement, which is authorized by the National Programmatic Agreement between the BLM, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers.

Federally listed threatened and endangered flora and fauna are protected under the Endangered Species Act of 1973 as amended (PL 94-325). Additionally, the Migratory Bird Treaty Act (MBTA) (16 USC 703-71L) and the Bald and Golden Eagle Protection Act (16 USC I.S.C. 668a-668b) protect other sensitive wildlife species that could occur in the Project Area. BLM Columbine Field Office and Gunnison Field Office staff reviewed the proposed RAMP and is currently in the process of consultation with the USFWS. This process will be concurrent with the BLM's public comment process. A Biological Assessment has been prepared and submitted to the USFWS for review. Upon concurrence by the US Fish and Wildlife Service (USFWS) on the findings of the Biological Assessment, no additional consultation would be required under the ESA.

The 1970 Clean Air Act as amended (1990) establishes national ambient air quality standards to control air pollution. In Colorado, the Air Pollution Control Division oversees air quality regulations and standards for stationary sources of air pollution. Impacts to air quality are managed through a case-by-case basis.

Executive Order 12898 of 1994, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," requires federal agencies to ensure that proposed projects under their jurisdictions do not cause a disproportionate environmental impact that would affect any group of people because of a lack of political or economic strength. Environmental justice requires "the fair treatment of people of all races, cultures, incomes, and educational levels with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies" (EPA 2008).

The Federal Water Pollution Control Act, commonly known as the Clean Water Act (codified at 40 CFR Part 112), protects surface water resources from pollution. Under Section 402 of the Clean Water Act (as amended), the U.S. Environmental Protection Agency, each state was directed to develop a phased approach to regulate storm water discharges under the National Pollutant Discharge Elimination System (NPDES) program. Land disturbing activities may require permit coverage through a NPDES storm water discharge. Additionally, a U.S. Army Corps of Engineers Section 404 permit for the discharge of dredge and fill materials and a state-issued certification under Section 401 may be required. Necessary permits and approvals would be secured prior to any disturbance activities.

FLPMA (P.L. 94-579, 90 Stat. 2743, 43 U.S.C. 1701 et seq.) provides the BLM with an operating mandate to emphasize the concepts of multiple use and sustained yield within this RAMP. Section 202(c) of FLPMA requires the BLM to "use and observe the principles of multiple use and sustained yield" in developing land use plans for public lands. Multiple use is a concept that directs public lands and their resource values be managed in a way that best meets the present and future needs of the people of the country. According to FLPMA Section 103, multiple use involves "a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources… " Sustained yield is "the achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the public lands consistent with multiple use" (Section 103). The BLM is directed by FLPMA to manage sustained yield consistently with multiple use.

The National Wild and Scenic Rivers System Act (Public Law 90-542; 16 U.S.C. 1271 et seq.) was created to preserve rivers with "outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural and other values" in a free-flowing condition for the enjoyment of present and future generations. Rivers are inventoried by the BLM for characteristics that make them eligible for designation by Congress.

Locatable minerals are managed under the General Mining Law of 1872. Federal mineral estate in areas not under withdrawal will be open to entry and location under general mining laws. Plans of operation will be required for proposed locatable mineral activity on the following lands: 1) lands under wilderness review, 2) lands closed to OHV travel, and, 3) lands within designated Areas of Critical Environmental Concern (ACECs).

Wilderness areas are designated to provide long-term protection and conservation of federal public lands. Wilderness is defined by the Wilderness Act of 1964 as "an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain…" Wilderness areas are managed to protect several characteristics including opportunities for solitude and unconfined, primitive recreation, and to remain without permanent improvements or human habitation.

State Laws

Under Colorado State Law 08-063, state and federal agencies have the ability to educate and enforce state sound limits. The law sets a limit of 96 decibels on most OHVs and authorizes the use of the Society of Automotive Engineers 20 inch sound test. This test makes it possible to field test OHVs for sound education and enforcement purposes.

BLM Policies and Programs

The BLM National Management Strategy for Motorized Off-Highway Vehicle Use on Public Lands (January 2001) provides guidance for motorized use. The RAMP is consistent with this document and incorporates numerous goals and strategies identified in this plan.

Wilderness Study Areas (WSAs) are managed to protect the characteristics that contain wilderness values until these areas are acted upon by Congress. BLM will review all proposals for uses and /or facilities within WSAs to determine whether the proposal meets the "non impairment criteria." The overriding consideration in WSA management must be the preservation of wilderness values within a WSA and should be the primary consideration when evaluating any proposed action or use in a WSA [BLM 1995; pages 8-9].

Area of Critical Environmental Concern (ACEC) is a management designation identified by the BLM through FLPMA (1976) to protect important resources, such as riparian corridors, threatened and endangered species habitats, cultural and archeological resources, and unique scenic landscapes through special management objectives.

1.8 Issues, Concerns and Opportunities

An increase in the type and volume of recreation use can be attributed to the area's rise as a destination for recreation use, as well as continued growth and development in neighboring towns and counties, and shifting demographic patterns. Due to these changes in recreation uses, conflicts between users and other factors, impacts to resources are occurring that were not addressed in the 1986 plan. The issues, concerns, and opportunities presented below are the result of internal and external scoping (Section 1.5).

A primary goal of this planning process is to address relevant issues and concerns within the Project Area. Opportunities arise because of changing technology and management guidance such as Benefits Based Management and allow creative solutions to issues and concerns. As such, the Proposed Action and alternatives (presented in Chapter 2.0) were developed in response to the issues and concerns identified below. A more comprehensive discussion of the issues and concerns driving this planning process is provided in the January 2007, *Alpine Triangle Recreation Area Management Plan Scoping Report and Summary of Public Comments*, which is on file at the BLM Gunnison and Columbine Field Offices.

Scoping Issue 1: What management actions and use allocations could be applied to decrease user conflict and resource damage while still allowing recreation, both motorized and non-motorized, along the Alpine Loop?

Increasing Use – How does BLM allow for increased recreation but minimize impacts to other resources?

User Conflicts – Conflicts between user groups were identified as a common theme during scoping. User conflicts between snowmobilers and cross-country skiers on shared trails highlights the impacts that one recreation activity can have on the experiences and benefits derived from another. Additionally, hybrid winter activities, such as snowmobiling to access backcountry skiing, can cause some conflict with traditional cross-country skiers due to competition for powder snow and noise.

Off Road Travel – Travel off designated routes can cause impacts to other activities and resources

Crowding – Some commenters stated that the Project Area is too crowded. For example, as ATVs are generally ridden by one person, a family of four that used to ride the Alpine Loop in a single 4WD vehicle may now be riding in four separate, but smaller, vehicles. This trend coupled with increasing visitation increases crowding which can detract from the experience and benefits of some recreationists.

Safety – Several aspects of safety were of concern. Some segments of the Alpine Loop are narrow, and do not provide room for vehicles to safely pass. Modern recreation vehicles with powerful engines and improved suspension, such as those used for extreme pursuits like rock crawling, are capable of traveling narrow roads faster. Road conditions and utilization levels are not conducive to high speed travel. Access to the backcountry during the winter by snowmobilers and cross-country skiers was also identified as a safety concern

Avalanche danger on desirable slopes for winter activities can be high.

There are numerous abandoned mines and tunnels in the Project Area that are considered dangerous. (The BLM has been working with the state to close these dangerous mines to minimize the risks to the public.)

Increased Demand for Routes Open to Motorized Vehicles – Some users would like to open up additional routes for vehicle use to minimize crowding and conflicts.

Increased Need for Facilities – Some users would like more staging areas for ATVs or snowmobiles, parking for hikers, runners, ice-climbers, and other recreationists getting access to the area. Others do not want to see additional or expanded facilities. Some users would like more signs, kiosks, and interpretive information. Others would prefer a more rugged back country experience with a low level of management presence.

Several commenters indicated that a campground would be a desirable amenity on public land along the Alpine Loop in the Animas River corridor. Developed camping should be considered at established dispersed sites at Eureka townsite, and the Silver Creek Trailhead. Parking should also be expanded at Henson Creek rock climbing area.

Excessive Noise from Motorcycles – Some commenters expressed concerns about noise from motorcycles disturbing wildlife or other users.

Appropriate Level of Road Maintenance – Some commenters expressed concerns about the level of road maintenance. If the roads are too wide or smooth there may be increased vehicle speed, which results in safety problems, dust, and noise. Roads that are too rocky or difficult can lead to safety problems and vehicle damage. The counties have also expressed concern over the increasing costs associated with road maintenance.

Increasing Winter Snowmobile Use – Some commenters expressed concerns about snowmobile use in the back country causing negative impacts to the endangered Canada lynx, as well as other wildlife.

Increasing Demand for Areas and Routes Open to Snowmobilers – Some users would like to open up additional routes for snowmobile use to minimize crowding and conflicts.

Increasing Cross-Country Skiing/Snowshoeing – The major concerns expressed for cross-country skiing and snowshoeing were the potential impacts to wildlife (wintering animals) that come from an increased human presence.

Protection of Wilderness and WSAs – Snowmobile use is currently allowed anywhere on public land in the Project Area except in Wilderness and WSAs. Some commenters suggested that Wilderness and WSA boundaries should be more clearly marked to avoid intrusions into protected areas.

Large Group Size – Some commenters expressed concerns about the large numbers of visitors or large groups. Commercial outfitting and special events often allow a large group size which may have negative impacts to other

resources, heritage resources, and other visitors. Further use of the area for competitive events could further tax existing facilities and increase user conflicts.

Fees – Some users do not want increased fees and are satisfied with the current facilities. Other users would like better facilities and enforcement and would be willing to pay modest fees to have these available.

Dogs – Some commenters expressed concerns about conflicts between unleashed dogs and users increase as recreation increases.

Scoping Issue 2: How does the BLM allow visitation to sensitive historic and cultural sites while still adequately protecting them?

Increased Visitation May Cause Impacts to Historic and Cultural Sites – As recreational visitation and activities increase, negative impacts to cultural resources, including historic mining structures and ghost towns, and natural resources, may occur. This is coupled with the natural forces which continue to deteriorate sites.

Increased Access – Some commenters suggested that increased access allows easier and more visitation which could cause damage and loss of heritage resources as they are "loved to death."

Hardening Sites for Visitation – Some commenters suggested that sites that are marketed for visitation may need to be protected or stabilized to withstand increased visitation. Most sites have not been "hardened" for heavy visitation.

Unlawful Activity Affecting Sites – A small percentage of visitors abuse historical and cultural sites by tearing them apart, taking historical artifacts as souvenirs, writing names or other graffiti on the buildings, or leaving trash or human waste in and around the buildings.

The CRMP is Due to be Updated – In partnership with the objectives for recreation-resource management and heritage tourism, an update to the CRMP is needed to include new information generated through the site monitoring by the Citizens Site Steward Program (CSSP).

Private Land Issues – Many of the historic relics and structures enjoyed by visitors are located on private property associated with historic mining claims. Access issues were also identified related to private lands within the Project Area (if access easements are needed and where they should be located). Commenters had concerns about development on private inholdings in the corridor which could affect the recreation experience. Some expressed a need for securing access to public lands where traditional access crosses private property and has the potential to be lost. There were concerns that public land recreationists sometimes trespass on private lands because boundaries are confusing and not clearly marked.

Scoping Issue 3: What management actions and use allocations are necessary to maintain unique resource values (such as remoteness and solitude for Wilderness areas) and reduce user conflicts in these areas?

Protecting Special Designation Areas, such as Wilderness, WSAs and ACECs – Recreation within Wilderness, WSAs, and ACECs may negatively affect the values, resources, and opportunities that these areas were designated to protect, such as primitive backcountry experiences and essential habitat for endangered species. Several commenters were concerned about impacts to sensitive species and habitats from recreation, including unleashed dogs.

Scoping Issue 4: What are the management goals and use allocations necessary to accommodate other multiple use activities so as not to negatively impact the recreation settings, and the activities, experiences, and benefits that they support?

Rock Climbing – Social trailing is the primary environmental impact of rock climbing. Cliff nesting birds may also be disturbed through climbing activities.

Shooting Range – There is a small but ongoing demand for opportunities for shooting and target practice primarily from local residents that is not being adequately met.

Fishing – Anglers who prefer different settings (social to isolated) need to be accommodated. Private land boundaries along fishing areas need to be clearly delineated.

Mountain Biking – Currently, the existing RMPs for both the BLM Gunnison and Columbine Field Offices do not specifically address mountain bike use through the designation of either travel management areas or networks (i.e., system of trails).

Geocaching – Geocaching is a relatively new outdoor activity that has grown in popularity. If the activity becomes more popular social trailing to cache sites could occur. These unauthorized trails could result in impacts to soils and vegetation. There is also a concern about cache materials being left on public land.

Boating – Some commenters noted occasional problems associated with whitewater boating include trash, human waste, impacts to diversion structures, and potential trespass on private lands.

Scoping Issue 5: How can BLM and public lands support community goals for economic growth and tourism based upon natural and heritage resources while minimizing urban interface problems?

Demand for Trails from Communities – There is an increasing demand for urban interface trails that provide easy to moderate hiking opportunities for residents and visitors alike to exercise, walk the dog, or access public lands directly from town without having to drive to a trailhead. Some recreationists have suggested adding more single track trails that would be open and suitable for mountain biking. This is particularly true in urban interface areas around Lake City and Silverton as some residents requested in-town access to a trail system leading to public lands.

Complex Land Ownership – The presence of private land around the communities often makes it difficult to connect trails in town to public lands, but if the opportunity exists to develop these trails, they should be considered. A high priority should be placed on protecting isolated BLM parcels along the Lake Fork of the Gunnison River north of Lake City which offer outstanding opportunities for walk/wade fishing and, to a lesser extent, float fishing. There have been some concerns with rock climbing activities resulting in trespassing on private land if boundaries are not well marked or if desirable pitches are located on private land near public climbing sites.

Identified Expansion of Existing Recreation and Public Purpose Leases – Lake City and Silverton operate small community ski areas served by minimal facilities on BLM land and managed by each town under a Recreation and Public Purposes lease. These areas provide the primary downhill ski opportunities for the residents of these communities. Lake City has petitioned the BLM to convert the property to their ownership. Silverton has expressed interest in expanding its ski area by using a Recreation and Public Purposes (R&PP) lease, to include a larger amount of BLM land.

1.9 Decision to be Made

The BLM Managers from the Columbine and Gunnison Field Offices are the Responsible Officials who will decide:

- To approve the RAMP as presented in the Proposed Action, which would include incorporating benefits-based management principles; account for new threatened, endangered and special status species; allow for protection of natural and heritage resources while providing for recreation; recognize the established designated routes and access; and clarify and expand recreation management to include new activities and extended seasonal use; or;
- To approve the RAMP with modifications,
- To continue management under the Current Management/ No Action Alternative, or;
- To not approve the RAMP and require an Environmental Impact Statement to adequately analyze the environmental effects of this proposed action.

The BLM Managers must also determine whether the decision is in conformance with the RMPs.

1.10 Summary

This chapter has presented the purpose and need of the Proposed Action, as well as the relevant issues, problems, and concerns that were identified during scoping that is under the BLM's authority to resolve through actions in the RAMP, (i.e., those elements of the human environment that could be affected by the implementation of the Proposed Action). In order to meet the purpose and need of the Proposed Action in a way that resolves the relevant issues, the BLM has developed a Proposed Action that carries forward much of the successful management prescriptions that are currently being used. This is generally found in Chapter 2.1 Management Common to All. The Proposed Alternative, (Alternative B), and the Current Management/No Action Alternative (Alternative A) are also presented in Chapter 2. Chapter 3 presents the affected environment, but is limited to the discussion necessary to understand the effects of the alternatives. The potential environmental impacts or consequences resulting from the implementation of each alternative are then analyzed in Chapter 4.

2.0 ALTERNATIVES

Two alternatives are presented below which may seem very similar upon a quick review. This is due to two factors; the first is that through input from the public, field offices, recreation staff, and ID team, it was determined that much of the existing management is working and therefore carried forward into the Proposed Action. Secondly, much of the existing management is non-discretionary law, regulation, and policy or consists of actions considered administrative in nature. To assist the reader, the management common to both alternatives is grouped in Section 2.1. This allows the reader to see clearly the differences between the existing management and the proposed action.

Alternative A-Current Management/No Action serves as the No Action Alternative and provides a baseline for comparison. The reader is reminded that Alternative A consists of Management Common to All Alternatives found in Section 2.1 and the specific Alternative A information found in Section 2.2. Alternative B-Proposed Action includes all the management actions found in Section 2.1, Management Common to All Alternatives, as well as specific management actions included in Section 2.3.

2.1 Management Common to All Alternatives (MCA)

Management common to both alternatives is grouped into this section under 10 subheadings. These same subheadings are used in the Current Management/No Action and Preferred Alternative/Proposed Action to organize the document and orient the reader.

The following categories of recreation management were used to organize both the proposed RAMP and the EA alternatives to allow for a coordinated review of both documents. As most of the law, regulation and policy for either alternative is contained within the MCA discussion, those sections within each alternative are short and brief. If there were no applicable management guidelines to discuss in a particular section or subsection of an alternative, then that section header was omitted from the text. The categories are:

- Law, Regulation, and Policy or Administrative Action
- Travel Management and Access
- Recreation Management Spring, Summer and Fall Use
- Recreation Management Winter Use
- Recreation Management Resource Protection
- Recreation Management Facilities, Signs, Interpretation and Education
- Recreation Administration
- Recreation Information, Education, and Marketing
- Recreation Monitoring
- Recreation Collaboration

2.1.1 Law, Regulation, Policy or Administrative Action

Cultural Resources: Heritage tourism resources (historic mining sites and features) are currently managed under the 1994 Alpine Triangle Cultural Resource Management Plan. This plan provides management guidance for approximately 290 previously recorded sites on BLM lands along the Alpine Loop and in adjacent areas, and recognizes the significance of the historic landscape in the Project Area.

The BLM and partners would comply with the CRMP and cultural resource standard operating procedures when conducting any recreation management activities in or near cultural sites. Cultural surveys would be performed and the appropriate level of consultation with the SHPO conducted prior to any ground-disturbing activities.

Partnership would continue with federal and state agencies, local communities, and organizations to provide facilities (e.g., campgrounds, restrooms) and signs on public lands that support recreation goals, do not detract from the integrity of historic resources, help ensure public safety, meet reasonable visitor needs, and help reduce resource impacts.

Threatened, Endangered, and Special-Status Species – The BLM would manage recreation to minimize or eliminate impacts to federally-listed threatened or endangered species protected under the Endangered Species Act (ESA). At present, there are 11 federally listed threatened or endangered species with potential to occur in Gunnison, Hinsdale, Ouray, and San Juan counties. Of these, four have the potential or are known to occur in the Project Area: Mexican spotted owl (*Strix occidentalis lucida*), southwestern willow flycatcher (*Empidonax traillii extimus*), Canada lynx (*Lynx canadensis*), and the Uncompahgre fritillary butterfly (*Boloria acrocnema*). There are no federally-listed plant species known or suspected to occur within the Project Area. Species delisted due to recovery are required to be monitored for no fewer than five years. In August 2009, the USFWS published the draft post-delisting monitoring plan for the bald eagle (*Haliaeetus leucocephalus*), delisted August 9, 2007 (USFWS 2007). If other plant or animal species residing in the Project Area are listed as federally threatened or endangered in the future, recreation management may have to be altered to reduce potential impacts.

The BLM would also manage recreation to prevent impacts to vulnerable species not receiving protection under the ESA – federally-listed candidate species, BLM sensitive species, and state-listed species – reducing the need to list these species as federally threatened or endangered in the future. At present, there is one federally-listed candidate species with potential to occur in Gunnison, Hinsdale, Ouray, and San Juan counties, the Western United States Distinct Population Segment (WPDS) of yellow billed cuckoo (*Coccyzus americanus*); however, this species is not expected to occur in the Project Area (USFWS 2008). There are 14 sensitive wildlife and plant species including six bat species, five bird species (including the bald eagle), one fish species, and two milk vetches, and eight species of concern including two ungulates (desert bighorn sheep and pronghorn antelope), four whitlow-grasses (*Draba* spp.), one cotton-grass (*Eriophorum* spp.), and Rothrock's Townsend daisy (*Townsendia rothrockii*). There are eight state-listed species with potential to occur on lands managed by the Columbine and Gunnison Field Offices (three mammals, four bird species, and one amphibian), four of which are federally-listed, recently delisted, and/or BLM sensitive species (Mexican spotted owl, southwestern willow flycatcher, Canada lynx, and bald eagle). Other species of concern in the Project Area include mule deer (*Odocoileus hemionus*), elk (*Cervus elaphus*), and white-tailed ptarmigan (*Lagopus leucura*).

Habitat for listed threatened, endangered, and candidate species, and BLM sensitive and state-listed species, would be maintained and protected to ensure suitable habitat conditions and viable populations. Mitigation measures would be developed and implemented in cooperation with BLM resource specialists for any impacts to special status species.

A biological assessment would be performed and the appropriate level of consultation with the USFWS conducted prior to any ground-disturbing activities.

Mineral Leasing – While the General Mining Law of 1872 provides guidance for locatable minerals, the RAMP and RMPs contribute additional management guidelines for mineral exploration and development for the Project Area. Disposal of mineral materials on 10,620 acres of federal mineral estate within crucial big game winter range will not be authorized from December 1 through April 30 to prevent disturbance to wintering deer and elk. Federal oil, gas, and geothermal estate totaling 1,122 acres within the existing protective withdrawal (C-0125423) along the Alpine Loop National Back Country Byway will be open to leasing with a no surface occupancy stipulation in order to protect recreation facilities and visual resources from fluid minerals exploration and development. Mineral material disposal on federal mineral estate on these same lands would not be authorized for the same reasons. In addition, the following areas are subject to No Surface Occupancy – the Slumgullion ACEC (1405 acres) and the American Basin ACEC, (1597 acres). The Redcloud ACEC (5960 acres) is subject to controlled surface use. Small scale or recreational dredging operations along the Lake Fork of the Gunnison River north of Lake City would be subject to permits and restrictions to protect fishery habitat, water quality, and stream bank integrity.

Wild and Scenic Rivers – Potential wild and scenic rivers in the Gunnison RMP consists of a 8.9 mile stretch of the Lake Fork of the Gunnison River (Segment A) which was found to be eligible, but not suitable, for inclusion into the National Wild & Scenic River System. Existing management in this section included significant protections such as a withdrawal for mineral entry along the Alpine Loop, WSA designation for a portion, and Scenic ACEC designation for a portion so no additional special management was determined to be necessary to protect these values.

Wilderness Areas and WSAs –All Wilderness areas would be managed according to the BLM Wilderness Management Policy. WSAs in the Project Area would be managed under the BLM's Interim Management Policy (IMP) until legislation takes effect to change their status. Backcountry patrols would be provided to protect WSAs. Wilderness and WSAs would be protected and managed to maintain their natural character and to facilitate appropriate forms of recreation in a primitive and unconfined setting.

As established in the San Juan/Rio Grande and Gunnison RMPs, areas within Wilderness areas would be designated as "Closed," with no motorized or mechanized use allowed year long. No routes in WSAs would be designated for motorized or mechanized use in order to better preserve the wilderness character of the WSAs. Leasing of any federal minerals within existing WSAs would be prohibited. Appropriate competitive events that do not compromise wilderness values may continue in WSAs, but would be discontinued or rerouted if these areas are formally designated as Wilderness. Such uses must stay on system trails.

No use by snowmobile, snowcat, tracked ATVs, or other over-the-snow vehicles would be allowed in Wilderness or WSAs. No helicopter landing to support heli-ski operations would be allowed in Wilderness or WSAs. The BLM would work with the snowmobile community to educate snowmobile operators on wilderness restrictions and boundaries and patrol the boundaries of Wilderness and WSAs to identify and resolve illegal snowmobile incursions into these areas.

If the U.S. Congress decides that these areas should not be designated as Wilderness, then the BLM would continue to manage them in a way that preserves their backcountry values in a primitive or semi-primitive non-motorized setting.

Air Quality – Activities and projects on public land would comply with applicable local, state, and federal air quality regulations.

Water Quality – Best management practices would continue to be employed to reduce soil erosion and water quality deterioration, and would be required in all plans involving surface disturbance. Roads and other developments would be maintained in good condition to minimize erosion. Activities will be managed in order to meet state and federal water quality regulatory standards.

To protect water quality, riparian areas would be managed to maintain, restore, or improve riparian conditions (hydrological, soil and vegetation), such that proper functioning conditions are achieved, and to enhance natural values.

2.1.2 Travel Management and Access

Under both the Gunnison and Columbine Field Offices' RMPs, travel designations limit motorized vehicles (e.g., street legal vehicles, motorcycles, ATVs) to designated roads and trails. As such, no motorized vehicles may travel off designated roads and trails unless authorized by BLM. As this RAMP is subordinate to these RMPs, no changes in the "Limited to Designated Routes" designation would be made through this planning process.

Motorized Recreation – The BLM would provide travel maps at kiosks and partner with user groups to disseminate maps and responsible riding messages to users and the public. A variety of signs, brochures, web information, and visitor contact would be employed to inform the public about motorized use and route designations, and to encourage compliance.

Travel Management Network – The BLM would prioritize enforcement of the travel management designations.

Motorized vehicles would be encouraged to pull off roads or park in places designed for that use. If a suitable parking area is not available nearby then vehicles may only park immediately adjacent to the road, pulling off no more than necessary to prevent obstructing traffic on the roadway. Cross-country travel to access dispersed campsites or retrieve game would not be allowed.

Transportation Facilities – Forty-eight facilities currently exist in the Project Area that support the transportation management network. Examples of these facilities are parking areas, trailheads, scenic overlooks, rest stops, staging areas, and pullouts necessary to ensure public health and safety and a functioning transportation management network. Existing trails and roads that are designated in the network equal 345.5 miles of routes (which includes BLM routes and county roads that provide critical access to the area).

Management, Maintenance and Monitoring of the Transportation System

Management – Authorized roads and trails on public land that are not designated as open to the public would be managed to minimize resource impacts and prevent their unauthorized use.

Closed roads and trails would be blocked or rehabilitated, as funding permits. Restoration of closed roads and trails would be prioritized based on actual and/or probable impacts to resources, and levels of use. The most appropriate and least intrusive method for restoration would be selected based on the geography, topography, soils, hydrology and vegetation in the area. Other options that could be incorporated in this strategy include: 1) not repairing washed out roads and trails; 2) using natural barriers, such as boulders; 3) using dead and down wood to obscure route entry ways; 4) using fencing, when necessary, to prohibit access; and 5) ripping up the road or trail bed and reseeding with vegetation natural to the area.

For administrative use roads, access would only be granted for legitimate and specific purposes. Authorized users could include grazing permittees, researchers, contractors, State or Federal agencies, and others carrying out authorized activities under a permit or other authorization. If the administrative purpose of a road ceases, the road would be evaluated for closure. The BLM would work with any individual operating within the Project Area under existing permits or authorizations to document where access must continue in order to allow operations of a current permit or authorization.

The BLM would pursue additional funding and/or partnerships to improve travel management capabilities to contact visitors, offer information and education about responsible use, address violations, establish and maintain signing, and close illegal routes.

The BLM would work cooperatively with county and other agency law enforcement officials. Existing law enforcement agreements with the Hinsdale, Ouray, and San Juan County Sheriffs would be updated, and through these agreements, county and agency law enforcement officials would coordinate their patrols within the Project Area, jointly enforce travel management restrictions, and clarify enforcement capabilities. Furthermore, this coordination would focus on increasing patrols along the Alpine Loop during the high use season (i.e., July and August), during special events (e.g., Colorado 500), and in areas experiencing high levels of unauthorized, cross-country travel. Finally, BLM would look for opportunities to jointly fund county law enforcement positions and programs (e.g., Alpine Ranger Program) that focus their efforts and attention toward the Project Area.

Motorized users of the Alpine Loop would be encouraged to travel in a single direction (i.e., clockwise) to reduce problems with passing on narrow roads. This recommendation would be communicated to users at visitor contact stations, through publications and in brochures.

The BLM would work with the Forest Service to cooperatively manage trails located on both BLM and Forest Service lands. To this end, information would be shared between the agencies regarding trail conditions and trail maintenance activities would be coordinated whenever practical.

No new roads or trails would be created without specific authorization from the BLM. Site specific environmental analysis would be completed for that authorization.

Maintenance – The BLM would work cooperatively with partners to develop a common vision for road and trail maintenance, and to effectively use available funds, personnel and resources in achieving it. Periodic meetings would be held with commissioners and road supervisors from Hinsdale, San Juan and Ouray counties to discuss county road maintenance issues, and how to cooperatively address them. Roads would be managed for safety and providing reasonable access to public lands. Road maintenance levels would achieve and sustain the prescribed

character of recreation settings, and produce the activity, experience, and benefit opportunities targeted in BLM's management objectives. The BLM would assess the need for passing and camping pullouts, signage, the need for winter or spring road closures, dates and responsibilities for opening roads in the spring, and the location and extent of dust retardants (e.g., magnesium chloride). The results of these discussions would be recorded for future reference. Once these objectives and priorities have been established, approaches would be identified for implementing them with available funds, staff and equipment. The BLM would work with partners to research grants or other funding mechanisms to assist counties in completing maintenance activities.

As funding permits, the BLM would maintain roads to allow access, preserve recreation settings, experiences and benefits, and mitigate resource impacts. The BLM would cooperate with counties on making emergency repairs to damaged roads, prioritizing maintenance on roads with problem spots that visitors are tempted to drive around, and potentially impact natural and cultural resources outside the disturbed travel surface. Another priority for maintenance would be to repair areas where vehicles have driven off the designated road including blocking or signing the illegal route, if appropriate, and rehabilitate impacts as quickly as possible to prevent other visitors from continuing to drive off road.

BLM roads open for administrative use would be maintained to the minimum level necessary to keep them open for the appropriate use. Non-designated roads (i.e., not part of BLM's transportation management network) providing access to private lands would continue to be the maintenance responsibility of the private landowner under the terms of a ROW agreement. If no ROW agreement is in effect, then no maintenance would be allowed by the private landowner, and maintenance would be at the discretion of the BLM.

As much as possible, the BLM would plan, develop, and maintain trails in cooperation with partners (e.g., Colorado Fourteeners Initiative, Outward Bound, and Hinsdale County Trails Commission). Designated trails would be maintained only to provide a clear path for visitors to follow, and reduce the resource impacts that could come from hikers following multiple paths. When use or maintenance is not sufficient to keep a trail clear, rock cairns or other natural markers would be used to ensure they are reasonably easy to follow. Adopt-a-Trail programs, as opportunities present themselves would be established to strengthen partners' stewardship of favorite trail(s).

As much as possible, the BLM would plan, develop, and maintain motorized routes in cooperation with partners (e.g., Western Slope Four Wheelers, Jeepers Creepers). Adopt-a-Road programs, as available, would be established to strengthen partners' stewardship of favorite routes(s).

BLM maintenance of routes that are not officially part of the transportation management network would be discouraged, except in cases where unacceptable impacts to resources are occurring.

Maintenance problems or unauthorized routes would be evaluated based on jurisdiction, and level of concern or impact. If the BLM is responsible for the road or trail then the situation would be resolved, as budget and staffing allow, with a priority based on the severity of the problem. If the counties or other entities are responsible for a road then the BLM would notify those partners within a reasonable timeframe. If the problem is simple (e.g., tree down across a county road) and can be resolved in a safe manner, the BLM would do so even if it is not the agency's responsibility.

Law enforcement personnel, permanent staff, seasonal employees, and volunteers who work in the Project Area would be trained to understand the management goals, and rules and regulations that apply. Employees and volunteers would maintain a visible presence, contact visitors as much as possible, recognize proper behavior and address irresponsible behavior. Some of these employees would not have full law enforcement capabilities but they could gather information and take pictures to provide to law enforcement personnel for appropriate action.

The BLM and its partners would advise riders that they are required to register their ATVs with the State's ATV registration program.

Monitoring – All permanent, seasonal, and volunteer recreation staff working in the Project Area would be encouraged to monitor road and trail conditions as they carry out their daily work activities. The BLM would

maintain regular communication with county road crews, visitor center staff, outfitters and other sources of information to stay informed about current road and trail conditions.

Patrol and enforcement presence in the Project Area would be improved by encouraging all permanent, seasonal and volunteer recreation staff working in the Project Area to watch for violations of vehicle designations as well as unsafe behavior and address those problems as appropriate. Staff without law enforcement authority would gather appropriate information on problems and share it with law enforcement personnel for further action. Patrol and law enforcement personnel would watch for vehicles driving off the designated roads and address those problems as soon as they are detected.

Staff would periodically conduct patrols on an ATV to improve relationships with riders.

Winter Transportation System –Current seasonal winter closures will remain in effect for motorized travel from December 15 to April 15 over high mountain passes or as necessary due to snow conditions. Groomed snowmobile trails would be managed near Silverton and Lake City. The location of these groomed routes is shown in Figure 2.2. The BLM does not have the necessary equipment, personnel or funding to groom winter snowmobile trails. As such, BLM would continue to work cooperatively with such groups as the Continental Divide Snowmobile Club in Lake City, and the Silverton Snowmobile Club in Silverton to allow them to groom authorized routes on public land. This is done with financial assistance from the State Snowmobile Fund. Grooming and signing would be completed to provide safe and enjoyable snowmobiling experience for visitors and to reduce the potential for resource impacts. Proposals to add additional routes for grooming may be considered, but must be analyzed for their potential impacts to wildlife and other recreation. No other routes in the project area may be groomed without written authorization from the BLM.

Outside of the groomed routes identified in Figure 2.2, snowmobiles would be allowed to operate in most of the rest of the Project Area that is not in Wilderness or WSAs. Snowmobiles would be encouraged to use routes that are designated for motorized use during the summer, but open use is authorized. The cutting of vegetation to open up areas for riding is not allowed.

Non-motorized uses such as cross-country skiing, snowshoeing, dog sledding and winter mountaineering may be practiced throughout the Project Area. These activities may use routes groomed for snowmobile activities, but must recognize that they are sharing those trails with other uses. No routes would be groomed for these activities without written authorization from the BLM. Partnerships with cross-country skiing organizations would be maintained and improved to address such issues as trail grooming, safety, and skier education. Demand for groomed ski trails would best be directed to mixed use trails that are authorized for grooming for both snowmobiles and skiers.

The winter transportation system would be monitored periodically to ensure that it is meeting established recreation goals for the area, and to ensure that inappropriate impacts to other resources are minimized or eliminated.

Public Access Easements – If needed, administrative access would be acquired into the east-central part of the unit that includes Yaeger, Gulch, Skunk and Trout Creeks for commercial forest management. Public hiking and horse access would be acquired across private land in the lower part of the Alpine Gulch Trail. Public access would continue to be acquired, as opportunities arise, to BLM managed lands along the Lake Fork of the Gunnison River between Lake City and the Red Bridge campground.

A process would be developed for identifying those easements which are currently needed to support the transportation management network, or may be needed to support public access in the future. This process would include identifying areas where a road or trail crossing private land could pose an access problem, determining if access across that parcel is essential to maintain or improve access or recreation opportunities, and assessing the potential to negotiate with willing landowners to formalize legal public access.

Acquisition of easements across private lands from willing landowners would be prioritized and sought. In addition to the willingness of landowners to grant easements, the BLM would consider the availability of staffing and funding to process and purchase the easement, and the potential consequences of losing that access.

Rights-of-Way and Disposal of Public Lands – Public lands within the Project Area would be open to the location of rights-of-way, subject to stipulations in Management Unit prescriptions and standard terms, conditions, and stipulations contained in records of decision issued for each application.

It is usually the BLM's policy to retain ownership of public lands in the Project Area, though in rare cases small parcels may be considered for disposal if disposal serves the public interest. Public lands in the planning area classified as Category 1 and Category 2 for disposal and multiple use management purposes. Category 1 lands will be considered for disposal through public sale or by other means under criteria in Section 203 of the Federal Land Policy Management Act of 1976. Category 2 lands or other public lands in the planning area and will be managed by BLM for multiple use. Category 2 lands would be considered for disposal on a case-by-case basis to assist with through exchange, boundary adjustments, state indemnity selection, Recreation and Public Purpose Act applications, or other appropriate statute or authority.

2.1.3 Recreation Management Spring, Summer, and Fall Use

Recreation management during spring, summer and fall refers to activities that primarily happen during the busy months when the roads and passes are open to most recreation activities and access (i.e. mid-June to September).

Visiting Cultural Sites and Heritage Tourism – The BLM would continue to work with agency cultural resource specialists to initiate a Site Steward program with volunteers to help monitor and preserve high priority heritage tourism sites in Hinsdale County. The BLM would also continue to support the San Juan Mountain Association's Cultural Site Steward Program to provide a cadre of trained monitors and preservation volunteers for San Juan County.

The BLM would work with willing private land owners to identify high priority cultural resource sites on private land that are in reasonably good condition, played an important role in the history of the area, and are currently visited by the public or have the potential to be an appropriate site for public visitation. The BLM would cooperate with private landowners to protect or stabilize these structures, particularly if public access can be ensured, and would be aware of opportunities to acquire these sites through exchange or purchase.

Development on private land can have the effect of destroying the historical buildings on that parcel. To the extent allowed by budget and staffing, the BLM would consider the possibility of acquiring private parcels through purchase or exchange to help ensure the protection of high value historical buildings or sites.

The BLM would develop educational recreation programs targeted at discovering, protecting, interpreting and enhancing cultural resource sites through stewardship activities at heritage tourism sites.

Recreation outfitters that visit historic sites would be encouraged to include education and discussion of authorized historic preservation practices in their offerings.

The BLM would work with counties and private landowners to eliminate or minimize impacts to the quality of heritage tourism across the historic landscape.

The BLM would encourage law enforcement personnel to attend the Archaeological Resource Protection Act (ARPA) Training Program, to allow them to better enforce cultural resource laws, regulations and policy.

Hunting and Shooting – Recreation impacts to wildlife habitat would be reduced in order to maintain or improve wildlife habitat and quality hunting opportunities.

The BLM would continue and improve coordination with CDOW regarding hunting. This includes efforts to share information and ideas, to cooperate on law enforcement, to identify issues and concerns, and to develop affordable strategies for dealing with them.

Regular patrols would continue during hunting season to contact hunters, offer information, make sure hunters understand the rules, encourage responsible behavior, and identify and resolve inappropriate activities.

The use of motorized vehicles off designated roads for game retrieval would not be permitted. The use of mechanized vehicles, such as game carts, off designated routes would generally be allowed but they would not be allowed in Wilderness and WSAs. The BLM would stay informed about the availability of legal outfitters that are willing to provide horse packing services to assist hunters in removing their game from backcountry areas.

Target shooting would continue to be permitted, to a limited extent, in the Clauson Mesa meadow. For safety reasons, shooters would have to defer to other users and not practice their sport if other visitors are in the area. To reduce the hazard to residences in the area, shooting should only occur from the northwest corner of the meadow into the hillside on the southeast corner of the meadow. Shooters must remove all their targets and trash. Competitive events such as the Turkey Shoot would be held only during the off season when the likelihood of conflicts with other visitors is reduced. Such events would be managed to reduce the possibility of lead from shotgun shells or bullets entering the Lake Fork of the Gunnison River, reducing the chances of lead contamination to water and wildlife. If safety concerns or trash problems increase considerably beyond current levels, the area may be closed to shooting completely.

Fishing – The BLM would work to reduce conflicts between anglers and other recreationists, as well as with adjacent private land owners.

The boundaries of isolated parcels of public land that offer good opportunities for fishing would be clearly marked both on the road that accesses them, and on the riverbanks to avoid trespass situations on adjacent private land. Fence walkovers could be built and maintained to allow easier access into these parcels.

The BLM would continue to look for opportunities to maintain and improve streams with good fishery potential. Ongoing efforts to identify point source pollution coming from old mines would continue, and those threats to water quality would be remediated. The BLM would work with county road crews and other partners to reduce the amount of sediment and non-point source pollution that enters streams. The BLM would reduce impacts to riparian vegetation from recreation and other causes to provide shade, hiding cover and food sources, and look for opportunities to cooperate with the CDOW and interest groups (e.g., Trout Unlimited) to carry out appropriate habitat improvement projects.

BLM would seek to augment and improve public fishing opportunities by appropriately signing existing public land and public fishing easements.

Visitors would be encouraged to practice catch and release fishing to help maintain quality fishing opportunities even when it is not required by regulation. The BLM would participate in discussions with the CDOW regarding the most appropriate regulations and stocking strategies for the waters in the Project Area to achieve both healthy fish populations, and a quality fishing experience, and cooperate with the CDOW to establish and maintain populations of native species (e.g., Colorado Cutthroat Trout). In most water of the Planning area the CDOW is accustomed to stocking several non-native trout species such as rainbow, brook, brown and non-native cutthroat. The introduction of non-native species other than these would be discouraged whenever possible.

To maintain high quality fishing experiences along the Lake Fork authorizations for fishing outfitters would be carefully balanced with public use to avoid overcrowding. Continue current policy of limiting each outfitter to 15 client days each year on the 'Smock Property' upstream from the Red Bridge Campground. No proposals for new guided fishing on the Lake Fork would be considered until/unless one of the current outfitters relinquishes their permit. Fishing opportunities on public land would be preserved, improved and expanded when possible.

Camping – Camping in undeveloped sites would continue to be limited to 14 days to prevent long term occupancy on public lands. The Project Area would be patrolled to detect and resolve problems with campers staying beyond the 14-day limit.

Adequate opportunities for camping in developed campgrounds would continue to be provided.

The BLM would work to reduce the impact to resources from camping in both developed and undeveloped sites

The BLM would work to reduce conflicts between visitors and wildlife at campgrounds.

Adequate opportunities for undeveloped camping in appropriate locations would be provided around the Alpine Loop. The BLM would continue to provide maintenance for developed and undeveloped sites. Along with routine cleaning of sites, fire rings and restrooms, management would include evaluation and removal of known hazardous trees that could pose a safety threat to visitors.

The BLM would recruit and support volunteer campground hosts to help with maintenance and to offer information and education to visitors.

Install bear boxes at all sites in campgrounds where bears are becoming a problem. Garbage dumpsters in campgrounds would be designed to be resistant to bears. Visitors would be educated about the appropriate steps for handling food and trash to avoid problems with bears and other wildlife.

Rock Climbing – Rock climbing in the Project Area would be managed to reduce associated impacts on soil, vegetation, and wildlife.

Known climbing areas would be periodically monitored to evaluate the amount of use they are receiving, and to detect problems or resource impacts. User created rock climbing access trails would be evaluated for stability and sustainability to reduce resource impacts.

Clean climbing practices would be encouraged, reducing reliance on permanent artificial anchors. BLM would not be responsible for evaluating or assuring the integrity of artificial anchors, bolts, chains or cables.

No permanent artificial anchors would be allowed in Wilderness or WSAs. Anchors that are found in these areas would be removed without further notice.

Horseback Riding and Pack Animals – At present, both RMPs allow for stock use to occur off of designated roads and trails. The BLM would continue to work in partnership with both horseback riders and other pack animal users to ensure these activities are practiced in a sustainable fashion, with minimal impact to cultural and natural resources. Any feed that is used on public lands must be certified weed free hay or pellets to reduce the chances of spreading invasive weeds.

Whitewater Boating - Boating recreation in river corridors would be managed to minimize impacts to the integrity of soil, riparian vegetation, terrestrial and aquatic wildlife and water resources. Any surface disturbing activity, such as put-ins for boater and access, may not be created without specific authorization from the BLM, and after site-specific environmental analysis has been completed.

Boater access to the river at the Devil's Creek Bridge area would be maintained by clearing a path down to a suitable launch site on the river.

The BLM would continue to work with volunteers during National Rivers Week in May to conduct cleanup, rehabilitation or improvement of the river and riparian corridors.

2.1.4 Recreation Management Winter Use

Snowmobiling – Snowmobiles are allowed to ride on or off designated routes but are not allowed in designated Wilderness areas or WSAs. A system of groomed snowmobile trails that are reasonably safe and minimize impacts on other resources is authorized on BLM lands south of Lake City. Some groomed snowmobile trails are also authorized in the Silverton area. Cross-country skiing and snowshoeing is allowed anywhere in the Project Area. Conflicts would be reduced between snowmobilers and cross-country skiers on shared trail systems by encouraging both groups to be careful and respectful of each other.

The BLM would continue to work with partners in the snowmobile clubs to decide which trails may be groomed, apply for grant funding from the State Snowmobile Fund and permit them to carry out grooming operations on approved trails.

The BLM would continue to manage and maintain trailhead facilities (e.g., parking, restrooms, interpretive displays) for winter recreation activities.

Less traditional downhill activities such as hybrid skiing/snowboarding that are supported with snowmobiles may continue, but would be monitored to detect and resolve any resource impact, skier conflicts, or safety concerns that may be occurring. Visitors participating in hybrid skiing/snowboarding activities would have to follow the appropriate vehicle designations (e.g. not driving in designated Wilderness or WSAs).

The Hinsdale Haute Route System would continue as currently authorized as long as the system remains viable to facilitate multiday hut to hut skiing opportunities. The facilities for these huts, except for the base platforms, would be dismantled in the spring and set up in the late fall to avoid year round impacts to the sites.

Developed Downhill Skiing, Snowboarding, Cross-country Skiing and Snowshoeing – The BLM would monitor the operations at Silverton Mountain Ski Area to ensure that the terms of the lease are followed.

The BLM would also monitor the operations at Kendall Mountain Ski Area, and Lake City Ski Hill to ensure that the terms of the Recreation and Public Purposes Act lease are followed.

2.1.5 Recreation Management Resource Protection

Threatened, Endangered, and Sensitive Species – BLM would continue to take management actions to reduce the impact of recreation on threatened and endangered or otherwise protected species such as the bald eagle and the Uncompahgre fritillary butterfly. The endangered Canada lynx was reintroduced to this area in 1998, and BLM would continue to evaluate proposals for winter recreation activities and events to accommodate this species.

The upper part of the hiking trail to Redcloud Peak would continue to be managed to reduce off-trail travel that could affect habitat for the endangered Uncompaghre fritillary butterfly that occurs there. Outfitters would be required and the public would be encouraged to camp below 12,000 feet in the Silver Creek drainage.

Lands and Realty – If available, selected non-federal lands necessary for management, protection and/or enhancement of recreation and visual resources and wildlife habitat on public lands could be acquired. If available, selected non-federal lands containing representative examples of thematic historic period sites, structures, or resources could be acquired through exchange or purchase.

About 3,840 acres in the rights-of-way corridor containing the Tri-State Generation and Transmission Association's Blue Mesa to Lake City 115 Kv electrical transmission line would remain open to development of all rights-of-way. With the exception of public lands in the rights-of-way corridor, the entire unit will be closed to the development of above-ground utilities (91,510 acres). Public lands north of the south line of Sections 16 and 17, T 47 N., R. 3 W., N.M.P.M., approximately 2,560 acres, and about 76,880 acres south and west of Lake City will remain classified an avoidance area for all other rights-of-way. The remainder of public lands in the unit, about 12,070 acres, would be open to all other rights-of-way (see the Standard Management section in the Gunnison RMP for more detail).

The BLM would manage land and realty actions to support recreation goals, and help sustain the integrity of public land resources to enhance the public's enjoyment of these resources.

The BLM would work with willing landowners to reduce impacts that threaten the Project Area's recreation potential on private inholdings by means of education, conservation easements, donation, exchange, or acquisition. As part of this process, the BLM would work in partnership with organizations, such as the San Juan Alpine Task Force and Red Mountain Project, who are actively working to protect and preserve historic landscapes and structures within the project area through acquisition from willing sellers.

If private inholdings are acquired from willing landowners, the BLM would strive to acquire both surface and subsurface rights to avoid the creation of split estates.

Whenever possible, and desirable, the BLM would retain fishing and/or access easements on all public lands selected for sale or exchange within the Project Area.

Where desirable and possible, public access would be secured to public lands "landlocked" by private ownership.

When possible, land exchanges would be configured to result in no net loss of property tax base for counties.

Local Land Use Planning – The BLM would continue to be an active participant and collaborative partner in local land use planning efforts.

The BLM would participate, as appropriate, in local land use planning efforts to ensure that public land perspectives are considered. This could include participating in public meetings, working with decision makers to develop a full range of options, providing appropriate data to assist with project development, helping decision makers understand the environmental consequences of management options, reviewing draft plans, and working cooperatively to implement final plans. Under this action, the BLM would serve in a support role only, recognizing the lack of legal jurisdiction to direct or manage development on private land.

Visual Resources – Public lands would be managed according to VRM classes and objectives contained in each Management Unit prescription. Wilderness areas, WSAs, and other special areas would be managed as VRM I.

The BLM would manage the remainder of the Project Area as VRM II to protect the integrity of scenic resources. Visual Resource Management Class II is defined as, "Change is visible but does not attract attention to the casual observer" which encourages management to place a high value on protecting the integrity of scenic resources.

The BLM would also work with local municipalities, land trusts and other willing partners to acquire lands or conservation easements on lands that are key scenic assets as viewed from the Alpine Triangle.

To protect these resources the BLM has withdrawn lands along the Alpine Loop from mineral entry. The BLM designated the American Basin ACEC to protect scenic quality on this 1600 acre area and manages vehicle recreation in a way that reduces the chances for user created routes to compromise scenic quality. Firewood cutting for commercial or domestic use would continue to be prohibited along the Alpine Loop to protect the visual quality of that corridor.

Design of modern visitor facilities would employ the use of local native materials such as stone, weathered steel, and wood in order to achieve a visual harmony with the natural landscape and to blend in with the historic architectural and landscape features.

Wilderness and WSAs - Competitive events (e.g., trail running) would not be permitted in Wilderness areas. Commercial outfitters would be encouraged to use less visited portions of these areas to ensure quality backcountry experiences are maintained.

Commercial outfitter use in designated Wilderness areas and WSAs would be managed to reduce crowding, and to maintain the desired social settings. To achieve desired social settings, commercial outfitters could be limited in their use of popular areas (e.g., trails to the Fourteeners and limiting group size at fragile historic sites).

Other Resources – The integrity of other resource values in the Project Area would be maintained by managing recreation use in a way that minimizes the impacts caused by visitors. These resource values include soil, water, vegetation, terrestrial and aquatic wildlife, historical and archeological sites, air quality, grazing, ACECs and the natural soundscape. Specific management actions to support this general goal are listed below.

The BLM would identify incentives and options for willing landowners to protect cultural resources located on their private property. If possible, the BLM would work with landowners and local governments to create these incentives or options.

The BLM would avoid contamination of water sources, including municipal water supplies, from recreation associated activities.

The BLM would look for opportunities to improve water quality to help ensure healthy fisheries within the Project Area.

Known weed infestations would be treated, to the extent that budget and staffing allows, reducing the potential for recreation activities to spread seeds to other parts of public land.

Recreation or other projects that disturb the soil would be managed to reduce the likelihood that invasive weeds could get started on the site.

Conflicts between grazing and recreation would be reduced by working with livestock operators to exclude or minimize the time that livestock spend in and around popular recreation sites and facilities (e.g., restrooms, trailheads, campgrounds). If possible, such provisions would be included in Allotment Management Plans and/or grazing permits when revised or updated.

The annual release and collection of domestic sheep would try to minimize conflicts with recreation use to the greatest extent possible by trying to avoid release and collections during busy times, wildflower season, or over holidays during July and August.

Livestock operators may be granted periodic access to areas not open to the general public under the terms of their grazing permit to maintain facilities and access sheep camps. These access routes would be managed to reduce their visibility and prevent the general public from venturing onto these routes.

Full suppression is a management strategy of all available firefighting resources to minimize the size and extent of a fire. Full suppression would be used in wildland-urban interface areas (WUI) and other areas where there are identified resource values that would be at risk of being damaged or destroyed by wildfire. These resource values could include things such as private homes and structures, developed campgrounds, municipal watersheds, rare plant or animal habitat, and cultural resources. A conditional suppression strategy of confine and control which may allow the fire to grow and eventually be confined or contained by natural features or events such as, timberline, rock escarpments, lakes, weather or seasonal changes would be used as appropriate away from the WUI. In the Wilderness or WSA areas, wildfires for resource benefit are naturally ignited wildfires that would be allowed on the landscape to benefit the ecosystem (personal communication, C. Goodell 2009).

No portion of any stream in the Planning Area is recommended as being suitable for designation and inclusion in the National Wild and Scenic Rivers System. Since the writing of the RAMP, Segment A of the Lake Fork of the Gunnison River has been found to be eligible but not suitable for inclusion in the system. Please refer to Section 2.1 Management Common to All, Wild and Scenic Rivers for more detail.

2.1.6 Recreation Management Facilities, Signs, Interpretation and Education

Facilities – Management actions proposed for the unit in the existing RAMP for the Alpine Triangle SRMA would be implemented (facility and trail development, improvement, and maintenance, expanded recreation area administration and visitor services, additions to and maintenance of OHV routes, signing, patrols, and commercial recreation use supervision).

In an effort to protect natural and cultural resources within the Project Area and provide economic opportunities in the local communities (i.e., Silverton, Lake City and Ouray), commercial facilities and the services associated with them would be located in these communities rather than on public lands, and they should be managed by the private sector rather than by the BLM.

The BLM would continue to cooperate with the Chamber of Commerce and U.S. Forest Service to manage the visitor contact station in Lake City, and the BLM visitor contact station at the Silverton Public Lands Center in cooperation with the San Juan Mountains Association and U.S. Forest Service.

The BLM would work in partnership with the U.S. Forest Service to continue to provide informational and educational materials to the Visitor Information Centers in Ouray, Montrose and Durango for distribution to visitors.

The BLM would also work in cooperation with local communities (e.g., Chambers of Commerce), counties and other stakeholder groups to identify and prioritize the need for additional facilities.

All facilities would be designed to be unobtrusive and to meet the visual resource objectives contained within the existing RMPs for both the BLM Gunnison and Columbine Field Offices.

As much as possible, facilities would be built and maintained in a manner that is consistent with the Americans with Disabilities Act of 1973, the Rehabilitation Act of 1973, and the Architectural Barriers Act of 1968.

Facilities would be maintained using the following guidance:

- provide regular cleaning and maintenance at all developed facilities during the peak use and shoulder seasons;
- utilize permanent and seasonal employees and/or volunteers for maintenance, but explore the possibility of other partnerships that can expand BLM's capability to carry out maintenance tasks; and
- provide for repair, reconditioning, and replacement of facilities, prioritizing those problems that pose a safety threat to the public or are creating unacceptable resource impacts.

Signs – Trails would be signed using the Colorado Inter-Agency Uniform Sign Standards so the public is clear where travel is allowed and what mode of travel is permitted.

The BLM would maintain an inventory of all signs in the Project Area, and regularly evaluate their necessity and effectiveness.

The BLM would continue to work in cooperation with local communities, counties (e.g., roads departments) and other stakeholder groups to develop and maintain an effective sign program using the following criteria:

- provide adequate directional signs at intersections, junctions, and turnoffs;
- provide informational or interpretive signs located at major points of interest (e.g., historical sites), and recreational facilities (e.g., restrooms, trailheads);
- provide regulatory signs necessary to inform the public of travel management and other (e.g., camping) restrictions;
- provide boundary signs to identify, where appropriate, the boundary between public and private lands, as well as the boundary of Wilderness and WSAs, and fishing easements;
- provide educational signs targeted at improving the public's understanding and stewardship of their public lands and resource values ; and
- provide safety signs to identify and educate the public about hazardous areas or conditions.

Information kiosks (approximately 3 foot by 5 foot panels) would be located at the four main access points to the Alpine Loop from the towns of Lake City, Ouray, and Silverton. Information at these kiosks would include travel management restrictions, interpretation of cultural and natural resources, Leave No Trace and other land use ethics, and visitor safety information.

Maintenance as part of this sign program would include:

- inspecting the condition of signs and sign posts at the end of each use season, ordering replacements over the winter and replacing them at the beginning of the next use season, as necessary; and
- replacing signs and posts as soon as possible in the event of vandalism, theft, or accidental breakage.

To avoid cluttering natural landscapes with too many signs, only signs that are essential to achieving overall management goals would be used. All signs would be designed to be unobtrusive and to meet the visual resource objectives contained within the existing RMPs for both the BLM Gunnison and Columbine Field Offices.

2.1.7 Recreation Administration

Outfitters and Special Events – The BLM would authorize a variety of outfitters to carry out commercial recreation activities on public land such as hunting, fishing, backpacking, rock climbing, snowmobiling, hiking, rafting, horseback riding, heli-skiing, and skiing. The BLM would also permit competitive events such as foot races, target shooting and poker runs. These would all be authorized under the BLM's regulations for Special Recreation use permits and managed to encourage safe and professional services be offered to the public and to minimize impacts to resources. Permits for these types of activities are issued at the discretion of the Field Manager who would only approve complete application packages that are received 180 prior to the planned event or visitation, are in agreement with management goals in the Project Area, and that are unlikely to cause undesirable resource impacts or conflicts with other visitors. The number of outfitters permitted, the areas they would be allowed to use, and the number of service days they would be granted may be regulated to maintain desirable experiences, avoid resource impacts, avoid overcrowding and reduce conflicts with other visitors.

Outfitters that offer scenic or historic jeep tours would be required to get an SRP even if their use occurs primarily on County Roads.

Businesses that rent jeeps, ATVs, horses or snowmobiles to visitors would not be required to obtain an SRP as long as they do not offer services on public land. BLM would encourage these businesses to offer accurate information to their clients about the rules that apply to vehicle use in the area to avoid violations or inappropriate impacts. Ethics and responsibility messages would also be encouraged. To the extent possible, BLM would help provide appropriate materials for distribution to their customers.

All permittees would be encouraged to incorporate interpretive/educational components into their trips. To further this effort, a training program would be developed to assist outfitters and guides in understanding and presenting Tread Lightly, Leave No Trace, local history, cultural site etiquette and other topics that would help them get these ethics messages across to their clients. Additionally, the BLM or partners, such as the SJMA CSSP, would provide annual training to the permittees and their employees on appropriate and sensitive site visitation etiquette and accurate historical information to provide to their clients.

Competitive Events – Competitive race events using motorized vehicles would not be authorized anywhere in the Project Area. Events (e.g., poker runs) using motorized or mechanized vehicles that are not timed and do not encourage participants to drive or ride fast may be considered.

Competitive events not using motorized vehicles (e.g., trail running) would be allowed if the activity is consistent with management objectives. These types of events would generally be permitted only on designated roads and trails.

Dogs – The BLM would work to reduce conflicts between dogs, recreationists and wildlife by encouraging owners to keep their dogs on a leash or under effective voice control.

2.1.8 Recreation Information, Education and Marketing

For the purposes of this plan, recreation marketing is defined as communication with the potential recreationist to match recreation opportunities and setting character conditions with their preference for activities, outcomes, and areas that are consistent and appropriate as defined in the RAMP management goals. Marketing is used as a tool to guide prospective visitors to the areas that are managed to provide the experience and benefit opportunities that they seek.

The BLM would offer the opportunity for visitor center staff, outfitters and guides, and employees of local businesses to meet with BLM staff, learn about the resources in the Project Area, understand the importance of protecting these resources to ensure a sustainable tourism destination, and become familiar with the key messages they should be conveying to their clients. The BLM would also listen to questions and concerns brought forward by these individuals and groups, and learn from their perspectives.

The BLM would examine the feasibility of providing educational programs on area history, ecology, and resource protection at established camp grounds (e.g., Mill Creek) or other appropriate venues along the Alpine Loop or in local communities.

Training for seasonal employees and volunteers working for the agencies would include focused discussions of common problems on public lands, the messages BLM wants to get across to the public as they are contacted in the field and the best way to address violations if they are found.

The BLM would work with web page authors like Trailsource, guidebook authors and others who promote recreation use in the Project Area to encourage them to include accurate information in their write-ups. To the extent possible, such outlets would be encouraged to tell their readers that the shoulder seasons would be less crowded and more enjoyable. They would also be encouraged to include ethics and responsibility messages in their materials.

Easily accessible information would be provided to visitors that will help them find and enjoy recreation opportunities and experiences, learn more about their public land resources, understand regulations and serve as stewards to the area. This information would be distributed via brochures, maps, web sites, visitor center displays email, regular mail, phone conversations and face to face communication.

Cooperation – The BLM would work with community partners to develop, produce, fund and distribute a variety of appropriate information and marketing materials. Among others, these community partners would include county and municipal governments, the Silverton, Ouray, and Lake City Chambers of Commerce, visitor center staff, interpretive associations, the Alpine Triangle Recreation Task Force, various business owners and organizations (e.g., Animas Stakeholders Group), special interest groups, land development groups, the Colorado Byway Commission, and the Forest Service. In general, this collaborative management partnership would work toward developing and reviewing information and marketing materials to ensure consistency with the management objectives and framework identified above, and to ensure that information is accurate.

- **Motorized Vehicle Recreation -** Develop and distribute a variety of media aimed at educating visitors about requirements prescribed under the travel management network. Use of existing programs such as Tread Lightly and Stay the Trail will be incorporated as appropriate.
- **Fishing -** Develop and distribute information informing anglers of fishing opportunities in the Project Area. This information could be in the form of photocopied handouts, printed brochures, maps in visitor centers and web based maps and information. Visitor center staff who are not familiar with the sport should also be oriented enough about fishing to be able to offer good advice to their visitors. Information available would include where to go for the type of fishing experience they are looking for, regulations related to fishing, the best flies or fishing techniques to use in this area and the ethics messages that encourage anglers to take good care of the river environment. These messages would include steps to take to prevent the accidental introduction of invasive species such as didymo (***Didymosphenia geminata)***, New Zealand mudsnail (*Potamopyrgus antipodaru)m* and eurasian milfoil (*Myriophyllum spicatum*).
- **Hunting -** Strive to educate and encourage hunters to reduce the impacts associated with their activity. Convey messages about Tread Lightly, Stay the Trail, and Leave No Trace through brochures, hunter education classes, web based information, newspaper articles, and personal communication. Offer information to help hunters find legal access routes to hunting areas to reduce the chances for trespass on private land and reduce the creation of illegal vehicle routes.
- **Boating -** Inform and educate boaters about the need to be respectful of private lands and landowners to reduce potential conflicts between them. At all places where boaters access the river, post information on the boating opportunities that are available as well as educational messages about how to reduce impacts on

river resources, and reduce conflicts with private landowners. Similar information may be made available to boaters in web based information or brochures.

- **Cultural Resources -** Develop and expand the information and education materials available to help visitors locate, understand and appreciate historical and archeological resources in the Project Area. This should be done using a variety of media including maps, visitor guides, brochures, signs, web based information, personal communication and visitor center information. All these materials should include key messages about protecting and preserving cultural resources.
- **Snowmobiling -** Maps, brochures, and trailhead information for snowmobilers in this area would include information on the location of groomed trails, safety, how to get along with other trail users and how to reduce impacts to wildlife.
- **Cross-country Skiing -** Information and education should be provided for skiers about appropriate trails or areas for their use, suggestions for reducing conflicts with other user groups, advice on winter safety, and tips about reducing the impacts of their activity.

Interpretation and Education – The BLM would continue to follow the guidance provided under the Interpretive Plan for the Alpine Loop (1994a), and implement this plan as funding and staffing allow. The Interpretive Plan should be updated periodically to be sure efforts continue to focus on interpretive and educational activities that the public enjoy, as well as those that help reduce resource impacts.

Existing interpretive sites would continue to be managed. BLM would continue to cooperate with local schools to offer educational programs and field trips for students, and would consider using educational programs such as heritage tour stops on the Alpine Loop to attract visitors during shoulder seasons when additional business would help local communities.

The existing interpretive brochures listed below would continue to be produced and distributed to achieve management goals. The BLM would continue to review and update them periodically to be sure the information is correct.

- The Alpine Loop two-fold brochure (free distribution)
- The Alpine Explorer (sale piece)
- The Alpine Loop, ATV's and Unlicensed Motorcycles Summer Travel Routes (free distribution);
- Guided Tour of Animas Forks and the Sound Democrat Mill (sale pieces)
- Alpine Wildflowers brochure (sale piece)
- Wildlife of the Alpine Loop (currently free distribution)

These materials would be distributed through visitor contact stations in Lake City, Ouray, and Silverton, area businesses, Chambers of Commerce, and BLM field offices (e.g., Silverton Public Lands Center) in Gunnison, Montrose, Silverton and Durango, Colorado.

2.1.9 Recreation Monitoring

The BLM would continue to periodically monitor and document a variety of factors to evaluate whether management goals are being achieved.

A monitoring strategy would be developed by the BLM that uses key indicators to evaluate social, environmental, and administrative standards and documents findings.

The BLM would explore the possibility of developing and implementing a Site Stewardship Program as a means of documenting and protecting additional archaeological and historic resources throughout the Project Area. This program would target heritage tourism sites on public, county, and private lands within the Project Area. This program would be developed and implemented most effectively by partnering with the local historical societies, San Juan Mountain Association and Colorado Historical Society. Historically, the San Juan Mountains Association (SJMA) has managed such a program targeting public lands in southwest Colorado. As such, they would serve as an ideal partner in this effort. This program would work with volunteers towards completing such tasks as site mapping, structure documentation, treatment activities and stabilization. This program would target both archaeological and historic sites on both public and private land within the Project Area. Work on County lands

would be in conjunction with the San Juan and Hinsdale County Historical Societies and work on private land would be contingent on the willingness of landowners to participate in the program.

Vehicle use in the Project Area would be assessed and managed by applying the following monitoring strategy:

- install an appropriate number of traffic counters on major roads and trails to identify changes and trends in vehicle use;
- periodically tally vehicle types to capture the relative numbers of each vehicle class used in the Project Area;
- work with the County Sheriffs to review accident statistics annually to identify trends, changes and issues of concern; and
- monitor to detect areas where vehicles are getting off the designated roads and trails and resolve problems as they are found.

2.1.10 Recreation Collaboration

The BLM would work cooperatively with federal, state, and local governments and agencies, non-profit organizations, and private entities to achieve the goals and management objectives contained in the RAMP.

The BLM would look for opportunities to build and maintain partnerships with agencies, groups and individuals that have an interest in recreation and recreation resource management in the Project Area. The goal of these partnerships should be to discuss and build consensus on strategies for management, pool scarce resources, and work cooperatively to carry out priority actions to achieve mutually beneficial goals.

The BLM would also work toward entering into cooperative agreements with non-profit organizations (e.g., Mountain Studies Institute), citizens and user groups that have adequate resources and expertise to assist in the management of public lands in the Project Area. Assistance could include, among other things, resource monitoring, site cleanups, and construction of authorized projects.

Where appropriate, the BLM would consider contracting with private sector businesses, nonprofit organizations, academic institutions, or state and local agencies to accomplish essential studies, monitoring, or project development.

2.2 Alternative A, Current Management/No Action

Alternative A - Current Management/No Action serves as the no action alternative and provides a baseline for comparison. This alternative represents the current management as it has developed since the 1986 RAMP was adopted, and the Interim Corridor Management Plan. Alternative A consists of Management Common to All Alternatives found in Section 2.1 and the additional items listed below. Alternative A differs from the other alternative in that it contains certain management actions or policies that will not be carried forward should Alternative B be chosen.

2.2.1 Law, Regulation and Policy and Administrative Action

Under the existing plans, all of the lands in the SRMA were classified using the Recreation Opportunity Spectrum (ROS) which is based on the Physical, Social, and Managerial settings. The settings ranged from Primitive – natural backcountry areas with fewer visitors and minimal human influences to Rural where man-made facilities were obvious, developed facilities were more common and more visitors were expected.

An Interim Corridor Management Plan was prepared to identify appropriate management actions to support the Scenic Byway designation. As directed under the Interim Scenic Byway Plan, the Alpine Loop Byway will be managed to provide a variety of recreation opportunities to local, regional, and national visitors in a relatively natural alpine environment. In addition, it will be managed to properly balance recreation use and resource protection to ensure the area's outstanding values are not diminished. The State Byway Plan emphasizes the importance of partnerships in managing this area through collaboration, consultation, and cooperation with agencies and local communities.

The SRMA is currently managed under the general guidelines contained in the Resource Management Plans for the Gunnison and San Juan Field Offices as well as the more specific guidance in the RAMP.

2.2.2 Travel Management and Access

Under both the Gunnison and Columbine Field Offices' RMPs, travel designations limit motorized vehicles (e.g., street legal vehicles, motorcycles, ATVs) to designated roads and trails. Details regarding travel management can be found in Section 2.1 Management Common to All as travel will continue to be limited to designated roads. No additional designations were considered under the Current Management/No Action Alternative.

Transportation Management Network – For this alternative, the existing system of 345.5 miles of routes, trails and roads would remain as the transportation management network. The Alpine Triangle was designated as limited to travel on designated routes in the San Juan and Gunnison RMPs (BLM 1985; BLM 1993). Additionally, these plans established special designations for several Wilderness areas and WSAs which are closed to motorized travel including snowmobiles (approximately 68,222 acres). The Alpine Loop Scenic Byway represents 65 miles of backcountry routes officially designated as part of the Colorado and National Scenic Byway systems. The majority of these routes are county roads and were developed to access historic mining operations. Five trails were listed in the 1986 RAMP (BLM 1986b, Appendix A) and today are currently recognized as system trails that would be managed and maintained for recreation use.

No additional designations were considered under the Current Management/No Action Alternative.

Transportation Facilities – Facilities within the Alpine Loop are defined as parking areas, trailheads, scenic overlooks, rest stops, interpretive sites, campgrounds, and pullouts necessary to ensure public health, safety, and adequate function of the transportation network. Currently 36 facilities exist within the system; 13 restrooms, camping areas, trail heads and sign facilities were listed in the 1986 RAMP (BLM 1986b, Appendix A).

2.2.3 Recreation Management Spring, Summer and Fall Use

Spring, summer and fall recreation activities are managed primarily for hiking, mountain climbing, hunting, fishing, and motorized recreation during the seasons when the passes are open (from mid-June through September).

Specific Management for the Lower Lake Fork River Area – This area is managed primarily for fishing and Roaded Natural settings. The scattered pattern of ownership in this region of the Project Area makes access to the area challenging, and therefore the area incurs moderate recreational use concentrated on isolated parcels.

Specific Management for the Animas River Area – This section of the SRMA is defined as the area that is south and west of Engineer and Cinnamon passes, or the general Animas River drainage. Due to the scattered and intermingled nature of private and public roads, and the importance of vehicular recreation, the public lands are managed primarily for motorized recreation and sightseeing in a Semi-primitive Motorized setting. The Weminuche Contiguous, Whitehead Gulch, and West Needles Contiguous WSAs are managed under the BLM Wilderness Interim Management Policy (IMP) as Semi-primitive Non-motorized setting until Congress rules about their suitability as Wilderness.

Specific Management for the Upper Lake Fork River Area – This section is defined as the lands south and west of Lake City in the region drained by the upper Lake Fork of the Gunnison, Henson Creek, and their tributaries. The Loop Road is managed for motorized vehicle recreation and access to the whole region as Roaded Natural and Semi-primitive Motorized Settings and their adjacent recreation opportunities such as fishing, car camping, mountain climbing and hunting. Redcloud Peak, Handies Peak, and American Flats WSAs are managed under the BLM Wilderness IMP as Primitive and Semi-primitive Non-motorized setting. The Slumgullion Earthflow is managed as a Semi-primitive Non-motorized setting in the summer.

2.2.4 Recreation Management Winter Use

Under the existing plan, winter recreation is managed primarily for snowmobile use and cross-country skiing. Avalanche danger and lack of access to the remote portions of the Project Area are considered deterrents to use. Downhill skiing, ice climbing, heli-ski operations, hybrid skiing, winter survival courses, and competitive skiing (near Storm Peak) are other winter uses that have occurred in the area.

Historically, snowmobile use has been permitted on snow anywhere in the unit, except in any lands designated as Wilderness or WSA. Excluding Wilderness and WSAs, this equates to 118,030 acres open to snowmobile activity. Winter recreation activities are managed and allowed throughout the Project Area. Several special use permits are authorized for grooming in the Silverton and Lake City areas for snowmobile trails. At this time, the BLM has not authorized any routes to be groomed specifically for cross country skiing and snowshoeing.

2.2.5 Recreation Management Resource Protection

Camping is prohibited within 150 feet of historical buildings and structures to prevent damage that can occur when visitors camp in or near these structures.

All additional recreation management and resource protection actions are included in Section 2.1 Management Common to All.

2.3 Alternative B - Proposed Action

Under Alternative B, the Proposed Action, the Project Area would be managed under a destination recreation-tourism market strategy, due in part to its attraction as both a regional and national recreation resource. As such, this strategy would be designed to meet the needs of visitors from throughout the U.S. with specific emphasis on the Four Corners region and the states of Colorado and Texas. Motorized and non-motorized recreation activities, occurring in both the summer and winter seasons, would be managed under this strategy.

Recreation activities would include, but not be limited to heritage tourism along the Alpine Loop, hiking, mountain climbing, camping, scenic driving, heritage tourism, motorized recreation, fishing, hunting, rafting, kayaking, skiing, eco-tourism, outdoor/conservation education tourism, and snowmobiling. Summer motorized recreation is limited to designated roads and mechanized use (such as mountain bikes) would also be required to stay on roads and trails designated for that use. Winter motorized recreation (e.g., snowmobile) is not limited to designated roads and trails, but participants are encouraged to not travel in potential avalanche areas. Snowmobile use is prohibited in WSAs and designated Wilderness. Other recreation activities would be allowed in the Project Area to the extent they are compatible with the primary, targeted activities.

Central to the Proposed Action is the recognition that current management in the Project Area is serving both visitors and the environment relatively well; no major shift in the current approach to managing recreation in the Project Area is proposed. New management direction is still needed to address existing issues (including increased motorized recreation and deteriorating historic sites) and anticipated issues and concerns.

Under the Proposed Action, an effort would be made to distribute the demand for recreation more evenly across the year. As noted, the majority of visitation to the area occurs during the summer season (i.e., July to mid-August). Through effective visitor information, targeted marketing and other management actions, the Proposed Action would seek to redistribute visitation from the peak use season from July to mid-August to the shoulder seasons (i.e. June and mid-August through September). This broadening of the tourist season could alleviate some ongoing impacts to recreation including the crowding in the peak summer season, maintain or increase visitor satisfaction, and provide a longer business season in the surrounding communities. The BLM would continue to look for ways to increase recreation during the winter without significant impacts to wintering wildlife and other resources.

Although the Project Area would be managed under a destination recreation-tourism market strategy, managing for visitors on a regional and national level, this does not exclude or diminish the importance of local communities. Historically, the Project Area has played a key role in the lives of local community members by serving as an engine

of economic growth and an opportunity to sustain and improve their quality of life. As such, BLM would work in partnership with these communities to recognize the unique value of their knowledge, experience, and participation and to ensure the success and long-term management of the Project Area. Toward building upon this role, BLM would regularly collaborate with local communities in all aspects of marketing, managing, monitoring, and administration of the recreation resource.

Though encompassing a single SRMA, the Project Area would be divided into three Recreation Management Zones (RMZs). They are identified as RMZ 1 – Alpine Backcountry, RMZ 2 – Heritage Roads, and RMZ 3 – Animas & Lake Fork Rivers, and are illustrated in Figure 2.1. In delineating these RMZs, consideration was given to the distinct settings these areas offer, as well as their predominant recreation activities, use patterns and management issues. It should be noted that RMZ 2 – Heritage Roads is inclusive of the 65-mile Alpine Loop.

The discussion that follows is organized by describing, in turn, the three RMZs delineated within the Project Area and their associated management objectives, activities, experiences, benefits, and natural resource settings. With these RMZs serving as a basis for recreation management in the Project Area, a discussion of specific goals, objectives, and management actions is provided. These topics are organized first under the issue of travel management and access, and then under the broader headings of recreation management, marketing, monitoring, administration and collaboration. Current management direction not specific to an individual RMZ, but instead applied across the entire Project Area is organized under the heading of "Management Common to all Recreation Management Zones." Next, additional management direction specific to each RMZ is provided under the same headings of recreation management, marketing, monitoring, administration and collaboration. All management direction discussed under the Proposed Action would be constrained, as necessary, to both achieve and sustain the prescribed character of recreation settings and produce the activity, experience, and benefit opportunities targeted in the management objectives for each RMZ.

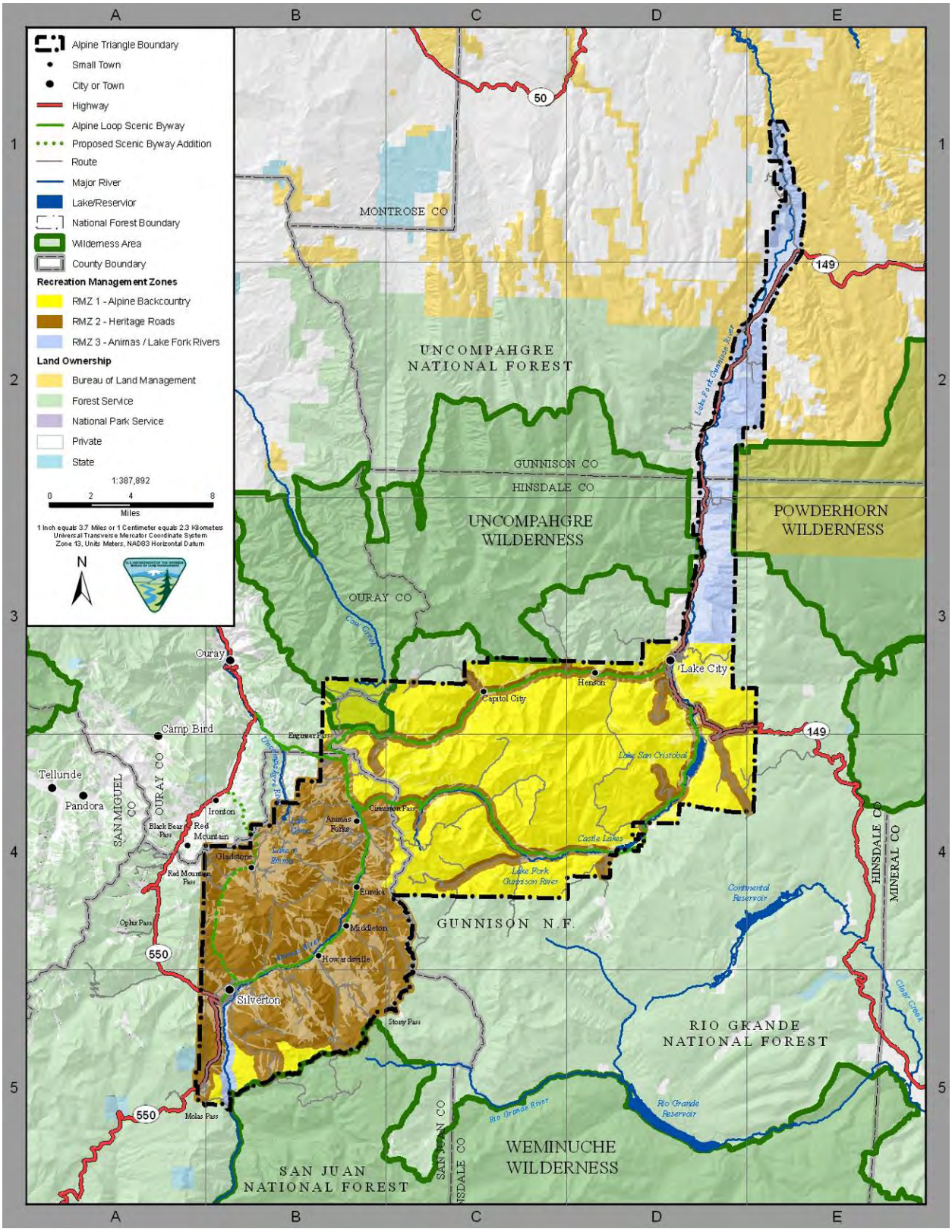

Figure 2.1 Proposed Recreation Management Zones

2.3.1 Recreation Management Zone 1 – Alpine Backcountry

Management Objective – Provide opportunities for visitors to engage in challenging and educational summer backcountry activities such as hiking, mountain climbing, and backpacking. Secondary activities that could occur but would not be a major focus of management include trail running, horseback riding, and fishing and hunting. RMZ1 is primarily to be managed for non-motorized uses, but that existing permits for heliskiing will be honored. These activities would be carried out on primitive trails developed and maintained in a setting that is primarily a naturally appearing landscape where the sights and sounds of human caused disturbance are not readily noticeable.

Targeted Recreational Opportunities and Outcomes for RMZ 1 – Alpine Backcountry – This matrix identifies the key activities, experiences and benefits that would be managed for in this RMZ. Other activities, experiences, and benefits would be allowed as long as they are compatible with the management objectives of the RMZ. Key management for RMZ 1 – Alpine Backcountry is presented in Table 2.1.

Table 2.1 Key Management for RMZ 1 – Alpine Backcountry

Primary Activities	Targeted Experiences	Anticipated Benefits
• Hiking • Mountain Climbing • Backpacking • Conservation Projects/Eco-touring • Educational Programs • Hunting	• Enjoying moderate to strenuous physical exercise • Developing or testing personal endurance • Enjoying risk-taking adventure • Enjoying mountain scenery • Enjoying being close to nature • Exploring a new area • The opportunity for solitude • Participating and contributing to resource conservation/preservation	Personal (for all visitors to the area): • Improved physical fitness • Gaining a greater sense of self confidence • Reducing the stress of everyday life • Enhanced awareness and appreciation of nature • Improved quality of life • Connection to the land Economic (for residents of the surrounding communities): • Increased local tourism revenue • Improved local economic stability Environmental: • Increased protection of natural landscapes

Recreation Setting Prescriptions for RMZ 1 – Alpine Backcountry – The following are the physical, social, and administrative settings necessary to provide the activity, experience, and benefit opportunities listed above. These prescriptions would be accomplished primarily by protecting and maintaining the existing recreation setting characteristics. Management actions may be required to improve the existing characteristics of the recreation setting, and as a result, better meet the management objectives of the RMZ (see Table 2.2 for definitions). This RMZ is primarily composed of WSAs, Wilderness, ACECs, and other backcountry lands. These areas are largely away from roads where non–motorized recreation opportunities and natural settings predominate.

The physical setting for this RMZ would be predominantly natural with the sights and sounds of human activities kept to a minimum during the summer. During the winter, motorized use for permitted helicopter skiing operations, will be honored. It would be a priority to protect and preserve soils, vegetation, wildlife, scenery and cultural resources and keep them in a condition that is as close to natural as possible. Recreation would be primarily based on foot access so primitive single track trails would be maintained in suitable areas to facilitate public access. There would also be some areas where trail access would not be developed and opportunities for cross-country exploration, route finding, risk taking and backcountry skill development would be provided. This would be a place where visitors could find opportunities for physical exercise, quiet, solitude, reflection, introspection and the ability to enjoy and study natural landscapes and processes. Major impacts from current day-use activities would be discouraged and rehabilitated to the extent possible. Impacts from historical human activities such as mining would generally be left intact unless they are causing unacceptable impacts to key resources such as water quality or present a hazard to the public.

This RMZ would be managed to generally provide opportunities for less crowded, non-motorized recreation experiences so visitors would have opportunities to be away from the sights, sounds, stress and pressures of their

everyday lives. Most of these areas would provide a low number of social encounters that would offer opportunities for solitude and introspection. Some popular routes such as the trails to the 14,000-foot mountain peaks (Fourteeners) would be expected to have a higher number of social encounters (i.e., up to 100 visitors per day). These trails would be managed to allow higher levels of social encounters because the primary experience that visitors desire on these trails is to climb the Fourteeners rather than seeking solitude. Footprints and hoof tracks would be seen on trails. Noise and litter would be infrequently encountered. Vegetation and soil impacts would be visible at campsites and popular areas.

Hiking trails would be the primary access routes maintained into these areas. Informational and educational signs may be posted at trailheads and along trails to give visitors the information they need and encourage responsible stewardship of the area. Basic maps, brochures, website information, and other information media could be developed as needed to inform and educate the public about using these areas. Any marketing would be focused to attract recreation uses that are consistent with the goals of the recreation management plan and are most likely to enjoy the opportunities that the area is managed to provide. Marketing efforts would not aggressively seek to increase visitation to this RMZ, but some increase in visitation can be achieved without compromising resource values. Use restrictions for the general public would not be common, but may be considered in some cases where resource impacts or deterioration of recreation experiences become problematic. Outfitters and special events using this RMZ would be managed in a manner that supports management goals in the area and may regularly be governed by group size limits or service day limits to avoid social impacts to other recreationists. Management presence would primarily consist of regular patrols to contact visitors, maintain trails, clean-up backcountry campsites and detect and resolve nonconforming uses. Volunteer efforts would be encouraged, promoted, and marketed to improve land stewardship and would be used whenever possible to extend the BLM's capability to maintain trails and clean-up human caused impacts.

Table 2.2 Recreation Setting Prescriptions for RMZ 1 – Alpine Backcountry

Prescribed Physical Setting Summary	• The area is predominantly an undisturbed natural setting or natural appearing landscape. There is minimal evidence of human intrusion and few modifications. • Preservation of natural resources (e.g. wildlife, soils, scenery, and cultural resources) would be a high priority. • Existing cultural resources would be managed to preclude impacts to other resources or visitor injury. • In backcountry locations, some primitive trails of native materials would be allowed. • Recreation would generally be based on foot, and cross-country travel and exploration would be allowed in non-trailed areas.
Prescribed Social Setting Summary	• Group sizes would generally be 4-6 people. • Social encounters would be anticipated to be less than three encounters per day at campsites, and fewer than six encounters per day on travel routes in primitive areas. Encounters in transition areas would be 15-29 encounters per day off travel routes, and 30 or more encounters per day en route. • Recreation would be predominantly non-motorized and use basic, limited equipment. • Evidence of human intrusion would be limited to footprints and slight vegetation trampling at acknowledged popular routes and campsites. • Access trails to Fourteeners would be managed for more concentrated use and could see 50 or more social encounters per day during heavy use seasons.
Prescribed Administrative Setting Summary	• Visitor services and informational media would be provided externally to the RMZ, would be limited to basic maps, and would seldom be provided as on-site assistance. • Informational signs may be placed at trailheads and key route locations. • Marketing efforts would not seek to increase utilization. • Use restrictions would only be used to protect resources from known impacts • Outfitter use and permitted activities would be managed for limited group size. • Regular management and volunteer efforts to resolve non-conforming use

2.3.2 Recreation Management Zone 2 – Heritage Roads

Management Objectives – Provide opportunities for local, regional and national visitors to engage in scenic driving, heritage tourism (i.e., visiting historical sites), and motorized recreation on rough, but relatively safe roads in the Project Area. The centerpiece of these activities would be the Alpine Loop, but other areas with designated roads could also provide these opportunities. Secondary activities practiced in this RMZ include camping, fishing, hunting, mountain biking, rock climbing and photography. The Silverton Mountain Ski Area is located in this RMZ and would be a focus for winter management. Winter recreation activities such as snowmobiling, skiing, snowshoeing, dog sledding, and ice climbing may also be practiced in this RMZ. These activities could occur in settings ranging from rural (near communities) where the sights and sounds of human development are obvious to less developed (middle country) settings where the landscape is predominantly natural.

Targeted Recreational Opportunities and Outcomes for RMZ 2 – Heritage Roads – This matrix identifies the key activities, experiences and benefits that would be managed for in this RMZ. Other activities, experiences and benefits would be allowed as long as they are compatible with the management objectives of the RMZ. Key management for RMZ 2 – Heritage Roads is presented in Table 2.3

Table 2.3 Key Management for RMZ 2 – Heritage Roads

Primary Activities	Targeted Experiences	Anticipated Benefits
• Scenic Touring • Motorized Recreation • Visiting cultural and heritage sites • Camping • Photography • Viewing wildflowers • Skiing (Silverton Mountain Ski Area)	• Enjoying mountain scenery • Enjoying outdoor experiences with friends and family • Seeing and learning about shared cultural heritage • Developing skills and abilities	Personal (for all visitors to the area): • Increased appreciation of area's cultural history • Gaining a greater sense of self confidence • Reducing the stress of everyday life • Stronger ties with family and friends • Improved quality of life Economic (for residents of the surrounding communities): • Increased sustainable heritage tourism revenue • Improved local economic stability • Increased local job opportunities Environmental and Cultural: • Increased protection of cultural resources and historical landscapes

Recreation Setting Prescriptions for RMZ 2 – Heritage Roads – The following are the physical, social, and administrative settings necessary to provide the activity, experience, and benefit opportunities listed above. These prescriptions would be accomplished primarily by protecting and maintaining the existing recreation setting characteristics. Management actions may be required to improve the existing characteristics of the recreation setting, and as a result, better meet the management objectives of the RMZ (see Table 2.4 for definitions). This RMZ would consist primarily of those areas on and immediately adjacent to the Alpine Loop as well as other designated roads that are open to public use. The RMZ would also include a variety of historic sites along the road corridors.

The roads in this RMZ are primarily maintained by the counties and vary in condition from well maintained, multi-lane gravel roads to rougher and more challenging roads where 4WD, high clearance vehicles are required. The primary corridor through the RMZ would be the designated scenic byway, so emphasis would be placed on maintaining the scenic quality along the road corridors. Human impacts are noticeable in the form of maintained dirt roads, campgrounds, restrooms, trailheads, historic buildings, signs, utility lines and modern houses (developed on private land). These features on public land do not overpower the natural landscape features.

Table 2.4 Recreation Setting Prescriptions for RMZ 2 – Heritage Roads

Prescribed Physical Setting Summary	• Remoteness would vary from 4WD roads in natural settings to improved roads in more modified areas near towns. • Landscapes would appear mostly natural except for primitive roads and historic structures. Near towns, more utilities and development would be expected. • Facilities would be maintained and trails marked. Simple trailhead developments, improved signs, campgrounds, interpretive sites and staging areas could be available. • Roads are primarily maintained by the Counties • Management would emphasize maintaining natural scenic quality, and elements of human intrusion, both modern and historic, are evident but not overpowering.
Prescribed Social Setting Summary	• Group sizes vary from remote areas to near towns and developed site with 7 - 100 encounters as acceptable. • As this is the zone that receives the heaviest utilization by visitors, encounters with other groups can be expected in some areas and unusual on less utilized routes and trails. • Motorized vehicles and equipment will likely be present. Campers and tents may be seen in more developed areas. • Winter recreation is common, although less utilized than other seasons. • Evidences of human activities are evident and impacts may be visible.
Prescribed Administrative Setting Summary	• Management controls commensurate with visitor utilization to minimize impacts to resources with signing, rules, and restrictions prescribed as necessary. • Facilities developed and maintained to meet basic visitor requirements, and fees may be charged in developed recreation sites to support maintenance. • All motorized traffic (except snowmobiles) and mechanized use limited to designated routes. • Informational signs posted at key locations. • Informational media available externally to RMZ focusing on goals of sustainable tourism and stewardship. • Work collaboratively with partners and volunteers to manage the area.

This RMZ would receive the heaviest visitation and use in the Project Area. During the busiest part of the summer, visitors could expect to encounter 100 or more visitors in a day. Eventually the number of social encounters during the busy season may reduce visitor satisfaction, and then consideration would be given to implementing management or marketing actions to keep the level of visitation within acceptable limits. During the spring and fall shoulder seasons, social encounters would more commonly be in the range of 20 to 30 encounters with other parties. Attempts to resolve crowding concerns during the busy season by redirecting some visitors to the shoulder seasons would result in no net loss to the tourism related economies in the surrounding communities. During the winter months, social encounters may reach 20 to 30 encounters with other parties in popular areas for snowmobiling, cross-country skiing, or ice climbing, but would more typically be in the range of three to seven encounters. During busy utilization periods, vehicles and vehicle tracks would be regularly observed, and vehicle noise would be common. Additional evidence of heavy use might include litter and impacts to soils and vegetation at regularly used areas.

Since this RMZ receives the highest level of visitors to the Project Area, it would also have the highest level of management inputs to accommodate visitors and reduce the impacts on resources. BLM would cooperate with the counties to discuss the appropriate level of maintenance on the roads in the RMZ. Facilities such as campgrounds, restrooms, trailheads and stabilized historic buildings would be developed and maintained, as feasible, to meet visitor needs. All traffic would be limited to designated routes to prevent impacts to soils, vegetation and scenic values in this fragile alpine environment. Low profile log and rock barriers, and regulatory and directional signs may be used to remind visitors to stay on the designated roads. Directional signs would be used to help visitors find their way. Interpretive signs would help them understand and appreciate the things they are seeing in the area and would include ethics messages to encourage them to help protect these values. A variety of maps, brochures, web-based information and other forms of visitor information would be developed to enhance visitor experience and promote stewardship in the area. Any marketing would seek to attract segments of the recreation market that are

most likely to enjoy the opportunities best provided in the RMZ. Marketing efforts would not aggressively seek to increase visitation to this RMZ during the busy summer season, but some increase in visitation can be achieved during the shoulder seasons without compromising resource values. Use restrictions for the general public would not be employed except as a last resort to resolve serious resource impacts or serious reduction in visitor satisfaction with the experiences being provided. Outfitters and special events using this RMZ would be managed in a way that supports the BLM's management goals for the area and may regularly be governed by group size limits to avoid social impacts to other recreationists. Management presence would consist of regular patrols to contact visitors, offer information and education, maintain facilities, clean-up undeveloped campsites and deal with violations of rules and regulations.

2.3.3 Recreation Management Zone 3 – Animas & Lake Fork Rivers

Management Objectives – Provide opportunities for local and regional visitors to engage in summer river-related activities such as whitewater rafting and kayaking, and float and walk-wade fishing. Secondary activities practiced in this RMZ include but are not limited to camping, hiking, rock climbing, picnicking, and hunting. These activities would be carried out on the Lake Fork of the Gunnison River north of Lake City, and the Animas River from Silverton south towards Durango. These activities would occur in settings ranging from rural (near communities) where the sights and sounds of human development are obvious to less developed (middle country) settings where the landscape is predominantly natural.

Targeted Recreational Opportunities and Outcomes for RMZ 3 – Animas & Lake Fork Rivers – This matrix identifies the key activities, experiences, and benefits that would be managed for in this RMZ. Other activities, experiences, and benefits would be allowed as long as they are compatible with the management objectives of the RMZ. Key management for RMZ 3 – Animas and Lake Fork Rivers is presented in Table 2.5

Table 2.5 Key Management for RMZ 3 – Animas and Lake Fork Rivers

Primary Activities	Targeted Experiences	Anticipated Benefits
• Rafting • Kayaking • Walk-wade Fishing • Float Fishing	• Enjoying moderate to strenuous physical exercise • Enjoying outdoor experiences with friends and family • Enjoying risk-taking adventure • Developing skills and abilities	Personal (for all visitors to the area): • Improved physical fitness • Improved outdoor recreation skills • Greater sense of adventure • Reducing the stress of everyday life • Stronger ties with family and friends Economic (for residents of the surrounding communities): • Increased local tourism revenue • Improved local economic stability • Increased local job opportunities Environmental and Cultural: • Increased protection of natural landscapes

Recreation Setting Prescriptions for RMZ 3 – Animas & Lake Fork Rivers – The following are the physical, social and administrative settings that are necessary to provide the activity, experience, and benefit opportunities listed above. These prescriptions would be accomplished primarily by protecting and maintaining the existing recreation setting characteristics. Management actions may be required to improve the existing characteristics of the recreation setting, and as a result, better meet the management objectives of the RMZ (see Table 2.6 for definitions). This RMZ is primarily composed of the Lake Fork of the Gunnison River north of Lake City and the Animas River south of Silverton.

Table 2.6 Recreation Setting Prescriptions for RMZ 3 – Animas and Lake Fork Rivers

Prescribed Physical Setting Summary	• River areas would vary in remoteness by being on or near 4WD roads to on or near county roads and highways. • Natural riparian corridors would predominate except for obvious primitive roads in middle country areas and some structures and roads will be visible near towns. • Signs of human intrusion, both modern and historic, would be evident but not overpower the natural environment. • River channels, aquatic habitats, and riparian areas would be managed to maintain or restore proper functioning condition. • Facilities and accessibility structures (trails, fence walkovers, and boat put-ins) may be constructed and maintained as simple, modest and rustic facilities to protect resource values and limit impacts from utilization in this area.
Prescribed Social Setting Summary	• Group sizes would vary by setting with a range of 7 – 50 people from middle to rural areas. • Social encounters would be anticipated and vary from area to area. Staging areas and campgrounds would have more encounters, but few social encounters would be anticipated in river areas by anglers. • Moderate utilization by commercial rafting operations would be anticipated during summer. • Evidence of human intrusion generally limited to acknowledged popular routes, staging areas, and campsites. • Signs of equipment, vehicles, and campers may be visible. • Evidence of use may include a range from vehicle tracks, occasional litter, and soil erosion in middle country to gravel and paved improvements, worn soils and vegetation, and litter in developed areas.
Prescribed Administrative Setting Summary	• Management commensurate with visitor utilization to minimize impacts to resources including occasional signing, motorized and mechanized use restrictions if necessary. • All motorized traffic (except snowmobiles) limited to designated routes. • Private land boundaries clearly delineated. • Marketing efforts would not seek to increase summer utilization • Visitor services would include informational and interpretive signs posted at key locations, including information on goals of resource conservation and stewardship. • Use restrictions only used to protect resources from known impacts. • Outfitter use and permitted activities could be managed for limited group size.

This RMZ would be managed for a predominantly natural setting particularly in the riparian corridor. Anglers are generally more sensitive to crowding while practicing their sport; management objectives would aim to keep use levels at no more than 5 fishers per river mile with a possibility of running into 2 or 3 other parties during a day's recreation. Some man-made structures or facilities such as highways, roads, campgrounds, restrooms, signs, utility lines, fences and private homes (developed on private land) may be located within or visible from this RMZ. The actual rivers and associated riparian areas would be managed to provide stable river channels in proper functioning condition. To the extent possible, habitat for aquatic and terrestrial wildlife would be protected and maintained. Structures such as access trails, fence walkovers or boat launch ramps may be constructed, as feasible, and maintained to accommodate recreation opportunities for fishing, rafting and kayaking.

This RMZ does not usually attract large numbers of visitors but there are occasionally group sizes of up to 25 people associated with commercial rafting operations. It is possible that visitors could encounter from 5 to 10 other parties per day when they use this RMZ during the busy summer season. Group size and number of encounters tend to decrease during the shoulder seasons. Some evidence of visitor impacts may be visible in the form of vehicle tracks, footprints, and soil and vegetation impacts in popular areas. Unwanted levels of noise or litter are uncommon but may be present on rare occasions.

Facilities such as campgrounds, restrooms, trailheads, and boat launch ramps could be developed and maintained, as feasible, to meet visitor needs. These facilities would not be constructed with the purpose of increasing visitation but instead to protect resource values or reduce the impacts of existing levels of recreation. All traffic would be limited to designated routes to prevent impacts to soils, vegetation, and scenic values in this fragile environment. Low profile log and rock barriers, and regulatory and directional signs may be used to remind visitors to stay on the designated roads. Interpretive signs would help them understand and appreciate the things they are seeing in the area and would include ethics messages to encourage them to help protect these values. Some maps or brochures and possibly other forms of visitor information could be developed to make the public aware of recreation opportunities, enhance visitor experience and promote stewardship in the area. An effort would be made to accurately mark the boundary between public and private land to reduce the possibility of trespass problems. Any marketing would seek to attract segments of the recreation market that are most likely to enjoy the opportunities provided in this RMZ. Marketing efforts would not aggressively seek to increase visitation to this RMZ during the busy summer season but some increase in visitation can be achieved during the shoulder seasons without compromising resource values. Use restrictions for the general public would not be employed except as a last resort to resolve serious resource impacts or serious reduction in visitor satisfaction with the experiences being provided. Outfitters and special events using this RMZ would be managed in a way that supports the BLM's management goals for the area and may regularly be governed by group size limits to avoid social impacts to other recreationists. Management presence would consist of occasional patrols to contact visitors, offer information and education, maintain facilities, clean-up undeveloped campsites, and deal with violations of rules and regulations.

2.3.4 Law, Regulation, and Policy

Law, regulation and policy for Alternative B would include the resource management described under Section 2.1 Management Common to All. Guidance and policies for cultural resource protection, threatened, endangered and special status species, minerals, wild and scenic rivers, Wilderness areas and Wilderness Study Areas, air quality, and water quality will be carried forward with Alternative B (Proposed Action). Future actions taken to implement this RAMP may also require further NEPA analysis and decision if they were not fully disclosed in this document.

2.3.5 Travel Management and Access

Travel management and access addresses the system or network of roads and trails that would be open to the public to facilitate their use and enjoyment of public lands, and the rules that govern that use (e.g., season of use, type of vehicle(s) allowed). More specifically, items addressed under travel management and access include designating a specific travel management network, or system of roads and trails; identifying guidelines and/or limitations to properly maintain, manage, and monitor this system, identifying the types and locations of facilities (e.g., parking areas, trailheads, scenic overlooks) necessary to support the functions of the system; identifying criteria to assist in deciding if additional roads and trails should be added or removed from the transportation management network in the future; and identifying easements and rights-of-ways (ROWs) needed to maintain the system.

Under this alternative, all of the Spring/Summer/Fall travel management and access items (e.g., travel management network) listed above are addressed for the entire project area. Decisions made in this EA will be carried forward into larger BLM Gunnison Field Office Travel Management Plan, currently being developed. Decisions on winter travel will be made only for the Gunnison Field Office portion of the Project Area. Winter decisions for the BLM Columbine Field Office portion of the Project Area will be made in a separate planning process in the future.

Finally, all travel management and access decisions outlined below would be constrained, as necessary, to both achieve and sustain the prescribed character of recreation settings and produce the activity, experience, and benefit opportunities targeted in the management objectives above.

Under both the Gunnison and Columbine Field Offices' RMPs, travel designations limit motorized vehicles (e.g., street legal vehicles, motorcycles, ATVs) to designated roads. It should be noted that no roads currently designated as open would be closed under the Proposed Action. No motorized vehicles may travel off designated roads unless authorized by BLM. As this RAMP is subordinate to the existing RMPs, no changes in the "Limited to Designated Routes" designation will be made through this planning process. Mountain bikes would be added to the list of equipment that must stay on designated roads and trails.

Additional trails (16.4 miles of existing routes) would be added to the transportation management network and recognized as system trails that would be managed and maintained for foot and horse use in the transportation system. Table 2.7 provides a summary of the roads and trails added to the transportation management network illustrated in Figure 2.2. County roads are included in Figure 2.2 in addition to being included in the miles of roads and trails open to designated uses listed below. Though the BLM does not have management jurisdiction over these roads they are included as part of the transportation management network, as they play an important role in the public's overall access to the Project Area and there are ample opportunities for the BLM and the county to work together in partnership to assure the objective is met. The Alternative B transportation network, including the proposed additions and designations, equals approximately 325.7 miles of routes (trails and roads), including county roads. Table 2.8 presents a summary of the mileage of routes, roads and trails available to each mode of transportation under this alternative including BLM and county roads. Figure 2.3 details facilities that are part of the transportation network, and indicates points of interest and special areas that are accessed by the system.

Table 2.7 Proposed Additions to Travel Management Network

Proposed Action for Additions of System Trails	Length (Miles)
1. The existing Boulder Gulch Trail north of Silverton. This trail would be maintained to provide seasonal foot and horse access.	7.4
2. The Continental Divide Trail that exists within the Columbine Field Office portion of the planning area. This trail would be maintained to provide seasonal foot, horse, and mountain bike access.	3.0
3. The Grouse Gulch to American Basin Trail to seasonal foot and horse use. Formally recognizing this route as part of the trail system would be contingent on obtaining a ROW across private property. Until this ROW is obtained from a willing landowner, this trail would not be formally managed or maintained for use by the public.	3.0
4. 1.5 miles of Maggie Gulch Trail in the Columbine Field Office portion of the planning area to seasonal foot and horse use. Formally adding this route as part of the trail system would be contingent on obtaining a ROW across private property. Until this ROW is obtained from a willing landowner, this trail would not be formally managed or maintained for public use.	1.5
5. 1.5 miles of the existing Cunningham Gulch Trail in the Columbine Field Office portion of the planning area as a system trail, open to seasonal foot and horse use. No additional improvements, which would potentially cause impacts to soil or vegetation, would be needed to carry out this action.	1.5
Total Miles Added to the Travel Management Network	16.4

Under the Proposed Alternative, the BLM would recommend 15 miles of Cement Creek and Corkscrew Roads to the Colorado Scenic and Historic Byway Committee to become part of the Alpine Loop (Figure 2.2). All newly proposed single track trails requested for other uses (e.g., foot, horse) outside of Wilderness and WSAs would also be evaluated for their potential and suitability for use by mountain bikes. Mountain bikes would be added to the list of vehicles that must stay on roads and trails designated for that use. Cross-country travel with a mountain bike would not be allowed, and no new trails for mountain bikes would be allowed without authorization from the BLM.

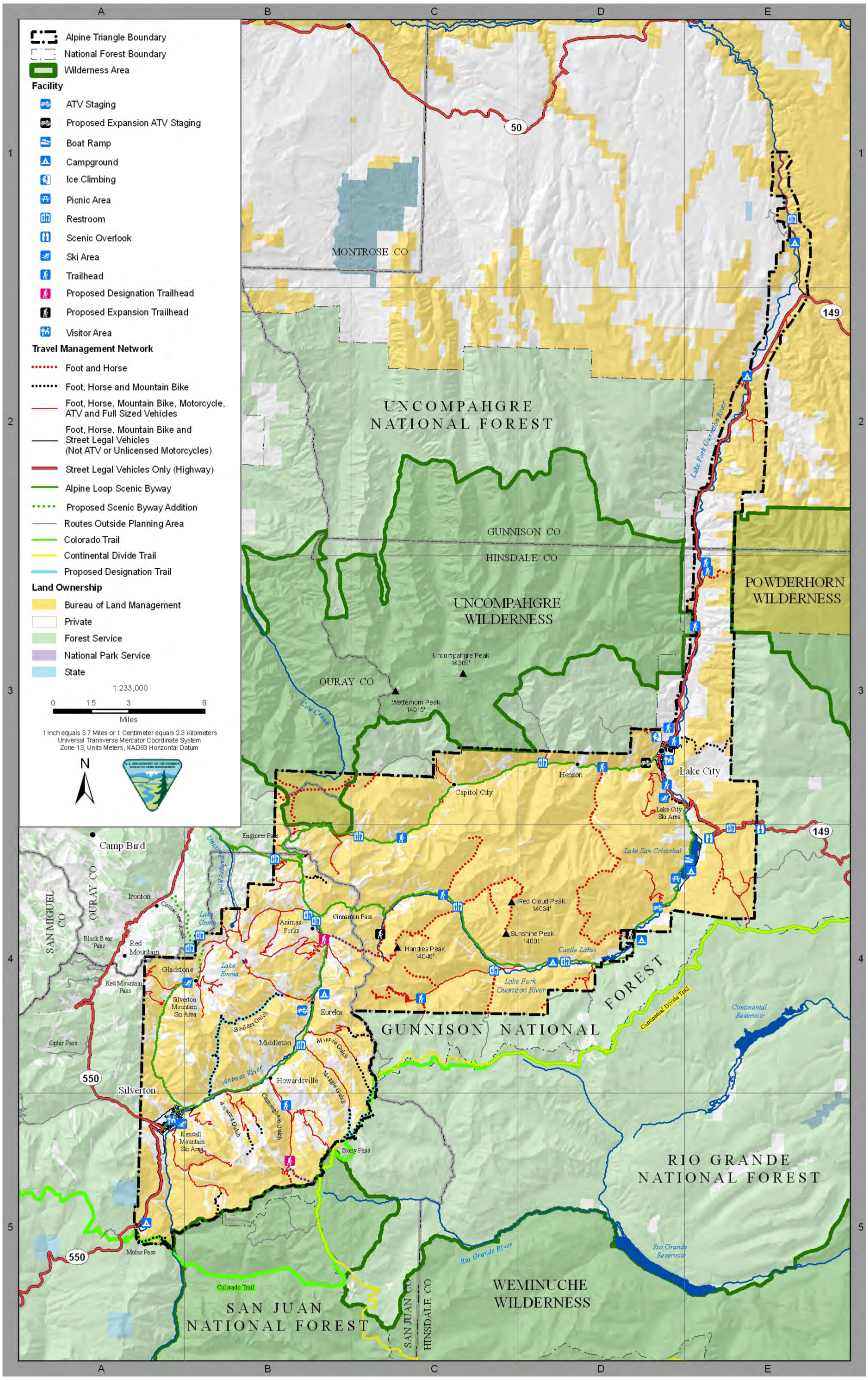

Figure 2.2 Proposed Travel Management Network and Facilities

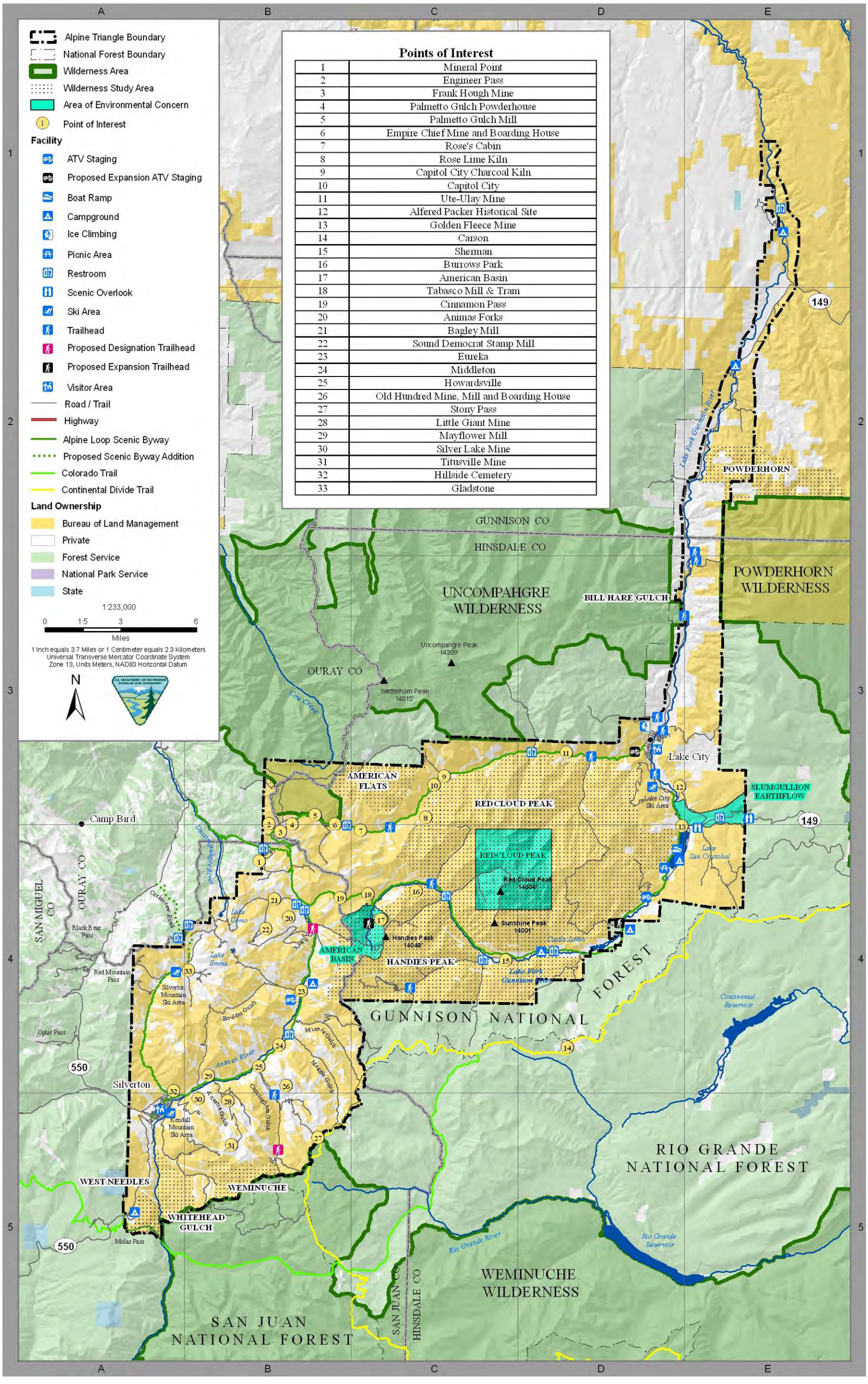

Figure 2.3 Alpine Triangle Facilities, Special Areas, and Points of Interest

Transportation Facilities – Facilities required to support the transportation management network are identified on Figure 2.2 and Figure 2.3. These types of facilities include parking areas, trailheads, scenic overlooks, rest stops, campgrounds, and pullouts necessary to ensure public health and safety and a functioning transportation management network. There are 36 facilities that are managed by the BLM and 12 additional facilities are managed by cooperating partners for 48 facilities. Of the 48 facilities identified in Figure 2.2, 45 currently exist, one exists but will be officially designated, and two are proposed to be constructed in this plan. Several other projects propose improvements on existing facilities. The new facility projects or proposals to improve existing projects are summarized below in Table 2.9.

Table 2.8 Total Lengths of Available Routes by Use Category

Route Type	Length (Miles)
Open to Foot and Horse Use	58.9
Foot, Horse and Mountain Bike	31.9
Foot, Horse, Mountain Bike, Motorcycle, ATV and Full Sized Vehicles	189.5
Foot, Horse, Mountain Bike and Street Legal Vehicles (No ATV or Unlicensed Motorcycles)	48.4
Total Routes	325.7

Table 2.9 Proposed Additional Transportation Facilities or Improvements

Proposed Additional Facilities or Facility Improvements	Acreage of New Disturbance
1. Expand the existing ATV staging area at Henson Creek if demand regularly exceeds capacity at this facility. Continue to maintain the existing ATV staging areas at Henson Creek, Lake Fork of the Gunnison River, and townsite of Eureka along the Alpine Loop. Improve these ATV staging areas, as needed, using natural or constructed barriers to formally delineate the staging areas, along with information and educational signs.	**5000 SF (0.1 AC)**
2. Expand parking at the American Basin Trailhead to accommodate up to 15 vehicles. This would include using natural or constructed barriers to formally delineate the parking area, along with appropriate signage. As this parking area is located in the American Basin ACEC, special attention would be given to mitigating visual impacts from its expansion.	**1000 SF (0.02 AC)**
3. Develop designated trailheads and associated parking areas at the entry points to Grouse Gulch and Cunningham Gulch Trails. This would include using natural or constructed barriers to formally delineate the parking areas, along with appropriate signage.	**5000 SF (0.1 AC)**
4. Designate access routes and parking at undeveloped campsites spots in the Project Area. Delineate these camping pullouts or parking areas to prevent them from increasing in size and further impacting resources. This would be particularly important near riparian areas where vehicles often push down to the water's edge impacting vegetation and reducing bank stability.	
5. Employ a "Designated Route" sign strategy. All open roads and trails would be indicated with a sign that depicts authorized uses. Any road or trail that does not have a sign or is not identified on the official Transportation System Map (Figure 2.2) would not be open for travel by the public. A priority would be placed on preserving the 4wd opportunities that currently exist in the area.	
6. Use barriers or signs at the end of designated roads to ensure that vehicles do not travel further than what is allowed to access undeveloped campsites.	

BLM would work in full cooperation with the Gunnison National Forest should the Forest want to expand parking at Williams Creek Trailhead to accommodate up to six vehicles. While the Williams Creek Trailhead is on USFS lands, the trail is under BLM management. Prior to implementation of this proposed action, all Forest Service-particular environmental requirements, including MIS surveys, would be completed. The proposed expansion of approximately 0.02 acres would include using natural or constructed barriers to formally delineate the parking area, along with appropriate signage.

Management, Maintenance, and Monitoring of the Transportation System

Management – Figure 2.2 shows the routes that make up the official transportation system along with the types of use appropriate on each route. Motorized and mechanized use may only occur on routes designated for that use. The system trails shown on Figure 2.2 are the only ones that will be regularly maintained for public use but foot and horse use may occur off those system trails. Any road not identified on Figure 2.2 would be managed as closed to the public; however, they could be authorized for administrative use or as legitimate access to private land. In all cases, roads used solely for administrative purposes would be managed to prevent or discourage the general public from using them.

System trails would be designed, built and maintained to standards for primitive, backcountry trails, unless a higher standard is necessary to ensure public health and safety or mitigate resource impacts. Standards for primitive, backcountry trails include:

- 18- to 24-inch tread;
- natural dirt surfaces;
- branch and brush trimming out to 3 feet from the centerline on both sides of the trail;
- vertical clearance of 8 feet on foot and mountain bike trails, but up to 10 feet on horse trails;
- average grades no greater than 10 percent, but with the possibility of short stretches with grades up to 20 percent; and
- trails and water control structures designed to provide adequate drainage and minimize erosion.

The BLM would consider the feasibility of building and maintaining a limited number of trails in the urban interface around Silverton and Lake City. To the extent possible, these trails would be connected with existing or future systems of trails surrounding these towns. These trails would provide residents and visitors with relatively easy access to less strenuous recreation experiences. In some cases, these trails could be designed to meet the needs of the handicapped or mobility impaired. These trails are speculative at the time of the writing of this EA. The concept is included for completion, but the environmental effect of creating new trails is not analyzed in this document. Construction of any new trails on public lands would require site specific environmental analysis and resource inventories.

Winter Transportation System – No significant changes would be made to the management, maintenance and monitoring of the winter transportation system under this Alternative.

Adding and Removing Roads and Trails in the Future –Factors would be identified that would assist in deciding if additional roads or trails should be added or removed from the transportation management network in the future.

The list below provides some factors to consider when deciding if roads or trails should be added or removed from the transportation management network in the future. The authorized officer would use these "factors" while considering the unique circumstances associated with each road and trail in arriving at a decision to either open or close them.

1. Does the road or trail provide essential access to an area or destination that currently does not have adequate access?
2. Does the road or trail provide the opportunity for a quality recreation experience? Particular emphasis could be placed on suitable recreation opportunities that are not currently offered elsewhere in the Project Area.
3. Is the development and use of the road or trail in agreement with management goals for the Project Area, as well as the RMZ that it is located within?
4. Is the road or trail necessary and appropriate for use by the general public or is it more appropriate for administrative use only?
5. Would development and use of the road or trail disrupt or degrade other desirable recreation experiences in the area?

6. Would development and use of the road or trail cause undesirable impacts to natural, scenic or cultural resources? If so, could the road or trail be rerouted to resolve such impacts, instead of requiring closure?
7. Is the proposed road or trail designed to be sustainable over time?
8. Are adequate resources available (e.g., funding, staffing, cooperative relationships) to ensure the road or trail is properly maintained?
9. Does the road or trail have legal public access for its entire length?
10. Does the road or trail adequately support the designated or desired uses (e.g., ATV)?
11. Is the use of this road or trail consistent with uses on adjacent land managed by the Forest Service or communities of Lake City, Silverton, and Ouray?

Specific Management for Travel Management and Access in RMZ- 1 – Alpine Backcountry – New and existing trails in RMZ-1 - Alpine Backcountry would be managed exclusively for non-motorized and non-mechanized uses (e.g., hiking, backpacking and horseback riding).

2.3.6 Recreation Management Spring, Summer and Fall Use

Visiting Cultural Sites and Heritage Tourism – The BLM would cooperate with agency cultural resource specialists and other partners to identify, document and prioritize cultural resources on public land that attract visitors or are marketed as heritage tourism sites and can benefit from improved management and stabilization. Public use and preservation plans for these sites and stabilize historic structures would be prepared to prevent their deterioration. Damage from public use and natural causes would be repaired where feasible or necessary to resolve or maintain safety issues and assure site accessibility/interpretability for public use. All stabilization would meet Federal preservation standards and seek to retain the same or similar construction materials and methods that were used in the original construction to preserve the historic character of the site. The BLM would continue to cooperate with a variety of interests including historical societies, individuals and groups in surrounding towns as well as national and state conservation groups and educational institutions to carry out these projects. Look for opportunities to take advantage of grants or other assistance from the State Historic Fund and other sources to help BLM accomplish this high priority work in accordance with the Secretary of the Interior's Standards and Guidelines for Historic Preservation. Marketing strategies would be investigated to accomplish this work through the recreation industry. The Alpine Triangle CRMP would be updated to direct and schedule implementation to assure sustainable heritage tourism.

The BLM would also work with agency cultural resource specialists to initiate a Site Steward program with volunteers to help monitor and preserve high priority heritage tourism sites in Hinsdale County and continue to support the San Juan Mountain Association's Cultural Site Steward Program to provide a cadre of trained monitors and preservation volunteers for San Juan County.

Campsites within 150 feet of historic resources or otherwise affecting any cultural resources would be closed.

Fishing –In cooperation with Hinsdale County on a proposal to reroute County Road 30, the BLM would seek to provide safer fishing opportunities along the shore of Lake San Cristobal if it can be done without impacting known cultural sites in the area.

Camping – Camping or campfires would be prohibited within 150 feet of historical structures to minimize modern impacts to these resources from vandalism or damage from inappropriate activities.

The BLM would explore the possibility of San Juan County developing a campground in the townsite of Eureka, currently determined eligible for listing on the National Register of Historic Places. This would require continued discussions with San Juan County and other landowners to take into account the fragile and unique nature of this heritage tourism site and develop any special management measures. The optimum plan would adequately protect the town's national significance while improving the visitor experience.

Suitable places for undeveloped camping have been developed over time throughout the Project Area and are currently meeting demand. The established access routes to these dispersed campsites would be designated as open to allow vehicle based dispersed camping and managed to reduce impacts from parking and camping activities. The establishment of new user created vehicle routes to access dispersed camping sites would not be allowed. See Section 3.2.1, Travel Management Network, of the RAMP for additional guidance on dispersed camping with vehicles.

Rock Climbing – Rock climbing is not an activity that BLM would actively promote.

Climbing areas that are discovered to have active cliff nesting birds would be temporarily closed to climbing within 100 yards on either side of the nest, until the birds have left the nest for the season.

Undesignated trails leading to climbing areas would be evaluated following the objectives and management actions prescribed under RAMP Section 3.2.1, under Transportation Maintenance, Management, and Monitoring and under Adding and Removing Roads and Trails in the Future.

Horseback Riding and Pack Animals – The BLM would continue to work in partnership with both horseback riders and other pack animal users to ensure these activities are practiced in a sustainable fashion, with minimal impact to cultural and natural resources.

If concentrated stock use off designated roads and trails creates undesignated trails, objectives and management actions addressing this situation under Section 3.2.1 of the RAMP under Maintenance, Management, and Monitoring of the Transportation System and under Adding and Removing Roads and Trails in the Future would be followed.

At trailheads receiving regular stock use (e.g., Independence Gulch, Williams Creek) to the BLM would consider establishing hitching racks, adequate parking for vehicles with horse trailers or other horse related accommodations.

Geocaching – Geocaching would be added to the list of recreation activities that are managed under the RAMP. BLM would manage geocaching to reduce the potential for resource impacts from surface disturbance, social trailing, and other associated activities.

Artificial cache materials established in Wilderness or WSAs would be removed.

The location of existing caches on public land would be periodically reviewed to identify those that may be steering increased use to sensitive areas or encouraging trespass on private lands. The BLM would work with individuals establishing caches to suggest alternate locations that are less problematic. The BLM may consider identifying existing cache locations that are in appropriate places and provide information on those caches to visitors to provide an additional activity for them to enjoy in this area. Inappropriate caches that could not be resolved would be removed.

If there are potential cache locations that could be interesting to the public, the BLM would consider establishing those caches as a way of educating geocachers about this area, and to model acceptable behavior for others.

Mountain Biking – Guidelines for managing mountain biking activities are discussed in Section 2.1 Travel Management Access of the RAMP. As discussed under that section, mountain bikes would be added to the list of vehicles that must stay on designated roads and trails appropriate for that use. Mountain bikes would not be allowed to travel cross-country.

Specific Management for Recreation Management Spring/Summer/Fall- RMZ 3 Animas and Lake Fork Rivers

Whitewater Boating – The BLM would look for an opportunity to identify and secure a legal put-in for boaters in or near Lake City that includes parking and reasonable access to the river.

Boater access to the river at or near the Red Bridge Campground would also be improved by improving the current site or developing a new put-in facility upstream of the campground.

The BLM would construct a put-in for boaters and kayakers along the Animas River. This access point to the river would be located in close proximity to the railroad, and would use natural or constructed barriers to formally delineate the parking area, along with appropriate signage.

The BLM would conduct periodic patrols during the early boating season to determine if there are obstructions on private land that might lead to trespass if boaters portage around these obstacles. Gather information from boaters that have traversed the river sections for updates on current conditions. Information gathered about obstructions or hazards would be posted at the pertinent put-in points to alert visitors of possible problems.

The BLM would also work cooperatively with the Colorado River Outfitters Association (CROA) to educate boaters and/or improve the river and riparian corridors under the existing Memorandum of Understanding (MOU) that BLM has signed with them.

2.3.7 Recreation Management Winter Use

Snowmobiling – Opportunities would be provided for snowmobiling on both groomed and ungroomed routes outside of Wilderness and WSAs that are reasonably safe and minimize impacts on other resources.

Developed Downhill Skiing, Snowboarding, Cross-country Skiing, and Snowshoeing – Existing opportunities for downhill skiing and snowboarding opportunities would be managed according to existing operating plans. Those plans would be updated as necessary to adapt to changing circumstances. Proposals for new developments would be evaluated based on their consistency with the management goals for the unit, the necessity of the development and the impact they would cause to the area's resources.

Opportunities for cross-country skiing and snowshoeing would be identified in areas that are appropriate for that use and communicated to the public to help them find the best place for the experience they are looking for.

Proposals for grooming routes for cross country skiing and snowshoeing would be considered in the future but an environmental analysis must occur that evaluates the potential for impacts to other resources such as Canada lynx.

Ice Climbing – Ice climbing opportunities would be identified in appropriate places and managed in a way that reduces resource impacts and encourages safe and enjoyable experiences. Natural ice climbing areas would be evaluated to determine their suitability for regular use by climbers. Factors such as legal access, resource impacts, and safety would be considered. If appropriate, the BLM would consider marking the best access routes to these areas to avoid trespass or inappropriate resource impacts. These opportunities would be communicated to the public to help them find the best place for the experience they are looking for.

Specific Management for Recreation Management Winter Use in RMZ- 2 Heritage Roads – The BLM would work in partnership with Hinsdale County to formally develop man-made ice climbing opportunities outside the town of Lake City on the south side of Henson Creek canyon as far up as the Henson Creek ATV Staging Area (~0.5 mile). Within this area, multiple ice-climbing routes could be created. Small trails, mostly on snow could be allowed to access these routes. Parking for this use would be primarily along the County Road. The development of specific areas for parking would only be considered when the capacity of roadside parking is regularly exceeded. Informational signs may be placed to let climbers know what opportunities are available and to encourage safe and responsible use of the area. A restroom would be considered to serve the ice-climbing area if the level of use starts to create sanitation problems. Ice climbing would be allowed under the terms of a letter of agreement as long as no fees are charged. Insurance coverage that names the BLM as additionally insured must be in force before the area can be used each year. If fees were charged in the future then commercial guiding and climbing activities would be authorized under a Special Recreation Use Permit.

The BLM is aware of recognized and published natural ice-climbing in the area north of Silverton near Eureka. A parking area is provided by San Juan County to accommodate up to twelve vehicles. A temporary restroom may be installed during the winter season (i.e., December through February).

2.3.8 Recreation Management Resource Protection

Threatened, Endangered and Sensitive Species – The BLM would comply with Canada lynx conservation measures outlined by USFWS that are applicable to management of recreation activities. These measures are "intended to conserve the lynx, and to reduce or eliminate adverse effects from the spectrum of management activities on federal land" (Ruediger et al 2000). In particular, proposals for new winter activities have the greatest potential to impact lynx.

Wilderness and WSAs –At present, all Wilderness and WSAs are located within RMZ1.

The maximum group size for outfitted activities in Wilderness or WSAs would be 25 heartbeats. A heartbeat includes clients, guides and any animal within the group (e.g., horses, llamas or dogs).

Visual Resources – The BLM would open a dialogue with local land owners, municipalities and other willing partners regarding the importance of maintaining or improving the quality of scenic resources and the best management practices for protecting the scenic qualities of the natural and cultural landscape.

A visual resource inventory of the Alpine Triangle would be undertaken to assess current visual resource conditions, to identify valued cultural components and landscapes, and to identify areas for enhancement and restoration.

Other Resources – The BLM would work with livestock operators to recommend that areas of intensive activity associated with permitted sheep camps, salt licks, and bedding areas be located a minimum of 100 feet from noteworthy historical structures and require livestock operators to educate their employees on the laws protecting cultural resources, which includes prohibiting the use of wood from historic structures as firewood.

Specific Management for Recreation Management Resource Protection RMZ- 1 Alpine Backcountry –In order to protect potential habitat for the Uncompahgre fritillary butterfly no ground disturbing activities, associated with recreation management, would be allowed in snow willow patches above 12,500 ft. in elevation.

2.3.9 Recreation Management Facilities, Signs, Interpretation and Education

Specific Management for Recreation Facilities, Signs, Interpretation and Education- RMZ 1 Alpine Backcountry
Limited signs would be allowed for resource protection or public safety. Small directional signs may be needed, but these would be kept to an absolute minimum and would be uncommon.

Sign would be installed along Silver Creek Trail, where it descends from Redcloud Peak, educating visitors to stay on the trail to avoid endangered species habitat located in the area.

Trails would be periodically maintained to provide access for recreation but no additional water, restrooms, or other visitor amenities or facilities would be provided unless they are necessary to protect resource values.

Specific Management for Recreation Facilities, Signs, Interpretation and Education- RMZ- 2 Heritage Roads-
A designated camping area would be developed at Cunningham Gulch. This camping area would include up to 10 designated camping areas that could accommodate 2-3 vehicles. One larger area would be designated for group camping that accommodates 8-10 vehicles. A universal access vault restroom and picnic tables would be provided at these sites. Most of these sites would be located in areas already used for camping. Natural barriers would be used to formally delineate the parking areas, along with appropriate signage. Parking areas would not be paved.

A similar designated camping area may be pursued by San Juan County in close proximity to the townsite of Eureka. This facility would potentially be developed by San Juan County on San Juan County lands with possible collaboration from BLM.

The BLM would examine the necessity of installing a universal access vault restroom near the entrance to American Basin. Until a restroom is installed at this location or it is determined not to be feasible, a sign would be placed at the existing restroom in Burrows Park informing visitors that it is the last restroom before reaching American Basin.

2.3.10 Recreation Administration

Outfitters and Special Events – Special events such as jeep jamborees that organize group tours in the area would be limited to group sizes of no more than ten vehicles in a group and spaced out one hour apart to avoid crowding in high use areas.

No SRPs would be granted for air tours over the Project Area, except for heli-skiing in the winter from December 1 to April 30.

Within the Redcloud Peak ACEC, camping above 12,000 feet would not be authorized for commercial outfitters and discouraged by the general public to avoid danger from lightning on the exposed tundra, and to avoid potential impacts to endangered species habitat.

The BLM would avoid increasing the number of social encounters on popular trails to the Fourteeners by limiting the amount of additional commercial use authorized on these trails. The current use by the general public and existing outfitters on these trails has reached the upper threshold for maintaining the desired social settings managed for in these areas.

Competitive Events – Competitive race events using motorized vehicles would not be authorized anywhere in the Project Area.

Organizers of competitive events would be encouraged to schedule them during shoulder seasons (i.e., June and mid-August through September) to reduce crowding during the peak use season (i.e., July to mid-August), and to bolster business for the local communities during slow times of the year.

Specific Management for Recreation Administration- RMZ 1 Alpine Backcountry – Campfires would not be allowed above 12,000 feet in the alpine tundra within the Redcloud Peak ACEC.

Specific Management for Recreation Administration- RMZ 2 Heritage Roads – Campfires would be allowed within this zone. Visitors would be encouraged to camp in existing campsites and use existing fire rings, fuel stoves, or fire pans as practical Camping/campfires would not be authorized within 150 feet of historic resources.

Specific Management for Recreation Administration- RMZ 3 Animas/Lake Fork River Corridor – Campfires would be allowed within this zone. Visitors would be encouraged to camp in existing campsites and use existing fire rings, fuel stoves, or fire pans as practical. Camping/campfires would not be authorized within 150 feet of historic resources.

2.3.11 Recreation Information, Education and Marketing

For the purposes of this plan, recreation marketing is defined as communication with the potential recreationist to match recreation opportunities and setting character conditions with the recreationists preference for activities, outcomes and areas that are consistent and appropriate as defined in the RAMP management goals. Marketing is used as a tool to guide prospective visitors to the areas that are managed to provide the experience and benefit opportunities that they seek. Currently, the BLM works with its partners to promote the Project Area through the dissemination of information, maps, and educational materials. The BLM would continue to work with its partners in developing the vision and role of marketing for the Project Area. Under the Proposed Action, the BLM does not anticipate a heavy emphasis for aggressive promotion campaigns; however, the BLM may participate with its partners to attract new target audiences or redirect visitor use in ways that are in agreement with RAMP goals.

Scope – Information and marketing materials should typically focus on the entire Project Area (e.g., *Alpine Explorer*); however, in some cases RMZ-specific information materials that highlight particular opportunities in an RMZ may be offered.

Audiences – Information and marketing materials should be suitable for the wide spectrum of recreationists (i.e., novice to expert) that frequent the area. Visitor demographics would be monitored to determine if information and marketing materials should be revised to reach new users (e.g., providing materials in languages other than English).

Media –A variety of media would be used to distribute messages including maps, brochures, signs, interpretive center displays, phone, fax, email, interpersonal communication, audio, video, and web based information. The BLM would consider such factors as effectiveness, usability, durability and affordability when determining which media should be used. The BLM would ensure funding is available to sustain the production and distribution of media by selling items (e.g., maps, brochures) to visitors, developing partnerships, seeking grants, etc.

General Messages – Convey the following "general messages" through a variety of media:

Information – Help visitors understand what recreation opportunities are available and where to find those opportunities. Include suggestions for best time of day and year to do them, and how to do them safely.

Rules and Regulations – Inform visitors of the guidelines they must follow while recreating, and, if possible, explain why a rule or regulation is necessary to encourage better compliance.

Education and Interpretation – Teach visitors about natural and cultural history to improve their experience, and create a better understanding and appreciation of the area. Craft this message with the goal of providing the general public with the information they need to become better stewards of their public lands.

Promotion and Advertising – Attract visitors interested in the types of activities, experiences and benefits provided for in the three RMZs, and that would support maintaining or achieving prescribed recreation settings. Levels of visitation during the peak use season (July to mid-August) are high enough to not place a high priority on attracting more visitors during this time. If additional visitors are desired, then promotion efforts should be focused on shoulder seasons in June and mid August through September. Adding visitors during these seasons would offer better experiences for visitors and help broaden the business season for business owners in surrounding communities. As facilities are also underutilized during the winter season the BLM will cooperate with local businesses to attract more visitors during this time of year if it can be done without negatively impacting resources.

Specific Messages— Convey the following activity-specific messages through a variety of media:

Mountain Biking - Promotional efforts should consider the possibility of promoting opportunities for mountain biking tours on the Alpine Loop during the fall shoulder season (September).

Camping - Visitor information materials would be produced to inform the public about opportunities for camping in both developed and undeveloped sites, along with information about the principles of Leave No Trace camping.

Rock Climbing - Information for climbers may be provided in appropriate locations, especially at climbing sites, and should focus on safety, reducing impacts to resources, and avoiding trespassing on adjacent private land.

Geocaching - Information on geocaching should strongly encourage people establishing caches on public lands to use natural or historical features rather than leaving manmade articles.

Horse Use - Visitor information distributed for the Project Area should include appropriate opportunities for recreation stock use. It would also include messages about low impact techniques to reduce the resource damage that can come from this activity.

Ice Climbing - Once acceptable ice climbing opportunities have been identified, consider working with the Chambers of Commerce to include these sites on visitor information materials. If sites have unresolved concerns they should not be included in these information materials.

Noise - Visitor information and education materials would include guidelines to encourage recreationists to reduce the level and extent of noise generated impacts on wildlife, other recreationists, and local residents from their activities.

The BLM would develop a brochure similar to the Summer ATV piece for winter visitors to cover both motorized (e.g., snowmobiles), and non-motorized (e.g. skiing, snowshoeing) activities. This brochure would include messages on recreation opportunities, winter safety and minimizing impacts to wildlife. The BLM would consider developing separate brochures for Lake City and Silverton to highlight winter recreation opportunities in close proximity to these towns.

A single website would be developed for the Project Area including information contained in the existing publications and brochures discussed above, as well as any additional information that needs to be distributed to visitors in a timely manner to ensure their safety and protection of natural and cultural resources. The BLM would work closely with community partners to develop this website, and provide links to it from their individual websites, if appropriate. This website would include information for visitors planning to visit and/or learn more about the cultural and natural resources in the area.

The BLM would continue to work with local clubs, Chambers of Commerce, the U.S. Forest Service and others to promote winter recreation activities (e.g., snowmobiling, skiing, snowshoeing, ice climbing) as a means of drawing additional business to local communities during the slow winter season.

2.3.12 Recreation Monitoring

The BLM would implement the monitoring described below as part of the RMZ-specific management. One measurement used to determine if BLM and its partners are successful in providing these experiences and benefits is that by the year 2013 the mean (average) response in a survey of visitors would result in at least a "moderate" (i.e., 3.0 on a probability scale where 1= not at all, 2= somewhat, 3= moderate, 4= complete/total) attainment of the experiences and benefits listed below. In addition, conduct monitoring of physical, social and administrative conditions to ensure that the settings described below are being managed for. Monitoring of physical, social and administrative conditions would be carried out as staff and funding allow. Priorities would be placed on resources or situations that pose the greatest threat to critical resources and values in the area. These could include monitoring to capture the amount of disturbed areas at undeveloped campsites and determine impacts at historical sites with the help of site stewards. Monitoring could also include determining potential impacts to threatened and endangered species, detecting infestations of noxious weeds and ensuring that Wilderness and WSAs remain in a natural condition, and monitoring water quality near heavily used recreation sites.

2.3.13 Recreation Collaboration

The Proposed Action identifies goals, objectives and prioritized actions for furthering the collaborative management of recreation resources in the Project Area. Over the years, the BLM has formed successful relationships with local communities to develop a shared vision for recreation and heritage resource management in the Project Area. This collaborative approach has grown over time, in proportion to the demand for recreation in the Project Area. Recognizing the importance of this approach, a driving force behind Alternative B would be to determine and pursue ways to sustain and further develop these partnerships.

Public lands are used by and provide benefits for a variety of individuals, groups and entities. Under the Proposed Action, the BLM would continue to seek input and foster cooperation with varied constituencies to achieve the best management for public lands. Many organizations recognize the benefits related to public lands and work with the BLM to maintain or improve those opportunities. This cooperation would assist the BLM to execute a collaborative vision for public land management and would contribute labor, funding, equipment, and materials toward mutually beneficial projects.

Over the years, the BLM has worked in partnership with several entities including local towns and counties, their chambers of commerce, historical societies, commercial outfitters, and the Colorado State Scenic and Historic Byways Committee. Furthermore, a variety of non-profit or recreation advocacy groups have been active partners including the Colorado Fourteeners Initiative, San Juan Mountain Association, Alpine Triangle Recreation Task Force, Western Colorado Interpretive Association, Colorado State OHV Fund, State Snowmobile Fund, Colorado Mountain Club, Colorado Trail Foundation, Outward Bound, the Hardrock 100 racers, Mountain Studies Institute, and the Ghost Town Club.

Under the Proposed Action, the BLM would maintain and improve these efforts to collaborate and work closely with its partners at a variety of levels. Specific opportunities to enhance collaboration between the BLM, local communities, and other agencies are highlighted throughout the Proposed Action in each resource section and will not be repeated in detail. Examples of BLM efforts include the actions to work with communities to identify trail networks, resolve complex land ownership issues and continue R&PP leases. Additionally, the Proposed Action

includes efforts to work with outfitters and guides, to provide climbing areas and winter activities and to provide opportunities and other concentrated use areas for recreationists.

2.4 Alternatives Considered but Not Analyzed in Detail

The CEQ regulations (40 CFR 1502.1) require BLM to consider reasonable alternatives, which would avoid or minimize adverse impacts or enhance the quality of the human environment, based on the nature of the proposal and facts in the case (CEQ 40 Most Asked Questions 1b.). While there are many possible management prescriptions or actions, the BLM used the scoping process to determine a reasonable range of alternatives that best addressed the issues, concerns, and alternatives identified by the public. Public participation was essential in this process and consideration was given to all potential alternatives identified.

Because this is an agency sponsored proposal, all mitigation is incorporated into the proposed action. No additional conditions of approval or mitigation are necessary to resolve relevant issues, and development of other detailed alternatives was not necessary.

The BLM determined that the alternatives presented are adequate to address the issues brought forward through scoping. Other minor changes to the alternatives (i.e., adding or deleting a specific route) would not change the analysis to the degree that a new alternative needs to be considered. Adding or deleting a route is an implementation level decision and can be completed later if it becomes necessary based on monitoring. The BLM developed the alternatives and management actions to address current conditions and needs to meet FLPMA's multiple-use mandate.

During the scoping process, several alternatives were suggested that included a spectrum of management actions for the Project Area. Largely these suggestions represented part of an alternative or management response rather than a complete alternative. Based upon these suggestions, additional alternatives were initially developed and considered through the alternative process that ranged from maximum recreation potential/minimal resource protection to minimal recreation potential/maximum resource protection. These alternatives identified opportunities to address the full spectrum of public issues raised through the scoping process. The following alternatives were considered and then eliminated from detailed study for a variety of reasons.

Maximum Recreation Potential/Minimal Resource Protection – An alternative was considered that emphasized and enhanced present recreation experiences through increased levels of visitation, increased access for a variety of recreation users, and improved and increased facilities for motorized and non-motorized recreation, interpretation, and camping. This alternative was in response to public comments that requested more opportunities for recreation over other resource values. This alternative would have added more routes to the transportation system as open to motorized use. This alternative was not fully developed because of funding restraints for further development of recreation facilities, resource requirements established by federal law or BLM policy, and the requirement to balance multiple uses within the Project Area. Preliminary analysis indicated that some of the planning issues raised could not be adequately addressed and some minimum required levels of resource management would not be met solely by changing the emphasis to maximum recreation use and development.

Maximum Resource Protection/Minimum Recreation Potential – This alternative would have emphasized resource protection and generally reduced or minimized the potential for recreation activities to expand in the Project Area. As such, protections for wildlife habitat, wilderness designation, cultural resources, and aquatic resources would have restricted visitor use and enjoyment through excluding activities, restricting visitor days, and limiting access to areas where these resources exist. Under this alternative potential mitigation in popular areas, such as American Basin and the Fourteeners, would have considered the following: vehicles in this area would be limited, daily visitation numbers would be capped, and permitting systems may be introduced. This alternative was not brought forward because the elevated degree of management, use controls, and law enforcement required under this alternative did not appear to be feasible due to funding restrictions and size of the project area, and secondly, was not desired by the public or local communities that are dependent upon the Alpine Loop as an economic resource for recreation and heritage tourism.

Motorized Recreation Alternative – Several of the comments presented through the scoping process presented routes to be included within an alternative that either expanded or restricted motorized access within the Project Area. This alternative would open, close, or designate additional routes within the transportation network. Motorized vehicle recreation is restricted to designated routes under the Gunnison and San Juan RMPs, and prohibited in WSAs and Wilderness areas (approximately 1/3rd of the Project Area). Each of the routes proposed was evaluated for inclusion within an alternative based upon suitability, legal ROW, access, and maintenance potential. As a result, the alternative was not fully analyzed, but several of the proposed routes were evaluated and incorporated as appropriate into the Preferred Alternative. The following documents the routes that were determined to not be viable and the rationale behind their elimination for inclusion.

Commenters suggested BLM designate 1.9 or 2.5 miles of the Snare Basin Road as open to seasonal use by motorized vehicle, ATV, motorcycle, snowmobile, foot, horse and bicycle use. This is an existing road, in poor condition, which is currently closed. This alternative was deemed unviable for designation as open for motorized and mechanized use by the BLM due to the lack of funds to improve and maintain the road to acceptable standards. There were also significant concerns that vehicles would push beyond the end of the road and illegally drive in the Handies Peak WSA.

It was suggested that the BLM designate 2.3 miles of hiking trail in Boulder Gulch connecting the Cottonwood Creek Road with Handies Peak. A portion of this route is visible on the ground, but it is not a designated trail and currently receives no maintenance. A new trail would have to be constructed or marked above treeline to tie the existing portion up to Handies Peak. This trail proposal was analyzed and evaluated by the BLM and determined to be unnecessary. It was determined that there were already two system trails that led to the top of Handies Peak providing adequate access, the access road to the trailhead was rough and there was very little space available for parking at the trailhead.

Another comment during scoping suggested that the BLM open a segment of road leading south from the top of Roundtop Mountain near Lake City. This road would lead to a concentration of private land with a road leading down to connect with County Road 30. This proposal was not carried forward because there is no public access easement across the various parcels of private land and vehicles using that area were pushing illegally into the Redcloud Peak WSA.

Alternatives Beyond the Scope of this Plan – Several comments suggested management actions that were beyond the scope and decision of this plan or beyond the authority of the BLM or BLM recreation staff to regulate including designation of the area as a National Conservation Area, management and licensing of ATVs, and water quality issues from mine related activities. These management actions are discussed below.

One alternative presented during scoping suggested that the Project Area should be designated as a National Conservation Area (NCA) for Mining Heritage to recognize the unique values of the area, recognize the unique heritage of the area, and provide more funding for area management. Designation as an NCA is a process initiated by Congress and beyond the scope and authority of the BLM through this recreation planning process. Should Congress decide to initiate this designation, a separate NEPA process would be conducted at that time to address this action and evaluate its benefits and impacts. Trout Unlimited (TU) is currently spearheading an effort to designate the Alpine Triangle as an NCA. The BLM initiated the planning process for this EA and RAMP in 2006 and the TU effort was initiated in 2009. This EA and RAMP have no connection to the Trout Unlimited campaign effort.

Other comments suggested actions for the management of ATV use that are managed by other agencies or under the authority of other government bodies. ATV access to and use within Silverton and Lake City was requested by a few commenters. By local municipal and county law, ATV use is restricted in the towns of Silverton and Lake City and several access roads into those communities for public safety; the ability to designate these access points as open to ATV use is beyond BLM jurisdiction. Additionally, it was suggested that the BLM should require licensing and identification for ATVs such that they can be identified at a distance for management purposes. Colorado State law requires that all ATVs and OHVs be registered with the state. The state vehicle registration program is beyond the jurisdiction of the BLM.

Another alternative that was suggested would include efforts in this planning process to amend water quality issues regarding mining related impairments and that the BLM continue to work with the Animas River Stakeholders Group to meet these means. The BLM is actively working with the Animas River Stakeholders Group to address these concerns through its Abandoned Mine Lands program. BLM recreation staff will continue to contribute to water quality improvement due to sedimentation or sanitary concerns related to recreation; however further action towards mining related impairment is beyond the authority of the recreation staff.

2.5 Summary of Impacts

Table 2.10 provides a comparative summary of the environmental impacts associated with each alternative. BLM evaluated the environmental impacts that would result from the implementation of the various management actions proposed under each alternative described above. Resources not addressed in Table 2.10 are those for which there are no anticipated impacts.

Impacts are defined as modifications to the existing environment brought about by implementing an alternative. Impacts can be beneficial or adverse, result directly or indirectly from the action, and can be long term, short term, and/or cumulative in effect. Direct impacts are caused by a particular action, and occur at the same time and place. Indirect impacts are caused by a particular action, and while still reasonably foreseeable, occur later in time or geographically removed from the site of the action. Cumulative impacts are those impacts to the environment that result from the incremental impact of a particular action when added to other past, present or reasonably foreseeable actions, regardless of the nature or generator of those other actions.

Table 2.10 Summary of Impacts to Resources Under Each Alternative

Resource or Issue	Alternative A: No Action	Alternative B: Proposed Action
Areas of Critical Environmental Concern	**Low Impacts:** Current management directives would continue from ACEC and WSA designation. Redcloud Peak hiking trail would be managed to reduce off-trail travel in snow willow habitat. Outfitters would be required to camp below 12,000 feet in Silver Creek drainage. American Basin would be managed to protect visual resources and scenery in the basin. Slumgullion ACEC would be managed to protect geologic features. **Moderate Impacts:** None.	**Low Impacts:** All actions associated with MCA, and: Proactive measures would discourage off trail travel in the Redcloud ACEC. Parking and trail improvements in the American Basin ACEC would reduce damage to vegetation and soils from unconsolidated parking and off-trail use. **Moderate Impacts:** None.
Cultural Resources	**Low Impacts:** Current management directives will continue: Camping would be prohibited within 150 feet of cultural resources. Erosion control measures would be implemented as a management directive. Unauthorized roads or social trails leading to threatened sites would be closed. Resources would be monitored. Monitors (Site Stewards) would directly interact	**Low Impacts:** All actions associated with Alternative A, and: Increasing marketing efforts would redistribute visitation from the peak summer months into the early June and mid-August to September as shoulder seasons. Permitted sheep camps, salt licks, and bedding areas would be recommended to be located a

Resource or Issue	Alternative A: No Action	Alternative B: Proposed Action
	with visitors. **Moderate Impacts:** Management and budget prioritizations for heritage resource projects would be programmed to lead to stabilization and other restorative measures for priority resources.	minimum of 100 feet from cultural resources. Livestock operators and commercial outfitters would be educated to avoid impacting historic resources. Campfires would be prohibited within 150 feet of historic resources. **Moderate Impacts:** Appropriate repairs from damage from public use and natural causes would be made where feasible or necessary to resolve or maintain safety. Recreation Management Zones (RMZs) would be created to define the areas where Heritage Tourism is a recreation opportunity and the benefits of that opportunity. Benefits based management would be implemented to better manage for protection of cultural resources.
Recreation	**Low Impacts:** Specific management directed at new activities such as rock climbing, mountain biking, ice climbing, and geocaching would not be taken. Inadvertent localized crowding, increased motorized use, and increased conflict with other users would continue to occur. Negative impacts from private property trespass and encounters with high numbers of visitors during peak seasons would continue to occur. **Moderate Impacts:** Negative impacts to natural settings would continue to occur as the available facilities for parking and trailheads would remain the same. Travel network would not be expanded to recognize additional routes beyond the current system. Additional resources associated with interpretation, facilities, and signs, would be not be pursued. During winter months, provisions for developed	**Low Impacts:** Additional commercial use and SRPs would be restricted during the peak season and redirected to shoulder seasons. Mountain bikes would be added to the list of vehicles allowed on designated routes. **Moderate Impacts:** 16.4 miles of designated trails would be added to the system. Improvements to dispersed camping areas, trailheads, and parking areas. Developed ice-climbing opportunities and boater access points would be created. During winter months, illegal motorized recreation within the

Resource or Issue	Alternative A: No Action	Alternative B: Proposed Action
	winter recreation sites would not be pursued. Management of outfitters and special events would continue and both would be allowed to increase their user numbers in all seasons. Specific direction or identify priorities to solicit, form, and lead collaborations and partnerships with other agencies and entities would not be provided. Illegal motorized recreation into Wilderness areas would continue to occur during winter months	Wilderness areas would be reduced. Recreation Management Zones (RMZs) would be created. Benefits based management would be implemented to better manage the project area for user satisfaction.
Socioeconomics	No impacts to socioeconomics are expected from the No Action Alternative.	**Low Impacts:** Marketing would spread tourism revenue across shoulder seasons. No competitive motorized events Group size limited to 10 vehicles and spaced an hour apart.
Transportation and Access	**Low Impacts:** Direct impacts to the environment from travel management would result from environmental degradation as unauthorized utilization of non-designated travel routes would continue under Alternative A. **Moderate Impacts:** Social trailing, off-trail mountain biking and other mechanized cross-country travel would likely increase with increased utilization levels.	**Low Impacts:** Mountain bikes would be added to the list of vehicles allowed on designated routes. **Moderate impacts:** Addition of 16.4 miles of designated trails. Recommendation of 15 miles of road added to the Scenic Byway.
Vegetation Special-status Species, and Threatened and Endangered Species	**Low Impacts:** Trampling, uprooting, and removal of low-lying vegetation from new and expanding areas created by users, as well as damage to or removal of trees and shrubs. Invasive and noxious weeds may also be spread to new areas from transport by hikers, horses, mountain bikes, and off-highway vehicles (OHVs). **Moderate Impacts:** None.	**Low Impacts:** Decrease in trampling, and uprooting of vegetation, increased invasive and noxious weed transportation, and depressed height and vigor of individual plants from designation of travel network. **Moderate Impacts:** Clearing vegetation for boat access would directly impact riparian habitat. Existing trails and campgrounds would be formally designated. Camping and fires would be discouraged/prohibited above 12,000 feet in Redcloud ACEC.

Resource or Issue	Alternative A: No Action	Alternative B: Proposed Action
Visual Resources	**Low Impacts:** Alpine Triangle would continue to be managed for VRM Class II. Existing visitor use would continue minimal to moderate visual contrast in over used areas. Dispersed camping would continue to be unlimited and impacts due to campfires, parking, and disturbed vegetation would create long-term negative impacts. Camping near historic structures would continue to be allowed. Crowding, over use, and overflow parking off roads and parking areas would continue.	**Low Impacts:** RMZs would be created to alleviate affects on visual resources. Benefits based management would be implemented to better manage the project area for user satisfaction in keeping with VRM management.
Wilderness and Wilderness Study Areas (WSAs)	Wilderness and WSAs would continue to be managed for wilderness characteristics. Wilderness and WSAs would continue to be managed as "closed" to motorized and mechanized use in all seasons.	All Wilderness and WSAs would be managed within Alpine Backcountry RMZ for undisturbed natural settings. Backcountry patrols would be increased to provide protection and monitoring of wilderness values in all seasons.
Wildlife Special-status Species, and Threatened and Endangered Species	**Low Impacts:** User-defined areas such as non-designated trails, campsites, and parking areas are unpredictable and variable, thereby preventing wildlife from adapting to human disturbance and creating the potential for greater impacts to wildlife.	**Low Impacts:** Direct impacts to wildlife would result from new and existing designated trails, parking lot expansion, new facility development, and development of an ATV staging area

3.0 DESCRIPTION OF AFFECTED ENVIRONMENT

This chapter describes the environment that would be affected by implementing the alternatives described in Chapter 2.0. For the purposes of providing baseline data for the affected environment and identifying potential impacts (see Chapter 4.0, Environmental Consequences), a project area for each resource was delineated, as appropriate.

Aspects of the affected environment described in this chapter focus on the relevant major resources or issues/concerns. NEPA requires that the discussion of issues and concerns are commensurate with the potential impacts: "1500.4 (c) Impacts shall be discussed in proportion to their significance." Other CEQ regulations make it clear that discussion of all resources is not necessary; only those that are significant: "1501.7 (3) Identify and eliminate from detailed study the issues which are not significant or which have been covered by prior environmental review (Sec. 1506.3), narrowing the discussion of these issues in the statement to a brief presentation of why they will not have a significant effect."

Based on CEQ guidance the following discussion will be limited to those resources that could be impacted to a degree that detailed analysis is warranted. Certain elements of the human environment required by statute, regulation, or executive order to be examined in all EAs are also addressed.

3.1 General Setting

The Project Area is west of the continental divide in the Southern Rocky Mountain Physiographic Province. Redcloud, Sunshine, and Handies Peaks are all over 14,000 feet elevation and form the central core of the project area. The area is generally characterized by a mountainous continental climate which includes dry air, sunny days, and clear nights, low to moderate precipitation with high evaporation, and extreme daily temperatures.

The Alpine Loop is situated in the San Juan Mountains of southwestern Colorado and is located between the towns of Silverton, Lake City, and Ouray primarily within the San Juan and Hinsdale Counties with a small portion in Ouray County. Access from the west is gained from U.S. Highway 550 utilizing a rugged 4WD road over Engineer Pass from Ouray and through Silverton on San Juan County Road 2 towards the historic town sites of Howardsville and Eureka. From the east, the Project Area is accessed via U.S. Highway 149 through Lake City then driving south along the Lake Fork of the Gunnison through the historic town sites of White Cross, Tellurium, Argentum and Sherman and utilizes a rugged 4WD route over Cinnamon Pass. Some travelers may access the area up the Henson Creek Drainage through the ghost towns of Capitol City and Henson and then drive over Engineer Pass. Many of the rugged roads and trails are above 11,000 feet elevation.

The Project Area had extensive historical mining and produced gold, silver, copper, lead, zinc, and tungsten which can occur in veins associated with the Silverton caldera, chimneys, breccia pipes, or as disseminated and replacement deposits. Placer gold mining still occurs infrequently along the rivers and creeks.

3.2 Resources Eliminated from Detailed Analysis

Resources not present in the project area and subsequently not brought forward for analysis include farmlands (prime or unique), identified Native American religious concerns, paleontology, and wild horses and burros. Other resources that are found in the project area, but not brought forward for detailed analysis because the management actions in this plan will have no measurable effect on them. These are listed below along with supporting rationale and include: air quality, climate, environmental justice, hazardous wastes, lands and realty, livestock grazing, mineral resources, noise, soils, water quality (surface and ground), wetlands and wild and scenic rivers

3.2.1 Air Quality

The generation of air pollutants and greenhouse gas emissions from a variety of sources can affect air quality in general. Although many documented impacts to general air quality are associated with external sources (those outside public land boundaries and jurisdiction), some public land activities have the potential to impact air quality.

These activities include but are not limited to developed recreation and use of travel-ways, oil and gas development, solid minerals development, and fires, both prescribed and wild.

The federal government established the National Ambient Air Quality Standards (NAAQS) under the federal Clean Air Act (CAA) and its amendments for six criteria pollutants: 1) carbon monoxide (CO), 2) ozone (O3), 3) sulfur dioxide (SO2), 4) nitrogen dioxide (NO2), 5) lead (Pb), and 6) particulate matter (PM10 and PM2.5). Although the Environmental Protection Agency (EPA) retains oversight authority, the federal government has delegated enforcement of the CAA to the states. In Colorado, the Air Pollution Control Division of the Department of Public Health and Environment acts as the lead agency. The state is required to develop and administer air pollution prevention and control programs; state standards must be either the same as or more stringent than federal CAA standards. The Prevention of Significant Deterioration (PSD) program was established to protect Class I and Class II attainment areas from all major sources that could potentially exceed the NAAQS and established allowable concentration increases. The program provides for special emphasis on implementation of best available control technology, protection of scenic areas such as national parks and Wilderness areas, and informed public participation. The Class I designation (i.e., national parks, national monuments, and federally-designated wilderness areas in excess of 5,000 acres and created prior to 1977) warrants the highest level of protection afforded to an area. The Class II designation typically applies to all non-Class I areas.

According to the Colorado Air Quality Control Commission Report to the Public, 2007-8, (Colorado Department of Public Health and Environment [CDPHE] 2008a) the PPA is located within the Western Slope Region (Western Slope) for air quality planning. The air quality of the planning area is similar to other undeveloped regions in the western United States; ambient pollutant levels are usually low with some higher concentrations near population centers (i.e., inversions during the winter) and near dirt and gravel roads during the travel season. The Project Area is designated as PSD Class I and II.

Although specific air quality monitoring data are not available for the project area, data have been recorded in the vicinity. A USFS visibility monitoring site is located in the Weminuche Wilderness near Durango Mountain Resort, approximately 8.3 miles from the project area. Additional air quality monitoring stations in the area include one at Molas Pass and in the cities of Telluride, Delta, and Grand Junction. The Grand Junction Shelter monitoring station monitors for PM10 and CO. These data are considered to be the best available representation of background air pollutant concentrations near the project area and include impacts from existing sources both inside and outside the project area. Monitoring data at the Grand Junction station indicates that the area is in attainment, meaning that the ambient concentrations of criteria pollutants are less than the applicable air quality standards (NAAQS and CAAQS). An area is considered to be in attainment of when the 3-year average of the annual 4th highest daily maximum 8-hour ozone concentration at a site is less than or equal to 0.075 parts per million (CDPHE 2008b).

Forest fires, wild or prescribed, regardless of ignition source, have the potential to affect general air quality in the Project Area. Air quality effects from fire include emissions of CO, PM2.5 including soot and ash, polynuclear aromatic hydrocarbons - a class of organic compounds found on the particulate matter from burning wood and wood products, and the irritants of aldehydes and volatile organic compounds. While prescribed fires are not part of the proposed action, wildland fires can happen at any time (CDPHE 2009).

The proposed RAMP has identified approximately 0.24 acres (0.0001% of the Project Area) of surface disturbance associated with the construction and improvement of trails, trailheads, and facilities. These improvements would be made over the 15 to 20 year life of the plan and therefore, associated impacts to air quality are expected to be minimal.

The majority of air quality impacts would be concentrated around RMZ 2 – Heritage Roads, access points for the Loop, and at river put-ins. During the winter season, the volume of vehicles would be considerably lower and vehicle emissions would primarily result from snowmobile use, which is not restricted to roads and results in less motorized traffic over all, and therefore, associated emissions are dispersed over a larger area. The most common contributors to atmospheric degradation as a result of motorized recreation include hydrocarbon (HC) and CO) emissions from snowmobiles and HC+nitrogen oxides (NOx) and CO emissions from ATVs and off-highway motorcycles (40 CFR Part 1051 2009). The proposed RAMP includes management prescriptions to protect air quality from increased vehicle emissions from motorized recreation, such as ATVs, snowmobiles, and 4WD

vehicles, by leaving more than 64,000 acres (approximately 35 percent) of the Project Area closed to vehicle use; restricting all motorized travel to existing roads or trails; and not proposing the construction of new roads.

The most recent visitor surveys indicate that 79 percent of visitors to the Project Area arrived in 4WD vehicles, up from 38 percent in 1994. Additionally, ATVs and motorcycle use have also been increasing since the 1994 reporting period . While visitation to the Project Area saw a steady increase of 0.8 percent through 1998, according to recent data, that use stabilized in 1998 at a 0.05 percent annual increase. In general, from mid-1990s until 2008, visitation has fluctuated rather than increased. Wildfires, heavy snow packs, and gas prices contributed to a reduction in visitation in 2002, 2005, and 2008 respectively. Following these trends, visitation in the future is estimated to continue to gradually increase to 645,000 over the next 20 years. As motorized recreation in the Project Area continues to grow, resulting emissions levels will also increase.

Emissions standards for snowmobiles, ATVs, and off-highway motorcycles have been established per 40 CFR 1501, Subpart B–Emission Standards and Related Requirements. Through a phased approach to regulating emissions, manufacturers of these vehicles are required to meet increasing vehicle emission standards by 2012. Because these standards apply to the manufacturer and not the user, the BLM has no authority to regulate the amount of vehicle emissions from each source. Additionally, those vehicles manufactured prior to the 2006 are not included in this phased approach, and therefore, may potentially have exhaust systems which emit higher concentrations of pollutants of concern. However, no increase in vehicle use is being proposed under the RAMP and older vehicles will go out of service and newer, more efficient and less polluting vehicles will replace them over the life of the RAMP. As such, the projected effects of emissions on air quality are difficult to quantify but likely less than significant under NEPA, and therefore air quality will not be carried forward for detailed discussion in this EA.

3.2.2 Climate

The Project Area experiences large diurnal temperature changes, 10 to 40 inches of annual precipitation, moderate evaporation, and low humidity. Annual temperatures range from lows of -40 degrees Fahrenheit (F) in winter to highs of 80 degrees F in summer. Annual snowfall varies from 120 to 350 inches. Snow accumulation ranges from 40 to 120 inches; avalanches are common. Complex topography creates considerable variation and fluctuations in site specific temperature, precipitation, and surface winds. Extreme weather conditions are not unusual, including frigid temperatures and blizzards in winter, and severe summer thunderstorms with hail, strong winds, and lightning.

On-going scientific research has identified the potential impacts of climate changing pollutants on global climate. These pollutants are commonly called "greenhouse gases" and include carbon dioxide, (CO2); methane; nitrous oxide; water vapor; and several trace gas emissions.

Although climate changing pollutant levels have varied for millennia (along with corresponding variations in climatic conditions), recent industrialization and burning of fossil carbon sources have caused CO2 concentrations to increase dramatically, and are likely to contribute to overall climatic changes, typically referred to as global warming.

The Project Area is not in or around an industrialized area with cumulative emissions from point sources or a large metropolitan area with large vehicle numbers. The proposed RAMP does not include any activities or make any new allocations expected to increase emissions beyond that already occurring. However, there is an increasing trend for numbers of vehicles projected to travel through the Project Area with their associated emissions. Management prescriptions include actions to prevent overuse of the Project Area by motorized vehicles such as: more than 64,000 acres of the Project Area is closed to vehicle use; all motorized travel is restricted to existing roads or trails; no new roads are being proposed; and ATV travel is limited to 4-6 months of the year by snow. The effect of these emissions projected on global climate would be difficult to quantify but likely negligible and therefore climate will not be carried forward for detailed discussion in this EA.

3.2.3 Environmental Justice

Executive Order (EO) 12898 requires federal agencies to assess projects to ensure there are no disproportionately high or adverse environmental, health, or safety effects on minority and low-income populations. The Presidential

Memorandum that accompanied EO 12898 called for a variety of actions. Four specific actions were directed at NEPA–related activities, including the following:

- Each federal agency must analyze environmental effects (i.e., human health, economic, and social effects) of federal actions, including effects on minority communities and low-income communities, when such analysis is required by NEPA.
- Mitigation measures outlined or analyzed in EAs, EISs, or RODs, whenever feasible, should address significant and adverse environmental effects of proposed federal actions on minority communities and low-income communities.
- Each federal agency must provide opportunities for community input in the NEPA process, including identifying potential effects and mitigation measures in consultation with affected communities and improving accessibility of public meetings, official documents, and notices to affected communities.
- In reviewing other agencies' proposed actions under Section 309 of the CAA, the EPA must ensure that the agencies have fully analyzed environmental effects on minority communities and low-income communities, including human health, social, and economic effects.

Environmental Justice is defined as "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, culture, education, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair Treatment means that no group of people, including racial, ethnic, or socioeconomic groups, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal environmental programs and policies. Meaningful Involvement means that: (1) potentially affected community residents have an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health; (2) the public's contribution can influence the regulatory agency's decision; (3) the concerns of all participants involved will be considered in the decision-making process; and (4) the decision-makers seek out and facilitate the involvement of those potentially affected" (EPA 1994)

In terms of Environmental Justice, a population is typically considered low-income when the household median income is below the federally defined poverty level. Similarly, the population is considered a minority population if minority races and/or ethnicities in the study area represent more than 50 percent of the population. Thus, a city or county is considered an Environmental Justice community if both of these criteria are met.

Minority population data for the state of Colorado and the three county study area were obtained from the U.S. Census Bureau; the latest available data is from the 2000 census. Less than 8 percent of the regional population is a racial or ethnic minority, compared with 17.2 percent for the state of Colorado. San Juan County has the highest minority population of 7.7 percent, Ouray County was the lowest at 1.6 percent, and Hinsdale County was 6.4 percent. None of these counties are considered Environmental Justice communities because they do not include minority populations greater than 50 percent of the population (U.S. Census Bureau 2000).

Families and persons are classified by the Census Bureau as below poverty level if their total family income or unrelated individual income was less than the poverty threshold specified for the applicable family size, age, and number of related children under 18 present. Poverty status is determined for all families (and, by implication, all family members). For persons not in families, poverty status is determined by their income in relation to the appropriate poverty threshold. Thus, two unrelated individuals living together may not have the same poverty status. According to the 2000 Census, 6.2 percent of families in Colorado live below the federal poverty level. The percent of families living below the federal poverty level in Hinsdale, Ouray, and San Juan counties is 4.5, 6.0 and 13.5 percent, respectively. Thus, none of the counties are considered an Environmental Justice community because no low-income populations have been identified that would disproportionately experience common conditions of environmental exposure or effects. Additionally, the Proposed Action would affect all users of public lands, regardless of socioeconomic or Environmental Justice status. Because impacts to low income and minority populations would be the same as impacts to all users of public lands, Environmental Justice will not be brought forward for additional analysis in this EA.

3.2.4 Hazardous Wastes

Hazardous wastes for this section include human waste and trash. Other hazards such as mine adits or portals are covered under the Public Health and Safety section of this EA. There are approximately 10 developed restroom (vault toilets) sites established in the planning area. Most of these facilities are located at trailheads and at developed campgrounds. Under existing BLM management, restrooms in the project area are cleaned daily and pumped by commercial sanitation companies at least once a year. All wastes are disposed of at a state approved site. Some visitors leave trash or human waste in and around the buildings, or near camp sites or river put-ins. These occasional problems are monitored and actions to correct the situation are conducted on a case by case basis. With increased visitor use, the need for monitoring also increases to quickly mitigate problem areas.

All human waste and trash is managed in accordance with state regulations including Solid and Hazardous Waste Commission Regulations 6 CCR 1007-3. Further more, the proposed RAMP includes management actions that address facilities, including waste facilities. As prescribed in the RAMP, facilities will be maintained according to the following guidance: provide regular cleaning and maintenance at all developed facilities during the peak use and shoulder seasons; utilize permanent and seasonal employees and/or volunteers for maintenance, but explore the possibility of other partnerships that can expand BLM's capability to carry out maintenance tasks; and provide for repair, reconditioning, and replacement of facilities, prioritizing those problems that pose a safety threat to the public or are creating unacceptable resource impacts. Facilities such as restrooms at trailheads and campgrounds would be developed and maintained to meet visitor needs.

In order to accommodate the increase in winter recreationists, the RAMP proposes the installation of a temporary restroom during the winter season (i.e., December through February) at the existing Eureka Ice-Climbing area. In addition, during public scoping facility issues were raised regarding several popular recreation areas, including American Basin. Therefore, the BLM is currently analyzing the necessity of installing a universal access vault restroom near the entrance to American Basin. Until a restroom is installed at this location or it is determined not to be feasible, the BLM will inform the public of the limited restrooms in the American Basin area.

It is the intent of the BLM to work in partnership with Federal and state agencies, local communities and organizations to provide facilities (e.g., campgrounds, restrooms) and signs on public lands that support recreation goals, are in character with desired settings, help ensure public safety, meet reasonable visitor needs and help reduce resource impacts. Based on the above information and since the current management is working and areas will be monitored to address any site specific problems that might arise, hazardous wastes will not be carried forward for detailed analysis in this EA.

3.2.5 Lands and Realty

Land ownership within the Project Area is predominantly BLM administered lands (145,545 acres); approximately 334 acres are under the jurisdiction of the CDOW and 40,373 acres are private. Figure 1.1 shows the land ownership of the planning area. The Project Area consists of non-contiguous private inholdings, predominantly in the Columbine Field Office, along with federal lands. Where possible, ownership boundaries signed as Private lands are not considered part of this project. The RAMP/EA does not propose any management actions that compromise private rights on private lands.

Lands and realty transactions are subject to all existing legislation that governs the use and management of public lands, such as the General Mining Law of 1972, the Wilderness Act of 1964, and FLPMA. The existing RAMP and Gunnison and San Juan/San Miguel RMPs made several decisions that relate to public ROW and easements, including utilities, access, scenic easements, lands identified as acquisition, and ROW avoidance areas. All of these decisions are carried forward in the Proposed Action, including the following examples. The Gunnison RMP closed 9,150 acres to the development of above-ground utilities. Public lands north of the south line of Sections 16 and 17, Township 47 North, Range 3 West, N.M.P.M., approximately 2,560 acres, and about 76,880 acres south and west of Lake City, were classified as an avoidance area for all other ROWs. The remainder of public lands in the unit, about 12,070 acres, remained open to all other ROWs. As part of the 1986 RAMP, approximately 3,840 acres of public land along the Tri-State Generation and Transmission Association's Blue Mesa to Lake City 115 kilovolt electrical transmission line (see Appendix C of Gunnison RMP) were designated a rights-of-way corridor. Non-designated roads (i.e., not part of BLM's transportation management network) providing access to private lands would be the

maintenance responsibility of the private landowner under the terms of a ROW agreement. If no ROW agreement is in effect then no maintenance would be allowed by the private landowner, and maintenance would be at the discretion of the BLM.

The intent of the proposed RAMP management prescriptions is to pursue public access easements, with willing landowners, on private property that is crossed by Grouse Gulch Trail and Maggie Gulch Trail. Until these easements are obtained from willing landowners, these trails would not be formally designated or maintained. The BLM would also consider acquisition of additional lands in the planning area if such acquisition would enhance management of identified resource values and public benefits; any such acquisition would require site-specific environmental analysis. Therefore, it is not anticipated that approval of the proposed RAMP would result in impacts to Lands and Realty and as such, it is not brought forward for detailed analysis.

3.2.6 Livestock Grazing

Sheep grazing is a historic use of the Alpine Loop area although the area has experienced a significant reduction in sheep grazing since the 1930s. Of the approximately 186,252 acres in the Project Area, approximately 117,000 acres are currently licensed to 13 permittees (five on the CFO side, On the GFO side there are eight, four in the loop and 4 in the Lake Fork of the Gunnison) for domestic sheep grazing. Approximately 17,000 to 20,000 sheep graze annually and are managed through the BLM's system of grazing allotments. Livestock seasons of use vary from year to year but in general are about 8-9 weeks and run from mid July through late September.

Grazing management for GFO allotments is conducted in accordance with the standard operating procedures as prescribed in the Code of Federal Regulations (43 CFR 4100) (BLM 1993; Page 3-5) Grazing allotments are reviewed and renewed on a ten year basis (the last renewal for the Gunnison Field Office allotments was in 2005;the Columbine Field Office completed analysis and renewal in 2009).

Impacts to livestock grazing from recreation would be limited to interactions with vehicles, noise, and dogs. Impacts to recreation from livestock grazing will be addressed in Section 4.1.2 Recreation.

The proposed RAMP includes recreation management actions to limit impacts to other resources and to improve relationships between grazing permittees, private land owners, and recreationists. These management actions include collaboratively working with livestock operators to coordinate the annual release and collection of sheep and minimize the time animals spend in or around popular recreation sites in order to reduce conflicts. In addition, the BLM would recommend that livestock operators educate their range employees on the laws protecting cultural resources and request that sheep camps, salt licks, and bedding grounds are at least 100 feet from noteworthy historic structures or sites. Grazing permits are managed under a separate BLM process and are evaluated on a 10-year cycle at which time the BLM may make adjustments to reduce resource impacts and user conflicts as necessary. Any substantial adjustment to a grazing permit in order to reduce impacts would be addressed for environmental effects under the Allotment Management Plan, and would likely have an overall minimal to negligible impact in the Project Area. Therefore, implementation of Alternative B would have little impact to livestock grazing and as such, will not be carried forward for detailed analysis in this EA.

3.2.7 Mineral Resources

The planning area had extensive historical mining and produced gold, silver, copper, lead, zinc, and tungsten which can occur in veins associated with the Silverton caldera, chimneys, breccia pipes, or as disseminated and replacement deposits. Placer gold mining occurs along the numerous rivers and creeks. Generally, the planning area is located in the San Juan Volcanic Field and Caldera Complex. The bulk of these mountains are of Tertiary volcanic materials deposited upon Precambrian crystalline rocks. Leasable minerals such as coal and oil and gas do not occur in significant amounts in the planning area because of the igneous nature of the rock.

Management for the area is covered under management common to all as Locatable Minerals are managed under the General Mining Law of 1872. Federal mineral estate in areas not withdrawn from mineral entry will be open to entry and location under the general mining laws. Plans of operation will be required for proposed locatable mineral

activity on the following lands: 1) lands under wilderness review, 2) lands closed to Off- Highway Vehicle (OHV) travel, and, 3) lands within designated Areas of Critical Environmental Concern (ACECs).

There are no changes to the leasing categories or lands recommended for withdrawal from mineral entry; therefore mineral resources will not be carried forward for detailed analysis in this EA.

3.2.8 Noise

Noise is defined by Colorado law as sound that is unwanted and causes, or tends to cause, adverse psychological or physiological effects on human. Airborne sound is a rapid fluctuation of air pressure above and below atmospheric pressure. There are several ways to measure noise, depending on the source of the noise, the receiver, and the reason for the noise measurement. Environmental noise levels are typically stated in terms of decibels on the A-weighted scale (dBA). Noise levels stated in terms of dBA reflect the response of the human ear by filtering out some of the noise in the low- and high-frequency ranges that the ear does not detect well. The A-weighted scale is used in most community ordinances and standards. Human hearing typically encompasses the sound range from just above zero dBA at the quietest end to approximately 140 dBA, where pain is produced in most listeners and permanent hearing loss would result (BLM 2004a).

Natural sounds typical of alpine, subalpine, and riparian environments pervade the area. Human-caused interruptions of the natural noise environment consist of motorized traffic including cars, motorcycles, ATVs/OHVs, snowmobiles, occasional aircraft (including helicopters), and avalanche controls during winter months. ATV/OHV and snowmobile noise levels are variable, with older vehicles producing higher noise levels than newer ones. Noise near the towns of Lake City, Ouray, and Silverton is mostly associated with business and domestic activities.

State law allows the BLM to enforce state sound requirements found in the Colorado Noise Standard 25-12-106. Colorado Noise Statute 25-12-106 requires that decibel levels (measured at 50 feet) for vehicles designed for off-highway use to be below the following measurements: 88 dB for snowmobiles (manufactured on or after 1975) and 96 decibels (dB) for OHVs (manufactured after 1998). Motorized vehicles, including ATVs/OHVs and snowmobiles, are restricted from Wilderness areas and WSAs which account for approximately 68,000 of the 165,000 acres in the project area. This limits noise and helps maintain the wilderness characteristics associated with the WSAs and Wilderness areas. In addition, noise generating activities associated with recreation are generally season-driven and are managed in areas designated and approved for such uses, as discussed below.

Noise from motorized vehicles can be disturbing to other recreation user groups, adjacent landowners, and wildlife. The most sensitive noise receptors are wildlife and recreational users in primitive settings. Vehicle recreation will continue to be very popular in the Project Area; however, no new allocations or uses are being proposed as part of the proposed action that would increase the use. It is anticipated that noise levels in the project area will continue to increase as the number of users increase. Through informal road and site counts, the BLM estimates that ATV use has increased from approximately 10 percent in 1996 to over 50 percent in 2008 (Lovelace 2007). Monitoring of use and resource damage is routinely conducted and adjustments appropriate management action can be taken on a case by case basis to reduce resource damage or user conflict. The transportation (roads) network for the lands administered by the Columbine Field office area all county roads and current use data is not available. In 2008 the BLM installed three road counters but data collection has not yet started.

RMZ 1-Alpine Backcountry would be managed to generally provide opportunities for less crowded, non-motorized recreation experiences. Motorized vehicles are present in this area; however, they are restricted to roads and trails, and access areas to hiking and mountaineering trails. As such, impacts from motorized vehicle-generated noise to wildlife and other recreationists are anticipated to be low in this section of the planning area.

RMZ 2-Heritage Roads receives the heaviest visitation and use of the planning area, including vehicle recreationists. This area provides opportunities for is managed for scenic touring, motorized recreation, and heritage tourism; the centerpiece of which is the Alpine Loop although other area roads also provide these opportunities. The noise interruptions associated with these activities peak in July and August, and cease during the winter (i.e., snowy) months. During the winter months, noise-generating recreation activities such as snowmobiling are present, but there are fewer users and because snowmobiling is allowed over a larger portion of this RMZ, the noise is less

concentrated in specific areas. Nonetheless, other user groups (i.e., cross country skiers) and wildlife in the area could potentially be affected during winter months.

RMZ 3 - Animas & Lake Fork Rivers would be managed for boating and fishing activities and generally receives its highest number of visitors during the summer months due to large rafting groups; motorized access in this portion of the planning area is limited to put-ins and road crossings. Therefore, impacts to users and wildlife in this RMZ are anticipated to be low.

While it is the intent of the BLM to enforce the state's noise standards, the capability to monitor and enforce noise levels is very limited. As stated in the proposed RAMP, visitor information and education materials would include guidelines to encourage recreationists to reduce the level and extent of noise generated impacts from their activities upon wildlife, other recreationists, and local residents. Specific impacts on sensitive wildlife, such as Canada lynx, that could result from motorized vehicle generated noise are discussed in Section 4.1.9 of this EA.

Noise related impacts, while low across the project area, are expected to be primarily focused in RMZ-2, which is largely managed for motorized recreation. Other impacts from noise within the project area are expected to be minimal, and localized in time and space. Therefore, the implementation of Alternative B would have little impacts related to noise, and will not be carried forward for detailed analysis.

3.2.9 Public Health and Safety

Public Health and Safety issues identified in public scoping include: safety concerns for recreational activities in an uncontrolled natural environment (avalanche danger, backcountry travel, etc); travel safety associated with the narrow roads and 4WD rails; safety concerns associated with recreation in the vicinity of abandoned mines and tunnels; and risk to visitors from deteriorating historic structures.

Recreational activities in an uncontrolled natural environment are inherently unsafe, which is part of the appeal of these activities to recreationists. The natural environment of the Project Area provides recreationists with a freedom from human controls, which, in turn, places humans at risk. Different types of activities have more or less risk associated with them, and attract different recreational users based partially on the risk. Some recreational activities within the project area could be considered relatively high risk due to the remoteness of the area, the high altitude, avalanche danger, and the lack of human controls (i.e., improved roads and facilities).

Ice and rock climbing present particular safety hazards for recreationists because there is currently no system for evaluating the safety of the natural locations for these activities. Recreationists participating in these activities must recognize that they do so at their own risk, and use their best judgment when deciding whether an area is safe (to their standards) or not. In order to reduce potential safety hazards associated with ice climbing, the RAMP proposes providing developed ice climbing opportunities, such as the one proposed near Lake City, because artificially constructed ice-climbing areas would be easier to access and monitor, which could reduce emergency response time and be less likely to be situated in high avalanche risk areas.

Travel on narrow 4WD roads in high mountain areas may be considered a high-risk recreation activity. The road system in the project area is rough and narrow in some areas, with blind curves, steep drop offs, and frequently inadequate room for two vehicles to pass. These all present safety hazards to recreationists particularly during the high-use season for motorized vehicles (i.e., summer). Excessive speed on these heavily used and narrow roads is also a safety hazard. The Project Area does not provide opportunities for vehicle recreation that seeks speed or extreme off-route challenges. The RAMP includes objectives and associated management actions which address the potential public health and safety hazards associated with travel management. As prescribed in the proposed RAMP, the BLM would provide road signs to identify and educate the public about hazardous areas or conditions. In addition, the transportation management network would be maintained by the counties and BLM as appropriate to reduce safety hazards.

User conflicts, such as those experienced by cross-country skiers and snowmobilers, can pose safety hazards. For example, fast snowmobiles can threaten skiers' safety when drivers are not careful when passing skiers. It is the

intent of the RAMP to reduce user conflicts and associated safety hazards by installing signage, designating travel routes, and establishing separate use areas where appropriate.

In addition to installing signs, designating travel routes, and establishing separate use areas where appropriate, public health and safety concerns are being addressed through patrols of the project area. In 2007, the Alpine Ranger began patrolling OHV activities in Hinsdale, San Miguel, San Juan, and Ouray Counties, including the Project Area. During the 2008 enforcement period of June 15, 2008 to August 30, 2008, approximately 800 OHVs were encountered and checked for liability insurance and an operator's license. As indicated in the 2008 Alpine Ranger Report, a total of 8 citations, 30 written warnings, and 65 verbal warnings were issued; a decrease from those issued in 2007 (Alpine Ranger Report 2008). According to the Alpine Ranger, returning OHV and 4WD recreationists are becoming more aware of BLM regulations and are taking steps to adhere to them (McKay 2008).

As a result of increasing visitation, in addition to time and weather, historic structures in the project area are deteriorating; some are unstable enough to be in danger of collapsing, and therefore pose a potential safety hazard for visitors. There is also an inherent risk associated with recreation in or around abandoned mines and tunnels, which are fairly common in the project area due to the history of mining activities in the region. To preserve the integrity of historic sites and secure visitor safety, the RAMP includes management actions for establishing priorities and stabilization measures of historic structures. In addition, as identified in the RAMP, the BLM will provide support for the SJMA CSSP to monitor the condition of key historic/heritage tourism resources and those along vehicle transportation routes and assist where needed with preservation efforts at these sites, including repairing damage from public use and natural causes where feasible or necessary to resolve or maintain safety issues. In an effort to close dangerous mines and avoid safety problems, the BLM is participating in an on-going program of addressing mine openings and tunnels being coordinated through the Colorado Division of Reclamation Mining and Safety.

The RAMP includes overall management actions in designed to manage and reduce the dangers to public health and safety throughout the Project Area. No site-specific requirements for changes have been identified, so none of these actions though would result in any substantial impacts within the Project Area. Implementation of Alternative B would have little impact to public health and safety, and this area will not be carried forward for additional analysis in this EA.

3.2.10 Soils

Soil mapping of the Project Area was completed and published by the NRCS (2008). The proposed Project Area includes sections of three soil surveys (CO662: Gunnison Area; CO672: Animas-Dolores Area; and CO674: Ouray Area). Soils in the Project Area are derived from alluvium, colluvium, and residuum from rhyolite, tuff and similar volcanic rocks. The soils occupy hills, terraces, plateaus, mountain slopes and ridges, alluvial fans and narrow alluvial valleys. Meadows and major water courses are characterized by deep and poorly-drained soils. Moderately sloping to steep mountain sideslopes and tundra areas have shallow to deep, well-drained stony-loam soils. Very steep mountain side-slopes have shallow, well-drained, stony-loam soils with intermingled rock outcrops and rubble (BLM 1986b).

Subalpine and alpine soils have low natural erosion rates when protected by a heavy vegetative covering. Annual erosion rates of subalpine forest soils along with non-forested subalpine and alpine soils are less than 0.3 and 1 ton per acre respectively. Breaks in vegetative ground cover often result in greatly accelerated erosion. These areas are very slow to heal due to extreme annual and diurnal temperature fluctuations, very short growing seasons, long plant maturation periods, high winds, constant susceptibility to freezing and thawing, and intense solar radiation.

RMZ 1 – Alpine Backcountry soil parent material includes unweathered bedrock, fragmental material, colluvium, alluvium, and slope alluvium derived from non-volcanic breccia, rhyolite, and andesite. Surface textures include moderately decomposed plant material, loam, very gravelly loam, very cobbly loam, and unweathered bedrock. T-erosion factor (estimate of maximum annual rate of soil erosion by wind and/or water; in tons per acre per year) ranges from 1 to 5. The most common soil types are Rock outcrop; Rock outcrop-Cryoboralfs complex, 45 to 75 percent slopes, extremely stony; Rock outcrop-Telluride association, 40 to 120 percent slopes, extremely stony; and Rubble land (NRCS 2003).

RMZ 2 – Heritage Roads soil parent material includes colluvium, residuum, alluvium, and slope alluvium derived from rhyolite, limestone, sandstone, tuff, and other volcanic, sedimentary, and granitic rocks. Surface textures include slightly to moderately decomposed plant material, loam, gravelly loam, very cobbly loam, fragmental material, and unweathered bedrock. T-erosion factor ranges from 1 to 5. The most common soil types are Whitecross-Rock outcrop complex, 45 to 75 percent slopes; Rock outcrop; Rubble land; and Needleton stony loam, 30 to 65 percent slopes (NRCS 2003).

RMZ 3 – Animas and Lake Fork Rivers soil parent material includes alluvium and residuum derived from rhyolite, tuff, volcanic breccia, latite, and sandstone. Surface textures include loam, gravelly loam, channery loam, and unweathered bedrock. T-erosion factor ranges from 1 to 5. The most common soil types are Curecanti gravelly loam, 1 to 8 percent slopes; Posant very rocky loam, 10 to 60 percent slopes; Stony rock land; and Wetterhorn stony loam, 10 to 55 percent slopes (NRCS 2003).

Increased use, mounting pressure on existing roads and trails, and the possible construction of additional facilities could directly affect soil resources. However, the proposed action would result in very little ground disturbance (specified in section 2.3.5). An additional 16.4 miles of existing routes would be recognized as designated routes in the transportation system and three existing facilities would be expanded: 1) ATV staging area at Henson Creek (0.1 acres of new disturbance), and 2) parking at the American Basin Trailhead (0.1 acres of new disturbance). Existing parking areas at undeveloped campsites would be delineated. No new routes are proposed for construction; motorized recreation is prohibited in WSA's and Wilderness (37% of the Project Area), and no areas are open for cross country travel by ATVs. When the USFS develops Williams Creek Trailhead additional disturbance would occur under USFS NEPA process and appropriate surveys (0.02 acres of new disturbance).

Three new facilities proposed would result in small localized soil disturbances. These facilities would include designated trailheads and associated parking areas at the entry points to Grouse Gulch and Cunningham Gulch Trails (0.1 acres of new disturbance). Additionally, expanded parking at Henson Creek and American Basin would result in soil disturbance (0.12 acres). The application of Best Management Practices and judicious placement of any additional trails and facilities would minimize impacts to soils. Sediment yields and erosion rates are reduced by OHV use being limited to designated routes. Based on the information above, implementation of Alternative B would have little impact on soils. Soils will not be brought forward for detailed analysis in this EA.

3.2.11 Water Quality (Surface and Ground)

Water quality is a measure of the suitability of surface water for a designated use based on selected physical, chemical, and biological criteria. Water quality criteria are determined by the state, as required by the EPA, to describe levels of individual pollutants or water quality characteristics, or give descriptions of conditions of a waterbody that, if met, will generally protect the designated use of the water. Water quality standards generally include three major components: designated uses, water quality criteria, and antidegradation provisions. (Cordy 2001)

The Project Area includes portions of the Upper Gunnison, Uncompahgre, and Animas watersheds, as determined by the USGS. Watersheds in the project area lie with alpine and subalpine zones, with the majority in the subalpine. Snow pack retention is often until late March or April and is released in stream flows as the snow melts.

Most of the watersheds within the study area were highly altered by volcanic activity during the late Oligocene era forming the extensively mineralized Silverton Caldera that dominates the project area's geology (Church et al. 2007). Collaborative research conducted by the USGS, EPA, Animas River Stakeholders Group, and others has concluded that naturally occurring elevated metal concentrations and acidity in water is the result of weathering of hydrothermally altered rock and the contributions of minerals from over 300 abandoned mines in the project area. Research investigating the pre-mining state of several tributaries has concluded that certain reaches may have never supported aquatic life (Church et al. 1999). As a result, all of the watersheds with the Project Area include waters on the 303(d) list for impairment, including the Upper Animas, Mineral Creek, and Cement Creek. Causes of impairment include a variety of metals (both naturally occurring and mine-influenced sources), dissolved oxygen, pH, eutrophication, temperature, and fecal coliform.

Water quality degradation within the Project Area is due to both natural sources including erosion and anthroprogenic sources (Church et al. 2007) from acidic groundwater seeps, mine discharge and mine waste leaching. Although sedimentation is not a listed cause of impairment, best management practices (discussed below) will continue to be employed to reduce soil erosion and water quality deterioration, and will be required in all plans involving surface disturbance. Roads and other developments will be maintained in appropriate condition to minimize erosion. Several mitigation and minimization measures, such as use of rock barricades, signage, and trail improvements, will be designed to reduce illegal off-trail driving and other incidents. Additionally, to protect wetlands and water quality, riparian areas will be managed to maintain, restore, or improve riparian conditions (hydrological, soil, and vegetation), such that proper functioning conditions are achieved, and to enhance natural values.

RMZ 1- Alpine Backcountry: This RMZ would consist primarily of WSAs, designated Wilderness, ACECs, and other backcountry lands. These areas are largely away from roads where non–motorized recreation opportunities and natural settings predominate. Surface disturbance with the potential for erosion within this RMZ would be limited to minor expansion and hardening of one parking area. The area is primarily roadless, so would require very little road maintenance. The establishment of this RMZ and its management would have no significant impact on the water quality within the Project Area.

RMZ 2 – Heritage Roads: This RMZ would consist primarily of those areas on and immediately adjacent to the Alpine Loop as well as other designated county roads and secondary roads that are designated as open to public use. The RMZ would also include a variety of historic sites along the road corridors. This area would be managed for scenic touring, motorized recreation, and heritage tourism; the centerpiece of which is the Alpine Loop although other area roads also provide these opportunities. Surface disturbances within this RMZ would be limited primarily to protect cultural resource values by and while maintaining designated roads to facilitate access to those resources and scenic driving. Any stabilization of the historic resources would be done to prevent resource-damaging erosion, which in turn would prevent impacts to water quality from erosion around the mining areas. While this area encompasses most of the historic mining activity within the Project Area, including abandoned mines presumed to be contributing to mineral and metal loading within the watersheds, the establishment of this RMZ and its management would have no substantial impact on the water quality within the Project Area.

RMZ 3 – Animas and Lake Fork River Zones: This RMZ is primarily composed of the Lake Fork of the Gunnison River north of Lake City, and the Animas River from Silverton south towards Durango, as well their adjacent riparian areas. RMZ3 would be managed for boating and fishing activities; motorized access in this portion of the planning area is limited to put-ins and road crossings. This portion of the project area contains riparian corridors and wetlands (discussed below). Riparian areas would be maintained for proper functioning condition, and aquatic and riparian habitats would be maintained to prevent impacts from resource utilization. Any surface disturbing activity, such as boat ramps or put-ins, in or adjacent to waters of the US, to include wetlands, would be assessed for permitting requirements under the Clean Water Act. Roads and other developments will be maintained in functional condition to minimize erosion. With the use of best management practices for river recreation access including but not limited to sediment traps, streambank stabilization and for road maintenance, including but not limited to maintenance of crossdrains, ditches and culverts, impacts to water quality in RMZ 3 would be low.

Riparian Areas – Riparian areas are living filters consisting of permanent vegetation along a watercourse. Riparian areas naturally prevent soil erosion and remove potential water contaminants (sediment, nutrients, pesticides and pathogens) from runoff before they reach surface and ground waters. BLM manual 1737 defines riparian areas as a form of wetland transition between permanently saturated wetlands and upland areas. These areas exhibit vegetation or physical characteristics reflective of permanent surface or subsurface water influence. Lands along, adjacent to, or contiguous with perennially and intermittently flowing rivers and streams, glacial potholes, and the shores of lakes and reservoirs with stable water levels are typical riparian areas. Excluded are such sites as ephemeral streams or washes that do not exhibit the presence of vegetation dependent upon free water in the soil.

Within the Project Area, riparian areas are the corridors along the creeks and rivers, including the Animas and Lake Fork of the Gunnison rivers in RMZ 3. To protect water quality and river function, riparian corridors are managed to maintain, restore, or improve riparian conditions (hydrological, soil, and vegetation), such that proper functioning conditions are achieved, and to enhance natural values.

Wetlands – Federal policy defines wetlands as areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and which, under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (EPA1994). BLM Manual 1737, Riparian-Wetland Area Management, includes marshes, shallow swamps, lakeshores, bogs, muskegs, wet meadows, estuaries, and riparian areas as wetlands. Wetland and riparian areas within the Project Area include stream and lake shore riparian areas, wet meadows, peat shrub lands and iron bogs and are primarily influenced by snow accumulation, groundwater seeps, and runoff.

Wetlands are important to wildlife habitat and water quality. Numerous species of birds and mammals rely on wetlands for food, water, and shelter. Wetlands improve water quality by intercepting surface runoff and removing or retaining inorganic nutrients, processing organic wastes, and reducing suspended sediments. Wetlands also maintain stream flow during dry periods and replenish groundwater, by storing and slowly releasing surface water, rain, snowmelt, groundwater and flood waters.

Best Management Practices – The Federal Water Pollution Control Act Amendments of 1972, Public Law 92-500 (and as amended by Sec. 319, 1986), require the management of nonpoint sources of water pollution from sources including forest-related activities. Maintenance of water quality to provide "fishable" and "swimmable" waters is central to this law's objectives. The Environmental Protection Agency (EPA) recognizes the use of Best Management Practices (BMPs) as an acceptable method of reducing nonpoint source pollution.

BMPs are effective, practical, structural or nonstructural methods which prevent or reduce the movement of sediment, and other pollutants from the land to surface or ground water, or which otherwise protect water quality from potential adverse effects of management activities. These practices were developed to achieve a balance between water quality protection and the recreation and management needs within the Project Area.

BMPs for travel route maintenance are designed to prevent soil erosion from roads and trails into nearby water sources. Maintenance of designated roads and trails should be sufficient to maintain a stable surface, keep the drainage system operating, and protect the quality of streams. The potential for impacts to water quality across the project area would also be reduced by the implementation of vault toilets, designated camping areas with parking, and the restriction of all mechanized traffic (except snowmobiles) to designated roads and trails that would be maintained to prevent erosion. In summary, because impacts to surface water and ground water quality are expected to be incidental and minor, because no impacts to surface waters or ground waters are proposed in the RAMP, and because potential impacts to water quality will be mitigated with BMPs, water quality will not be carried forward for a detailed analysis.

Impacts to wetlands and waters of the US are already regulated by the US Army Corps of Engineers and BMPs for project activities would mitigate any potential impacts to water quality. The proposed RAMP does not including any actions that would result in little impacts to water quality and/or wetlands. Therefore, these resources will not be carried forward in this EA for detailed analysis.

3.2.12 Wild and Scenic Rivers

Congress enacted the Wild and Scenic Rivers Act in 1968 in order to preserve the free-flowing condition, water quality, and outstandingly remarkable values of select rivers. Per the National Wild and Scenic Rivers System Act (Public Law 90-542; 16 U.S.C. 1271 et seq.) rivers and streams with “outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural and other values” are preserved in a free-flowing condition for the enjoyment of present and future generations. Rivers in the Project Area were inventoried by the BLM for characteristics that make them *eligible* for designation by Congress as part of the suitability study to determine if a segment is suitable for inclusion into the Wild and Scenic River System conducted during the RMP process.

Per the Wild and Scenic Rivers Act of 1968, every wild, scenic or recreational river in its free-flowing condition, or upon restoration to this condition, shall be considered eligible for inclusion in the national wild and scenic rivers system and, if included, shall be classified, designated, and administered as one of the following: wild, scenic, or recreational. Potential Wild and Scenic Rivers identified in the Gunnison RMP consist of an 8.9-mile stretch of the Lake Fork of the Gunnison River which was found to be eligible but not suitable for inclusion into the National Wild & Scenic River System under the "Recreational" classification. It will be managed according to this prescription and Standard Management for the RMP. Designation as a Recreational component of the Wild and

Scenic River System would not offer any significant improvement in this protection of this area's outstanding scenery (BLM 1993; Appendix I p I-13). Recreation use is moderate to heavy in the river corridor, but very little use is focused on this segment of river itself. There is no recreational boating and significant fishery resource associated with this segment. There are no Wild and Scenic Rivers designated in the current San Juan RMP. However, the Columbine Field Office is currently updating their RMP and any changes to the Wild and Scenic status of rivers and/or streams under their jurisdiction will be analyzed as a part of that process and if found suitable, would be recommended to Congress for inclusion.

The Proposed Action does not include any new or additional recommendations for streams or rivers as being suitable for designation and inclusion within the Wild and Scenic system beyond the inventories managed by the RMPs. Existing management for the protection of eligible Wild and Scenic segments include withdrawal for mineral entry along the Alpine Loop, WSA designation for a portion, and Scenic ACEC designation for a portion. Therefore, no additional special management was determined to be necessary to protect these values. As such, it is not anticipated that approval of the RAMP would result in any long- or short-term impacts to Wild and Scenic Rivers in the planning area. Additional protections for rivers and riparian corridors are provided under RMZ 3 Lake Fork and Animas River Zone which state that boating recreation in river corridors would be managed to minimize impacts to the integrity of soil, riparian vegetation, terrestrial and aquatic wildlife and water resources. Wild and Scenic Rivers will not be carried forward for detailed analysis.

3.3 Resources Brought Forward for Detailed Analysis

Resources and resource uses that could potentially be affected by the proposed action or no action alternative include ACECs, Cultural Resources, Recreation, Socioeconomics, Transportation and Access, Visual Resources, Wilderness and Wilderness Study Areas, and Wildlife (including special status species and threatened and endangered species). These resources are discussed in detail below.

3.3.1 Areas of Critical Environmental Concern

The BLM has three designated ACECs within the Project Area: Redcloud Peak (6,154 acres), Slumgullion Earthflow (1,316 acres), and American Basin (1,665 acres). These ACECs are designated for threatened and endangered species, geological interpretation, and scenic values, respectively. BLM Regulations (43 CFR part 1610) define an ACEC as an area "within the public lands where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes, or to protect life and safety from natural hazards." ACECs do not automatically prohibit or restrict other uses in the area, with the exception that any proposed mining activity would require a mining plan of operation.

American Basin ACEC – Located southwest of Lake City between the Continental Divide and Handies Peak, the ACEC is managed for scenic and recreation values. The ACEC is considered one of the most scenic basins in the San Juan Mountains because of its midsummer wildflowers and high-quality visual resources (BLM 1993). The ACEC is accessible with a 4 wheel drive road and regularly used hiking trails.

Redcloud Peak ACEC – Located southwest of Lake City within the boundary of the Project Area, the ACEC is managed for the protection of habitat and populations of a federally endangered insect, the Uncompaghre fritillary butterfly. The species, listed in 1991 (USFWS 1991), occurs only in alpine tundra snow willow (*Salix nivalis*) habitats, and all known colonies are located on BLM and Forest Service lands. Snow willow habitat is also utilized by the white-tailed ptarmigan, a BLM species-of-concern.

Though increased recreation visitation has the potential to provide for increased human intrusion into potential habitat, the Recovery Plan states, "other than prohibiting collection and preventing damage to snow willow, it appears that very little management of the butterfly population or its habitat is needed." (USFWS 1994) Marketing, education, signage, and information currently available to the public will continue to mitigate potential human trampling of habitat, thus no new "take" is expected. Furthermore, the high elevation and inaccessibility of the insect's habitat makes it very unlikely that there would be even minor levels of winter use so no additional indirect impacts to snow willow stands are expected from winter use. Further analyses regarding the insect's ecology,

distribution, and impacts of increased recreation activities to this species and other wildlife species are discussed in Section 3.3.9 of this EA.

Slumgullion Earthflow ACEC – Located approximately 2 miles southeast of Lake City within the boundary of the Project Area, the ACEC is managed for geological interpretation. The earthflow is a unique mass wasting phenomenon providing scenic values; natural processes resulted in two slides (one over 700 years ago and one approximately 350 years ago) of weak volcanic tuff and breccia forming the Slumgullion Slide. The events blocked the Lake Fork of the Gunnison River and formed the second largest natural lake in Colorado: Lake San Cristobal.

The three ACECs discussed above have special management prescriptions that are currently in place and will be carried forward to ensure that resource values are protected. For example, controlled surface use and visual stipulations, trail rerouting and motorized vehicular travel limitations, prohibition of butterfly collecting, monitoring of butterfly populations prior to approval of operations, and ability to relocate proposed operations are some of the management prescriptions implemented for these areas.

3.3.2 Cultural Resources

Cultural resources are the physical remains of past human activity. They are a physical reminder of the heritage and cultural past, and directly connect people to the history of the area in which they are located. Examples of cultural resources in the Alpine Loop area are prehistoric sites from past indigenous cultures, historic mining complexes, mills, cabins and ghost towns.

Introduction

The Alpine Loop Recreation Area has a long and complex cultural history spanning from the early big game hunters of the Paleo-Indian period to the present. Native American occupation of the Alpine Loop area chronologically ranges from Paleo-Indian to historic. Historic Euro-American peoples were present in the area from at least the 1820's to the present, with written evidence of even earlier historic occupation of the area. Nearly 1,800 previously recorded archaeological sites are located within the project area; the vast majority of these relate to historic mining.

Definition of Terms

- Eligible: Eligible for listing on the National Register of Historic Places. Eligible sites on public lands are afforded the same protection as Listed sites. Within the BLM, eligible sites may also be preserved until prescribed conditions for authorized use are met.
- Not Eligible: Not eligible for listing on the National Register of Historic Places. Sites determined not to be eligible for listing are not protected or preserved after recordation.
- Needs Data: Will be preserved until research potential is realized. This is Colorado SHPO term, not a National Register term for site status. Sites determined as Needs Data are protected until a more definitive status is achieved.
- Listed: Listed on the National Register of Historic Places. Sites listed on the NRHP are preserved indefinitely. Listed sites may still be available for interpretation or research.
- Interpreted: Long term preservation with on-site interpretation for public use (ie: signage, guided tours)
- Monitoring: Regularly scheduled visits to a site to determine condition, rate of deterioration
- Preservation: The act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property.
- Stabilization: The act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location. (38 CFR 68.2)
- Restoration: The act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period.
- Rehabilitation: The act or process of making possible an efficient compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values. (38 CFR 68.2)

Applicable Laws

Heritage resources are protected by the Antiquities Act of 1906, (Public Law [PL] 52-209); the National Historic Preservation Act (NHPA) of 1966 (PL 89-665), as amended (PL 52-209); its implementing regulations (36 CFR 800); and other legislation including NEPA (PL 91-852) and its implementing regulations (40 CFR 1500-1508). Other relevant laws include the Archaeological and Historical Conservation Act of 1974 (PL 93-291); and the Archaeological Resources Protection Act of 1979 (PL 96-95) and its regulations (36 CFR 296). The 1971 Executive Order, No. 11593, also requires that cultural resources be protected. The Secretary of the Interior's Standards for the Treatment of Historic Properties (36 CFR 68) regulates the preservation, rehabilitation, restoration and/or reconstruction of historic resources involving federal funds.

Section 106 is the portion of the Act that applies to federal projects. Compliance with Section 106 responsibilities of the NHPA is achieved by following the BLM – Colorado State Historic Preservation Office protocol agreement, which is authorized by the National Programmatic Agreement between the BLM, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers, and other applicable BLM handbooks.

Existing Conditions and Trends

Seasonal Utilization – Heritage tourism in the Alpine Loop area occurs primarily during the summer months (June through August), when the roads are cleared of snow and areas are easily accessible by vehicles. Heritage sites along the Alpine Loop driving route see the heaviest visitation. Another trend in heritage tourism in the Alpine Loop area is visitors congregating in towns and in campsites (such as Eureka, Animas Forks and Lake City), and radiating outward from the central location via ATV or non-motorized transportation (Arrington 2008). As such, cultural resources near these destination areas see more visitation than other resources not along the Alpine Loop driving route, particularly in the summer months.

The resources are most vulnerable during spring and fall, when the structures are wet and heavy and less stable than when they are dry. Deterioration of the sites is a natural process, but during the seasons when the sites are particularly vulnerable visitation can lead to accelerated deterioration. With overall numbers of visitors increasing year-round (Arrington 2008) it is unavoidable that unstabilized sites will deteriorate at a faster rate. Stewardship of the resources by groups such as the CSSP does occur at select sites along the Alpine Loop driving route, and such programs aid in monitoring heritage sites and may provide some resistance to natural deterioration.

The Colorado State Historic Preservation Office (SHPO) lists approximately 1800 recorded sites, including isolated finds, within a database search area that includes non-BLM land adjacent to the Project Area. The Gunnison field office lists 194 recorded sites, and the Columbine field office lists 290, neither list including isolated finds. Neither field office has surveyed all BLM property within the project area for cultural resources. Of the 484 recorded archeological sites within the project area, 13 sites (all within the Alpine Loop) are Listed and 210 are Eligible. Increased visitation has the potential to impact Listed or Eligible sites. By definition, sites determined Not Eligible cannot have impacts formally assessed. Sites within the Alpine Loop area are also subject to vandalism, including souvenir hunting, and with increased visitation, this may increase unless measures are taken to discourage it.

Description of Resources

Discussion of Table – Table 3.1 summarizes heritage resource site types within the Alpine Loop area. Transportation refers to roads, trams and pack trails. Mining complexes encompass a number of structures, but are based on mining and always include a mine as the central feature. Industrial site types include waterworks, mills, kilns and powerhouses – all sites that are industrial in nature. Townsites include multiple residences and often a post office or other feature found in towns in general, and cabins / houses are individual, often isolated cabins or houses without further associated town features. There are very few known prehistoric sites within the Alpine Loop area. The archeological record indicates that prehistoric peoples only seasonally utilized the area, mainly inhabiting riparian valleys and mountain passes. As these are the same areas historic and modern people use, whatever prehistoric sites were in the Alpine Loop area before the influx of Euro-American settlers were likely located where historic sites (including trails and roads), and modern passes are today. Additionally, ground disturbance from historic mining activity may have obliterated evidence of prehistoric use.

Table 3.1 Existing Resources Summary

Site Type	# of sites in project area	# of sites located along the Alpine Loop driving route	Example Sites
Transportation	44	7	Silverton Historic Railroad
Mining Complex	174	15	Sound Democrat Mill
Industrial	28	7	Capitol City Charcoal Kiln
Townsite	21	9	Burrows Park/Argentum
Cabins / Houses	17	3	Palmetto Gulch Cabin
Prehistoric	82	0	5HN502 (no site name)

Existing Resources

***Prehistoric* –** Little archaeological research has been conducted on prehistoric resources within the Alpine Loop Recreation Area, and as such, few prehistoric sites have been recorded within the area. (Approximately 17% of the 484 previously recorded sites are prehistoric in nature.) Data concerning the prehistoric past of the Alpine Loop area is limited, but it is reasonable to expect that the Alpine Loop contains prehistoric resources ranging from Paleo-Indian to historic Ute due to the abundance of similar resources in the surrounding areas. The previously recorded prehistoric resources in the Alpine Loop area, known as prehistoric alpine sites, typically represent seasonal activity areas and are often shallow, ephemeral archaeological sites. The prehistoric sites within the Alpine Loop area are not frequented by visitors as the information regarding their location is not published and the sites are small and often difficult to recognize.

***Historic* –** Historic resources are located throughout the project area, and are abundant within the Alpine Loop area. The Alpine Loop area sees more frequent visitation by people looking to experience the history in the area first-hand, especially in the form of visiting historic sites. There are at least forty previously recorded historic resources along the driving route, all of which are easily accessible from a vehicle and therefore more likely to be impacted by growth in recreation in the area (see list below). Within the entire area there are approximately 402 previously recorded historic sites. Potential impacts to sites that lie outside of or a great distance from the driving route are likely to be less, as one of the appealing attributes of the driving route is the accessibility of historic resources.

The historic occupation of the area is readily apparent in the landscape as well as the historical record. Historical records document Euro-American occupation of the area from as early as 1536, but the area was sparsely settled and seldom explored until 1821

In 1848, the United States acquired the western territories which led to vigorous exploration of the area. An early expedition into the San Juan Mountains led by John C. Freemont reported gold in the area, sealing the fate for the region as a mining region. By 1860, the mineral deposits in the area were a well known fact and prospecting began, with as many as 300 hopeful prospectors in the area, only to have the boom truncated by the outbreak of the Civil War. Following the Civil War prospecting resumed in the area, and the years from 1849 through 1872 saw an increase in mining activity in the area. During this period several large scale mines were established, including at least three historic mines which today are collections of buildings and mining structures, within the Alpine Loop area (the Little Giant, 5SA804; the Mountaineer, 5SA964; and Ute-Ulay, 5HN77. (These three sites lie along the Alpine Loop driving route and see heavy visitation during the summer months.) In 1873, the United States government signed the Brunot Treaty and the Utes relinquished their claim to the San Juan region, allowing for a major influx of Euro-American prospectors.

August of 1848 saw the discovery of one of the region's richest lodes. Enos Hotchkiss was hired by the town of Saguache to build the Saguache and San Juan Toll Road (5OR189), a treacherous wagon route stretching 130 miles through the San Juan Mountains that included a pass over Engineer Pass, at 12,800 feet elevation. (Engineer Pass is along the Alpine Loop driving route.) While working on the road, the crew hit the Hotchkiss lode, which would eventually become known as the Golden Fleece (5HN295, today little more than a stone foundation and mine tailings), near Lake San Cristobal. Hotchkiss staked his claim on the lode and then moved on to found Lake City. The discovery of the lode opened the floodgates and prospectors began arriving in droves. The newly founded Lake City became the county seat for Hinsdale County, as well as the cultural center for the surrounding mining districts.

Howardsville (5SA31), although never even platted, became the first county seat for La Plata County, as well as briefly becoming the county seat for San Juan County, and having the largest mill in the US at the time, the Sunnyside Mill (5SA983, located along the Alpine Loop driving route and recognized by its standing mill surrounding structures). Today the townsite of Howardsville is recognizable by a collection of historic buildings and structures. Eventually, La Plata County's seat became Animas City (5BN176, Eligible) and San Juan's became Silverton, which is still the county seat today. Today, Animas City is little more than the remnants of a wall and foundation with an associated debris scatter including historic cans.

Mining was in full swing and throughout the region boom towns grew up over night only to fail shortly thereafter. Capitol City (originally called Galena City) was one such boom-town, and had a population of around 400. Today Capitol City no longer stands, but the cemetery (5HN641) remains. The oldest standing charcoal kiln in Colorado is in Capitol City, the Capitol City Charcoal Kiln (5HN594).

In 1889, the Denver & Rio Grande Railroad (5LP1131 and 5LP2581) reached Lake City, and things looked good for the regions mining future, but the silver market crash of 1893 was a devastating blow to the region. A brief resurgence of mining and railway activity occurred in the late 1890's with the discovery of gold veins, but this was short lived and by the 1910s mining in the region had slowed considerably. A few of the larger mines were still active, however, including the Mayflower Mine (5SA805), the Old Hundred Mine (5SA1075) and the Sunnyside Mine (5SA2121), all within the Alpine Loop area and along the Alpine Loop driving route, thus experiencing heavy activity during the summer months.

3.3.3 Recreation

Introduction

The Alpine Loop is a unique recreation area, presenting opportunities for access to the remote, rugged heart of the San Juan Mountain region, and offering recreation resources and mountain adventures through all seasons of the year. This chapter presents the existing or baseline environment for recreation and recreation use in the Alpine Triangle. The Alpine Loop area receives approximately 611,000 visitor days annually from throughout the Southwest and across the United States. Relatively easy access to high mountainous terrain and rugged scenery through an extensive system of historic mining roads draws visitors for a wide variety of recreation experiences and opportunities, with the most popular being backcountry recreation, scenic driving, heritage tourism, and OHV use.

Definition of Terms

According to the BLM National Management Strategy for Motorized Off-Highway Vehicle Use on Public Lands (OHV Strategy), 2001, OHV is defined as any motorized vehicle designed for or capable of cross-country travel (COHVCO 2001). The term ORV has been used by the public, industry, and the BLM interchangeable with the term OHV. In general, throughout this document the term OHV will be used based on the popularity of the term.

ATV is defined as any all-terrain vehicle. Generally, ATVs are one- or two-person motorized vehicles with usually four but up to six large wheels designed for recreational use on uneven ground or sand. In Colorado, ATVs need to be registered with the state as off-highway vehicles. They are not allowed to operate on State Highways. They may be operated on some County Roads if the County passes an ordinance allowing that use.

Heritage Tourism is defined by the National Trust for Historic Preservation to mean traveling to experience the places, artifacts, and activities that authentically represent the stories and people of the past. It includes cultural, historic and natural resources.

Geocaching is the practice of using a global positioning system (GPS) and other navigational techniques to hide and find objects in the landscape. Participants place objects, or "caches," in waterproof containers in miscellaneous places for others to find, remove, and replace with an item that they brought to exchange (USFS 2005).

Applicable Laws, Regulations and/or Policy

The *BLM Land Use Planning Handbook* (H-1601-1) directs managers to identify SRMAs; to determine a primary market-based strategy for management as a destination recreation area, a community recreation area, or an

undeveloped recreation area; and to state that determination in the land use plan. An SRMA designation intensifies management of areas where outdoor recreation is a high priority. The designation helps direct recreation program priorities toward areas with high resource values, elevated public concern, or significant amounts of recreational activity and to develop RMZs to guide management accordingly. Investments in SRMAs, such as recreation facilities and visitor services, should be aimed at reducing resource damage and mitigating user conflicts caused by recreation to other resources while providing for a quality recreation experience.

BLM's Priorities for Recreation and Visitor Services (2003) and IM 2006-060 detailed a strategy for directing recreation management for BLM public lands by management for specific individual, social, and economic benefits, known as benefits-based management (BBM), rather than traditional activity-based approach. Further, the later policy document defines a work plan to improve travel management and access, incorporate beneficial outcomes, and monitor visitor services and preferences for comprehensive management.

Under BBM, the specific experience and benefit outcomes targeted by management objectives are determined by considering supply and demand, including the capacity of each RMZ to produce desired recreation opportunities, the availability of other similar opportunities in the immediate market area, and the preference of visitors. Therefore, recreation plans must identify those outcomes most appropriate to each RMZ, consider such factors as the capability of the land, evaluate the capacity of the BLM and other collaborating providers to produce those outcomes, and define the recreation-tourism markets. Recreation plans must define activities and settings for the physical, social, and administrative objectives. Each RMZ would be managed to be consistent with the specific goals and objectives for that management area. The goals shape the type of recreation and conservation opportunities that are available for each RMZ. Management actions are provided for each RMZ to assist in reaching the goals and providing opportunities for targeted recreation experiences and resulting anticipated benefits.

The National Management Strategy for Motorized Off-Highway Vehicle Use on Public Lands (OHV Strategy), 2001 outlines a strategy to identify, monitor, and mitigate motorized OHV-related impacts, while taking immediate action to solve pressing issues associated with this use. BLM's OHV Strategy recognizes, as does policy outlined in BLM Manual 8340 (May 25, 1982), "that off-road vehicle use is an acceptable use of public land wherever it is compatible with established resource management objectives."

The National Scenic Byways Program provides support to byway communities to help manage the intrinsic qualities within the broader byway corridor and provide a mechanism for protecting the intrinsic qualities for the area that are recognized as "archaeological, cultural, historic, natural, recreational, or scenic features that are representative, unique, irreplaceable, or distinctly characteristic of an area" (Federal Highways Administration 1995). As directed under the Alpine Loop Interim Corridor Management Plan, the Alpine Loop Byway must be managed to provide a variety of recreation opportunities to local, regional, and national visitors in a relatively natural alpine environment; properly balance recreation use and resource protection to ensure the area's outstanding values are not diminished; and emphasize the importance of partnerships in managing this area through collaboration, consultation, and cooperation with agencies and local communities.

Geocaching activities on BLM lands was determined to be managed as a casual use and not require an SRP under IM 2005-092, as long as the activity is not a commercial endeavor, the activity complies with land use decisions and designations (i.e., special area designations and wilderness policies), and it does not award cash prizes, is not publicly advertised, poses minimal risk for damage to public land or related water resource values, and generally requires no monitoring (BLM 2005b).

Existing Recreation Use and Trends

Detailed information regarding the Alpine Loop's recreation users, visitor days, and patterns of use is based upon two comprehensive user studies: 1984 BLM Recreation User Study published in the 1986 RAMP, and 1998 Alpine Loop Backcountry Byway Customer Study conducted by Virden, et al, of Arizona State University. Both of these surveys were conducted during the summer season, and therefore have little information regarding winter and shoulder season use. These studies were supplemented with visitor use information from the BLM's Recreation Management Information System (RMIS) reports as entered by the Columbine and Gunnison Field Offices' recreation staff. Other sources of state and national recreation and population trends and statistics include the Colorado State Comprehensive Recreation Plan (Colorado State Parks 2003; 2008), the National Survey on

Recreation and the Environment (NSRE) by the USFS (USFS 2007), and the Colorado State Demographer's Office (CSDO 2008). Very little data or quantitative information regarding certain aspects of visitor use or patterns of use exists for new and emerging recreation activities in the project area (i.e. rock climbing, hybrid skiing, geocaching), and therefore this analysis utilized existing data sources and mapping, national trends, key interviews, and existing qualitative data.

Recreation Use, Demand, and Demographics

Recreation use and demand for recreation opportunities has increased across the Alpine Triangle SRMA since the 1986 RAMP and several demographic trends have occurred. However since 2000, population growth and public interests in certain uses have stabilized while other activities have increased. The increase in the demand for and volume of recreation use can be attributed to the following trends:

- *The awareness of the Alpine Triangle has increased as a destination for recreation where access to high mountain settings is central to the experience.*
- *Changes in user preferences for recreation activities and sports have changed how people access, recreate, and explore in the Project Area.*
- *Continued growth and development in neighboring towns and counties has increased year round use and diversity of users.*
- *Shifting demographic patterns has and will continue to affect who uses the Project Area and their recreation preferences.*

Awareness of the Alpine Triangle has increased as a destination for recreation
Total visitation in the Project Area is estimated to have increased from approximately 542,042 visitor days in 1984 to 606,000 in 1998, and to 611,000 in 2008, with a 13 percent increase over 24 years or 0.5 percent annually (Table 3.2). Peak visitation occurs in July and August. The Fourth of July weekend often experiences close to 100 percent occupancy in developed campgrounds and dispersed camping areas. Visitation generally increased from 1986 until the mid-1990s at an annual rate of 0.8 percent, when use stabilized around 1998 at .05 percent annual increase. From mid-1990's until 2008, visitation has fluctuated rather than increased. Wildfires, heavy snow packs, and gas prices contributed to a reduction in visitation in 2002, 2005, and 2008 respectively. Following these trends, visitation in the future is estimated to continue to gradually increase at the same rate (i.e. to approximately 645,000 visitor days) over the next 20 years.

Nationally, the largest changes in recreation use are anticipated to be increases in motorized recreation, scenic driving, winter recreation, new specialty niche sports like ice climbing, and use of commercial outfitters (largest increase in participation does not necessitate that these are the largest total number of participants). However as the Alpine Triangle has already been a destination for pursuits such as motorized recreation, winter sports, and scenic driving, future use patterns are not anticipated to change or grow as sharply as other areas where this use is in the early establishment stage (Anderson 2008). Changes in types of recreation use and patterns of use in the Alpine Triangle are anticipated to be influenced by national trends, but changes in visitor numbers are not anticipated to follow the same increase (Anderson 2009). As stated in previous sections, the high level of visitation during peak season may already be a limiting factor, as those visitors who are seeking an escape from crowds, low numbers of people, and solitude would experience low levels of visitor satisfaction and likely seek another location during this season. Motorized recreation and scenic driving would continue to grow in visitor numbers, but the increase would be anticipated to follow recent, historic trends of the last decade within the Alpine Triangle.

Changes in user preferences for recreation activities and sports have changed how people access, recreate, and explore in the Project Area.
Two visitor studies have been completed for the Alpine Triangle showing user activities and preferences, and a comparison of these two studies show changes in visitation patterns (Table 3.3). In 1984, the BLM and USFS conducted a Visitor Survey in preparation of the 1986 RAMP and estimated that 74,017 people visited the SRMA during the 63-day summer survey (BLM 1986b). In the summer of 1997, Arizona State University conducted a series of surveys to understand visitor and residential uses and preferences collected from nearly 2000 surveys, questionnaires, and focus groups (76-day survey). The BLM estimated that approximately 350,000 people visited the Project Area in the 1997 summer season.

Several notable changes in visitor characteristics in 1998 from the 1984 study were that the majority of group sizes were smaller (57% were in groups of 1-2 people), and most (79%) arrived in 4WD vehicles. Over 75percent of visitors were members of groups that were accommodated by a single vehicle. Visitors in both studies were primarily from Colorado and Texas, and secondarily other surrounding states. Increases in local and Coloradoan visitors were recorded in 1998. One out of every five visitors was retired.

Table 3.2 Alpine Triangle SRMA Total Visitor Use Estimates

	1984 Visitor Survey [1]	1998 Visitor Survey [2]	2008 RMIS User Data [3]	2028 Projected User Data [4]
Recreation User Days (Survey Estimates)	328,042	350,000	366,000	383,000
Durango-Silverton Train User Days	172,000	200,000	180,000	190,000
Winter and Shoulder Season User Days (estimate)	20,000	19,000	23,000	28,000
River User Days along the Lake Fork and Animas Rivers (estimate)	20,000	20,000	18,000	20,000
Commercial Outfitters User Days	9,000	17,000	24,000	24,000
Totals	542,042	606,000	611,000	645,000

[1] Source: 1986 RAMP Visitor User Study (BLM 1986b), 63 day study period (July 2- September 3 1984).
[2] Source: 1998 Final Report of the Alpine Loop Backcountry Byway Customer Study (BLM 1998), 76 day study period (June 15 – August 30, 1997). Durango-Silverton ridership: Durango Herald, (Shane 2008)
[3] Source: 2008 Recreation Management Information System Data (BLM 2009a); Durango-Silverton ridership: Durango Herald, (Shane 2008).
[4] Source: 2028 Projected User Data is projected from trends established between 1998 and 2008 user information, based upon percentage of increase.

Table 3.3 Visitor Characteristics from 1984 and 1998 Visitor Studies

	1984 Visitor Survey[2]	1998 Visitor Survey [3]
Visitor Origin	38 states, three foreign countries	44 states
States	29% Colorado 28% Texas 33% Oklahoma, New Mexico, Kansas, Arizona, California 10% All remaining states	32.8% Colorado (10.2% local) 25.9% Texas 17.6 % Oklahoma, New Mexico, Arizona, California 23.1% All remaining states
Group Size	32% groups of 1-2 56% groups of 3-6 12% groups of 7 or more	56.8% group of 1-2 41.9% group of 3-6 1.4 % groups of 7 or more
Primary Mode of Transportation	47.6% 2WD 38.2% 4WD 12.9% Motorhomes or Campers 1.3% Other	17.1% 2WD 75.8% 4WD 2.9% Motorcycle 2.6% ATV 1.5% Bicycle

[1] Totals from each column are listed as the data was reported in the original sources and may not total 100percent in all areas.
[2] Source: 1986 RAMP Visitor User Study (BLM 1986b)
[3] Source: 1998 Final Report of the Alpine Loop Backcountry Byway Customer Study (BLM 1998).

Continued growth and development in neighboring towns and counties has increased year round use and the diversity of users

Statewide, the BLM began to see significant changes in Colorado's recreation users and constituents in the 1980s and 1990s (BLM 2006). From 1984 to 1998, use in the Alpine Loop by Colorado residents increased by 10 percent (comparison of 1984 RAMP user information to 1998 Customer Study). Population growth in San Juan, Ouray and Hinsdale counties averaged 8 percent from 1980 to 2007. Colorado State Development Office (CSDO) estimated that from 2002 to 2015 these counties are expected to grow an average of 10 percent while population growth within the counties surrounding the Alpine Triangle (e.g. Delta, La Plata, Montrose, and San Miguel Counties), is projected to range from 16 percent to 18 percent (Colorado State Parks 2003). As the population of Durango, Montrose, Delta, and Grand Junction grows, the Alpine Triangle can expect to see more regional Coloradoans that are getting outdoor exercise, escaping workplace stress, and enjoying the closeness of friends and family. These local visitors would be more likely to seek these experiences on weekends and short trips throughout the year.

The San Juan National Forest, immediately to the south of the planning area, reports that 40 percent of Forest visitors are from local communities including Durango, Farmington, and Pagosa Springs (USFS 2008). Additionally, the San Juan Forest's Draft Resource Management Plan Revision (2008) states that local residents tend to seek different settings than visitors, such as those that have little to no development, or have limited trails, camping, boating, and fishing facilities. Visitors to the area tend to seek developed areas, such as campgrounds and interpretive sites. Increasingly, the BLM's recreation users now include both visitors and residents of local communities who are seeking different experiences and settings.

Shifting demographic patterns have affected and will continue to affect who uses the Project Area and their recreation preferences.

Shifting generational patterns are affecting who recreates in the Alpine Loop as well as across Colorado and the nation. As the "baby boomers" (those born from 1946 to 1964) age, their recreation pursuits, interests and activity levels change (BLM 2008a; USFS 2007). The age group over 55 is projected to be the quickest growing population segment over the next 20 years (Colorado State Parks 2003). Additionally, they might retire or purchase a second home in the area. More than 49 percent of all homes in San Juan County and 13 percent of all homes in Ouray County were second homes in 2004 (BLM 2004b). Wilderness visitors tend to be from this generation and older.

A second generational shift is the "millennial" generation (born 1978-2003). Members of this generation have shown a preference for recreation activities that are accessible, that are well represented in the media, and that are practical in terms of how much time the activity requires (Outdoor Industry Association 2006a).

Description of Existing Environment and Recreation Facilities

In addition to the diversification of the recreation users that want to use and enjoy BLM public lands, increases are due in part to the addition of new sports and advances in recreation technology. ATV and OHV use has rapidly expanded in the last 10 years. Very few winter pursuits were incorporated into the 1986 RAMP (primarily cross country skiing, snowmobiling, and snowshoeing); many new sports are practiced today with participation in snow/ice sports on the rise. In addition to the information presented in this section, supplemental information regarding motorized recreation use and heritage tourism may be found in Section 3.3.5 Transportation and Access and Section 3.3.4 Socioeconomics, respectively. The major changes in recreation use can be summarized as:

- *Spring, Summer and Fall use has seen overall vehicle numbers increase due to ATV and OHV use.*
- *Visiting cultural sites, or heritage tourism, have increased as a recreational pursuit.*
- *Winter use has increased in both overall user numbers (e.g. snowmobiling) and the diversity of winter sports has shifted to include more backcountry skiing, developed ski areas, and other new pursuits for low use activities such as dog sledding, ice climbing and hybrid skiing/snowmobiling.*
- *River use has stabilized as commercial rafting has decreased (partly as a result of access issues) but private boating and fishing has increased.*

Recreation- Spring, Summer, Fall

The majority of recreation visits in the Alpine Triangle occur in the spring, summer, and fall months and are most heavily concentrated during the peak season of July through mid August. Since 1986, recreation has slowly

increased, however the growth in total visitation numbers has slowed over the last 10 years (Table 3.4). During this time, changes in recreation preferences and activities have influenced recreation more than the total increase in use. For many visitors, the Alpine Loop is a destination (62%), while others visit the area in combination with other destinations. Visitors to the Alpine Loop area tend to visit the high mountain pass areas, frequent popular hiking routes, visit nearby towns, and explore historic mines and townsites such as Animas Forks. Two-thirds of visitors in 1998 reported that they stayed the night in the area; almost half stayed in local communities and 23 percent camped on public lands. Many summer visitors cross through the area on the Alpine Loop (BLM 1998), while others explore the area from a base camp radiating out to other areas (Arrington 2008). During these seasons while the passes are open, visitors will both traverse the Loop as well as enter portions of the area to access specific destinations.

Nationally, the fastest growing outdoor recreation activities (according to USFS National Visitor Use Monitoring Survey (NVUM), NSRE, and other studies) are expected to be visiting historic places ("heritage tourism"), scenic driving, motorized recreation, and sightseeing. Traditional recreation, such as fishing, hunting, and camping are seeing slower growth in participation nationally and within Colorado (USFS 2007) and in some portions of the Project Area are decreasing (BLM 2008a). Several sports, such as motorcycling, peak climbing, mountain biking, are activities that have seen increased interest over the last 24 years. Others like geocaching, and rock climbing are relatively new recreation activities for the area. While these activities have increased in use, they still represent a relatively small portion of the use in the area.

Motorized recreation, historically and presently, is one of the most popular activities in the Alpine Loop area. The demand for motorized recreation and access has risen in the Alpine Triangle as well as across Colorado and the nation. Scenic driving, 4WD, and OHV use were and continue to be popular activities in the Project Area. Mechanized travel, such as mountain biking, has also increased. Mountain bikers use county roads, BLM roads and a few trails for riding. More information on vehicle trips can be found in Section 3.3.5 Transportation and Access.

In the last 10 years, ATV use has dramatically increased. The 1997 Alpine Loop Backcountry Customer study does not reflect the apparent boom of ATV use that has occurred in the Project Area to present use levels. Informal road and site counts by BLM staff estimate that ATV use has increased from 10 percent in 1996-1998 to over 50 percent of total use in 2008 (Speegle 2008; Anderson 2008). While a group of four visitors in 1997 may have been encountered in the confines of a single jeep, that group today may very well be on four ATVs (Lovelace 2007). Colorado state OHV registrations have increased 223 percent from 1995 to 2003, an average of 18 percent annually (BLM 2006). Since 1991, when Colorado State Parks first began managing the OHV registration program, registrations have grown from below 12,000 to almost 131,000 in 2007 (Colorado State Parks 2008).

Scenic Byway – Driving for pleasure or sightseeing is one of the most popular recreational activities in Colorado, and particularly in the study area along the Alpine Loop and other scenic byways. The designation of the Alpine Loop as a scenic byway in 1989 has contributed directly to higher levels of regional and national visitation. The Alpine Loop directly connects the towns of Lake City, Ouray and Silverton and as such, is a community based resource that benefits residents of these three towns and puts them in a position to work together with us to manage a resource that benefits all parties. The Byway also provides an essential focus point for marketing and name recognition that benefits the entire area. The last visitor study 62 percent of regional visitors identified the Alpine Loop as one of the primary reasons for their visit to the area (Virden et al. 1999). The study by Sem and Goff (1999), suggests that tourism in Colorado has shifted from a national to regional market since the 1980s, however that trend is expected to shift again as an increasing national demand for recreation will simultaneously increase visitation to the study area and the Byway.

The Alpine Loop was designated in order to protect and highlight these special places, provide resources to local communities and land managers to help them create unique travel experiences and enhance the tourism potential of their area. In order for the byway to truly be a community based resource, it has been collaboratively managed by local communities, along with state and local agencies, and the BLM. Management of the Alpine Loop has historically emphasized the intrinsic qualities of the byway itself, byway visitor enjoyment, and participatory management with neighboring communities.

Visiting Cultural Sites and Heritage Tourism

Visiting cultural sites and heritage sites is a popular draw for visitors to the area. Heritage tourism within the Alpine Triangle SRMA centers around historic mining activities, from single mines to mining camps to the boom towns now associated with Silverton, Lake City and Ouray. Many of the visitors to the area include visits to historical sites as part of their trip. Most of these visits occur during the summer months (June through August), when the roads are clear of snow and areas are more easily accessible by vehicles. Some limited visitation occurs during the winter season to more accessible areas.

Heritage tourism provides opportunities for heritage preservation, public education about America's past, and contributions to local economies. As the baby boomers age and alter their recreation plans, nationally heritage travel is becoming more popular. There is a growing interest in understanding America's heritage and exploring distinct communities and other destinations. A 2001 Travel Industry Association (TIA) publication, compared to a baseline study released in 1997, shows some of the trends in the field. For example, there was a 10 percent increase in heritage travel from 1996 to 2000 (ACHP 2002). A 2003 study sponsored by the National Trust for Historic Preservation found that two-thirds (65 percent) of American adult travelers included heritage tourism on a trip; this translates into approximately 92.7 million travelers per year nationwide. Heritage tourists tend to be slightly older, more educated, generally stay longer and spend more money than other tourists. They are more likely to take a group tour and include a broader variety of activities in their itineraries. Communities with heritage resources also have a growing awareness of their capacity to attract and cater to visitors (ACHP 2002).

Popular heritage tourism sites in the Project Area are dominated by the historical remnants of Colorado's mining days in the late 1800s and early 1900s. Many visitors identify heritage tourism as the primary reason for their visit to the area (Virden et al. 1999). Heritage tourism, like the Alpine Loop Byway, is vital to the economies of San Juan, Hinsdale and Ouray Counties. Responsible preservation of the historic mining structures within the Alpine Triangle, along with other visitor facilities such as food and lodging, are essential for providing the experience that heritage tourists specifically look for in this area.

Backcountry/Dispersed Recreation

Hiking, walking, peak climbing, backpacking and other backcountry pursuits remain strong draws to the Project Area. Approximately 52 percent of visitors spend some time in backcountry settings that have little to no development, limited trails, and no facilities. According to NSRE, 49 percent of Coloradoans and 41 percent of regional states visited a wilderness or primitive area in 2006. Wilderness visitors tend to be older than other visitors, with approximately 68 percent in the 40- to 70-year-old range (USFS 2007).

Visiting Fourteeners, the Colorado Trail, and the Continental Divide Trail are popular activities and these areas see high levels of concentrated use. Parking and transition zones in these areas can be crowded during the peak season. Climbing Fourteeners bring visitors to very specific areas in search of an iconic experience of climbing high mountains (Handies Peak, Redcloud Peak, Sunshine Peak, Wetterhorn Peak and Uncompaghre Peak. A survey of people visiting Colorado Fourteeners was conducted by Colorado State University; the study found that more than two-thirds of the visitors had the peak as their sole or primary purpose of their trip. For the iconic draw of the Fourteener that brings visitors to the area, other mountains cannot be substituted. However, for visitors who are seeking high alpine setting, wilderness values, solitude, and remoteness, many other peaks and 68,222 acres of Wilderness and WSAs provide opportunities for these experiences.

Traditional uses, such as hunting, camping, and shooting are still practiced in the project area. Hunting permits are issued for mule deer and elk in this part of Colorado. Portions of three Game Management Units (GMU) fall within Alpine Triangle Boundary. According to Colorado Department of Wildlife (CDOW) between 1999 and 2008 the number of applications for hunting permits has generally increased slightly every year yet in relation to the overall population increases, interest in hunting is on the decline (CDOW 2008). Shooting and target practice is practiced in very limited quantities in dispersed areas in the project area. The demand for both dispersed and developed camping has stabilized. Further information regarding camping facilities is provided under Section 3.3.3 *Recreation Interpretation, Facilities, and Signs*.

As an increasing use in the area, rock climbing is practiced at a low level in several dispersed areas including along Henson Creek (e.g. God's Crag), near Eureka townsite, and Animas River corridor. Due to the fractured geology of

the Silverton Caldera and southern San Juan mountains, there are few areas in the Project Area that offer high quality routes in one location. With the exception of God's Crag, most of the climbs are isolated climbs without visible trails to access the routes. Some routes have permanent anchors established while others have little to no hardware. Rock climbing use is considered to be low.

Geocaching is another new, low level specialty use that provides an opportunity to hone orienteering skills, to get outdoors, and to participate in a family activity. Sales of handheld GPS units have fueled this new sport (Blouin 2008). In 2005, the San Juan National Forest drafted an agreement with Geocaching.com to manage geocache activities on forest lands, and to limit cache sites to 50 locations at any one time. Several hundred geocaches are listed on Geocaching.com for the Silverton and Gunnison areas, however it is unknown how many may be in the Project Area or on BLM lands, or how many visitor days are associated with this activity. Artificial caches are not allowed in Wilderness or WSAs.

River Recreation

Fishing is practiced on a variety of lakes, rivers and streams in this area. Fishers practice their sport in a wide range of settings from in town to deep in the backcountry. The majority is focused on larger streams and rivers that have good fish populations such as Henson Creek, the Lake Fork of the Gunnison and the lower Animas River. Three CDOW hatcheries stock the Lake Fork of the Gunnison with 10 inch catchable kokanee salmon (*Oncorhynchus nerka)* and rainbow trout (*Oncorhynchus mykiss*). Mineral Creek to confluence with the Animas River near the town of Silverton is stocked with rainbow trout; the Animas River is currently not stocked due to water quality concerns. Demand for fishing exceeds the natural production of these streams so natural populations are augmented with stocking by CDOW. Due to its poor water quality, the Animas River provides very limited opportunities for fishing in the Upper Animas stretches and its tributaries. River use is relatively low compared with other activities in the Project Area in part due to limited access and seasonal flows.

Rafting, and kayaking are typical river sports practiced on portions of the Lake Fork of the Gunnison and Animas River areas with opportunities for a variety of skill levels and challenge from easy floats to challenging whitewater in remote canyons. While river use is on the rise, nationally and statewide, several factors limit river recreation in the Project Area including access constraints due to private property and short boating season. Commercial river use on the Lake Fork of the Gunnison has decreased dramatically (e.g.1500 – 2000 river user days in 1995 to 150 user days in 2008) largely due to access issues. Commercial permits for the Animas River have increased over time and currently allow for 2500 user days in the same period. Non-commercial rafting and kayaking has increased, and river days are estimated to be 6000 for both rivers.

Recreation- Winter

Winter recreation has seen an increase in use from population growth in the region which, accompanied by improvements in equipment and new activities, has increased demand for snow-based recreation. This trend is more pronounced in the CFO, but growth in winter visitation, particularly in snowmobiling and ice climbing has also occurred near Lake City. Snowboarding, ice climbing, snowmobiling, hybrid skiing/snowmobiling, and dog sledding are all activities that have seen increases in the Project Area similar to trends in state-wide participation. The slowest growing winter sports are traditional uses such as cross-country skiing and snowshoeing. The length of the winter season varies from year to year with changes in snow pack and road conditions, but is generally defined as the season when snow is present and snow-based recreation prevails. The main season is January through March, however snow may fall as early as November and may persist until June in the high country. Additionally, Cinnamon and Engineer Passes are closed during the winter months (November through early June). The central core of the Project Area beyond a few miles from a plowed road sees little recreation use, with the exception of a few backcountry skiers, snowmobilers, and ice climbers. Several access points along the Alpine Loop are maintained by Hinsdale and San Juan Counties to access Eureka townsite, Gladstone, Slumgullion snowmobile area, and Henson Creek. Several popular winter areas are accessed along routes maintained by Colorado Department of Transportation (CDOT), such as Molas Pass, Molas Lake, and Red Mountain Pass on Highway 550, and Spring Creek Pass along Highway 149.

Snowmobiling

Currently snowmobiling is allowed in most of the Project Area, except in Wilderness and WSAs. Over 120 miles of snowmobile trails are groomed and maintained for snowmobilers through SRPs with the BLM and financial support from the State Snowmobile Fund. The Eureka townsite, Molas Pass, the Continental Divide Snowmobile Trail, and Red Mountain Pass are popular activity areas for snowmobiling and provide staging areas and parking. Hybrid skiing, the practice of using a snowmobile to access skiing and snowboarding areas, is a new and emerging trend in winter recreation.

Developed Ski Areas

The Project Area currently has three ski areas within its boundaries which are all operating through authorization by the BLM: Kendall Mountain Ski Area, Silverton Mountain Ski Area, and Lake City Ski Hill. Kendall Mountain is a small family-oriented ski area located in the town of Silverton and offers one chair lift, 11 trails, and 35 skiable acres. Silverton Mountain Ski Area is an advanced to expert level ski area located along San Juan County Road 110 and offers one lift on 1,800 acres. The ski area opened for operations under a short-term special recreation permit for guided skiing only in 2002. In 2006, the BLM expanded their permit to allow up to 475 skiers per day and approved unguided skiing during specified seasons and conditions. Lake City Ski Hill is a family oriented ski area that offers 1 rope tow, 4 trails, and 35 skiable acres. Both the Kendall Mountain and Lake City Ski Hill provide skiing for a local market, with approximately 9,400 skiers per year. Silverton Mountain serves a destination market and visitation has increased from 3,576 in 2004-2005 to 5,589 skiers in 2007-2008, an average of 80 skiers per operating day (USFS 2007).

Backcountry Winter Recreation

Backcountry winter recreation (such as cross-country skiing, snowboarding, and snowshoeing) has also increased. Advances in technology, such as improvements in equipment and avalanche safety training, have made the backcountry more accessible for many users. Data regarding backcountry winter use is limited for the Project Area. The CFO conducted periodic winter patrols to monitor the number of vehicles found in parking areas and the number of encounters with each type of winter user at several locations including the Project Area (BLM 2008b). The data from 2006- 2007 and 2007-2008 winters (36 and 25 patrols from November through March) indicate that Molas Lake, Molas Pass, and Little Molas Lake are the most popular areas and accounted for the majority of the use (over 75%). Visitor counts included locations outside of the Project Area, and therefore specific counts of users by activity are not available. However, skiing, snowmobiling, and snowshoeing were the most common pursuits, with snowboarders, hikers, and ice climbers being less common.

The Hinsdale Haute Route system provides lodging and hut-to-hut winter recreation for approximately 250 winter enthusiasts per year and is accessed from Lake City. The use level has remained relatively constant over the last 10 years (Anderson 2008). Huts are dismantled in the spring and installed in the fall to reduce year-round impacts to the sites.

Recreation- Interpretation, Facilities, and Signs

Opportunities for interpretation, facilities and signs are spread along the Alpine Loop within the Project Area. Examples of interpretation opportunities include roadside signs, interpretive programs, and publications such as the Alpine Explorer. Examples of facilities include trail heads, campgrounds, and restrooms. Public information centers were established to support the Alpine Loop in the gateway communities of Silverton and Lake City. Thousands of visitors receive information through onsite visits, calls, and information packets. The Alpine Triangle Interpretive Plan was developed for the Alpine Loop in 1994, and since then several assets have been developed including interpretive signs, kiosks, and information pamphlets (BLM 1998). Over 200 signs, exhibits, and interpretive markers have been installed in the Project Area, and these include gateway markers, historic information exhibits, points of interest, regulation signs, and directional signs.

Table 3.4 Public Land Information Center Visitation in Silverton and Lake City from 2005-2008

Public Land Centers	2005	2006	2007	2008
Silverton	10,385	10,655	11,873	9,455
Lake City	Not Available	11,022	9,926	10,249
Totals	10,385	21,677	23,806	21,712

Over the years, facilities have been developed for an evolving range of recreational activities such as snowmobiling, ice climbing, ATVing, and river sports. Facilities in the Project Area are generally minimal and concentrated along the Alpine Loop and other motorized access points. Developed facilities include 3 ATV staging areas, 6 campgrounds, 13 restrooms, 1 boat ramp, and approximately 17 trailheads and parking areas. Campground fees are collected at Mill Creek, The Gate and Red Bridge campgrounds. Campground use from 2001-2008, as reported in RMIS, for developed campgrounds indicates that campground use has decreased slightly. In 2001, campground use averaged between 3500 – 5000 user days while in 2008 the campgrounds averaged 1700 – 4000 user days (decrease of over 10 percent). Dispersed camping is allowed in several areas throughout the Alpine Loop. The BLM estimates that informal dispersed camping receives over 10,000 user days per year.

Outfitters and Special Events – Commercial outfitters, vendors, and special events are authorized through special recreation permits. In partnership with the BLM, seventy two commercial operators use the Alpine Loop and project area to provide their services with over 24,000 commercial user days annually (BLM 2008a). For 2008, approximately 49 SRPs provide summer services, 22 provide winter services, and 4 provide services year round. Both field offices anticipate that very few additional SRPs will be issued in the foreseeable future (Speegle 2008; Anderson 2008). In 1984, less than 20 outfitters offered services in the Project Area, providing rafting, fishing, and hunting services (estimated 10,000 user days). These commercial outfitters provide a variety of services from jeep tours, ATV tours, guided fishing, and river running in the summer, and ice climbing, winter mountaineering, heli-skiing and snowmobiling in the winter.

Additionally, special events are permitted in the project area, such as the Silverton Alpine Marathon, Hardrock 100 Race, Turkey Shoot, Lake City Solstice Run, Colorado 500, and the Tour de Ski. Competitors and spectators for these events contribute an additional 1000 days annually.

Recreation Collaboration

Over the years, the BLM has established and maintained a variety of partnerships and collaborative working relationships to work together toward the sustainable management of recreation and ecotourism in this area. Some of the partners include the towns (i.e. Silverton, Lake City, and Ouray), the counties (i.e. San Juan, Hinsdale, and Ouray), local businesses, special interest groups, outfitters, local schools, conservation groups, academic institutions, other agencies and many more. By working together with these groups the BLM takes a variety of perspectives into account as they set their goals and priorities, prioritize actions, and implement those actions. By pooling scarce resources and skills, the collaborators improve their ability to implement these actions in a cost effective manner. These partnerships also enable the BLM to better compete for grant funding and charitable donations that are otherwise unavailable for federal entities.

As tourism and commercial outfitters are becoming an increasingly vital part of the economies and social fabric of the communities surrounding and within the Project Area, these partnerships continue to grow in scope and importance to the management of the area. Partnerships with non-profits such as San Juan Mountain Association, San Juan Historical Society, and Cultural Site Stewards Program have extended visitor services, increased outreach, provided information and interpretation, and assisted with preservation, structure stabilization, monitoring, and fund raising. Search and rescue organizations in each community assist with public safety through evacuations, organizing search parties, and responding to emergencies. Additionally, partnerships with special interest groups such as snowmobile clubs, ATV groups, and environmental organizations such as the Fourteeners Initiative have provided for grooming, trail maintenance, and stewardship through adopt-a-trail programs and low impact practices. This collaborative approach has grown over time in proportion to the demand for recreation in the Project Area and will continue to be needed in the future.

Activities, Experiences, and Desired Settings for Recreation Experiences – Under BBM, the specific experience and benefit outcomes targeted by management objectives are to be analyzed to determine if the public's interest in recreation is met (i.e. supply and demand for activities and experiences), including the capacity of each RMZ to produce desired recreation opportunities, the availability of other similar opportunities in the immediate market area, and the preference of visitors. The following is a discussion of the activities, experiences, desired settings and benefits that visitors seek within the Project Area during the 1984 and 1998 surveys.

Survey of Activities, Experiences, and Desired Settings – Results from both surveys indicated that motorized recreation, backcountry recreation, and scenic driving/sightseeing were the most popular activities. Visiting historic sites, viewing wildflowers, camping, and fishing were also popular (winter uses were not captured by either of these studies as they were completed during the summer months).

Desired Recreational Settings – In 1984 and 1998, the high alpine and mountain settings were favored by most visitors as their most important and memorable setting in the Alpine Triangle. The system of rugged roads and trails provided access to these remote settings, such as Engineer Pass, Cinnamon Pass, and the high alpine areas. Setting factors such as remoteness, naturalness, few facility developments, low number of recreational encounters, and low level of information services were selected by visitors as factors that should continue to be managed to reflect the conditions that they experienced in their trip (i.e. "leave it as it is" level of management).

Desired Experiences/Benefits – Visitors expressed interest in gaining a variety of psychological benefits, as listed in Table 3.5. Experiencing nature, escaping crowds and stress, and being with friends and family rated highest, and were decidedly more important than low ranking themes such as learning, risk taking, meeting new people, achievement, and independence. Among the highest were obtaining greater connectivity with nature, reducing stress, and enhancing family relationships and friendships.

Table 3.5 Activities, Experiences, and Desired Settings for Alpine Triangle

	1984 Visitor Survey[1]	1998 Visitor Survey [2]
Activities Preferences- Top "most important activity" responses	• Motorized recreation • Backcountry (hiking/backpacking) • Fishing • Sightseeing • Camping	• 4WD/Motorized recreation • Hiking/walking • Scenic driving/sightseeing • Viewing wildflowers • Camping • Photography
Setting Preferences	• On or within ½ mile of unimproved or 4-wheel-drive roads, but greater than ½ mile from improved or paved roads. • Very little evidence of people. • Few, but some, contacts with other people. • Few on-the-ground controls. • Some rustic facilities to	• High level of remoteness, • High sense of naturalness, • Low level of development, • Few to little services, • Low level of contacts with others, • Few programs, • Existing level of motorized use, • Quality of road maintenance, • Little facility maintenance

	protect environment and visitor safety • Motorized use permitted.	
Experience Preferences	• Viewing the scenery • Being close to nature • Getting away from usual demands • Having a change in daily routines • Having family activities • Experiencing tranquility • Experience the new and different • Learning about the area • Getting to know the lay of the land • Learning more about nature	• Enjoying scenery • Being close to nature • Getting away from crowds • Being with family and friends • Experiencing tranquility • Escaping every day responsibilities • Reducing stress • Enjoying physical exercise • Being on my own

[1]1986 RAMP Visitor User Study, USFS North Central Experiment Station
[2] 1998 Final Report of the Alpine Loop Backcountry Byway Customer Study.

Attitudes toward whether current management is adequate in the Project Area have changed over time; in 1998 visitors largely agreed that some projection should be increased and in 2007 public scoping process for the RAMP opinions diverged across a spectrum. Visitor satisfaction has been high in subsequent visitor surveys, with 95 percent of 1998 respondents saying that they were either "very" or "extremely" satisfied with their experience (Virden et al, 1998). Seventy-two percent of the visitors felt that there were no needs for additional interpretation programs, interpretation facilities, or other visitor information services in the Alpine Loop area. In the 1998 survey, visitors identified areas where they would press for key management changes in their "most satisfying zone" which included the high mountain pass areas, Lake Fork area, and Lake City. One third of visitors felt that more natural conditions should be restored in their most satisfying zone, while less than 2% felt that more alteration should be allowed. Over one quarter of visitors felt that road maintenance in their most satisfying zone should be increased; while 10 percent felt that it should be decreased. Over 20 percent felt that more programs and interpretation should be provided, and over 20 percent felt that motorized vehicle use should be more limited in their most satisfying zone.

In 2007, differing voices spoke across a spectrum of intensity for management. As one end, several advocated for "minimal management" that would allow for more motorized access, protect the rustic experience of the Alpine Loop, and limit facilities to preserve the existing level of challenge and freedom of recreational choice. In the middle of the spectrum, several expressed a need to balance motorized access with other recreation activities, emphasize resource protection, conservation, or preservation, and continue to allow most forms of current access and activities. This group emphasized education, signing, and collaboration to reduce or offset impacts rather than through limitations to the area. Finally, another contingent argued that the area needed a stronger stance on enforcement and protection through regulation, facility development, and use limitations. Strategies for cooperative management were mentioned repeatedly across the spectrum to address user conflicts, law enforcement, and road maintenance as part of recreation management goals.

3.3.4 Socioeconomics

Introduction

The Alpine Triangle Special Recreation Management Area serves as the study area and scope of analysis for this project. The area includes, Lake City, Silverton, and Ouray, the BLM-managed public lands between them, and the counties of Hinsdale, Ouray, and San Juan. The scope of the analysis for social and economic resources includes a discussion of current social and economic data relevant to the proposed project, including population, demographics, employment, income and taxes in the study area. Also included are data relating to the State of Colorado and the U.S., as available, which provides for a comparative discussion when analyzed against the study area.

Information in this section was obtained from various sources including US Census Bureau, the State of Colorado, and the Sonoran Institute Economic Profile System (EPS) database which uses different sources of information including Bureau of Economic Analysis (BEA) and Colorado state data as source information.

Planning Level Decisions

The *BLM Land Use Planning Handbook* (H-1601-1) specifies that the social and economic environment must be considered for all BLM land use planning decisions. Additionally, as noted in the *BLM NEPA Handbook (*H-1790-1), socioeconomic issues typically occur within communities located outside of BLM-managed lands. Nevertheless, the BLM must analyze the impacts of a given decision or project on the social and economic resources of a community or region.

Applicable Laws and Regulations

Per the *BLM Land Use Handbook* (H-1601-1), by statute, regulation, and Executive order, the BLM must utilize social science in the preparation of informed, sustainable land use planning decisions. With regard to the Alpine Loop project area, management for socioeconomic and environmental justice conforms to the following statutes, regulations, policies, and guidelines, as well as the overriding laws as discussed in Chapter 1 of this document.

Federal Regulation

Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 established the National Scenic Byways program; further strengthened with the passage of the Transportation Equity Act for the 21st Century (TEA-21) in 1998 and subsequently with the recent passage of the Safe, Accountable, Flexible, and Efficient Transportation Equity Act - A Legacy for Users (SAFETEA-LU), in 2005.

Existing Use and Trends

The overall demographics, economy and quality of life in the study area have changed dramatically as the region has shifted into the early 21st century from a commodity based lifestyle (mining) towards a tourism based way of life. Population in the area has generally increased between 1980 and 2007, though there was a steep drop in the population of San Juan County and Silverton between 1990 and 2000 as the county's last operating mine closed in 1991. As mining activity in the area wanes, tourism based industries have become more prominent, and today account for a substantial number of area employees. There has also been an influx of seasonal visitors and second/seasonal homeowners. Today, the communities in the study area enjoy a lifestyle directly tied to recreation resources and opportunities in the region, and rely heavily on the economic stimulation of the nearly 300,000 annual visitors.

Description of Existing Environment – Demographics

Population – As illustrated in Table 3.6 below, Ouray County is the most populous of the three counties in the study area; conversely, San Juan County is currently the least populous. Population in the study area, as well as the state, increased in all communities and counties between 1980 and 2007, except for the town of Silverton and San Juan County. For the areas where there was positive growth during this time period, the growth rate ranges between 32 percent and 373 percent; Ouray County had the highest growth rate during this period. Population growth was flat in the town of Silverton between 2000 and 2007, and did not exceed 17 percent (in Ouray County) for the same study period. Total population for the three cities was 1,820 in 2007, and 5,775 for the three counties in the same year; the total population for the three counties represents less than one percent of the statewide population. Despite fluctuations in each city and county, overall, population has increased 8.08 percent among the three cities, while increasing 166 percent among the three counties, between 1980 and 2007.

Table 3.6 Historic and Current Population for the Study Area, 1980 – 2007

	1980	1990	2000	2007	% change 1980-2007	% change 1990-2007	% change 2000-2007
Cities							
Lake City	206	223	375	387	87.86%	73.54%	3.20%
Ouray	684	644	813	902	31.87%	40.06%	10.95%
Silverton	794	716	531	531	-33.12%	-25.84%	0.00%
TOTAL	1,684	1,583	1,719	1,820	8.08%	14.97%	5.88%
Counties							
Hinsdale	408	467	790	838	105.39%	79.44%	6.08%
Ouray	925	2,295	3,742	4,378	373.30%	90.76%	17.00%
San Juan	833	745	558	559	-32.89%	-24.97%	0.18%
TOTAL	2,166	3,507	5,090	5,775	166.62%	64.67%	13.46%
State							
Colorado	2,889,964	3,294,394	4,301,261	4,753,377	64.48%	44.29%	10.51%

Source: U.S. Census (2008)

Employment – In 2000, total employment in the three cities was 214, 397, and 308 and equaled 449, 1,818 and 319 in the three county study area (Table 3.7). Employment in the three county area represented 0.12 percent of total state employment. Tourism plays a significant role in the economy of Colorado, accounting for 9 percent of all employed residents in the state in 2000. The significance of tourism based industries was amplified in the cities of Lake City, Ouray, and Silverton. Tourism based industries, listed in Table 3.7, as "arts, entertainment, and recreation," accounted for more jobs in Ouray and Silverton than any other industry, with 23.4 and 26.9 percent of employment, respectively. Tourism-based employment in Lake City was 17.3 percent of total employment, although construction and retail trade topped the list of employment industries in this city.

Employment in San Juan County, like the cities of Ouray and Silverton, was dominated by arts, entertainment, and recreation (26 percent), and was the top sector for employment in this county. Ouray and Hinsdale Counties both relied more heavily on the construction industry, with 18.6 and 18.7 percent, respectively.

Table 3.7 Employment by City and County, 2000

	Cities			Counties			
Industry	**Lake City**	**Ouray City**	**Silverton**	**Hinsdale**	**Ouray**	**San Juan**	**Colorado**
Agriculture, Forestry, fishing, hunting, mining	3	8	10	16	112	10	44,658
Construction	46	51	55	84	338	57	200,174
Manufacturing	3	6	17	11	102	17	201,169
Wholesale trade	0	3	2	0	35	2	76,339
Retail trade	45	40	27	75	162	27	259,845
Transportation	5	2	11	17	39	11	107,155
Information	9	7	2	14	40	2	108,955
Finance, insurance, real estate	20	39	7	48	143	12	169,285
Professional, scientific, management, administrative	22	46	20	35	184	24	257,548
Education, health and social services	9	62	44	36	249	44	374,486
Arts, entertainment, recreation	37	93	83	72	257	83	199,513
Other	8	16	5	21	80	5	104,885
Public Administration	7	24	25	20	77	25	101,182
Total	***214***	***397***	***308***	***449***	***1,818***	***319***	***2,205,194***

Source: U.S. Census Bureau 2000

Unemployment – In terms of the percent of unemployed in each place (city or county) in the study area, unemployment was the lowest in Lake City (in 2000) at 0.3 percent. Unemployment did not exceed 1.8 percent between Lake City, Ouray city, and Silverton. In 2000, unemployment in each of the three counties ranged between 1.5 to 2.1 percent, compared to the state and U.S., where the unemployment rate was 3.0 and 3.7 percent, respectively. Thus, unemployment in the study area is lower than the state and national figures.

Economic Activity

Income – Per capita income in each of the three cities and two of the counties was lower in 2000 than in the state of Colorado; only Ouray County had higher per capita income than the state at $24,335 (Table 3.8). Alternatively, per capita income was higher than the national average in Lake City, Ouray city, Hinsdale County, and Ouray County. Silverton was $4,748 lower, and San Juan County was $4,003 lower than the national per capita income.

Median household income in the study area was generally below the state and U.S. figures as well (Table 3.8), with the exception of Ouray County. Median household income in Ouray County was $2,573 more than the state median household income and $7,782 over the national figure. Alternatively, the city of Ouray had a household income more than $11,000 below the state average and $5,900 below the national average.

Table 3.8 Per Capita and Median Household Income by City and County, 2000

	Per Capita	Median Household
Cities		
Lake City	$23,392	$39,853
Ouray	$23,127	$36,094
Silverton	$16,839	$39,375
Counties		
Hinsdale	$22,360	$37,279
Ouray	$24,335	$49,776
San Juan	$17,584	$40,000
State/Country		
Colorado	*$24,049*	*$47,203*
U.S.	*$21,587*	*$41,994*

Source: U.S. Census Bureau 2000b

Cost of Living – An area's cost of living can be represented in the Cost of Living Index (COLI); a COLI is a theoretical pricing index that measures the relative cost of living over time and compares the difference in living costs between cities. The Bureau of Labor Statistics publishes the Consumer Expenditure Survey, which is used to evaluate the price data for categories such as housing, transportation, food, goods and services, and medical expenditures for cities and counties across each state. These expenditure categories are then weighted according to their overall importance in the average consumer's budget.

A Cost of Living Rate of 1.00 represents the state's average, while a number below 1.00 indicates that the city is less expensive than the state average; anything above 1.00 indicates that it is more expensive than the state average. A Colorado State University (CSU) study in 2002 (Garner and Eckert 2002) provided a county by county COLI for the state. Results of this study indicate that the cost of living in Ouray and Hinsdale counties in 2001 was slightly more expensive than the state average (1.015 and 1.005, respectively), while the cost of living in San Juan County was slightly less than the state average (0.948). In the CSU study, Ouray and Hinsdale counties fell into the average COLI range, while San Juan County fell into the low COLI range (Garner and Eckert 2002). For reference, the highest COLI within Colorado during the study period was 1.706 in Pitkin County, while the lowest was 0.834 in Baca County.

Taxes and Revenues – Although Colorado levies every major tax (i.e., property, sales, income, corporate, etc), the state generally has a favorable tax climate because the rate on each of these taxes is amongst the lowest in the country. The state's low tax rates can be attributed largely to tax policies adopted by the state in the early 1990s. These tax policies

have limited the annual percent increase of state and local government spending and any expenditure over the approved limit must be approved by voters. As a result of the tax policy limitations, local governments have been forced to cut back on local services and maintenance funding to adjust to the constitutional amendment from 1992 (Colorado Department of Property Taxation 2007).

Colorado's property taxes provide revenue exclusively for local government services; just over half of the state's property tax revenue supports the public school system (50.6%), county governments collect 25.5 percent, special districts collect 17.5 percent, municipal governments collect 5.2 percent, and junior colleges collect 1.2 percent. Revenue generated in 2007, payable in 2008, increased for each local government service for a combined increase of 13.26 percent. The residential assessment rate for the state since the 2003–2004 fiscal year (FY) has been 7.96 percent, down from 9.15 percent in FY 2001–2002 (Colorado Department of Property Taxation 2007).

Sales taxes apply to the retail sale of personal property or services within the state. A use tax is a complement to sales taxes, and is levied on any sale of any property outside the state of Colorado for use, storage, or consumption inside the state of Colorado. County sales tax rates can fluctuate from year to year because county option taxes originate and expire at varying times.

In addition, cities, towns, and counties, by voter approval, may impose an additional lodging tax on all sleeping accommodations for guests staying less than 30 days. This tax extends to mobile accommodations, such as tents, trailers, and campers. Effective tax rates for Hinsdale, Ouray, and San Juan counties in 2008 are presented in Table 3.9 below. In the three county study area, only Hinsdale and San Juan counties have opted to levy the county lodging tax. Lodging tax distributions are generally used to promote travel and tourism within the county imposing the tax.

County revenues are derived from multiple sources including sales tax, federal and state funds, and highway user taxes. Total property tax revenue collected in each county in 2005 and 2007 are detailed in Table 3.10; each county saw an increase in revenue collections between the two years, ranging from 36.47 to 44.21 percent.

Table 3.9 Sales, Use and Lodging Taxes by County, 2008

Location	Sales Tax	Additional Use Tax	County Lodging Tax
Hinsdale County	5.0	4.0	1.9
Ouray County	1.0	*None*	*None*
San Juan County	4.0	*None*	2.0
Colorado	2.9	2.9	–

Source: Colorado Department of Revenue 2008

Table 3.10 Total Property Tax Revenue Collection by County, 2005 and 2007

Study Years			
County	**2005**	**2007**	**% increase, 2005-2007**
Hinsdale	$1,594,892	$2,299,965	44.21%
Ouray	$7,126,054	$9,725,015	36.47%
San Juan	$1,557,460	$2,142,015	37.53%

Source: Colorado Department of Property Taxation 2005, 2007

Of Colorado's approximately 66 million acres, the federal government owns and manages approximately 23.7 million acres or roughly 35 percent of land in the state. Federally owned land is not subject to federal property taxes, which are important to support local government operations and education. In 1976 Congress authorized federal land agencies to share income with state and counties and provided a Payment in Lieu of Taxes (PILT) program to help compensate lost tax revenue otherwise incurred by local governments for lands within their boundaries. Because revenue earned from property, sales, use, and lodging taxes does not generally provide a tax base large enough to support local services, federal payments, such as PILT, help fund revenue demands for local services. PILT received by the state of Colorado and distributed to Hinsdale, Ouray, and San Juan counties, is detailed in Table 3.11 below.

Table 3.11 Payment in Lieu of Taxes Received in the Study Area, 2001–2007

	2001	2002	2003	2004	2005	2006	2007	Change 2001-2007
Hinsdale	$59,660	$62,630	$70,770	$72,758	$72,468	$76,805	$74,056	24.1%
Ouray	$164,913	$173,667	$201,996	$206,790	$205,654	$210,112	$209,016	26.7%
San Juan	$32,783	$34,553	$38,977	$40,653	$42,436	$43,399	$43,078	31.4%
Counties Total	*$257,356*	*$270,850*	*$311,743*	*$320,201*	*$320,558*	*$330,316*	*$326,150*	26.7%
Colorado	$15.2 million	$14.5 million	$17.6 million	$17.6 million	$16.8 million	$17.4 million	$17.3 million	13.9%

Source: U.S. Department of the Interior 2008

As demonstrated in Table 3.11, PILT payments to the state increased 13.9 percent between 2001 and 2007. For the three-county study area, PILT ranged between $257,000 to $326,150, experiencing a 26.7 percent increase over the same time period.

Quality of Life – The largest factor affecting the current character and economy of the study area is tourism, both heritage based tourism and the scenic byway, which traverses through the study area (the Alpine Loop Scenic and Historic Byway [Alpine Loop]). Lands in the three county area are dominated by federal ownership and are generally composed of rugged, mountainous terrain. There are numerous recreation opportunities across the Alpine Triangle Recreation Area. Primary recreation activities experienced by visitors to the project area include sightseeing and motorized recreation along the Alpine Loop, hiking, viewing wildlife, fishing, whitewater boating, touring historic sites, snowmobiling, and backcountry skiing (Virden et al. 1999). One of the biggest draws to the region is its remoteness and the solitude a visitor can experience (Sem and Goff 1999).

Visitor and Resident Experience – The social fabric and quality of life enjoyed by the three communities in the study area (Lake City, Ouray city, and Silverton) are directly tied to the recreation resources in the region and the importance that nearly 300,000 annual visitors have with regard to the local economy. Visitors and residents both value proximity and access, as well as the aesthetics and benefits of undeveloped lands within the Alpine triangle. The region provides for unique participatory tourist experiences that over time have brought jobs and economic development to the region. Residents profit economically from expenditures made by visitors, who enjoy thousands of acres of undeveloped land and scenery. These communities benefit from visitors to the region who book hotel rooms, eat, purchase gas and shop, among other activities. In 1997, tourism spending in Hinsdale, Ouray, and San Juan counties was an estimated $42.6 million dollars (Sem and Goff 1999). The scenic resources, climate, and outdoor opportunities in the region also tend to attract retirees and those looking for second homes.

Remote and rural areas surrounding the communities of Lake City, Ouray, and Silverton, are ideal areas for nature-based activities popular in the region such as skiing, hiking, camping, etc. The region is primarily a summer destination for tourists; however, winter tourism is also a component of the regional economy. Recreation and tourism are important contributors to the economic stability of the area; economic benefits are derived from direct spending on food, gas, lodging, etc., but also from sales tax generated from visitor spending. Local and sales tax revenue are extremely important in rural (or non-urban) areas because tourism often comprises a larger proportion of the economic activity in these areas and also because special excise taxes on tourists and visitors (i.e. from food, lodging, auto rentals etc.) tend to be more heavily paid by visitors, rather than residents.

A 1997 study of the three communities along the Alpine Loop indicated that the majority of residents felt that tourism played an important role in the economy of their community and the region, that they benefited from some form of local/regional tourism, and that tourism in their communities should be encouraged. Similarly, tourists visiting the three communities indicated that sightseeing, photography, and visiting museums were the most popular regional activities. In order for the local communities to continue to realize all the benefits of heritage tourism, the scenic byway, and tourism in general in the region, recreation management goals will need to continue to manage for the different settings and experiences that visitors seek through benefits-based management.

Scenic Byway – As noted previously, designation of the Alpine Loop as a scenic byway in 1989 has contributed directly to higher levels of regional visitation; in particular, acceleration of heritage tourism. The Alpine Loop directly connects the towns of Lake City, Ouray and Silverton and as such, is a community based resource that

benefits residents of these three towns. In addition to the regional connectivity the byway provides, 62 percent of regional visitors identify the Alpine Loop as one of the primary reasons for their visit to the area (Virden et al. 1999). The study by Sem and Goff (1999), suggests that tourism in Colorado has shifted from a national to regional market since the 1980s, however that trend is expected to shift again as an increasing national demand for recreation will simultaneously increase visitation to the study area and Byway.

The Alpine Loop was designated in order to provide resources to local communities such that these communities can create unique travel experiences and enhance the local quality of life. Motorized recreation, or driving for pleasure, is one of the most popular recreational activities in Colorado, and particularly in the study area along the Alpine Loop and other scenic byways. However, benefits and recreational opportunities derived from the scenic byway are not exclusively from driving for pleasure, but also from local facilities along the byway, such as heritage tourist sites, food and lodging, restrooms, and travel information. Enjoyment of the byway will continue along with enjoyment of heritage tourism sites in the region and along the byway itself.

In order for the byway to truly be a community based resource, it has been collaboratively managed by local communities, along with state and local agencies, and the BLM. Management of the Alpine Loop has historically emphasized the intrinsic qualities of the byway itself, byway visitor enjoyment, and participatory management with neighboring communities.

Heritage Tourism – Heritage tourism provides opportunities for heritage preservation, public education about America's past, and contributions to local economies. As the baby boomers age and alter their recreation plans, nationally heritage travel is becoming more popular. There is a growing interest in understanding America's heritage and exploring distinct communities and other destinations. A 2001 Travel Industry Association (TIA) publication, compared to a baseline study released in 1997, shows some of the trends in the field. For example, there was a 10 percent increase in heritage travel from 1996 to 2000 (ACHP 2002). A 2003 study sponsored by the National Trust for Historic Preservation found that two-thirds (65 percent) of American adult travelers included heritage tourism on a trip; this translates into approximately 92.7 million travelers per year nationwide. Heritage tourists tend to be slightly older, more educated, generally stay longer and spend more money than other tourists. They are more likely to take a group tour and include a broader variety of activities in their itineraries. Communities with heritage resources also have a growing awareness of their capacity to attract and cater to visitors (ACHP 2002).

Popular heritage tourism sites in the Project Area are dominated by the historical remnants of Colorado's mining days in the late 1800s and early 1900s. Many visitors identify heritage tourism as the primary reason for their visit to the area (Virden et al. 1999). Heritage tourism, like the Alpine Loop Byway, is vital to the economies of San Juan, Hinsdale and Ouray Counties. Responsible preservation of the historic mining structures within the Alpine Triangle, along with other visitor facilities such as food and lodging, are essential for providing the experience that heritage tourists specifically look for in this area.

3.3.5 Transportation and Access

Introduction

This travel management and access section addresses the system of roads and trails within the Project Area that is available to the public to facilitate their use and enjoyment of public lands, and the rules that govern that use. As access within the project area is complicated by the land ownership pattern, this section also addresses access to private land and infrastructure developments.

Definition of Terms

Travel management on public lands is addressed at the land use planning level in terms of availability; areas are designated as Open, Limited, or Closed to motorized/mechanized vehicles.

- Open: areas where all types of vehicle use are permitted at all times, anywhere in the area, irrespective of roads or trails.
- Limited: areas restricted in availability at certain times, in certain areas, and/or to certain vehicular use; also referred to as "Limited to Designated Routes".

- Closed: areas closed to all types of vehicle use and include units of the National Wilderness Preservation System.

The BLM travel management system defines roads as routes over 50 inches wide designed for motorized use, unless otherwise identified and managed as trails. Trails are defined as routes 50 inches or less in width, or routes over 50 inches wide identified and managed as a trails.

Travel management and access also addresses vehicle types. For the purposes of this EA, the following designations apply:

- OHV: Any motorized vehicle capable of travel on or over land (to include snow), water, or other natural terrain, excluding motorboats, military, emergency, law enforcement or other official vehicles. (ORV – off road vehicle – is the term with a legally established definition in Executive Orders and the 43 CFR 8430 regulations. The more commonly recognized term OHV will be used in this document.)
- ATV: Any all terrain vehicle. Generally, ATVs are one- or two-person motorized vehicles with usually four but up to six large wheels designed for recreational use on uneven ground or sand. In Colorado, ATVs must be registered as off-highway vehicles. These are not considered a street legal vehicle.
- Motorcycle: Any two wheeled motorized vehicle.
- Mountain Bike: Any two wheeled non-motorized vehicle.
- Snowmobile: Any propelled vehicle designed for travel on snow or ice and steered by skis or runners.

Planning Level Decisions

As defined above, in an area designated as Open, travel access is not limited to roads or trails. There are no designated Open areas within the Alpine Loop Project Area; approximately 100,895 acres are designated as Limited to Designated Routes, and 68,222 acres are designated as Closed. For areas designated as Limited, travel limitations may be based on vehicle type, seasonal use, and/or resource impacts. Motorized and mechanized vehicles, including full sized vehicles, motorcycles, ATVs, mountain bikes and snowmobiles, are prohibited in Wilderness areas and WSAs, which accounts for the Closed acres in the project area. In the Limited areas, no motorized or mechanized vehicles, except snowmobiles in winter conditions, may travel off designated roads and trails unless specifically authorized by BLM.

Currently within the Project Area, the least restrictive travel designation (Limited to Designated Routes) includes graveled roads, maintained native material (dirt) roads, and primitive four-wheel drive roads (two-tracks). These routes can accommodate conventional sized motor vehicles, such as cars and trucks, but are also open for use by ATVs, motorcycles, bicycles, horses, and foot travel. There are approximately 302 miles of these Designated routes open to motorized and mechanized use within the project area (including County Roads which are managed by the Counties). Of these, there are approximately 195 miles of BLM Designated Routes that allow ATVs, and approximately 87 miles of Designated Routes that do not. Finally, there are approximately 83 miles of road surfaces that are limited to only street legal vehicles. During the seasonal winter closure from December 15 through April 15 the following year, motorized use is limited to snowmobiles only.) The most restrictive travel designation (Closed) includes routes closed to motorized and/or mechanized use due to Wilderness designation, resource concerns or conflicts. These routes are available to the public by foot and horse travel only. There are approximately 57 miles of Closed routes. To protect roads from being damaged as they are melting off in the spring even Designated Routes may be temporarily closed for a few weeks while they dry out. The Devil's Creek Road is closed until June 15th each year to prevent disturbance to elk calving areas.

Applicable Laws and Regulations

Travel management conforms to the following statutes, regulations, policies, and guidelines, as well as the overriding laws as discussed in Chapter 1 and previous sections of this document.

Federal Regulation

The National Trails System Act – This act instituted a national system of recreation, scenic and historic trails. It also prescribed the methods and standards through which additional components may be added to the system.

Executive Order 11989-- This order contains three amendments to Executive Order 11644, authorizing agency heads to: 1) close areas or trails to OHVs causing "considerable adverse effects"; and 2) designate lands as closed to OHVs unless the lands are specifically designated as open to them.

BLM Policy

Instruction Memorandum No. 2004-005: This memorandum states that "Selection of a network of roads and trails should be performed for all limited areas in each RMP. This requires establishment of a process that includes selecting specific roads and trails within the limited area or subarea and specifying limitation(s) placed on use" (BLM 2005)

State Vehicular Requirements

Colorado law requires unlicensed motorcycles and ATVs to purchase and display an annual off highway vehicle permit. State law allows the BLM to enforce state sound requirements found in the Colorado Noise Standard 25-12-106. Listed maximum noise outputs are: 88 dB for snowmobiles (manufactured on or after 1975) and 96 decibels (dB) for OHVs (manufactured after 1998). This limits noise and helps maintain the wilderness characteristics associated with the WSAs and Wilderness areas.

Existing Use and Trends

As discussed in the Recreation section, very little data or quantitative information regarding certain aspects of visitor use or patterns of use exists for new and emerging recreation activities in the project area and therefore this analysis utilized existing data sources, national trends, key interviews, qualitative data, and mapping to conduct the analysis.

Traffic counters installed at Cinnamon Pass and Engineer Pass document visitor trips in the high mountain areas that crossed over the mountain passes from 1999 to 2008. Traffic counts were collected during the summer months for 73 – 156 days (average of 127 days) and ranged from 13,086 to 23,033 trips over Cinnamon Pass (average of 19,992) and from 11,384 to 21,686 trips over Engineer Pass (average of 14,725). The amount of visitation varies from year to year without a discernable trend towards an increase or decrease in use. Seasonal snow pack, forest fires, and gasoline prices may be factors in the variation.

Scenic driving is a popular recreational activity in the Project Area. In 1989, the project area was nationally recognized with the Alpine Loop Scenic and Historic Byway designation, initiating higher levels of visitation and an acceleration of heritage tourism. This designation coordinates marketing for the road system to provide opportunities for local, regional and national visitors to engage in scenic driving, heritage tourism (i.e., visiting historical sites), and motorized recreation on rough, but relatively safe roads in the Project Area.

As discussed in the Recreation section, very little data or quantitative information regarding certain aspects of visitor use or patterns of use exists for new and emerging recreation activities in the project area and therefore this analysis utilized existing data sources, national trends, key interviews, qualitative data, and mapping to conduct the analysis.

Projected continued increased visitation to the project area may bring about an increase in conflicts between user groups. For example, winter seasonal use of the area includes snowshoeing and snowmobiling, with different expected benefits for participants in each activity. Increased visitation may also result in increased access to protected (and potentially fragile) natural and cultural resources.

There are approximately 38 developed facilities within the project area with designated parking areas. These types of facilities are limited to parking areas, trailheads, scenic overlooks, rest stops, and pullouts necessary to ensure public health and safety and a functioning travel management system.

Seasonal Utilization

The roads and trails in the project area are currently utilized year-round. Winter specific non-motorized uses such as cross-country skiing, snowshoeing, dog sledding and winter mountaineering are available throughout the project area. No routes are specifically maintained for these activities.

Authorized snowmobile routes within the project area are currently groomed by local snowmobile organizations, and funded in part by the State Snowmobile Fund. Snowmobile routes are currently groomed around Lake City (~80 miles), Molas Pass (~23 miles), South Mineral Road (~8 miles), Lackawanna Loop (~3 miles) and between Silverton and Eureka (~7 miles).

Summer, spring and fall non-motorized trail utilization include horseback riding, hiking, and mountain biking. Road utilization includes non-motorized uses as well as ATVs, OHVs, motorcycles, full sized vehicles and street legal vehicles.

Existing Maintenance

Seasonally-appropriate maintenance throughout the project area is ongoing on private, county roads and BLM roads. San Juan, Hinsdale and Ouray counties combined currently maintain almost 200 miles of roads. The BLM currently maintains approximately 86 miles of routes, which are mostly trails and none of which are designated strictly for street legal vehicles. The BLM CFO does not currently maintain any roads, as San Juan County maintains all designated motorized and street legal routes within the county. The remaining routes are maintained by local towns, individual landowners, Forest Service, or Colorado agencies (10, 13, 5, and 36 miles respectively. These routes range from major highways to private access to in-holdings to lands managed by other agencies.

Trails are maintained by the BLM to standards defined in Chapter 2, Section 2.3.5.

Description of Existing Environment

There are approximately 359 miles of authorized travel routes within the Project Area. Appendix D contains a more detailed table of all authorized travel routes, by designation. Each route is designated for particular uses. ATVs and other vehicles that are not street legal are permitted on BLM roads and some County roads where the Counties have passed ordinances allowing their use. They are not permitted in the towns, on the state highways or on County roads where that use has not been specifically allowed. The routes designated for street legal vehicles only are those ingress and egress routes from the towns. Motorized cross-country travel (except snowmobiles) is not authorized. Snowmobiles operating on snow are allowed to be used throughout the project area, except in designated Wilderness and WSAs. Table 3.12 provides a summary of existing designated travel routes (this includes County roads which are open to public use).

Table 3.12 Summary Table of Existing Designated Travel Routes

Route Type	Total Miles	Authorized Use	Designation
Foot & Horse Single Track Trail	57.5	Foot and Horse	Limited: Non-mechanized
Mt Bike Trail	30.4	Foot, Horse and Mountain Bike	Limited: Non-motorized
Road- All motorized and non-motorized	189.3	Foot, Horse, Mountain Bike, Motorcycle, ATV and Full Sized Vehicles	Limited: Motorized and Mechanized
Road- Street Legal Vehicles	83.3	Foot, Horse, Mountain Bike, and Street Legal Vehicles	Limited: Street Legal Motorized; No unlicensed OHV or ATV use.

3.3.6 Vegetation

The Project Area contains 186,252 acres of rolling glacial valleys and steep river canyons with rugged, volcanic mountain slopes. Elevation of the Project Area ranges from 7,500 feet to over 14,000 including three 14ers - Handies, Sunshine, and Redcloud Peaks. Three major rivers, the Animas, Uncompahgre, and Lake Fork of the Gunnison originate in the Project Area, as well as Henson Creek, a major tributary of the Lake Fork of the

Gunnison. The Project Area is traversed to the south and east by the continental divide. This colorful and varied landscape contains several vegetation communities characteristic of southwestern Colorado.

Vegetation analysis was based upon the Southwest Regional Gap Analysis Project(SWReGAP). SWReGAP is a multi-institutional update of the Gap Analysis Program's mapping and assessment of biodiversity encompassing Arizona, Colorado, Nevada, New Mexico, and Utah coordinated by the U.S. Geological Survey (USGS) Gap Analysis Program. The primary objective of the update is to use a coordinated mapping approach to create detailed, seamless Geographic Information System (GIS) maps of land cover, native terrestrial vertebrate species, land stewardship, and management status, and to analyze this information to identify biotic elements that are underrepresented on lands managed for their long term conservation or are "gaps" (http://fws-nmcfwru.nmsu.edu/swregap).
The Project Area spans two BLM management units: the Columbine Field Office operating under the San Juan Public Lands Office (SJPLO) and the Gunnison Field Office. SWReGAP data provide the only common unit of measure for vegetation for both management units within the Project Area.

SWReGAP land classifications were grouped into 14 generalized vegetation communities for the purposes of analyzing impacts to resources from the proposed action: spruce-fir, conifer, aspen, piñon-juniper, alpine tundra, mountain shrubland, sagebrush shrubland, grassland, riparian, open water, cliff and canyon, agricultural, developed, and disturbed (Buttery and Gillam 1987; Appendix E). The vegetation communities are presented in Table 3.13 and their distribution across the Project Area is displayed in Figure 3.1. No field surveys for sensitive plants or inventories for invasive or noxious weeds were completed within the Project Area as part of this EA. Consequently, analyses were dependent upon general habitat types and consultation with BLM biologist from each respective field office.

Table 3.13 Vegetation Communities, Acres, and Percent of Total within Project Area

Vegetation communities	Acres	Percentage
Spruce-fir	50,533	27
Conifer	7,408	4
Aspen	13,414	7
Piñon-juniper	1,152	1
Alpine tundra	74,737	40
Mountain shrubland	476	<1
Sagebrush shrubland	7,074	4
Mountain grassland	6,936	4
Riparian	11,959	6
Open water	642	<1
Cliff and canyon	10,068	5
Agricultural	842	<1
Developed	515	<1
Disturbed	496	<1
TOTAL	186,252	100

Source: Southwest Regional Gap Analysis Project (SWReGAP)

Alpine tundra (40%) represents the largest component of vegetation within the Project Area. This vegetation community is indicative of the alpine climate of the Project Area, especially in regard to the zone of vegetation between timberline and snowline and the plants that occur there (Appendix E). Alpine tundra is more sensitive to human-caused disturbance than other vegetation communities due to short growing seasons, shallow soils, long winters, and extreme weather conditions. Impacts to alpine tundra are usually extensive and long-term. Spruce-fir (27%) also represents a large portion of the Project Area. Together, these two vegetation communities represent more than two-thirds of the Project Area. The other 12 vegetation communities represent only a small portion of the Project Area. Although riparian only makes up 6 percent of the vegetation communities in the Project Area, wildlife use riparian areas disproportionately more than other vegetation communities in Colorado (Melton et al. 1987). Unsurprisingly, developed and disturbed areas are not common in the Project Area; however, over 21 percent of the Project Area is private land, mainly in RMZ 2 (Table 1.1; Figure 2.1).

Invasive and Noxious Weeds

Musk thistle (*Carduus nutans*), Canada thistle (*Cirsium arvense*), yellow toad-flax (*Linaria vulgaris*) and ox-eyed daisy (*Leucanthemum vulgare*) are the primary noxious weeds of concern for the SJPLO (Rowdy Wood, Columbine District-SJPLO, pers. comm.). Known populations of these species are concentrated between Silverton and Eureka and along Cement Creek. Areas at higher elevations managed by the SJPLO within the Project Area are relatively clear of noxious weed problems. In addition, the following species are known to occur above Lake City: common mullein (*Verbascum thapsus*), bull thistle *(Cirsium vulgare)* and scentless chamomile (*Matricaria perforata*) (Rick Yegge, Weed Extension Officer Gunnison and Hinsdale Counties, pers. comm.). At lower elevations such as along State Highway 149 the following species are as known to occur; scentless chamomile, bull thistle, Canada thistle, musk thistle, Russian knapweed (*Acroptilon repens*), diffuse knapweed (*Centaurea diffusa*), cheat grass (*Bromus tectorum*) and hoary cress (*Cardaria draba*). A complete list of noxious weeds with potential to occur in Colorado or of concern or management priority by the BLM can be accessed from the Colorado Department of Agriculture website (BLM 2009a).

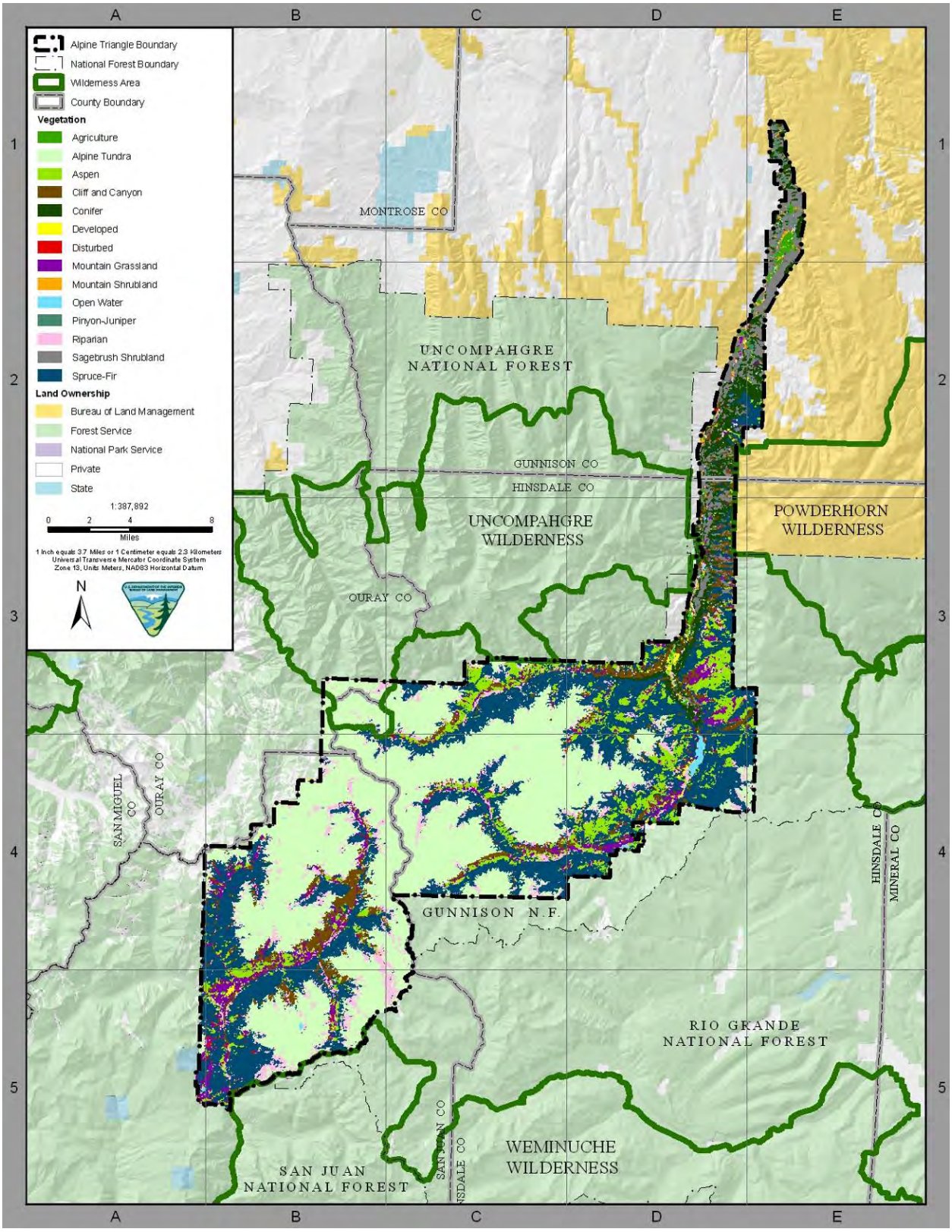

Figure 3.1 Vegetation Map for the Project Area

Threatened, Endangered and Sensitive Flora Species

Upon review of plants in Colorado federally listed as threatened, endangered, or candidate for listing with potential or known to occur within the Columbine and Gunnison Field Offices, no federally listed plants has the potential or are found to occur in the Project Area (BLM 2009a). Therefore, no further discussion of federally listed plants is warranted.

Colorado BLM State Director's Sensitive Plant Species List

BLM policy allows the State Director to designate sensitive species for rare or endemic plants that are found on BLM lands. There are 21 listed sensitive plant species known to occur within the management areas for the SJPLO and the Gunnison Field Office (Appendix F). Of the 21 sensitive plant species with potential to occur in these management areas, only Gunnison milkvetch (*Astragalus anisus*) and skiff milkvetch (*Astragalus microcymbus*), have potential to occur within the Project Area (Table 3.14). The potential for these species to occur is limited to relatively lower-elevation sagebrush shrublands and piñon-juniper woodland areas in the Project Area. Table 3.15 provides a brief description of the habitat types associated with these species and the rationale for considering them in this EA. No formal sensitive plant surveys were completed as part of this EA. The complete list of sensitive plants with potential to occur within the BLM management areas within the Project Area is available in Appendix F.

Table 3.14 Colorado BLM State Director's Sensitive Plant Species with Potential to Occur in the Project Area

Status	Field Office	Common Name	Scientific Name	Habitat type	Potential to occur in Project Area (PA)
G3/S2	GN	Gunnison milkvetch	*Astragalus anisus*	Sagebrush Shrubland on flats on the floor of the Gunnison Basin and on hillsides. (7,500-9,500 feet elevation)	PA contains sagebrush shrublands within elevation range
G1/S1	GN	Skiff milkvetch	*Astragalus microcymbus*	Open sagebrush or juniper-sagebrush communities on moderately steep to steep slopes. Often found in rocky areas with a wide variety of soil conditions (7,800-8,500 feet).	PA contains sagebrush and juniper vegetation communities within elevation range

Source: BLM 2009b

CNHP - Global Rarity Ranking is based on the range-wide status of a species.
G1- Critically imperiled globally because of extreme rarity (5 or fewer occurrences, or very few remaining individuals), or because of some factor of its biology making it especially vulnerable to extinction. (Critically endangered throughout its range).
G3 - very rare or local throughout its range or found locally in a restricted range (21 to 100 occurrences); threatened throughout its range
CNHP - State Rarity Ranking is based on the status of a species (relative abundance of individuals) in each state.
S1- Critically imperiled in state because of extreme rarity (5 or fewer occurrences, or very few remaining individuals), or because of some factor of its biology making it especially vulnerable to extirpation from the state. (Critically endangered in state).
Status = Colorado Natural Heritage Program ranking:
S2 - imperiled in Colorado (6 to 20 occurrences); endangered or threatened in Colorado

San Juan Public Lands Office (SJPLO) Species-of-Concern and Species-of-Interest

The Columbine Field Office, operating under the SJPLO, maintains a list of flora species-of-concern and flora species-of-interest (Jeff Redders, SJPLO ecologist, pers. comm). Species-of-concern (FSH 1909.12, 43.22b) are species for which management actions may be necessary to prevent listing under the Endangered Species Act (ESA), whereas species-of-interest (FSH 1909.12, 43.22c) are species for which the SJPLO determines management actions may be necessary or desirable to achieve ecological or other multiple-use objectives.

There are 22 species-of-concern with potential to occur within the SJPLO (Appendix G). Of the 22 flora species-of-concern listed by the SJPLO, six have potential to occur within the Project Area: thick-leaf whitlow-grass (*Draba crassa*), Porsild's Whitlow-grass (*Draba porsildii*), San Juan whitlow-grass (*Draba graminea*), Colorado-divide

whitlow-grass (*Draba streptobrachia*), Altai cotton-grass (*Eriophorum altaicum* var. *neogaeum*), and Rothrock's Townsend daisy (*Townsendia rothrockii* (Table 3.15). Table 3.15 provides a brief description of the habitat types associated with these species and the rationale for further consideration in this EA. The complete list of SJPLO species-of-concern is available in Appendix G.

Table 3.15 SJPLO Species-of-Concern with Potential to Occur in the Project Area

Status	Common Name	Scientific Name	Habitat type	Potential to occur in Project Area (PA)
G3, S3	Thick-leaf Whitlow-grass	*Draba crassa*	Alpine, talus or rock ridges (10,000-12,000 feet elevation)	Alpine habitat dominant in PA.
G3, S1	Porsild's Whitlow-grass	*Draba porsildii*	Moist to sometimes drier sites, generally rocky or gravelly, in the subalpine and alpine zones on ridges, slopes, cliffs, ledges, and summits. Habitats include limestone or shale talus, scree, and gravel slopes; moist banks; moist turfy sites (incl. slopes); moist gravelly open soil; and grassy meadows. Sites sometimes within boreal spruce forest matrix. Elevation >11,000 feet	Alpine habitat dominant in PA, also includes other suitable soils and meadows, within elevation range.
G2, S3	San Juan Whitlow-grass	*Draba graminea*	Exposed ridges and slopes and in alpine fell-fields. Typically in late snowmelt areas. Above 12,000 feet elevation	Alpine habitat dominant in PA, within elevation range.
G3, S3	Colorado Divide Whitlow-grass	*Draba streptobrachia*	Alpine, occurs on scree slopes and edges of talus slopes and sometimes in fellfields	Alpine habitat dominant in PA, including scree and talus slopes.
G4, S3	Altai Cotton-grass	*Eriophorum altaicum* var. *neogaeum*	Riparian/Wetland, elevation 9,500-14,000 feet	Riparian habitat present in PA, within elevation range.
G2, S2	Rothrock's Townsend daisy	*Townsendia rothrockii*	Alpine, spruce-fir areas above timberline that retain snow into summer. Also high plateau ridgetops in openings in ponderosa pine forest. (8,000-13,500 feet elevation)	Alpine and spruce-fir habitat dominate PA, as well as ponderosa pine, within elevation range.

Status = Colorado Natural Heritage Program ranking:
G2 - imperiled globally (6 to 20 occurrences); endangered throughout its range
G3 - very rare or local throughout its range or found locally in a restricted range (21 to 100 occurrences); threatened throughout its range
G4 - apparently secure globally, though it might be quite rare in parts of its range, especially at the periphery
S1 - critically imperiled in Colorado (5 or fewer occurrences or very few remaining individuals); critically endangered throughout Colorado
S2 - imperiled in Colorado (6 to 20 occurrences); endangered or threatened in Colorado
S3 - rare in Colorado (21 to 100 occurences)
S4 - watchlisted; specific occurrence data are collected and periodically analyzed to determine whether more active tracking is warranted

There are four species of interest with potential to occur within the SJPLO (Appendix H). None of these species has potential to occur in the Project Area and are eliminated from further discussion in this EA.

3.3.7 Visual Resources

The purpose of this section is to provide an overview of the visual resources and scenic quality of the Project Area. To properly manage valuable scenic areas the BLM uses Visual Resource Management (VRM), defined as "a

system for minimizing the visual impacts of surface-disturbing activities and maintaining scenic values for the future" (BLM 2007). This section includes an inventory of the scenic landscape characteristics, viewsheds, sensitive viewers and key observation points as well as a discussion of the existing management setting for visual resources.

Definition of Terms

VRM Resource Management Classes are established by the BLM to serve two purposes (1) an inventory tool that portrays the relative value of the visual resources, and (2) a management tool that portrays the visual management objectives (BLM Manual H-8410-1). Four classes (I, II, III, and IV) exist, with Class I being assigned to those areas to manage visual resources to maintain the existing character of the landscape, to Class IV being assigned where management activities may include major modifications to the landscape. Classes are assigned during the inventory process as an evaluation of scenic quality, sensitivity level of visitors, and distances from viewers. Visual resource management classes are assigned through RMPs and are determined in concert with other resource management decisions. Each class has an objective which prescribes the amount of change allowed in the characteristic landscape**.**

Landscape character is the arrangement of a particular landscape as formed by the variety and intensity of the landscape features and the four basic elements of form, line, color, and texture. These factors give the area a distinctive quality which distinguishes it from its immediate surroundings.

Characteristic landscape is the established landscape within an area being viewed and includes the distinguishing traits, features or qualities that give the area its' unique setting. This does not necessarily mean a naturalistic character. It could refer to an agricultural setting, an urban landscape, a primarily natural environment, or a combination of these types.

Viewsheds refer to the landscape that can be directly seen under favorable atmospheric conditions, from a viewpoint or along a transportation corridor.

Sensitive Viewers are defined as those visitors who value scenic and visual quality, are sensitive to change in the landscape, and include scenery and scenic views as primary to their desired experience. Sensitive viewers would include heritage tourists, scenic drivers, photographers, wilderness visitors, and most recreationists to the Alpine Triangle (Virden 1997).

A key observation point (KOP) is one or a series of points on a travel route or are located at a use area or a potential use area, where the view of a management activity would be most revealing.

Planning Level Decisions

The San Juan and Gunnison RMPs (BLM 1985; BLM 1993) designated the Project Area as VRM Class II, which encourages management to place a high value on protecting the integrity of scenic resources. The objectives of VRM Class II are to "retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape." The Gunnison RMP also established the American Basin ACEC to protect the outstanding scenic resources in the area.

In 1966, prior to the implementation of the two RMPs, the BLM designated a scenic withdrawal along the Alpine Loop, restricting development on public land adjacent to the road that would degrade its scenic quality. This area was also withdrawn from mineral entry to protect scenery along the corridor. This still remains in effect today.

In 1978 both offices identified several WSAs that are to be managed to maintain their natural and scenic values until Congress makes a decision about their suitability for designation as Wilderness. The American Flats addition to the Uncompahgre Wilderness was designated in 1993 which upgraded its VRM designation to Class 1. More information regarding ACECs, and Wilderness and WSAs are provided in Sections 3.3.1 and 3.3.8, respectively.

In 1989 the Alpine Loop road was designated as National Backcountry Byway (part of the National Scenic Byway System) and also as a Colorado Scenic and Historic Byway. The overall intent of a Scenic Byway is to identify routes that have outstanding opportunities for scenic driving and provide careful and sensitive management that protects these values and enhances the public's ability to enjoy them.

Decisions regarding visual resources under the RAMP include the setting management guidelines to protect visual resources, and identifying priorities, viewsheds, and collaborative partnerships for visual resource protection.

Existing Visual Resources, Landscape Characteristics, and Trends

The spectacular scenic and visual quality of the Project Area has long been considered outstanding and remains the primary draw of the area for visitors. Visual quality is protected in part through the Scenic Byway designation and Scenic Withdrawal along 65 miles of the Alpine Loop, 68,222 acres of Wilderness and WSAs, and 1,665 acres of the American Basin Scenic ACEC. The scenery is a combination of mountainous peaks, rugged landforms, deep ravines, multi-colored rock outcrops, mixed vegetation including alpine wildflowers and aspen trees with their associated yearly color display, open ranges and vistas as well as picturesque human-made historical attractions in the mine related structures dotting the landscape.

Landscape Characteristics

For the purpose of this inventory, the entire Project Area is described in terms of landforms, water, vegetation, and structures; and defined by the elements of form, line, color, and texture. Landscape character profiles were developed by conducting field reconnaissance of several representative areas within the Project Area.

The landforms of the project area are dominated by rugged, jagged peaks sloping steeply to the narrow valley floors and rushing, steep rivers and cascades to flat slow moving river bottoms. Rock outcrops are prominent as well as the ribbons of rivers, streams, roads, and trails. Landform and water colors vary with white cascades, muddy rusts, browns, rocky grays, and mineral red streams as well as reflective, clear and blue lakes and ponds. Textures consist of rough gravelly surfaces and rocky peaks to smooth swathes from coniferous forests, aspen groves, carpets of wildflowers, rock slides, and avalanches.

Vegetation varies from low masses of willow carrs and wetlands to sporadically dappled patches or stands of scattered evergreens, dense aspen, and firs as well as meadows carpeted with grasses, forbs, wildflowers, and seasonal snow. Colors vary from bright to deep greens and yellows of trees and grasses to a full spectrum of pastels and colors from seasonal wildflowers. Bright reds and golds are notable from aspens in the fall; and monochromatic white snow and grey rocks punctuated by dark green forests and ruddy mineral soils in winter.

Structures visible in the Project Area vary from dense clusters of one and two story buildings in towns to sparsely scattered mining-related edifices in various levels of dishevelment. In the higher elevations structures are rare to absent and cubic to rectangular in shape. Colors represented are pre-dominantly natural wood, browns, rusting metal and concrete grays; towns are collections of bright and discordant colors. Roads are graveled gray or natural, dirt colors.

Viewsheds, View Corridors, and Sensitive Viewers

Landscape viewsheds are the extent of view in which features are noticeable or apparent in the landscape. The most popular view corridors vary with the seasons. Summer use is distributed widely throughout the Project Area and many visitors traverse from one side to the other along the Alpine Loop. In the winter, access to the Project Area is more restricted by snow, avalanches, and seasonal road closures that confines vehicle traffic. The most popular summer viewsheds include a variety of landscapes such as the Alpine Loop and American Basin ACEC, roads accessing heritage sites, scenic overlooks, high mountain passes and community gateways into the Project Area. Winter access is maintained by the counties to particular staging areas (e.g. Eureka, Red Mountain, Continental Divide snowmobile trail), and then visitors venture further into the area on foot, skis, snowmobiles, and dogsleds.

Scenery is one of the most popular reasons that people visit the area (Virden et al. 1998). Sensitive viewers would include, but not be limited to, general visitors, residents, scenic drivers, heritage tourists, photographers, and backcountry users. Due to the amount of use, public interest, and adjacent land uses, most (if not all) visitors are

considered to be highly sensitive to changes to visual resources. Visual sensitivity overall is rated very high. Particularly sensitive summer activities include backpacking, hiking, photographing scenery and wildlife, and scenic driving. For backcountry users in any season, the high alpine, remote, characteristics prevalent in the area are a major draw for those seeking a pristine experience.

Trends in Visual Resources

Historically and currently, driving for pleasure is one of the most popular forms of recreation occurring within the Project Area, and national trends show scenic driving as an increasing recreational activity. Increased heritage tourism is also contributing to an increasing volume of visitors along the Alpine Loop where there is a high concentration of historic mines, mills, cabins, and townsites. With increased use, traffic, and crowding in popular areas has been reported at favorite overlooks and viewpoints, particularly in American Basin, Animas Forks, and parking areas for accessing the Fourteeners.

Within the Project Area, private inholdings and mining claims account for 40,373 acres (21.7 %), with the majority of private lands in the Columbine district or along the Lake Fork of the Gunnison. Development on private inholdings and other land uses in a matrix of predominantly public land have introduced houses and structures with modern materials visible on ridge lines and otherwise remote areas in largely undeveloped, backcountry landscapes of the Alpine Loop, heritage tourism sites, and historic ghost towns such as Animas Forks and Sherman townsites. Often, road access to these developments creates linear features that traverse steep slopes to access the properties. The BLM does not have jurisdiction to control development on private land. In some cases where access roads to private property crosses public lands, the BLM may have some influence to minimize visual scars through the Right of Way process.

3.3.8 Wilderness and Wilderness Study Areas

In the 1976 Federal Land Policy and Management Act, directed the BLM to inventory areas for their wilderness characteristics. These areas are known as Wilderness Study Areas (WSA). There are eight WSAs in the project area and one area designated by Congress as Wilderness. The following acreages (Table 3.16) and recommended acreages apply to the WSAs in the Project Area (Figure 2.3 indicates locations of WSAs in the Project Area).

Table 3.16 Wilderness and Wilderness Study Areas within the Project Area

WSA (listed from North to South)	Total Acreage	Acreage within Project Area
American Flats	4,710	3,060 **
Bill Hare Gulch	370	80 *
Handies Peak	16,724	16,724
Powderhorn	4,691	1,758
Redcloud Peak	38,204	38,204
Weminuche Contiguous	1,621	1,533
West Needles	958	1240
Whitehead Gulch	1,782	1,669
Totals	**118,335**	**64,268**
Designated Wilderness		
Uncompahgre Wilderness	**102,721**	**3,920**

* In 1993 about 290 acres of the Bill Hare Gulch WSA was designated as Wilderness and became US Forest Service Land. That designation leaves about 80 acres that is still a WSA.

** In 1993 about 1650 acres of the American Flats WSA along with about 1350 acres outside the WSA was designated as Wilderness. That designation leaves about 3060 acres that is still a WSA.

Under the Current Management/No Action and Proposed Action, WSAs would continue to be managed according to the BLM's IMP Handbook (BLM 1995) until Congress decides on their designation or non-designation into the Wilderness system. The IMP provides specific policies and procedures for managing WSAs; particularly the "nonimpairment mandate," which requires the BLM to manage WSAs in a manner "so as not to impair the suitability of such areas for preservation as wilderness," until Congress has made a determination (BLM 1995, page 2). The BLM manages their portion of the Uncompahgre Wilderness as prescribed by BLM regulations (43 CFR 6300 and 8560) (BLM 2000).

Two WSAs, Redcloud Peak and Handies Peak, contain 14,000-foot peaks popular with hikers and mountaineers wanting to climb high mountains (use of these trails is discussed in Section 2.2.2 of the RAMP). Despite the relatively high numbers of visitors to these areas, the BLM currently manages to preserve the wilderness values by limiting commercial outfitters, prohibiting recreationists from leaving artificial anchors or caches and through education of visitors, promoting "leave no trace" and good steward principles to recreationists. Motorized vehicles including ATVs and snowmobiles are restricted from Wilderness and WSAs. This limits noise and preserves the solitude and other wilderness values associated with Wilderness.

3.3.9 Wildlife, Special-Status Species, and Threatened and Endangered Species

3.3.9.1 General Wildlife

The project area provides a variety of habitats that support a broad range of wildlife species. Wildlife with potential to occur in the Project Area includes a variety of mammals, birds, and herptiles common to southwestern Colorado. According to the 1986 RAMP, vegetation communities in Project Area provide potential habitat for an estimated 41 mammal species, 74 bird species, three amphibian species, and one reptile species (BLM 1986b).

Wildlife species noted during internal scoping and discussions as species of concern, but with no federal or state conservation status are: bighorn sheep (*Ovis canadensis*), mule deer (*Odocoileus hemionus*), elk (*Cervus elaphus*), and white-tailed ptarmigan (*Lagopus leucura*) (Borthwick 2007). The Project Area contains habitat for all of these species. The CDOW designates areas in the State as habitat for wildlife using the Natural Diversity Information Source (NDIS) (NDIS 2009). These areas are designated because of the importance they play as habitat for various wildlife species, especially for winter survival and health of large game animals including mule deer, American elk, and bighorn sheep. According to the NDIS, there are designated areas of winter range, summer range and overall range in the Project Area for bighorn sheep. Bighorn sheep are typically associated with high mountains and canyons; cliff and canyon habitat accounts for 5 percent of the habitat available for wildlife in the Project Area. There is winter range, severe winter, and winter concentration for mule deer in the Project Area, especially in association with the Lake Fork of the Gunnison. The entire project area is also included as summer range for mule deer. Similarly, there is winter range, severe winter, and winter concentration areas for elk in the Project Area, also associated with the Lake Fork of the Gunnison. The entire Project Area is included as summer range for elk, as well as areas of summer concentration. Nearly all of the RMZ 1 and RMZ 2 areas within the Project Area are mapped as overall white-tailed ptarmigan habitat. White-tailed ptarmigan sightings have been made near Redcloud Peak by the teams monitoring UFB colonies in the area (Borthwick 2007); and white-tailed ptarmigan are known to occur near Silverton (Larison 2001).

3.3.9.2 Migratory Birds

Executive Order 13186 enacted in 2001 requires federal agencies to consider the effects of the Proposed Action on migratory birds. BLM Instruction Memorandum (IM) number 2008-050 was reviewed for consistency and it was determined that the Proposed Action is consistent with IM direction for project level NEPA guidance.

The USFWS maintains a list of Birds of Conservation Concern (BCC). These are non-game avian species the USFWS has identified as conservation priorities, but are currently not federally listed as threatened or endangered. Table 3.17 includes the BCC for Region 16 (Southern Rocky Mountains/Colorado Plateau) specific to the Project Area. Birds listed by the USFWS as BCC with potential to occur in the project area include 13 bird species as indicted in Table 3.17.

Table 3.17 USFWS Birds of Conservation Concern BCC for Region 16 (Southern Rockies/Colorado Plateau), their habitat associations, and potential to occur in the Project Area.

Species*	Habitat Associations	Potential to Occur in Project Area (PA)
Black swift (*Cypseloides niger*)	Vertical rock faces, near waterfalls or in dripping caves	PA contains vertical rock faces, waterfalls and caves; known historic populations present in the PA
Black-throated gray warbler (*Dendroica nigrescens*)	Almost exclusive to mature piñon-juniper woodlands	Limited potential foraging and breeding habitat occur in PA; not known to occur in Hinsdale County
Ferruginous hawk (*Buteo regalis*)	Winter migrant only; grasslands and semi-desert scrub	PA does not contain grasslands associated with semi-desert scrub habitat
Flammulated owl (*Otus flammeolus*)	Open ponderosa pine forests; dry montane conifer or aspen forests, often with dense saplings	Ponderosa pine, mixed conifer and aspen forests occur throughout the PA
Golden eagle (*Aquila chrysaetos*)	Open habitats including grasslands, sagebrush, farmlands or tundra	PA contains potential nesting and foraging habitat. Known to occur in PA
Gray vireo (*Vireo vicinior*)	Mesas, steep hillsides, canyons and wide valleys where piñon-junipers grow spaced apart and grasses, sagebrush and desert scrub flourish	Limited piñon-juniper habitat occur in the PA; not known to occur in Project Area
Grace's warbler (*Dendroica graciae*)	Ponderosa pine with scrub oak understory	PA contains suitable ponderosa pine forests
Gunnison sage grouse (*Centrocercus minimus*)	Sagebrush grasslands	Northern portions of the PA, especially in association with the Lake Fork of the Gunnison, contain potentially suitable sagebrush habitat
Lewis' woodpecker (*Malenarpes lewis*)	Open pine forests and riparian habitat	PA contains pine forests and riparian areas
Marbled godwit (*Limosa fedoa*)	Shorelines of reservoirs and lakes	Rare occurrences in Colorado; limited shoreline habitat occurs in the PA;
Northern harrier (*Circus cyaneus*)	Grasslands, agricultural lands, open sagebrush and marshes; require abundant cover	PA contains potentially suitable areas of grasslands and sagebrush
American peregrine falcon (*Falco peregrinus anatum*)	Cliffs; and often in association with riparian areas	There are potentially suitable nesting cliffs and foraging habitat in the PA
Piñon jay (*Gymnorhinus cyanocephalus*)	Thrive in piñon-juniper woodlands	PA contains limited potentially suitable piñon-juniper woodlands
Prairie falcon (*Falco mexicanus*)	Cliff faces in open country <10,000; compete with peregrines and golden eagles for nest sites	Potentially suitable cliff faces and open grasslands occur in the PA
Sage sparrow (*Amphispiza belli*)	Large, low elevation stands of big sagebrush or mixed big sagebrush and greasewood	Majority of PA is outside of the preferred elevation range of the species
Short-eared owl (*Asio flammeus*)	Open habitats including grasslands, marsh edges, shrub steppe and agricultural lands	Limited areas of potentially suitable habitat may be found in the PA

Species*	Habitat Associations	Potential to Occur in Project Area (PA)
Snowy plover (*Charadrius alexandrinus*)	Alkali flats around reservoirs; mudflats and sandy shorelines	PA does not contain alkali flats, mudflats, or reservoirs with sandy shorelines; only known to occur in San Luis Valley and lower Arkansas River Valley
Solitary sandpiper (*Tringa solitaria*)	Shorelines, especially with vegetation	Not known to nest in State; rare visitor; PA contains very limited shoreline habitats;
Swainson's hawk (*Buteo swainsoni*)	Arid grassland, desert and agricultural areas with scattered trees and shrubs	PA does not contain arid grassland or agricultural areas
Virginia's warbler (*Vermivora virginiae*)	Dense shrublands and scrub forests associated with mesa slopes foothills, open ravines and valleys	PA contains potentially suitable oak, sagebrush, and piñon-juniper shrublands
Western burrowing owl (*Athene cunicularia*)	Grasslands, shrublands, and deserts, associated with prairie dog or ground squirrel burrows	PA contains potentially suitable sagebrush shrublands; no documented breeding in Project Area
Wilson's phalarope (*Phalaropus tricolor*)	Open water adjacent to moist sedge and rush meadows; nest in sedge and rush meadows with low plant height	Open water present in the PA; not known to nest in the Project Area
Williamson's sapsucker (*Sphyrapicus thyroideus*)	Conifer forests; often mixed with aspen from 7,000-10,700 feet; aspen is an essential element	Appropriate elevation mixed conifer and aspen forests can be found throughout the PA
Yellow-billed cuckoo (*Coccyzus americanus*)	Lowland species associated with riparian; gallery cottonwoods with dense understory	PA may contain potentially suitable habitat, especially in association with the Lake Fork of the Gunnison; not known to occur in Project Area

Source: 1) USFWS 2002; 2) Schultz 2008; 3) Japuntich 2008

3.3.9.3 Federally Threatened, Endangered, and Sensitive (TES) Species

Federally listed species are managed by the US Fish and Wildlife Service (USFWS) under authority of the Endangered Species Act (ESA) of 1973 1973 [16 U.S.C. 1531 et seq.], as amended. Section 7 of the ESA outlines the procedures for federal interagency cooperation to conserve federally listed species and designated critical habitats. Section 7(a)(2) of the ESA states that each federal agency must ensure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. Further, Section 7(c) of the ESA requires a Biological Assessment (BA) be prepared if listed species or critical habitat may be present in a Project Area to assess whether the proposed action may affect a listed species or its critical habitat. The BA for this project, including more detailed information about TES in the Project Area, is provided under separate cover.

Following the guidelines of the ESA, a list of federally listed species that have the potential to occur in Gunnison, Hinsdale, Ouray, and San Juan Counties, as well as federally listed species specific to the BLM Columbine Field Office (Schultz 2009; Table 3.18) was compiled for analysis. Table 3.18 provides information on the federally listed and candidate species considered in this EA, including a brief description of their habitat associations and their potential to occur in the Project Area. With the exception of candidate species, all of these species are protected under the ESA. According to the USFWS, there are nine federally listed threatened or endangered species with potential to occur in Gunnison, Hinsdale, Ouray, and San Juan Counties; of these, four have the potential or are known to occur in the Project Area.

Table 3.18 Federally Listed Species Relative to Lands Administered by the BLM for Gunnison, Hinsdale, Ouray, and San Juan Counties and Their Potential to Occur in the Project Area.

SPECIES	FEDERAL STATUS	HABITAT ASSOCIATION	POTENTIAL TO OCCUR IN PROJECT AREA (PA)
BIRDS			
Mexican spotted owl (*Strix occidentalis lucida*)	Threatened	Forested canyon bottoms	PA lacks suitable breeding habitat of low- to mid-elevation narrow rock-walled canyons with mature mixed conifer forests. Low potential for occurrence in PA. Nearest known occurrence is > 30 miles to the southeast.
Southwestern willow flycatcher (*Empidonax traillii extimus*)	Endangered	Large patches of willow and tamarisk riparian areas typically below 8,500 feet	PA contains suitable riparian habitat within species' distribution. Lower elevations in the PA within the SJPL are within the designated recovery unit. The nearest known occurrence is about 30 miles to the south.
Western yellow-billed cuckoo (*Coccyzus americanus*)	Candidate	Lowland species associated with riparian; gallery cottonwoods with dense understory	PA contains riparian areas and potentially suitable cottonwood habitat along river corridors
FISH			
Bonytail chub (*Gila elegans*)	Endangered	Tributaries of the Colorado River	Gunnison River is a tributary of the Colorado River; however, no historical records upstream of the Black Canyon of the Gunnison River and no present populations known in Colorado
Colorado pikeminnow (*Ptychocheilus lucius*)	Endangered	Tributaries of the Colorado and San Juan Rivers	Animas and Gunnison Rivers, tributaries of the San Juan and Colorado Rivers, respectively, occur in the PA; however, no historical records upstream of the Black Canyon of the Gunnison River and species occurs downstream in San Juan River basin
Humpback chub (*Gila cypha*)	Endangered	Tributaries of the Colorado River	Gunnison River is a tributary of the Colorado River; however, no historical records upstream of the Black Canyon of the Gunnison River
Razorback sucker (*Xyrauchen texanus*)	Endangered	Tributaries of the Colorado and San Juan Rivers	Animas and Gunnison Rivers, tributaries of the San Juan and Colorado Rivers, respectively, occur in the PA; however, no historical records upstream of the Black Canyon of the Gunnison River and species occurs downstream in San Juan River basin
MAMMALS			
Canada lynx (*Lynx canadensis*)	Threatened	High-elevation spruce-fir and mixed-conifer forests, especially mixed with aspen	PA contains high-elevation spruce fir and mixed-conifer forests and known populations. Known to occur and den in PA after reintroduction in 1998.
INSECTS			
Uncompahgre fritillary butterfly (*Boloria acrocnema*)	Endangered	Alpine above 12,500 feet elevation; snow willow	PA contains snow willow and known populations. Known to occur in the project area.

3.3.9.4 Sensitive Species

In additional to federally listed and candidate species, Colorado BLM sensitive and Colorado Division of Wildlife state-listed species were also evaluated for potential to occur in the Project Area. The Federal Land Policy and Management Act of 1976 gives the BLM authority to manage Special Status Species (SSS) stating that public lands will be managed in a manner "…that will provide food and habitat for fish and wildlife species [Title 1 Section 102(8), USDI 2001].

There are 13 sensitive species listed by the BLM that have the potential or are known to occur in the Project Area (Table 3.19). Some of these species are also federally listed (Table 3.18.)

Table 3.19 BLM Sensitive Species and Species of Concern with Potential to Occur in the Project Area.

SPECIES*	STATUS	HABITAT ASSOCIATION	POTENTIAL TO OCCUR IN PROJECT AREA (PA)
MAMMALS			
Desert bighorn sheep (*Ovis canadensis nelsoni*)	Species of Concern	Dolores River canyons	PA does not contain canyons associated with the Dolores River
Pronghorn antelope (*Antilocapra americana*)	Species of Concern	Open prairies and sagebrush plains	PA does contain sagebrush grasslands in association with the Lake Fork of the Gunnison.
Allen's big-eared bat (*Idionycteris phyllotis*)	Sensitive	Woodlands, mines, and caves	Woodlands, mines, and caves occur in PA
Big free-tailed bat (*Nyctinomops macrotis*)	Sensitive	Rocky and canyon country	PA contains rocky canyons in association with larger river corridors
Fringed myotis (*Myotis thysanodes*)	Sensitive	Pinyon-juniper and other coniferous woodlands	PA contains piñon-juniper and coniferous woodlands.
Spotted bat (*Euderma maculatum*)	Sensitive	Pinyon-juniper, shrub desert, possibly riparian	Northern portion of PA contains piñon-juniper woodlands and riparian areas
Townsend's big-eared bat (*Plecotus townsendii*)	Sensitive	Abandoned mines and caves	PA contains abandoned mines and caves.
Yuma myotis (*Myotis yumanensis*)	Sensitive	Pinyon-juniper, semi-desert associated with riparian	Northern portion of PA contains piñon-juniper woodlands and riparian areas
BIRDS			
Bald eagle (*Haliaeetus leucocephalus*)	Sensitive	River, reservoir, and stream habitat	PA contains three major rivers and their tributaries, reservoir, and stream habitats. Regular winter visitor to the area.

SPECIES*	STATUS	HABITAT ASSOCIATION	POTENTIAL TO OCCUR IN PROJECT AREA (PA)
Peregrine falcon (*Falco peregrinus*)	Sensitive	Breeds on cliffs, often in association with riparian areas	PA contains cliffs and riparian areas
Black tern (*Chlidonias niger*)	Sensitive	Edges of bulrush and cattail marshes	PA may contain suitable habitat in association with riparian areas.
Ferruginous hawk (*Buteo regalis*)	Sensitive	Grasslands and semi-desert shrublands	PA contains grasslands but no suitable semi-desert shrublands
Gunnison sage grouse (*Centrocercus minimus*)	Sensitive	Sagebrush grasslands; two small resident populations documented by San Juan Public Lands Center (SJPLC)	Northern portion of PA contains minimal sagebrush shrublands
Northern goshawk (*Accipiter gentilis*)	Sensitive	Ponderosa pine, aspen, mixed-conifer, and spruce-fir forests	PA contains suitable forested habitats
Western yellow-billed cuckoo (*Coccyzus americanus*)	Sensitive	Lowland species associated with riparian; gallery cottonwoods with dense understory	PA contains riparian areas and potentially suitable cottonwood habitat along river corridors
White-faced ibis (*Plegadis chihi*)	Sensitive	Spring/all migrant only; wet meadows, marsh edges, and reservoir shorelines	PA does not contain suitable marsh edges or shoreline but birds are known to stop overnight in hay meadows as they migrate through in the spring and fall.
FISH			
Bluehead sucker (*Catostomus discobolus*)	Sensitive	Occurs downstream in tributaries of the Colorado and San Juan Rivers	Animas and Gunnison Rivers, tributaries of the San Juan and Colorado Rivers, respectively, occur in the PA
Colorado River cutthroat trout (*Oncorhynchus clarki pleuriticus*)	Sensitive	Freshwater streams	PA contains numerous freshwater streams.
Flannelmouth sucker (*Catostomus latipinnis*)	Sensitive	Tributaries of the Colorado and San Juan Rivers	PA contains tributaries of the Colorado and San Juan Rivers.
Roundtail chub (*Gila robusta robusta*)	Sensitive	Tributaries of the Colorado and San Juan Rivers	PA contains tributaries of the Colorado and San Juan Rivers.

Sources: Schultz 2008

CDOW designates certain species as threatened or endangered in Colorado. Endangered species are those in danger of extinction throughout all or a significant portion of their range. Threatened species are likely to become endangered within the foreseeable future throughout all or a significant portion of their range.

There are twelve state-listed species with potential to occur on lands managed by the Columbine and Gunnison Field Offices (Table 3.20). Some of these species are also federally listed and/or BLM sensitive species (Tables 3.18 and 3.19, respectively).

Table 3.20 Colorado Division of Wildlife Threatened, Endangered, and Candidates species with potential to occur on one or more of the BLM Field Offices within the Project Area.

SPECIES	STATUS	HABITAT ASSOCIATION	POTENTIAL TO OCCUR IN PROJECT AREA (PA)
MAMMALS			
Canada lynx (*Lynx canadensis*)	Endangered	High elevation aspen and spruce-fir forests	PA contains aspen and spruce-fir forests at appropriate elevations. Known to occur and den in the project area during most recent years.
North American wolverine (*Gulo gulo*)	Endangered	Boreal spruce-fir forest and tundra	Higher elevations in PA contain tundra and spruce-fir forests.
River otter (*Lontra canadensis*)	Threatened	Stream and river riparian	PA contains stream and river riparian habitats.
BIRDS			
Bald Eagle (*Haliaeetus leucocephalus*)	Threatened	River, reservoir, and stream habitat	PA contains three major rivers and their tributaries, small reservoirs, and stream habitats.
Burrowing owl (*Athene cunicularia*)	Threatened	Rodent burrows; grasslands, shrublands, deserts	Northern portion of PA contains suitable grasslands and shrublands
Mexican spotted owl (*Strix occidentalis lucida*)	Threatened	Forested canyon bottoms	PA lacks suitable breeding habitat of low- to mid-elevation narrow rock-walled canyons with mature mixed conifer forests. Low potential for occurrence in PA. Nearest known occurrence is > 30 miles to the southeast.
Southwestern willow flycatcher (*Empidonax trailii extimus*)	Endangered	Large patches of willow and tamarisk riparian areas	PA contains willow and riparian habitats. Project Area contains suitable riparian habitat within species' distribution; only 5 known breeding sites and 8 territories within San Juan Management Area of the Upper Colorado Recovery Unit (Durst et al. 2006). Nearest known occurrence is about 30 miles to the south.

SPECIES	STATUS	HABITAT ASSOCIATION	POTENTIAL TO OCCUR IN PROJECT AREA (PA)
AMPHIBIANS			
Boreal toad (*Bufo boreas boreas*)	Endangered	Damp conditions; marshes, wet meadows, streams, ponds, lakes	PA contains wet meadows, streams, ponds and lakes at appropriate elevations.
FISH			
Bonytail (*Gila elegans*)	Endangered	Tributaries of the Colorado River	Gunnison River, a tributary of the Colorado River, occurs in the PA; however, no historical records upstream of the Black Canyon of the Gunnison River and no present populations known in Colorado
Colorado pikeminnow (*Ptychocheilus lucius*)	Threatened	Tributaries of the Colorado and San Juan Rivers	Animas and Gunnison Rivers, tributaries of the San Juan and Colorado Rivers, respectively, occur in the PA; however, no historical records upstream of the Black Canyon of the Gunnison River and species occurs downstream in San Juan River basin
Humpback chub (*Gila cypha*)	Threatened	Tributaries of the Colorado River	Gunnison River, a tributary of the Colorado River, occurs in the PA; however, no historical records upstream of the Black Canyon of the Gunnison River
Razorback sucker (*Xyrauchen texanus*)	Endangered	Tributaries of the Colorado and San Juan Rivers	Animas and Gunnison Rivers, tributaries of the San Juan and Colorado Rivers, respectively, occur in the PA; however, no historical records upstream of the Black Canyon of the Gunnison River and species occurs downstream in San Juan River basin

Source:http://wildlife.state.co.us/WildlifeSpecies/SpeciesOfConcern/ThreatenedEndangeredList/ListOfThreatenedAndEndangeredSpecies.htm

4.0 ENVIRONMENTAL CONSEQUENCES AND PROPOSED MITIGATION MEASURES

Management actions with the potential to affect resources in the Project Area are determined to have low, moderate, or high levels of impact. Impacts can either be negative (detrimental) or positive (beneficial). As directed in CEQ guidelines (40 CFR 1500-1508), impacts that are substantial in severity should receive the greatest attention in decision making. These high level impacts would be considered significant under NEPA. Impacts which cause a degree of change that is easy to detect, but do not meet the criteria for significant impact are considered moderate. Impacts which cannot be easily detected and cause little change in the existing environment are considered low.

Thresholds of significance typically vary by resource type, and are specific to project areas. Significant impacts would include management actions that are not in compliance with BLM policies, or that would violate or threaten to violate federal or state law or regulation.

Federal regulations for implementing NEPA (42 U.S.C. 4321 et seq.), and BLM NEPA Handbook (H-1790-1), require that the cumulative impacts of a proposed action be assessed. CEQ regulations implementing the procedural provisions of NEPA define cumulative impacts as:

> The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. (40 CFR 1507)

In order to analyze cumulative impacts, a cumulative impacts region must be identified for which impacts of the proposed action and other past, proposed, and reasonably foreseeable actions would be cumulatively recorded or experienced. Consequently, the region where cumulative impacts may occur includes the Alpine Loop SRMA and the immediately surrounding area. Therefore, this analysis considers additional impacts arising from the impacts of the Proposed Action combined with the impacts of other known past, present, and reasonably foreseeable future actions within this region. Past, present, and reasonably foreseeable future actions in the cumulative impacts region are briefly described below.

4.1 Resources Brought Forward for Detailed Analysis

4.1.1 Areas of Critical Environmental Concern

Indicators and Agents of Change

The three ACECs in the planning area are each set aside to protect specific natural values.

The **Slumgullion Earthflow ACEC** was designated to protect the continual geologic process and natural values in the slide. Indicators would include changes or impacts caused by recreation activities that disrupt the natural progression of the earthflow or significantly change natural values in the area. Possible agents of change would be road or trail building in the area, use by motorized or mechanized vehicles or human caused wildfire.

The **Redcloud Peak ACEC** was set aside to protect habitat and active populations of an endangered butterfly species. Indicators of impacts to these values would include impacts caused by recreation on the snow willow habitat that this species depends on, evidence of regular recreation use in areas with known populations, or evidence of population decline that could be attributed to recreation use. Possible agents of change could be hikers, hunters, mountain climbers, other recreationists, and their dogs that could disrupt habitat or populations. Another agent of change could be commercial collectors.

The **American Basin ACEC** was set aside to protect the outstanding scenic qualities of American Basin which include dramatic mountain scenery and spectacular displays of wildflowers during the middle of the summer. Indicators that would signal that these management goals are not being achieved would include noticeable, long lasting disturbances, disruption to vegetation or natural landforms, and changes in the visible level of development or human activity within the valley. Possible agents of change could be management actions such as developing

parking areas or trailhead facilities, use by motor vehicles off the designated route, and camping impacts related to trash, fires or trampling of vegetation.

Management Common to All Alternatives

Direct Impacts – Since their designation in 1993, the ACECs have been managed in a manner that prioritizes the protection of their unique values. The management actions common to both alternatives are not likely to cause any negative impacts to ACECs. Several actions would continue to result in long-term, beneficial effects on these resources. Motorized vehicles would continue to be required to stay on designated routes which would continue to minimize impacts to soils and vegetation in the Slumgullion Earthflow and American Basin ACECs. Several routes that have been closed to motorized access would remain closed. The American Basin ACEC would remain closed to withdrawal from mineral entry, and therefore negative impacts from major disturbance to landform or topography to scenic values would be avoided. Through the continuation of patrols during the summer season, negative impacts from camping, litter, and campfires would be monitored. Negative impacts from these activities would be anticipated to be minimal to low, and short term.

Indirect Impacts –The management actions common to both alternatives are not likely to cause any negative indirect impacts to ACECs as the guidelines are specifically designed to protect the unique values of these areas. The positive benefits of the actions mentioned above would have the long term, beneficial effect of ensuring the continued protection of these special values.

Cumulative Impacts – Recreation use in the area would continue to increase over time, with concentrated use in the American Basin and Fourteeners access areas, including Handies Peak and Red Cloud Peak. The management actions under MCA are not likely to cause any negative cumulative impacts to ACECs, while some low to negligible impacts from hikers and visitors to the area may be incurred over time. Grazing is another resource use that has the potential to affect with short-term and long-term impacts to vegetation and wildflowers in the American Basin ACEC; however grazing authorizations have been specifically managed to reduce the likelihood of long term negative impacts to vegetation or scenery in this area through allotment management. The cumulative effect of all the management actions mentioned above result in a low to moderate beneficial effect on the special values protected by these ACECs.

Alternative A – Current Management /No Action

Direct Impacts – It is not anticipated that the management actions continued under this alternative would cause any additional direct negative impacts to ACECs. However, visitors to these areas would continue low levels of impacts from off trail travel, over flow parking in high use areas and seasons, and damage to vegetation and soil resources. As this alternative would not adopt some of the proactive management actions proposed in Alternative B, some of the beneficial effects of those actions would not be realized. Impacts from use of Grouse Gulch trail, as an unmaintained trail, would result in low, short and long term negative impacts to vegetation and soils. American Basin and the summits of Fourteeners would continue to see high levels of recreation use by the public and commercial groups.

Indirect Impacts – The management actions continued under this alternative would not cause any measurable indirect negative impacts to ACECs.

Cumulative Impacts – The management actions continued under this alternative will not cause any cumulative negative impacts to ACECs.

Alternative B – Proposed Action

Direct Impacts – The management actions proposed under Alternative B could have a minor to negligible negative effect on scenic resources in the American Basin ACEC in the short-term from construction of trailhead improvements and expanded parking areas. The proposed expansion of trailhead parking for the American Basin Trail and maintenance on approximately 1 mile of the Grouse Gulch trail could cause short-term, localized impacts to vegetation and scenery. However, long term, these improvements would reduce impacts from over use, overflow parking, and erosion from unmaintained trails. In relation to the management goals for the American Basin ACEC best management practices and careful siting of the improvements would reduce or eliminate these possible

disruptions to the primary views and viewsheds. This alternative also includes several actions that would likely result in positive benefits for these ACECs.

Potential impacts to vegetation in Redcloud Peak ACEC would be reduced through the prohibition of campfires by outfitters above 12,000 feet in an effort to lower the threat of wildfire disturbing snow willow habitat in an effort to further protect potential habitat for endangered species. Additional signs to direct use away from sensitive areas and to reduce off-trail travel by people and pets would potentially reduce direct impacts to vegetation and provide an increase in beneficial, long term benefits for this species.

Indirect Impacts – The management actions proposed under Alternative B would not have any measurable indirect impacts to these ACECs. A BLM species of concern, the white tailed ptarmigan also uses snow willow habitat. Protections of this habitat may have positive indirect impacts on this species.

Cumulative Impacts – The management actions proposed under Alternative B would not have any measurable cumulative impacts to these ACECs. Grazing is another resource use that has the potential to affect the American Basin ACEC but grazing authorizations have been specifically managed to reduce the likelihood of long term negative impacts to vegetation or scenery in this area. The cumulative effect of all the management actions mentioned above result in a neutral to minor beneficial effect on the special values protected by these ACECs.

4.1.2 Cultural Resources

Cultural resources are the physical remains of past human activity. They are the physical reminder of heritages and cultural pasts, and directly connect people to the history of the area in which they are located. Examples of cultural resources in the Alpine Loop area are historic mining complexes, mills, cabins and ghost towns.

Indicators and Agents of Change

Changes to cultural resources would be reflected in site stability, NRHP eligibility, and levels of monitoring and interpretation. Management actions with the potential to affect cultural resources can be determined to have a low, moderate or high level of impact on this resource area. Those actions that would have a high level of impact on cultural resources would be deemed significant under NEPA.

Management Common to All Alternatives

Direct Impacts – Stabilization, as a management directive, will have both positive and negative direct impacts to the resources. It will be a positive agent for change in that it will help preserve stabilized structures and slow deterioration of cultural resources so they may be enjoyed by future generations, but it will also alter the natural decomposition of the resources, which is a part of the development and evolution of the resources.

Indirect Impacts – Interpretation, as a management action, will indirectly impact the resources in a positive way in that visitors will be better informed about the resources and the laws protecting resources and therefore may be more responsible visitors, thus having a lighter impact on the resources. However, interpretation (especially signage) may change the feeling associated with the resource by altering the view of the resource, and it may encourage more visitation in that a person will be more likely to stop and visit a resource if it has interpretive signage or a brochure associating it to events in the past.

On a personal level, interpretive information at historic sites may allow visitors to have a more fulfilling experience, help them feel more connected to the past and gain a deeper understanding of the history of the region. Preservation of the historic landscape may provide the surrounding communities with a stronger sense of their past, and may make them more connected to the landscape. Preservation of the historic landscape provides the potential for heritage tourism revenues further into the future. Additionally, economic benefits may be noticed because better preserved landscapes draw greater numbers of tourists seeking heritage tourism.

Increased visitation has the potential to increase inadvertent negative impacts on historic resources through wear and tear, and possibly increase the potential for vandalism. However, there are benefits associated with increased visitation. More people will have the opportunity to be enriched by visiting cultural resources, share their

experiences with others within their community, and the potential revenue from increased visitation would directly benefit the communities within the Alpine Loop.

Cumulative Impacts – Education would likely have positive impacts on cultural resources within the Alpine Loop. Educational outreach is intended to develop a more respectful public, leading to less physical impact to resources and the landscape they inhabit. Benefits associated with educational programs include a better personal understanding of why resources are important as a part of the history and landscape of an area, as well as deepening a person's connection to the history of the region.

Site stewardship programs will have positive impacts to resources as it will alert the authorities to any new vandalism to resources. With more informed monitors, it is reasonable to expect that instances of vandalism will decrease. Benefits associated with site stewardship programs are mainly economic, as it is reasonable to expect that there will be less money spent on repairs due to vandalism.

Alternative A – Current Management/No Action

Direct Impacts – Prohibiting camping within 50 feet of cultural resources has positive direct impacts to all historic resources within the Alpine Loop. This means that there is no camping allowed within historic or prehistoric sites, although often the official boundaries of the sites are larger than the obvious attributes of a site. There is less risk of damage to the resources caused by campers, including fire risk associated with campfires or stoves.

Erosion control as a management directive means that while there may be unnatural features associated with the resource, excessive erosion due to foot and vehicle traffic is controlled. This helps to ensure that the resource does not degrade at an accelerated pace because of slumping.

Closing any unauthorized roads or social trails leading to threatened sites directly has positive impacts to resources. It protects threatened sites by restricting access to them and benefits the environment as well in that it encourages visitors to stay on designated trails and roads, which may lead to less erosion.

Indirect Impacts – Monitoring resources and directly interacting with visitors has a positive, if indirect, impact to all resources involved in monitoring. By monitoring resources the conditions of those resources are known and continually updated by authorities, and if deterioration of the resources accelerates, access to those resources can be limited or other measures such as stabilization can be planned. Benefits associated with monitoring and directly interacting with visitors include the future tourist revenues associated with better long term preservation practices and environmental benefits. Monitors will be able to observe environmental conditions such as new roads being made by OHV use, or foot trails around resources where there is no designated trail.

Cumulative Impacts – Management and budget prioritizations for heritage resource projects are programmed to lead to stabilization and other restorative measures for priority resources. The economic benefit of budgeting for projects is that it leads to a better understanding of which projects it is reasonable to expect will be completed in the foreseeable future.

Nominating resources to the NRHP, and actively seeking NRHP designation for some resources, means that those specific resources will have a better chance of long-term preservation. This may lead to closely associated resources receiving more preservation attention, as well. Economically, the region could benefit because preservation of the resources leads to future tourist revenue as the resources can be expected to survive longer into the future.

Alternative B – Proposed Action

Direct impacts – Marketing efforts to redistribute visitation from the peak summer months (July-August) into the shoulder seasons (June and mid-August through September) would have minimal effects on all historic resources within the Project Area. While there is less potential for damage during the summer months, there is a much greater chance of impacts to the resources during the shoulder seasons. Historic resources, particularly standing structures are more vulnerable to damage due to any type of visitation during the seasons associated with snow melt as they are structurally weaker due to the weight of snow and the instability associated with wet wood and timbers, as well as the instability of the wet ground which leads to accelerated erosion. However, the benefits associated with

redistributing visitation to encompass a longer stretch of the year are numerous. Redistribution of visitors across shoulder seasons may enhance some individual experiences during the summer months as there will be fewer perhaps undesirable social encounters. Economically the region will benefit as the heritage tourist season would be spread out over a longer period each year, allowing for more even, sustainable revenue.

Prohibiting camping within 150 feet of historic sites would have a slightly more positive impact on all of the historical resources in the Alpine Loop area than the 50 foot limit under current management, including less danger to the resources from fire.

Recommending that areas of intensive activity associated with permitted sheep camps, salt licks, and bedding areas be located a minimum of 100 feet from cultural resources and noteworthy historical structures ensures that there is less of a chance that there will be disturbance to the resources from sheep entering standing structures for shelter. It would also reduce the likelihood that sheep herders would use wood from historic sites for their fires.

Appropriate repairs from damage, as a result of public use and natural causes, where feasible or necessary to resolve or maintain safety issues and assure accessibility would contribute to the resource's longevity, but care must be taken to avoid altering any resource to the point that its character has changed. Repairs would alter the natural decomposition process that is a part of every heritage site, and it may allow access to a greater number of resources, which means greater visitor numbers and therefore more wear and tear on the resources due to visitation.

Indirect Impacts – Requiring livestock operators to educate their employees about laws protecting cultural resources would likely lead to less damage to resources from negligence and vandalism during livestock grazing seasons. There is an overall environmental benefit in less impact from litter and possibly destructive camping habits of livestock personnel.

Development of a camping area and at Cunningham Gulch would provide restrooms for improved sanitation, and will regulate camping in the area (prior to development site-specific surveys and NEPA will be conducted).

Cumulative Impacts – By working with outfitters to include historic preservation practices and education in their offerings it is reasonable to expect that the area would see better preservation practices by visitors in the future. Individuals would benefit in that they will learn how to be better, more responsible visitors, which leads to economic benefits of longer term preservation of the resources. The region could expect to see tourist revenue further into the future as the resources can be expected to survive further into the future. The immediate environment around the site would also benefit because there would be less impact to the areas around the resources from people traveling off trail.

4.1.3 Recreation

This section discusses impacts to recreation resources and opportunities from management actions regarding recreation as well as other resources. The major difference between the alternatives is the establishment of RMZs under the Proposed Action. Lesser differences include group size use limits, the potential for some additional facilities, and the addition of several existing trails proposed to be added to the BLM system.

In terms of resource protection, actions considered in the alternatives should evaluate and emphasize necessary steps to reduce the negative impact of recreation on other resources. The cumulative effect of proactive measures may result in a variety of beneficial effects on soil, vegetation, water quality, wildlife, scenery, cultural resources, wilderness and other resource values.

In terms of recreation opportunities, visitor surveys and comments associated with the RAMP (as discussed under Affected Environment for recreation) documented that according to the majority of visitors, the Alpine Triangle is considered to offer outstanding recreation opportunities in a scenic natural setting. Visitor preference surveys show a high level of satisfaction with visitors' experiences and an extremely high rate of return visits. The most common comment offered on past surveys was encouragement to 'keep things the way they are' and to not allow the recreation settings to change significantly.
The comparison of alternatives will address differences in the quantity and /or character of recreation use in this Project Area, the relationship of the amount of staffing and resources that the BLM has available to manage that anticipated use, and the potential for impacts on other resources.

Indicators and Agents of Change

Impacts to recreation are detailed as changes in activities, settings and visitor experiences. This analysis evaluated characteristics of the visitor experience in terms of how they might be affected by changes in types of activities and settings. It must be noted that unforeseen and/or changing conditions that are beyond the control of the BLM may influence and partially determine what a visitor experiences. Recreational user satisfaction can be defined as that subjective mental state in which the resource user is able to successfully benefit from the available recreational opportunities and recognizes that his/her recreational experiences meet or exceed his/her recreational expectations. (Moab PRMP/FEIS p 4-199).

Management Common to All Alternatives

The current recreation management actions to be carried forward under both alternatives were prescribed by the BLM field offices' RMP documents and are incorporated into discussion of MCA. The impacts of current management to recreation resources were addressed in the environmental impact statements of the existing RMPs and other agency documents and review, and will not be restated here.

Current management and the Proposed Action utilize the same basic approach to management of recreational resources and opportunities. MCA would maintain the current status of law, regulation and policy, thereby providing a baseline for recreation activities, settings, and experiences. Many of the actions that would be carried forward as MCA have been developed and utilized over many years of active management of recreation resources in this area. The rules and guidelines included as MCA were largely designed to protect or enhance recreation opportunities while reducing the impacts of recreation activities on recreation settings and other resource values.

Cumulative Impacts – Taken together, MCA will have a variety of cumulative effects. MCA may result in short term and long term impacts to both recreation visitor experiences and natural resources. Localized crowding, private property trespass, illegal off-trail non-winter mechanized use, and unauthorized winter mechanized recreation within the Wilderness areas would be likely to continue to occur, with the potential for negative cumulative impacts on visitor experiences. These impacts would be distributed across the landscape, but potentially concentrated in popular areas and near travel routes.

Alternative A – No Action Alternative

The recreation management actions under this alternative are largely addressed above in the section of Management Common to All Alternatives. The discussion in this section will address only those actions under Alternative A that would continue and therefore would differ from what is proposed under Alternative B.

Direct Impacts – Direct impacts to recreation activities and settings under Alternative A would continue to be guided by 1996 Scenic Byway Corridor Management Plan, which is considered only marginally adequate by the Colorado State Scenic Byway Committee. Impacts would potentially include diminished opportunities for grant funding from the Federal Scenic Byways program, which has been an important source of supplemental funding to carry out priority recreation management actions. Under this Alternative, the BLM would not recommend to the State Scenic Byway Committee that the Corkscrew Pass route be added to the Alpine Loop Scenic Byway, which would result in a lowered level of maintenance in this area as opposed to Alternative B and reduced ability for the BLM to maintain recreation opportunities in that area. The lack of these actions taken together would be considered a moderate negative impact.

The Recreation Opportunity Spectrum (ROS) would continue to guide recreation management in the Project Area. The use of the ROS as a management framework would have limited measurable effect on BLM management program as it includes a mix of uses from motorized to non-motorized throughout the Project Area. However, as several designations for special management (e.g. WSAs, ACECs, and historic registrations of landmarks) have been made since the ROS was developed, some activities and management areas may have changed over time and be less congruent than under Alternative B.

Under this alternative, the BLM would continue to maintain the existing travel management network. These existing routes would continue to be used and not receive regular maintenance which could diminish recreation opportunities and lead to resource impacts to soil, water and vegetation.

Mountain bikes would not be required to stay on designated routes. For mountain bike riders, beneficial impacts would be experienced by those that prefer cross-country travel and would perceive less management structure. In association, impacts associated with vegetation, soils, and water quality from erosion would continue from off-trail use and the creation of unauthorized routes in popularly traveled areas.

Several existing facilities might not be expanded and several proposed facilities would not be built. For users who prefer unconfined recreation settings with little management presence, no new impacts associated with additional signage, trails, trailheads, and bathrooms would be experienced under this alternative. However, slight short term and low to moderate long term impacts associated with over use, crowding, and user conflicts could occur where current facilities for parking, camping, boat launches or trailhead facilities would not be able to accommodate increasing use.

Geocaching would continue to develop as an activity with little to no management, and would be perceived by some as low beneficial impact from less regulation. For visitors who prefer undeveloped settings with few signs of human disturbances, additional resource impacts from surface disturbance, social trailing and inappropriate caches being left in Wilderness and WSAs would occur at low to moderate levels.

Through allowing camping within 50 feet of historic structures, an increase in campsite choices may be considered a beneficial effect for dispersed campers. Negative, long term effects to historic resources would continue due to historic sites receiving high levels of repeated, continuous concentrated use and threats and disturbance from fire rings and firewood collecting to the historic setting. Collaboration efforts would continue at historic levels under this alternative.

As standard guidelines for commercial outfitting and special events under Current Management would not address large group sizes, commercial use of Fourteeners, and special events during peak seasons, negative effects from conflicts between permit holders and the general recreating public would continue.

Indirect Impacts – Long term, and therefore indirect, impacts to recreational opportunities and settings under this alternative could occur with the increased likelihood that current management would not keep pace with the changes caused by increased use, different technology, different recreation demand, and different patterns of use. This could result in increased impacts to resources which can undermine the resource values of recreation settings. It can also increase the possibility of conflicts between different recreation groups and decrease visitor satisfaction.

Cumulative Impacts – The reasonably foreseeable future for recreation includes increases in recreational visitation within the Project Area. Motorized recreation and driving for pleasure will continue to be a popular pursuit. As long as this use stays on the system of designated roads the BLM would continue to protect the outstanding scenery and recreation settings on public land. Development on private land, which the BLM has no control over, could cause slight to moderate deterioration of scenic beauty particularly in the Animas River drainage where there is a concentration of private land.

Additional visitation, particularly during the peak summer season could result in an increased sense of crowding and increased resource damage from lack of facilities and group size controls. This could decrease visitor satisfaction and possibly lead to other social impacts such as conflicts between recreationists.

Taken in total, the cumulative effects from recreation management under this alternative would have a beneficial effect and may maintain recreation opportunities settings at similar patterns, uses, and visitation levels. However, negative impacts to localized resource conditions and visitor satisfaction as a result of continued increase in use levels during the peak summer season would be anticipated.

Alternative B – Proposed Action

Direct Impacts –The implementation of Alternative B would result in a number of positive benefits both in terms of maintaining or improving recreation opportunities and reducing impacts to other resources caused by recreation. There would also likely be several minor negative impacts to recreation experiences or resource conditions. The impacts are related to the creation of the RMZs, changes in the travel management system, improvements and increases in developed facilities, changes in dispersed camping, increases in interpretive exhibits and signs, and limitations on outfitters and special events. Additionally, management measures for new recreation activities would be added to accommodate and direct these uses.

Management of Scenic Byway resources would be guided by the expanded guidelines in the RAMP, which meet the needs of the State Scenic Byway Committee. This would allow the area to compete for grant funding from the Federal Scenic Byways program which has been an important source of supplemental funding to carry out priority recreation management actions. Impacts associated with the BLM's recommendation to the State Scenic Byway Committee that the Corkscrew Pass route be added to the Alpine Loop Scenic Byway would include opportunities to pursue grant funding to maintain and improve recreation opportunities in that area. Increases in maintenance would enable access to the area for some and would discourage use by others who prefer backcountry roads.

The use of the Recreation Management Zones as a management framework would have minor beneficial effects to the BLM's management program by defining management goals for specific areas based on the activities, settings, experiences and benefits they are best suited to offer. Beneficial impacts from these RMZs would include improved ability for the BLM to direct visitors to areas that are appropriate for activities and settings while also protecting resources and reducing inappropriate uses in non-sustainable areas.

By adding 16.4 miles of existing foot and horse routes to the trail system, the BLM would recognize the use that is already occurring on these trails and would maintain the trails to reduce resource impacts to soil, water and vegetation.

Adding mountain bikes to the list of vehicles that must stay on designated routes may be perceived as a negative impact for that user group. However, beneficial impacts would be realized from avoiding resource damage that could result from mountain bikers continuing to travel off trail, potentially leading to the creation of additional unauthorized routes or riding in areas where that use is not appropriate.

Several existing facilities are proposed for expansion and several proposed facilities would likely be built in American Basin, Henson Creek ATV staging area, Grouse Gulch, Cunningham Gulch, and potential future boat launch locations. These facilities would slightly improve recreation opportunities or decrease resource impacts if parking, camping, boat launch or trailhead facilities are developed or improved to handle increasing use.

Rock climbing would be added to the list of activities that the BLM would proactively manage for and activities could be restricted in cases where use conflicts may develop in the future. This would result in slightly more regulation of that group (which may be perceived as negative impacts and potentially less desirable) but could result in beneficial effects to wildlife and nesting birds should active nests be observed in climbing areas in the future. Placement of permanent anchors would not be allowed in Wilderness or WSAs. Climbers working with the BLM to locate routes and appropriate activity areas would help to ensure the integrity of backcountry areas where climbing may increase in the future.

Under the Proposed Action, the BLM would work with Hinsdale County to possibly reroute a portion of County Road 30 along Lake San Cristobal, resulting in improved lake side fishing opportunities on this popular lake and reduced safety hazards associated with fishing along the road in the current configuration. Additional resource surveys would be completed to evaluate potential resource issues associated with the disturbance to vegetation and wildlife.

Geocaching visitors may perceive a slight negative impact from more guidelines. However, impacts to other user groups and resources affected by surface disturbance, social trailing and inappropriate caches being left in Wilderness and WSAs would be avoided under this alternative.

Restricting camping within 150 feet of historic structures may be perceived as a slightly more restrictive management action. This change in camping distances from structures could have a slight negative effect for dispersed campers but will likely result in beneficial protection and less damage to historical resources. Included with increasing efforts to stabilize historic structures, Alternative B would allow beneficial preservation of the opportunities and experiences for Heritage Tourism. Additionally, the establishment of a Historic Site Steward Program with Hinsdale County partners would increase potential for improving monitoring and education efforts at historic sites and decrease negative impacts from recreation activities that could damage these irreplaceable resources.

The proposal to develop ice climbing opportunities in the Henson Creek canyon near Lake City would be implemented resulting in a beneficial effect for opportunities for that activity and increase potential for additional sustainable tourism that would be attracted to that area in the economically slow winter season. Additional disturbances to wildlife from recreationalists may be a slight negative impact from increased activity in these areas.

The BLM would work with existing partnerships to develop a brochure on winter recreation opportunities to increase the opportunities to inform the public about recreation opportunities during slower, winter seasons and redirect some use to the shoulder seasons. These informational efforts may result in increased use which could be perceived by some as detrimental impacts to quiet and solitude, but as positive to those who discover the lower levels of crowding and user conflicts.

Establishing some guidelines for commercial outfitting and special events would reduce the risk of increased conflict between large commercial groups and the general public.

While many visitors return to the Project Area repeatedly, the practice of directing new visitors away from a crowded area or not advertising particular areas may assist in reducing visitation and the perception of crowding. This practice could potentially reduce the rate of at which visitation increases and maintain levels of use below a threshold where it would detract from visitor satisfaction or cause increased resource impacts at localized sites would be deferred or

avoided. The practice of encouraging summer use to relocate to shoulder seasons in June and mid-August through September would potentially extend the tourism season for surrounding communities. Impacts associated with these practices would be anticipated to be beneficial in the unadvertised areas, however exact effects are difficult to anticipate and largely qualitative.

Indirect Impacts – Indirect impacts are those that could develop later in time or are further removed in distance from the direct impacts mentioned above. Under Alternative B, indirect impacts may be associated changes in visitation patterns or choices for activities. Should visitation increase in the shoulder seasons, the current users and wildlife in those seasons may experience negative impacts from increased use. The management actions are designed to help ensure that recreation opportunities and settings would be managed in a sustainable way and to ensure that the activities, settings, experiences, and benefits would remain available for many years to come. One indirect impact of that is that the surrounding communities, whose economy relies heavily on tourism, would continue to benefit from the visitors that are attracted to this area.

Cumulative Impacts – Within the reasonably foreseeable future, the BLM anticipates an increase in recreational visitation and utilization within the Project Area as described in the Affected Environment. The management actions that are proposed are designed to maintain or improve recreation opportunities and settings and to minimize impacts to other resources caused by recreation activities. Cumulative impacts, in the form of decreasing visitor satisfaction or increasing impacts to other resources, could occur if the rate of growth in recreation and tourism significantly surpasses the levels that the BLM has anticipated.

There are factors beyond the BLM's control that could affect recreation settings. Development on private land scattered through the area could reduce scenic quality and visitor satisfaction. Many of the public roads in the area are controlled and maintained by the counties. If the counties chose to maintain them in a way that conflicted with BLM management goals or the visitor experiences that the BLM proposed to manage for, then there would be a slight to moderate negative effect on visitor satisfaction, as roads and access are critical to most visitors' experiences in the Project Area.

Historic sites, which are an important setting for many recreationists, would continue to suffer from the negative effects of time and weather. Some impacts from visitors also contribute to their cumulative deterioration, such as incidental fires, vandalism, and heavy use. The added emphasis under Alternative B to stabilize these sites would potentially slow the deterioration and would assist in their persistence so that they remain available for visitors to enjoy for many years. As the funding, staff time and expertise to carry out these stabilization projects are limited some sites would continue to deteriorate.

4.1.4 Socioeconomics

The most significant factor affecting the character and economic stability of the study area is recreation-based tourism; therefore, the potential effects on socioeconomic resources from management objectives outlined in the RAMP need to be addressed.

Indicators and Agents of Change

The potential for direct and indirect impacts on demographics, economic activity, and/or quality of life, within the study area is related to changes in recreational use of public lands. Therefore, socioeconomic conditions in the study area could be affected by proposed changes in recreation uses and related management decisions. For instance, if seasons of use are expanded for recreation opportunities, regional economic activity would be expected to increase in the study area. In general, effects on socioeconomic resources are measured by changes over historic and current conditions and trends.

Management actions with the potential to affect socioeconomic resources can be determined to have a low, moderate, or high level of impact in this resource area. Those actions that would have a high level of impact on socioeconomics would be deemed significant under NEPA.

Management Common to All Alternatives

Direct Impacts – For all alternatives, there are no expected actions that would cause a substantial change in current population or employment trends in the area. Therefore, management decisions in the RAMP are not projected to have any measurable impacts on demographics, regardless of the alternative. The change in rate of population growth across all alternatives is expected to remain consistent with local trends.

Under all alternatives, the character of the Alpine Triangle Recreation Area and the Alpine Loop Scenic Byway would not be substantially altered by implementation of the RAMP and would continue to be conserved for valued scenic and cultural elements as well as outstanding recreation opportunities to the extent that partnerships, resources, and funding allow. Generally, all alternatives are similar with respect to desired future conditions, thematic direction, and design guidelines for land management of the route. The management actions common to all alternatives would continue to ensure that recreation opportunities on public lands continue to provide a solid and sustainable base for the tourism based economies, as well as quality of life for residents, in surrounding towns and counties.

Indirect Impacts – As with direct impacts, there are no expected actions that would substantially change demographics or the socio-economic factors within the Project Area.

Cumulative Impacts – Tourism and the socio-economic benefits that it provides are subject to change due to the influence of larger forces within the economy; these effects tend to be temporary or cyclical. No known past, present, or reasonably foreseeable actions are expected to result in cumulatively substantial changes to population trends within the study area; population is expected to continue to increase at a rate consistent with historic trends. Current and proposed residential and recreational developments in the study area communities have the potential to cumulatively increase property tax revenue, and increase tourist spending in the region. Further, visible changes in the viewshed adjacent to the byway could occur because of future development of non-public lands visible from, or adjacent to, the Alpine Loop. These changes could have cumulative impacts on the scenic value of the byway and the quality of life enjoyed by area residents and tourists.

Alternative A – Current Management/No Action

Direct Impacts – Because management of the Alpine Triangle would continue unchanged from current conditions, no direct changes to socioeconomic resources including demographics, economic activity, or quality of life are expected.

Indirect Impacts – As with direct impacts, no indirect changes to socioeconomic conditions are expected.

Cumulative Impacts – No cumulative impacts to socioeconomic conditions beyond those discussed under MCA are anticipated under Alternative A.

Alternative B – Proposed Action

Direct Impacts –The Project Area has been identified as a destination recreation tourism market, and divided into three RMZs (RMZ 1–Alpine Backcountry, RMZ 2–Heritage Roads, and RMZ 3–Animas & Lake Fork Rivers). This division has the potential to affect quality of life and visitor experience in the study area by enhancing the prescribed character of the three recreation settings; the management objectives are intended to achieve the recreation setting, visitor experience and benefit opportunities for each RMZ. Additionally, the BLM's benefits-based management approach to managing recreation in the Project Area has been incorporated into the RAMP and forms the basis of the Proposed Action. Benefits-based management is a shift from the BLM's historically activity-based approach to recreation management. This approach targets a range of opportunities, experiences, and beneficial outcomes provided within appropriate settings with the goal of optimizing net benefits to visitors and affected residents, their communities, and the environment.

Additionally, each RMZ has different management objectives, targeted experiences, and recreation settings, though overall the RMZs are intended to generally improve the local economic environment and quality of life of residents and visitors to the area. For the Alpine Loop RAMP, these recreation-tourism market strategies would target visitors across the U.S, with a focus on residents of the Four Corners Region and the states of Colorado and Texas.

The anticipated benefits of RMZ 1 for visitors and area residents include improved physical fitness, reduced daily stress, enhanced awareness and appreciation of nature, an emotional and spiritual connection to the land, and generally improved quality of life. Other direct benefits include maintaining or improving local tourism revenue by ensuring that a diversity of recreation opportunities are available, and sustainable heritage tourism revenue along with improved local economic stability.

The anticipated benefits of RMZ 2 include increasing resident and visitor appreciation of the area's cultural history, improved sense of self confidence, reduced stress of everyday life, stronger familial and friendship ties, and an

overall improved quality of life. Other direct benefits include maintaining or improving local tourism revenue, job opportunities and economic stability.

The anticipated benefits of RMZ 3 include improved physical fitness and outdoor recreation skills, a greater sense of adventure, reduced stress of everyday life, and stronger ties with family and friends. As with RMZs 1 and 2, the anticipated direct benefits of RMZ 3 also include maintaining or improving local tourism revenue, job opportunities and economic stability.

Additionally, under the Proposed Action, the BLM proposes to distribute recreation activities more evenly across the year, thereby lengthening the business season in the local communities. Extending the business season could increase revenue from tourism during the shoulder and winter seasons. Thus, the Proposed Action would likely result in beneficial impacts to economic activity and increased economic prosperity in the region because of a longer tourist season.

Because the proposed RMZs are intended to enhance visitor experiences across the Project Area, the Proposed Action is expected to result in a beneficial impact to visitors and residents in the region in terms of economic activity and quality of life. From a social perspective, improving the quality of the recreation experience would be expected to simultaneously improve quality of life for local residents by providing greater recreational opportunities. Implementation of the RMZs is not expected to change demographics in the region or affect any environmental justice communities.

Indirect Impacts – In addition to the anticipated direct, beneficial impacts of implementation of the Proposed Action, an increase in recreation and improvements in the visitor experience are also expected to result in an indirect, beneficial impact to the economic activity in the local economy (i.e. including increased tax revenue from increased tourist spending, etc).

Because the proposed RMZs are intended to enhance visitor experiences across the Project Area, the Proposed Action is expected to result in a beneficial impact to visitors and residents in the region in terms of economic activity and quality of life. Implementation of the RMZs is not expected to change demographics in the region or affect any environmental justice communities.

Cumulative Impacts – No cumulative impacts to socioeconomic conditions beyond those discussed in under MCA are anticipated for the Proposed Action.

4.1.5 Transportation and Access

This travel management and access section addresses potential impacts to the system of roads and trails within the Project Area. Impacts to travel routes for public use and enjoyment of public lands as well as impacts to routes designed for access to private developments within the Project Area will be discussed.

Indicators and Agents of Change

Travel management and access would be affected by changes to existing route designations, and the addition or removal of designated routes or changes in the types of vehicles that are allowed to use designated routes. The travel management system also includes facilities such as parking areas and designated pullouts. Changes to the travel management system, including additions to or deletions from the system, would result in changes in designation, maintenance and/or level of use.

Management actions with the potential to affect the travel management system can be determined to have a low, moderate, or high level of impact on travel as a resource area. Those actions that would have a high level of impact on travel management would be deemed significant under NEPA.

Management Common to All Alternatives

The current travel route designations and management actions were originally established by the 1980 Transportation Plan and later amended by the RMP documents and are incorporated into discussion of management common to all alternatives. The impacts to travel management and access were addressed in the existing RMPs, and will not be restated here.

Alternative A – Current Management/No Action

Under Alternative A, there would be no change to the existing system of roads and trails. While utilization would be expected to continue to increase, there would be no changes (additions/deletions) to route designations and maintenance.

Direct Impacts – There would be no direct impacts to travel management and access under Alternative A.

Indirect Impacts – There would be no indirect impacts to travel management and access under Alternative A.

Cumulative Impacts – There would no cumulative impacts to travel management and access under Alternative A. Cumulative impacts to the environment from travel management would result from continued environmental degradation as unauthorized utilization of non-designated travel routes would continue under Alternative A. Social trailing, off-trail mountain biking, and other mechanized cross-country travel would likely increase.

Alternative B – Proposed Action

The BLM's BBM approach to managing recreation in the Project Area forms the basis of the Proposed Action. This approach is a shift from the BLM's historically activity-based approach to land management. The establishment of BBM and the RMZs supports and reinforces BLM policies of Open, Limited, and Closed designations of areas. These concepts are designed, in part, to reduce conflicts between user groups, public land users and private landowners, and all users and the environment. These management actions result in no loss of resources or access to resources, and overall have a long-term positive impact on the SRMA.

Under Alternative B, new management direction would be incorporated to address an increase in motorized recreation and a change in types of recreation. The establishment of RMZs is designed to redirect some recreational use, which has the potential to impact travel and access within the recreational zones. The formal designation of existing trails will impact the system of trails. Finally, the development of new travel management facilities will have an impact on the access to other recreational facilities.

Direct Impacts – Alternative B would formally designate 16.4 miles of existing foot and horse trails to the established transportation network as system routes if access easements across private land are secured No roads currently designated as open to motor vehicles would be removed from the transportation system; therefore no loss of motorized recreation access would result from this alternative. This proposed increase in designated routes would have no direct impacts on natural or cultural resources, as the routes are already in existence, and would be largely an administrative change only. There is a potential for increased utilization of routes once designated, with direct impacts on the use and maintenance of these routes. The new designation of existing routes may have minor impacts on other routes within the transportation network by slightly lessening their utilization in favor of the newly designated routes.

Indirect Impacts – The management actions under Alternative B are not expected to result in any indirect impacts on the transportation system or public access in the planning area. Recreationists, both as groups and individuals, who prefer the non-motorized transportation network would benefit from the additional designated trails, as all are designated non-motorized (except for snowmobiles in the winter). Most recreationists would potentially benefit from the improved developed facilities, as those to whom facilities are detractions are less likely to recreate in more developed areas. Finally, the formal designation of existing trails and the development of travel management facilities would benefit the environment as less environmental degradation from off-trail travel and parking may occur.

Cumulative Impacts – There would be no cumulative impacts to travel management and access under Alternative B.

4.1.6 Vegetation

Indicators and Agents of Change

Impacts to vegetation from recreation are related to the volume and type of recreation occurring on or near vegetation, as well as natural disturbances. Generally, heavier use areas have more impacts, whereas fewer impacts

occur in lower use areas e.g., foot traffic typically has fewer impacts than ATVs or horses (Weaver and Dale, 1978), but is also dependent on the frequency of use (Dale and Weaver 1974). Measurable impacts from trampling include increases in soil erosion (Whilshire et al 1978), loss of surface organic horizons (Burden and Randerson 1972), soil compaction (Iverson et al. 1981), reduction of soil infiltration rates (James et al. 1979), depletion of soil fauna (Duffey 1975), reduction of nutrient availability (Stohlgren and Parsons 1986) and vegetation damage or loss (Weaver and Dale 1978). Vegetation structure and plant species composition can be altered because of exotic species carried into areas by recreationists (Cole and Landres 1995). Composition may also be altered because of variations in plant species' tolerance to recreational disturbance (Dale and Weaver 1974, Cole 1982).

Management Common to All Alternatives

Direct Impacts –Direct impacts to vegetation under all alternatives would be low to moderate and long-term. Impacts would be related to off-road travel, social trails to popular destinations, and other signs of human activity. Both alternatives would likely result in damage (trampling), uprooting, or removal of low-lying vegetation, trees and shrubs, invasive and noxious weed transportation - by hikers, horses, mountain bikes, and off-highway vehicles (OHVs), and decreased height and vigor of native plants (Leung and Marion 2000). Integrity of vegetation values in the Project Area would be maintained by managing recreation use in a way to minimizes impacts caused by visitors. Specifically, known weed infestations would be treated, to the extent that budget and staffing allows, reducing the potential for recreation activities to spread seeds to other parts of public land. Soil-disturbing projects would be managed to reduce suitable conditions for invasive weed recruitment.

Full fire suppression would be used in wildland-urban interface areas (WUI) and other areas where there are identified resource values that would be at risk of being damaged or destroyed by wildfire. These resource values could include rare plant habitat. In the Wilderness areas or WSAs, wildfires for resource benefit are the naturally ignited wildfires that would be allowed on the landscape to benefit the ecosystem (personal communication, C. Goodell 2009).

Indirect Impacts – Indirect impacts to vegetation under all alternatives would be low and long-term. Indirect impacts to vegetation could include localized changes in species composition and accelerated soil erosion. Human disturbance could also cause indirect impacts by influencing naturally occurring processes facilitated by presence of roads and trails that leave more soil exposed to wind and water erosion, increasing the transportation of invasive seeds, and wildfires caused by abandoned campfires and vehicle exhaust systems (Goudie 2005).

Cumulative Impacts – Impacts under all alternatives may each be minor, but collectively these impacts can progressively degrade vegetation communities and their ecosystem function in localized areas, especially sensitive alpine tundra. Proposed, existing, and reasonably foreseeable impacts to vegetation communities in the Project Area under all alternatives include low cumulative effects of long-term duration.

Alternative A – Current Management/No Action

Direct Impacts – Direct impacts to vegetation under the Current Management/No Action Alternative would be low to potentially moderate and long-term as recreational use of the Project Area increases and diversifies. The impacts would be similar to those already occurring in the Project Area such as off-road travel, social trails to popular destinations, and other signs of human activity. However, such activity is routinely monitored and action taken (barriers, etc) as necessary to minimize negative impacts to vegetation.

Due to increased demand for recreational opportunities in the Project Area since the 1986 RAMP, it is likely that the Current Management/No Action Alternative would result in more user-created trails, use of non-designated trails and campsites, and parking in non-designated areas within the Project Area. Impacts to vegetation would include trampling, uprooting, and removal of low-lying vegetation from new and expanding areas created by users, as well as damage to or removal of trees and shrubs. Invasive and noxious weeds may also be spread to new areas from transport by hikers, horses, mountain bikes, and off-highway vehicles (OHVs). These impacts are anticipated to be low and long-term.

Indirect Impacts – Indirect impacts to vegetation under the Current Management/No Action Alternative would be low and long-term. Indirect impacts to vegetation from the Current Management/No Action Alternative would be indicated by a change in species composition and accelerated soil erosion. Human disturbance could also cause indirect impacts

by influencing naturally occurring processes (Goudie 2005). Examples of naturally occurring processes influenced by human disturbance that would cause indirect impacts to vegetation are the presence of roads and trails that leave more soil exposed to wind and water erosion, facilitating the transportation of invasive seeds, and wildfires caused by abandoned campfires, smoking, fireworks, exhaust systems, and exhaust sparks. Historically, motorized travel routes have the highest concentration of human caused wildland fire ignitions (BLM 2004c).

Cumulative Impacts – While impacts from user-created trails, including OHV activity on non-designated routes camping, and parking in non-designated areas within the Project Area may each be minor, collectively these impacts can progressively degrade vegetation communities and their ecosystem function, especially sensitive alpine tundra. Proposed, existing, and reasonably foreseeable impacts to vegetation communities in the Project Area include low cumulative effects of long-term duration as a result of the Current Management/No Action Alternative.

Alternative B – Proposed Action

Direct Impacts –Direct impacts to vegetation could result from the maintenance of existing trails that are added as system trails under this alternative; these impacts would be low and long-term. Table 2.7 shows a summary of the proposed 16.4 total miles of trails that would be added or designated to the travel management network. The proposed designations are for seasonal pedestrian and/or horse access to preexisting trails.

Other proposed projects such as parking lot expansion, new campground and facilities developments, and enhancement of ATV staging areas could have direct impacts on vegetation. Direct impacts would include removal, trampling, and uprooting of vegetation, potential increased invasive and noxious weed introduction and depressed height and vigor of individual plants (Leung and Marion, 2000), especially adjacent to high-use routes. Table 2.9 shows a summary of proposed improvements to, and proposed additional, transportation facilities. The amount of new surface disturbance that would be created by the Proposed Action totals no more than 0.24 acres (see Table 2.9). The direct impacts to vegetation from the Proposed Action are expected to be low and both short-term and long-term.

The Proposed Action includes marketing and advertising, especially to spread use to the shoulder seasons (June and mid August through September). This may increase impacts to vegetation by allowing less time for vegetation to recover from peak season impacts and creating greater impacts on plants during snowmelt, a sensitive time of year for plants. Further, increased marketing and advertising may contribute to the issue of over-crowding in the Project Area, rather than changing the timing of or dispersing the use.

Other areas of possible direct impacts include improving boater access to the river at Devil's Creek Bridge and constructing new boater access at Red Bridge Campground. Clearing vegetation could directly impact riparian habitat, including destabilizing banks that could lead to erosion and further long-term impacts to the riparian corridor. Potential impacts associated with the construction or improvement of boater access would be addressed and mitigated through consultation and Clean Water Act (CWA) permitting through the USACE prior to the implementation of any construction activities.

The Proposed Action includes dividing the Project Area into three RMZs. The proposed additions and designation to travel management network and proposed additional transportation facilities or improvements are all within RMZs 1 and 2. These proposed additions are existing facilities that are proposed for designation, they are not new facilities. Additionally, the proposed expansions, including the Henson Creek ATV staging area and the American Basin expansion, are all located in RMZ 2, and therefore, should not result in substantial impacts to vegetation.

The Proposed Action may have beneficial impacts to vegetation in the Project Area. The formal designation of existing trails and campgrounds would adhere to management objectives of reducing impacts to vegetation by concentrating users to areas of existing disturbance, i.e., constructing defined usage areas rather than user defined areas. Improving parking areas may discourage parking in undesignated areas thereby protecting vegetation from damage and removal. Requiring that mountain bikes stay on designated routes reduces the chances that vegetation would be damaged by user created routes. Management of camping areas under the Proposed Action includes discouraging users and prohibiting outfitters from camping above 12,000 feet, as well as prohibiting campfires above 12,000 feet in the Redcloud Peak ACEC, thereby protecting sensitive alpine tundra habitat. Information and educational materials incorporated with the marketing and advertising efforts at trailheads could increase user

knowledge and appreciation of the natural and cultural history of the Project Area; the latter has been shown to improve responsibility and protection of natural areas by users (Oberbilling 2001). Using barriers or signs to keep visitors on designated roads would help reduce surface disturbance to vegetation, and may prevent travel that might otherwise occur under the Current Management/No Action Alternative.

Indirect Impacts – Indirect impacts to vegetation under the Proposed Action would be low and long-term. If the Proposed Action would cause increased recreational use of the Project Area indirect impacts to vegetation could include localized changes in species composition, accelerated soil erosion, and increased potential for wildfire from abandoned campfires, smoking, fireworks, exhaust systems, and exhaust sparks.

Cumulative Impacts – Impacts from the Proposed Action may each be minor, but collectively these impacts can progressively degrade vegetation communities and their ecosystem function in localized areas, especially sensitive alpine tundra. Proposed, existing, and reasonably foreseeable impacts to vegetation communities in the Project Area include low cumulative effects of long-term duration as a result of the Proposed Action. The Proposed Action may also provide cumulative benefits to vegetation in the Project Area by concentrating recreational use through trail and campsite designation and signage, user education, and preventing damage and removal by expanding designating parking areas.

Consequences: Threatened or Endangered Plant Species
There are no federally listed threatened or endangered plant species known or suspected to occur within the Project Area; therefore, there would be no impacts to threatened or endangered plants.

Consequences: BLM Sensitive Plant Species
There are two sensitive plant species that have habitat within the Project Area and could potentially occur: Gunnison milkvetch and skiff milkvetch. Field surveys have not been conducted to determine presence or absence for these species within the Project Area. Prior to implementation of any ground disturbing activity, site and resource specific surveys would be completed to ensure no construction impact to BLM Sensitive Plant Species. If there would be any impacts, mitigation measures shall be developed and implemented in cooperation with the BLM resource specialists for any impacts to BLM sensitive plant species. The Proposed Action may also provide overall benefits to all vegetation in the Project Area by concentrating recreational use through trail and campsite designation and signage, user education, and preventing damage and removal by expanding designating parking areas.

Consequences: Species-of-Concern for San Juan Public Lands
Six species-of-concern have the potential to occur in the Project Area. These species include thick-leaf whitlow-grass, Porsild's whitlow-grass, San Juan whitlow-grass, Colorado-Divide whitlow-grass, Altai cotton-grass, and Rothrock's Townsend. Field surveys have not been conducted to determine presence or absence of these species within the Project Area. Prior to implementation of any ground disturbing activity, site and resource specific surveys would be completed to ensure no construction impact to San Juan Public Lands species of concern. Mitigation measures for any impacts to plant species-of-concern would be developed and implemented in cooperation with the BLM resource specialists to avoid any impacts to these species-of-concern.

The Proposed Action may also provide overall benefits to all vegetation in the Project Area by concentrating recreational use through trail and campsite designation and signage, user education, and preventing damage and removal by expanding designated parking areas.

Plant Species-of-Interest for San Juan Public Lands
There are no plant species-of-interest known or suspected to occur within the Project Area; therefore, there would be no impacts to any plant species-of-interest.

4.1.7 Visual Resources

Environmental consequences to visual resources address potential impacts to the scenic qualities of the area as well as the intrinsic qualities of the Alpine Loop Scenic Byway. Impacts to visual resources includes activities or changes to the land, form, vegetation, and structures that create the unique physical settings and scenic qualities of the area, and potential for these impacts will be discussed in this section.

Indicators and Agents of Change

Visual resource impacts are measured as the degrees of change and contrast that may occur to characteristic landscapes, viewsheds, areas with high scenic value and areas visited by sensitive viewers. The degree of contrast, proximity, and dominance of the change to the casual observer are indicators of impact for visual resources. Contrast is defined as the degree to which a project blends or stands out from existing forms, lines, and colors in the landscape. Proximity refers to the distance a proposed change is from a viewer, and dominance refers to how prominent, contrasting, or distracting the change would appear and is often a function of distance from the viewer and relative scale to the landscape. Distance is referred to as foreground, middle ground, background, or seldom seen. Foreground refers to the detailed landscape that is generally within one-half mile from the viewer, middle ground refers to landscape within one-half mile to 3-5 miles, background refers to the landscape more than 5 miles away, and seldom seen refers to objects or landscapes that are blocked from view by topography or the middle ground or foreground.

Management actions with the potential to affect the degree of contrast, proximity, and dominance of the change to the casual observer can be determined to have low, moderate, or high impacts to visual resources. Those actions that would have a high level of impact on visual resources would be deemed significant under NEPA.

Management Common to All Alternatives

Direct Impacts – Direct impacts to visual resources under MCA would be minimal as the present management actions seek to preserve visual resources as landscape disturbance, new routes, or facilities would not be proposed under MCA. Under Wilderness, WSA and ACEC protection, 69,887 acres (37 % of the Project Area) would be protected as pristine, natural landscape with minimal to no changes due to special designation status. Contrasts under MCA include vehicles, campers, and people moving through the landscape in all distance zones. While some of this use is in the immediate foreground of most viewers, the activities, ground disturbance, and facilities would be minimal in scale and dominance to the overall viewshed. Impacts due to contrast, proximity, and dominance would be negligible from management under MCA.

Indirect Impacts – Indirect impacts to visual resources under MCA would be minimal as the present management actions seek to preserve visual resources as landscape disturbance, new routes, or facilities would not be proposed under MCA.

Cumulative Impacts – As use continues to increase, a minimal to moderate cumulative impact may be caused for some visitors by other recreationists and other resource users (i.e. sheep herders), including vehicles, large campers, small to large groups of people, and dust plumes from moving vehicles. However, these human elements are largely clustered near designated roaded areas where elements of the built environment are more common and anticipated by visitors. Those looking for a scenic backcountry experience without crowding or signs of human influence could easily seek more pristine landscapes away from roaded areas and avoid viewsheds impaired by these intrusions in the landscape. Construction or development on private inholdings within the Project Area would remain the biggest potential threat to the integrity of visual resources, of which the BLM does not have jurisdiction or control over.

Alternative A – Current Management/No Action

Direct Impacts – Impacts to visual resources under this alternative would continue to occur from general recreation use and in popular areas from high levels of use. Under this alternative, existing management would continue minimal environmental degradation in over used areas from disturbance related to off-road parking and high foot traffic, such as American Basin parking area where sensitive viewers recreate (e.g. where parking and trailheads are needed to manage overflow use). Dispersed camping would continue to be unlimited and impacts due to campfires, parking, and disturbed vegetation would create long-term negative impacts, particularly in sensitive vegetation communities such as riparian and tundra areas. Camping near historic structures would continue to be allowed. These activities would result in negative impacts to visual resources. The impacts to visual resources from management actions under this alternative would be minimal. Most of the visual impacts under this alternative are associated with general recreation use and continuing management discussed under MCA.

Some level of disturbance from mountain bike use off designated trails could result in the creation of dispersed tracks, erosion, and unauthorized routes that could cause minor impacts to visual resources from damage to

vegetation and soils. Undefined use in high traffic areas would result in minor impacts to visual resources from off-road parking, braided trails, and proliferation of small disturbances in the immediate foreground.

Camping would continue near historic sites and impacts from visible tents and campers, campfire rings and scars, human waste, and litter associated with camping would continue to affect the visual setting in the immediate foreground and historic setting surrounding heritage sites. Deterioration of historic structures would continue at the current rate without additional stabilization.

Indirect Impacts – Impacts to the visual experiences of individual recreationists and heritage tourists, caused by the factors mentioned above, could continue to accrue over time with the predicted increase in visitation and utilization. The continuation of these effects would pose indirect impacts to visual resources under Alternative A.

Cumulative Impacts – Cumulative impacts from recreation activities would include soil and ground-cover disturbance associated with parking, dispersed camping, trail use, and motor vehicle travel that would parallel potential increases in use. Impacts from development on private inholdings would remain outside of the BLM's jurisdiction. Under this alternative, efforts to collaborate with land owners and local governments to manage, direct, or minimize impacts would be limited to BLM approvals for access. Therefore, cumulative impacts from continued recreational use would be low and private land development could be low to moderate.

Alternative B – Proposed Action

Direct Impacts – The BLM's BBM approach would establish RMZs and prioritize management in each zone to provide physical settings, including visual resources, that are consistent and appropriate for recreation activities and experiences that visitors seek. Additionally, the RMZs would direct visitors to recreate in areas and settings appropriate for their desired benefits. Impacts to visual resources would directly affect physical settings and social environment for individuals, communities, and economies that are dependent upon or sensitive to changes to visual resources.

In RMZ 1, the physical setting is primarily remote, primitive landscapes, and the Proposed Action includes provisions for limited trail maintenance, few if any improvements, signs, or facilities, and a higher level of protection for special designations such as Wilderness, WSAs, and ACECs. Therefore, visual resources would likely receive few impacts from site-specific landscape disturbance. However, dispersed impacts due to disturbance of soils and vegetation in popular areas such as Handies Peak, American Basin, and other popular backcountry destinations will continue to see some minor impacts from recreation use. This RMZ would provide opportunities for individuals and small groups to enjoy natural settings, view natural scenery, and be close to nature in a pristine setting.

In RMZ 2 and RMZ 3, the Alternative B – Proposed Action includes projects that could cause impacts to visual resources on approximately 10 acres of landscape disturbance at two trailhead developments, the expansion of three existing parking areas including one in the American Basin scenic ACEC, developed camping areas in Cunningham Gulch and Eureka, construction of three boater put-ins, and a minimal increase in signage. The expansion of parking areas and additional river access are proposed where use has historically been an issue and existing practice of overflow parking has affected vegetation, wetlands, and other sensitive resources surrounding the existing use areas. Site-specific planning and design would be undertaken in order to limit adverse impacts while, at the same time, take measures to enhance scenery through restoration and revegetation. The two trailheads, Grouse Gulch and Cunningham Gulch, would provide parking for three existing trails; facilities would be placed adjacent to the road corridor and follow BLM procedures for facility developments including the use of native materials, rock barriers, and native road base. Camping areas would focus dispersed camping in areas where it is already taking place and provide necessary restroom facilities and vehicle barriers. The signage would be focused on stewardship and interpretation messages and therefore would discourage unlawful or uninformed negative uses. These activities would have a localized, direct impact on the undeveloped and natural qualities of the foreground of the popular areas. However, additional parking, restrooms, and trailheads would also have a beneficial impact on other resources by providing additional opportunities to enjoy the scenery, by keeping vehicles in designated areas, by alleviating human waste issues, and by focusing intensive use into appropriate, developed locations. Placing additional emphasis on stabilizing and protecting historic sites could result in delaying or reversing their deterioration and have a low to moderate beneficial effect on visual quality around these sites.

The Proposed Action includes management for several recreation activities such as camping, motorized recreation, and visiting cultural sites that will reduce disturbance due to casual use (e.g. restricting camping and campfires in proximity to cultural resources, and limiting vehicles to authorized routes). Additionally several measures would provide direction for several uses that, while remaining a small percentage of overall use, have either seen increases in use or are relatively new sports for the Project Area. For instance, practices for climbing and geocaching would focus on reducing the visual impacts through encouraging natural climbing anchors and limiting equipment or caches left on public lands. Mountain bikes would be added to the list of vehicles allowed on designated routes. As these mechanized forms of recreation travel quickly, this would be a beneficial impact to visual quality in the overall landscape those areas would be reserved for slow-moving foot and horse traffic. In winter, management actions to sign areas closed to snowmobiles and restrict motorized access into Wilderness areas and WSAs would reduce visual impacts and preserve soundscapes associated with these pristine areas. These limitations would provide a beneficial impact to others looking for a pristine backcountry experience.

Indirect Impacts – The Proposed Action would provide a mechanism for collaborative efforts to monitor, stabilize, and manage cultural resources and heritage sites that are essential components of the visual experience. These efforts would have a long-term beneficial impact on individual experiences, heritage tourism, and cultural resources. Additionally, increased efforts to promote environmentally sensitive behavior, such as Stay the Trail and Leave No Trace campaigns would have beneficial impacts to individuals, communities, and resources.

Restrictions on commercial outfitters and events to manage the sizes of groups and vehicle caravans would reduce the social and visual impact to individuals and small groups, particularly in RMZ 2. Information and maps provided by the BLM may redirect some users to less crowded areas during the peak season or to shoulder seasons. Should the BLM's recommendation to add 15 miles to the Scenic Byway be accepted by the State Byway Program, those individuals and groups who seek out byways would benefit from an additional route for viewing the landscape. However, users who currently visit this area may find this additional use to be a negative impact. Local economies based upon byway tourism may see a benefit from additional byway visitors, particularly in Ouray and Silverton, as gateway communities for this additional route.

Cumulative Impacts – Cumulative impacts to scenic resources would be anticipated to be primarily from development on private land. Under this alternative, the BLM would invest in collaborative efforts to work with willing landowners, counties, and other groups to protect visual resources while allowing for private development and providing access. Private land is common close to the towns and along the lower portions of the Alpine Loop where more development and manmade structures are expected. When this type of development occurs in pristine areas of the Project Area such as along mountain ridges or near ghost towns, the disturbance is more noticeable and disruptive to visitor experience. These developments usually occur on patented mining claims that are sold for vacation home development. While the management of these private parcels is beyond BLM control, counties have the potential to pass zoning regulations or building codes that could help to protect the scenic quality of the area. Design guidelines and zoning controls may help protect the scenic resources that are so important to visitors. Many developments on private inholdings need road access to reach these private properties. Substantial impacts to scenic qualities can occur where these roads cross steep slopes in visible terrain, on otherwise undeveloped public lands. While zoning and other planning tools for private lands are outside of the BLM jurisdiction, access roads across public lands may present opportunities to work with landowners. While private development would continue, these efforts would help minimize negative impacts to visual resources.

4.1.8 Wilderness and Wilderness Study Areas

Indicators and Agents of Change

The Wilderness Act describes a variety of physical and social conditions that are desirable characteristics of wilderness. This includes things like being a natural area where the imprint of humans is substantially unnoticeable, being a place where there are opportunities for solitude, and the ability to enjoy primitive and unconfined recreation. WSAs are places determined to have wilderness characteristics but which have not formally been designated as Wilderness by Congress. These areas are to be managed to protect these wilderness characteristics until Congress decides on their suitability to be added to the Wilderness system.

Human activities are the primary agents of change that could impact the management goals for Wilderness and WSAs. Indicators of whether these management goals are being met include whether these areas remain in a natural condition, whether they are free of significant evidence of permanent human caused changes, whether they have non-conforming uses such as motorized vehicle use, and whether they offer opportunities for solitude and primitive recreation.

Management Common to All Alternatives

Direct Impacts – The Wilderness and WSAs in the Project Area have been managed to protect and maintain these values for many years. The management actions common to both alternatives is not expected to have any negative impacts on these resources. There are several actions that will likely have a beneficial effect on these resources that would be related to proposed management for motorized vehicles, stock use, and snowmobiles, additional signage, education, and outreach. Motorized vehicles would continue to be required to stay on designated roads throughout the Project Area. Additional signage, education, and outreach efforts to motorized users would likely reduce the numbers of non-conforming users that venture off of roads and into Wilderness and WSAs. Other management actions, such as requiring the use of weed-free feed would reduce the likelihood of invasive weed infestations caused by recreational stock users. Additionally, the BLM proposes to increase regular patrols to educate visitors on reducing impacts, to clean up back country campsites, and to detect and resolve non-conforming uses. Under this alternative, the BLM proposes to increase their efforts to work with their partners to maintain existing trails into these areas. The reduction of large outfitter group size on trails to Fourteeners would likely reduce impacts from crowding in these backcountry areas.

Indirect Impacts – Indirect impacts to Wilderness areas and WSAs would occur from gradual and continued recreation use in popular areas, such as hiking to Handies Peak and other Fourteeners. Impacts would gradually accrue in areas where frequent camping or travel is incurred. While some indirect impacts would be anticipated, indirect impacts to Wilderness areas or WSAs from the management actions common to all alternatives is anticipated to be low in intensity and extent.

Cumulative Impacts – Recreation use and grazing use are the two primary resource uses that affect Wilderness areas and WSA resources. As explained above, recreation management actions tend to limit effects on Wilderness areas and WSAs to small disturbances distributed across the landscape. Grazing use is managed to minimize changes to species composition or vegetative cover in these areas through allotment management. As a result, long-term cumulative impacts to Wilderness or WSAs are expected to be low to negligible from MCA.

Alternative A – Current Management /No Action

Direct Impacts – The management actions that would continue under this alternative are not likely to cause direct negative impacts to the wilderness and undeveloped characteristics of Wilderness areas and WSAs. Motorized access (e.g. snowmobiles, ATVs, jeeps, etc) would continue to be excluded from these areas to not impair their suitability as Wilderness. Illegal motorized entry into these areas would continue to have minor, short-term impacts. Impacts associated with high levels of use would continue in areas that provide access to mountain peaks and the popular Fourteeners; these activities would continue minor to negligible impacts to vegetation, soils, and the sense of solitude that these areas provide. New restrictions to group sizes would not be included under Alternative A, and therefore impacts experienced by some visitors and wildlife from encounters with large group sizes would continue to occur.

Indirect Impacts –The management actions that would continue under this alternative are not likely to cause any negative indirect impacts to Wilderness areas and WSAs.

Cumulative Impacts – As preferences for recreation activities change over time, changes in recreation use of Wilderness areas are anticipated to occur, however the rate or direction of that change is highly unpredictable. As wilderness visitors currently tend to be over 55, recreation use in Wilderness areas and WSAs may decline as this group ages and therefore reduce the level of impacts related to visitation and over crowding. However, some low to minute level of negative impacts would continue to accrue over time to soils, vegetation and wildlife from high levels of use in popular areas. The management actions that would continue under this alternative are not likely to cause cumulative impacts to Wilderness areas and WSAs.

Alternative B – Proposed Action

Direct Impacts – Under this alternative, Wilderness areas and WSAs would be managed under RMZ-1 for recreation activities, experiences, and settings that would be appropriate for wilderness settings, solitude, and unconfined recreation.

In addition to existing Wilderness area management established by law, regulation and policy, group sizes limited to 25 heartbeats in these areas would help reduce crowding and reduce the chances of resource impacts caused by large groups. Limits would be established for commercial group size and mountain bikes would be required to stay on designated routes which would decrease the likelihood that this non-conforming use would occur in Wilderness areas or WSAs where trails are less common. This alternative would add one existing trail to the BLM network (i.e. three miles of Grouse Gulch) that would allow the BLM to reduce resource impacts from erosion and crushed vegetation.

Under this alternative, beneficial impacts would occur through additional management for activities that have seen increased use, such as restricting the placement of permanent rock climbing anchors or bolts in these areas and would help preserve the areas' naturalness, and prohibiting artificial geocache target materials to remain in these areas will help preserve their naturalness.

Indirect Impacts – Indirect beneficial impacts to Wilderness areas and WSAs. The management actions that are proposed under this alternative are not likely to cause any negative indirect impacts to Wilderness areas and WSAs. Over time the beneficial effects of the actions mentioned above are likely to generate minor positive effects on these resources.

Cumulative Impacts – The management actions that are proposed under this alternative taken together with other influences in the area are not likely to cause any substantial negative impacts to Wilderness areas and WSAs.

4.1.9 Wildlife, Special-Status Species, and Threatened and Endangered Species

Indicators and Agents of Change

Factors influencing responses of wildlife to recreation include type (e.g., motorized vs. non-motorized use), timing, intensity, proximity, and novelty (i.e., degree of previous exposure) of the disturbance (Taylor and Knight 2003, Steidl and Anthony 2000). Inter- and intra-specific variation in responses further complicate impact determinations, as different species and individuals within species can avoid, habituate, or be attracted to recreation (reviewed in Knight and Cole 1995). Taylor and Knight (2003) found recreationists tended to blame other user groups as a cause of stress for wildlife. Some species may be impacted by as little as one observer walking through a territory 1 or 2 hours per week (Gutzwiller et al 1994), while other species exhibit no response to high disturbance (e.g., blasting and construction sites, see White and Thurow 1985). Although the severity of impacts on wildlife from recreation may depend on the aforementioned variables, Boyle and Samson (1985) reported recreation had negative impacts to wildlife in 81% of studies reviewed; quantifiable impacts can include decreased productivity and fitness-enhancing behaviors, increased energetic stresses, and displacement from preferred habitats (see Knight and Cole 1995).
Recreational use in the Project Area has increased from 542,042 visitor days in 1984 to 655,000 in 2008 (13 % increase) (Section 3.3.3). Since 2000, public interest in certain uses has stabilized while other activities have increased; notably, ATV occurrence has dramatically increased in the Project Area in the last 10 years (Section 3.3.3). Aside from growth in ATV use, there has also been an increase in other traditional recreation activities (e.g., scenic driving, sightseeing) and an increased emphasis on winter recreation including backcountry skiing, snowmobiling, as well as more developed downhill skiing, ice climbing, heliskiing, and dog sledding. Crowding due to recreation is a reoccurring issue in the Project Area (Section 1.2). It is important to note the difficulty in speculating and extrapolating the amount of user-defined disturbance in the Project Area for both current and projected impacts under the Current Management/No Action Alternative or from which to form a baseline for considering the Proposed Action. Consequently, this inhibits quantification of actual impacts to wildlife and their habitat for this analysis.

Management Common to All Alternatives

Direct Impacts – Direct impacts to wildlife, including threatened, endangered or otherwise sensitive species under all alternatives would be low to moderate and long-term. Increasing recreational demands in the Project Area could result in some species to respond negatively as described in the indicators and agents of change. Specific responses by wildlife to increased demands can include avoidance, attraction, and habituation (Boyle and Sampson 1985, Knight and Cole 1995). These responses can vary among individuals, populations, and communities and are influenced by factors such as visitor frequency and magnitude, and recreation type (e.g. motorized verses non-motorized use) (Knight and Cole 1995). Some individuals may experience decreased productivity and fitness enhancing behaviors, increased energetic stresses, and displacement from preferred habitats (Knight and Cole 1995). Under all alternatives, recreation would be managed to minimize or eliminate impacts to federally-listed threatened or endangered species. If other plant or animal species residing in the Project Area are listed as federally threatened or endangered in the future, recreation management may have to be altered to reduce potential impacts.

The BLM would also manage recreation to prevent impacts to vulnerable species not receiving protection under the ESA – federally-listed candidate species, BLM sensitive species, and state-listed species – reducing the need to list these species as federally threatened or endangered in the future. BLM would continue to take management actions to reduce the impact of recreation on threatened and endangered or otherwise protected species such as the bald eagle and the Uncompahgre fritillary butterfly. BLM would continue to evaluate proposals for winter recreation activities and events to accommodate lynx.

The upper part of the hiking trail to Redcloud Peak would continue to be managed to reduce off-trail travel that could affect habitat for the endangered Uncompaghre fritillary butterfly that occurs there. Outfitters would be required and the public would be encouraged to camp below 12,000 feet in the Silver Creek drainage.

Indirect Impacts – Indirect impacts to wildlife under all alternatives would be low to moderate and long-term. Increasing recreation demands could result in trampling of habitat. Indirect impacts from trampling include increases in soil erosion (Whilshire et al 1978), loss of surface organic horizons (Burden and Randerson 1972), soil compaction (Iverson et al. 1981), reduction of soil infiltration rates (James et al. 1979), depletion of soil fauna (Duffey 1975), reduction of nutrient availability (Stohlgren and Parsons 1986) and vegetation damage or loss (Weaver and Dale 1978). Vegetation structure and plant species composition can be altered because of exotic species carried into areas by recreationists (Cole and Landres 1995). Composition may also be altered because of variations in plant species' tolerance to recreational disturbance (Dale and Weaver 1974, Cole 1982). These impacts may lead to displacement of wildlife species from preferred habitat. Several studies have documented indirect impact of increased levels of predation on wildlife to human disturbance (Anderson and Keith 1980, Mikola et al. 1994, Miller and Hobbs 2000). Because wildlife may avoid human interaction by fleeing an area, some species and individuals within species could exhibit a loss of critical energy reserves or surrender otherwise suitable habitat. Wildlife that are displaced into less suitable habitat may face greater risk of predation or reduced availability of quality habitat for food (Miller et al. 1998, Papouchis et al. 2001).

Habitat for listed threatened, endangered, and candidate species, and BLM sensitive and state-listed species, would be maintained and protected to ensure suitable habitat conditions and viable populations. Mitigation measures would be developed and implemented in cooperation with BLM resource specialists for any impacts to special-status species.

Cumulative Impacts – Impacts to wildlife from human use in the Project Area may each be minor, collectively these impacts can progressively impact wildlife populations, especially sensitive species that may occur in low abundance. Under all alternatives, cumulative effects of proposed, existing, and reasonably foreseeable impacts to wildlife in the Project Area are expected to be low and long-term.

Alternative A – Current Management/No Action

Direct Impacts –Direct impacts to wildlife under the Current Management/No Action Alternative would be low and long-term, but potentially moderate and long-term as recreational use of the Project Area increases. Due to increased demand for recreational opportunities in the Project Area since the 1986 RAMP, it is likely the Current Management/No Action Alternative would result in more user created trails, campsites, and parking areas within the Project Area. User-defined areas such as non-designated trails, campsites, and parking areas are unpredictable and variable, and may prevent wildlife from adapting to human disturbance; creating the potential for greater impacts to

wildlife (Hellmund Associates 1998). Anticipated impacts to wildlife include altered behavior, physiology, movement patterns, distribution, and reproduction (Gutzwillwer et al. 1994, Miller et al. 1998, Leung and Marion 2000).

Indirect Impacts – Indirect impacts to wildlife under the Current Management/No Action Alternative would be low and long-term with potential for moderate impacts over the long-term if user-defined recreational areas such as trails, campsites, and parking increase throughout the Project Area. Indirect impacts to wildlife from the Current Management/No Action Alternative include trampling of habitat, potential increased predation and energetic costs and reduced reproductive success (Liddle 1975, Cole 1993, Miller et al. 1998).

Cumulative Impacts – While impacts to wildlife from human use of non-designated trails, campsites, and parking areas within the Project Area may each be minor, collectively these impacts can progressively impact wildlife populations, especially sensitive species that may occur in low abundance. Unless recreational demand in the Project Area increases significantly beyond the previous and current trends (Section 3.3.3) with dramatic impacts to wildlife, the cumulative effects of proposed, existing, and reasonably foreseeable impacts to wildlife in the Project Area are expected to be low and long-term.

Alternative B – Proposed Action

Direct Impacts –Direct impacts to wildlife could result from the proposed 16.4 total miles of trails that would be added to the travel management network, the use and maintenance of existing designated trails, parking lot expansion, new facility development, and development of an ATV staging area. The amount of new surface disturbance that would be created by the Proposed Action totals no more than 0.24 acres. The direct impacts to wildlife from the Proposed Action are expected to be low and long-term.

The Proposed Action may attract users to the Project Area thereby further increasing the volume and diversity of recreation in the Project Area and cause further impacts to wildlife. The Proposed Action includes marketing and advertising, especially to spread use to the shoulder seasons (June and mid August through September). This redistribution of users may cause impacts to wildlife over a longer period of time, creating perhaps less intense impacts during the peak season, but extending impacts over a longer period. The duration of impacts to wildlife from the Proposed Action may be just as critical to wildlife as the frequency and intensity. More users in the shoulder seasons may also create new impacts or different impacts than those in the peak season based on the ecology and life history of wildlife. Developing winter recreational opportunities and providing more groomed snowmobile trails may create impacts to wildlife during critical times of the year.

Other areas of possible direct impacts to wildlife include improving boater access to the river at Devil's Creek Bridge and constructing new boater access at Red Bridge Campground. Clearing vegetation may directly impact riparian habitat for a variety of terrestrial species or reduce cover and cause unstable banks that could affect state-listed aquatic species (Section 3.3.9). These two areas are not considered to be within the known distribution of the southwestern willow flycatcher, and therefore, these specific improvements would not affect the subspecies. Construction of a proposed boater put-in on the Animas River south of Silverton is within the known management distribution (San Juan Management Unit of the Upper Colorado River Recovery Unit) of southwestern willow flycatcher and would require conservation measures described in the BA.

The Proposed Action may also have beneficial impacts to wildlife in the Project Area. The formal designation of existing trails and campgrounds may reduce impacts to wildlife by concentrating users to areas of existing disturbance. If trail users are encountered by wildlife on a trail, they are more likely to be perceived as acting in a predictable fashion and therefore less of a threat (Hellmund and Associates 1987). In general, designating areas for use makes human actions more predictable and therefore wildlife may be more adaptable to those actions.

Interpretative material incorporated with the marketing and advertising efforts and at trailheads would not only direct users to designated areas, it would also increase user knowledge and appreciation of the natural and cultural history of the Project Area; the latter has been shown to improve responsibility and protection of natural areas by users (Oberbilling, 2001). Similarly, natural barriers or signs used to designate trails, campgrounds, and roads would result in negligible surface disturbance (Table 2.9) and may help keep users in designated areas.

Indirect Impacts – Indirect impacts to wildlife under Proposed Action would be low and long-term. If the Proposed Action would cause increased recreational use of the Project Area and redirect it to the shoulder seasons, indirect impacts to wildlife would be similar to those described under the Current Management/No Action Alternative as wildlife respond to increased human-wildlife interaction. Indirect beneficial impacts to wildlife may also result from the Proposed Action by preventing the impacts associated with unpredictable and erratic use of non-designated, user-created areas dispersed across the Project Area that are not easily adaptable by wildlife.

Cumulative Impacts – Impacts from the Proposed Action may each be minor, but collectively these impacts can progressively degrade wildlife habitat and their ecosystem function and lead to additive effect to wildlife that can cause mortality. Proposed, existing, and reasonably foreseeable impacts to vegetation communities in the Project Area include low cumulative effects of long-term duration as a result of the Proposed Action. The Proposed Action will provide cumulative benefits to wildlife in the Project Area by concentrating recreational use through trail, campsite, and parking designation and signage, user education, and preventing damage and removal to wildlife habitat from user-created parking areas.

Consequences: Birds of Conservation Concern – There are 13 Birds of Conservation Concern (BCC) listed by the USFWS that have the potential or are known to occur in the Project Area, including black swift, flammulated owl, golden eagle, Grace's warbler, Gunnison sage grouse, Lewis' woodpecker, northern harrier, peregrine falcon, piñon jay, prairie falcon, Virginia's warbler, burrowing owl, Williamson's sapsucker. Field surveys have not been conducted to determine presence of these species within the Project Area, especially where nesting habitat may be removed to expand or improve facilities. Prior to implementation of any ground disturbing activity, site and resource specific surveys would be completed to ensure no construction impact to BCC species. In accordance with the MBTA, nest surveys would be required prior to any construction activities during the breeding season from mid-April to mid-August or in accordance with the BLM wildlife specialist. Mitigation measures would be developed and implemented in cooperation with the BLM resource specialists to reduce or eliminate any impacts to BCC.

Consequences: Threatened or Endangered Wildlife Species – There are three federally listed threatened or endangered wildlife species known or suspected to occur within the Project Area:southwestern willow flycatcher, Canada lynx, and Uncompahgre fritillary butterfly. Although no field surveys were conducted to determine presence of these species within the Project Area, prior to implementation of any ground disturbing activity, site and resource specific surveys would be completed to ensure no construction impact to threatened or endangered species. Section 7(c) of the ESA requires a BA be prepared if listed species or critical habitat may be present in a Project Area. The BA for this project, assessing whether the Proposed Action may affect a listed species or its critical habitat, as well as more detailed information about threatened or endangered species in the Project Area, is provided under separate cover. Based upon comparison between the vegetation communities present in the Project Area (Section 3.3.6) and known or potential occurrences of these species, there is potential for low and long-term direct and indirect impacts to southwestern willow flycatcher, Canada lynx, and Uncompahgre fritillary butterfly from improving facilities and increasing the frequency and intensity of users in the Project Area, as described under direct and indirect impacts from the Proposed Action. Canada lynx may benefit from the Proposed Action by concentrating users to areas of existing disturbance and making human actions more predictable. Uncompahgre fritillary butterfly may benefit from signs, interpretative material, and user education by protecting sensitive habitat and colonies.

Consequences: Sensitive Wildlife Species – There are ten wildlife species listed as species of concern or sensitive by the BLM that have the potential or are known to occur within the Project Area. They include Allen's big-eared bat, big free-tailed bat, fringed myotis, spotted bat, Townsend's big-eared bat, Yuma myotis, bald eagle, peregrine falcon, northern goshawk, and Colorado River cutthroat. There are 4 wildlife species state-listed as threatened or endangered by the CDOW, including Canada lynx, wolverine, bald eagle, and boreal toad. Field surveys have not been conducted to determine presence of these species within the Project Area. Prior to implementation of any ground disturbing activity, site and resource specific surveys would be completed to ensure no construction impact to sensitive wildlife species. Mitigation measures would be developed and implemented in cooperation with the BLM resource specialists for any potential impacts to sensitive wildlife species.

5.0 CONSULTATION AND COORDINATION

San Juan Public Lands Center, Columbine Field Office

Jed Botsford, Project Leader (Summer 2009- 2010), Recreation Lead
Jed Botsford, Project Leader (Summer 2009- 2010), Recreation Planner
Bruce Bourcy, Cultural Resources Specialist
Camela Hooley, District NEPA Coordinator
Chris Schultz, District Wildlife Biologist
Denny Hogan, Alpine Loop Manager
Jeffrey Redders, District Ecologist
Jennifer Burns, Visual Resources, Landscape Architect
Julie Coleman, Heritage Team Lead
Kay Zillich, Hydrologist
Kristie Arrington, Archaeologist
Nancy Berry, Project Leader (Winter- Spring 2009), Wilderness Specialist
Pauline Ellis, Travel Management Specialist
Richard Speegle, Columbine Project Leader (2006-2008), Recreation Specialist
Robert Bratlinger, GIS Specialist
Rowdy Wood, Rangeland Management Specialist

Gunnison Field Office

Arden Anderson, Gunnison Project Lead (2006 – 2009)- Recreation Specialist
Art Hayes, Water Resources/Fisheries Specialist
Dave Lazorchak, Cultural Resource Specialist
Jim Lovelace, Recreation Specialist
Liz Francisco, Cultural Resource Specialist
Russell Japuntich, Wildlife Biologist
Sally Thode, Recreation/Wilderness Specialist
Sandy Hayes, Ecologist

BLM State Office, Lakewood, Colorado

Donald Bruns, Outdoor Recreation Planner
Jack Placchi, Travel Management and Trails Coordinator

San Juan Mountain Association

Susan Bryson, Contract Administrator

Gunnison County Weed District

Rick Yegge, County Weed Coordinator

SWCA Environmental Consultants

Stephen Kandell, Project Manager/Environmental Planner (2006-2008)
Marcie Demmy Bidwell, Project Manager (2006-2010)/Recreation/Visual Resources Specialist
Adrienne Beeson, Project Coordinator/NEPA Specialist
Allen Graber, Wildlife Biologist
Cara Bellavia, Socioeconomics Specialist
Gary Torres, NEPA Lead, Minerals/Geology Specialist

Jeff Connell, Senior Environmental Planner
Katie Dumm, Cultural/Historic Resources Specialist
Michael Andres, GIS Specialist
Molly Thrash, NEPA Specialist
Paige Marchus, Technical Editor/NEPA Specialist
Steve O'Brien, Water Resources Specialist

Ecosphere Environmental Services

Jennifer Zahratka, Wildlife/Threatened and Endangered Species Specialist
Michael Fox, NEPA SpecialistEcologist
Mike Fitzgerald, NEPA SpecialistEcologist
Sandy Freidley, Vegetation Specialist

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APPENDIX A

ALPINE TRIANGLE FINAL RECREATION AREA MANAGEMENT PLAN

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APPENDIX B

IMPLEMENTATION PLAN

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APPENDIX B

Management Action Implementation Schedule

Action Item	Timeframe Within				Lead & Partners	Priority
	On Going	2 Yrs	5 Yrs	10 Yrs		
TRAVEL MANAGEMENT AND ACCESS (Section 3.2.1)						
Motorized Recreation						
Install trail signage to clearly indicate authorized travel.			X		BLM & Counties	Medium
Provide maps at kiosks; partner with user groups to distribute maps and responsible riding ethic materials to users and the public.	X				BLM & Counties, Tread Lightly, Stay the Trail	High
Travel Management Network						
Designate and sign 16.4 miles of existing roads and trails as open to different types of motorized and non-motorized public access as illustrated in Table 3.7 and shown in Figure 2-2.				X	BLM	Medium
Recommend 15 miles of Cement Creek and Corkscrew Roads to the Colorado Scenic and Historic Byway Committee to become part of the Alpine Loop (Figure 2-1).			X		BLM & Byway committee members	Medium
Evaluate all new single track trails proposed for other uses (e.g., foot, horse) outside of Wilderness and Wilderness Study Areas for their potential and suitability for use by mountain bikes.		X			BLM & mountain bikers	Low
Manage new and existing trails in RMZ-1 - Alpine Backcountry exclusively for non-motorized use.		X			BLM	Medium
Transportation Facilities						
Monitor existing ATV staging area at Henson Creek; expand facility if demand regularly exceeds capacity.	X				BLM & Hinsdale County	Low
Maintain and improve, as necessary, the existing ATV staging areas at Henson Creek, Lake Fork of the Gunnison River, and town of Eureka along the Alpine Loop.	X				BLM	Medium
Expand parking at Williams Creek Trailhead to accommodate up to six vehicles. Prior to implementation of this proposed action, all Forest Service-particular environmental requirements, including MIS surveys, would be completed.	X				Full cooperation with GNF.	
Expand parking at the American Basin Trailhead to accommodate up to 15 vehicles, with special attention to mitigation of visual impacts the expansion.			X		BLM	Low
Develop designated trailheads and associated parking areas at the entry points to Grouse Gulch and Cunningham Gulch Trails.					BLM	Medium

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Management Action Implementation Schedule

Action Item	Timeframe Within				Lead & Partners	Priority
	On Going	2 Yrs	5 Yrs	10 Yrs		
Designate access routes and parking at various undeveloped campsites locations in the Project Area and delineate pullouts and parking areas to prevent them from increasing in size and unnecessarily effecting resources.	X				BLM	Medium
Monitor undeveloped campsites for impacts to cultural resources and close campsites that are impacting cultural resources or are within 150 feet of historic structures.	X				BLM	High
Management, Maintenance and Monitoring of the Transportation System						
Management						
Install barriers or signs at the end of designated roads.			X		BLM & Counties	Medium
Block and/or rehabilitate closed roads and trails, as funding permits, with the most appropriate site-specific strategy.			X		BLM	Medium
Prioritize enforcement of the travel management network by keeping all types of use (e.g., street legal motorized vehicle, bicycle, ATV) on designated roads and trails.	X				BLM	Medium
Pursue additional funding and/or partnerships to improve management.	X				BLM & Counties	High
Work cooperatively with county and other agency law enforcement officials to increase patrols along the Alpine Loop during the high use season (i.e., July and August), during special events (e.g., Colorado 500), and in areas experiencing high levels of unauthorized, cross-country travel.	X				BLM	Medium
Train law enforcement personnel, permanent staff, seasonal employees, and volunteers who work in the Project Area about the management goals, and rules and regulations that apply.	X				BLM & Counties	High
Encourage law enforcement personnel to attend the Archaeological Resource Protection Training Program.	X				BLM	High
Manage roads and trails on public land that are not designated as open to the public to minimize resource impacts and prevent their unauthorized use.	X				BLM	Medium
Work with the Forest Service to cooperatively manage trails located on both BLM and Forest Service lands, share information on trail conditions, and coordinate trail maintenance activities.	X				BLM	Medium
Evaluate the feasibility of building and maintaining a limited number of trails in the urban interface to Silverton and Lake City. To the extent possible, connect these trails with existing or future systems of trails surrounding these towns.	X				BLM	Medium
Maintenance						
Periodically maintain the transportation management network be to ensure reasonable public access, minimize resource impacts, and reduce safety hazards.	X				BLM & Counties	High
Monitoring						
Encourage all permanent, seasonal, and volunteer recreation staff working in the Project Area to monitor road and trail conditions as they carry out their daily work activities.	X				BLM	High

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Management Action Implementation Schedule

Action Item	Timeframe Within				Lead & Partners	Priority
	On Going	2 Yrs	5 Yrs	10 Yrs		
Maintain regular communication with county road crews, visitor center staff, outfitters and other sources of information to stay informed about current road and trail conditions.	X				BLM & Counties & Visitor Centers	Medium
Provide backcountry patrols to protect WSAs consistent with the BLM's Interim Management Policy (IMP) until legislation takes effect to change their status.	X				BLM	High
Improve patrol and enforcement presence in the Project Area.	X				BLM & Counties	High
Provide support for the SJMA CSSP to monitor the condition of key historic/heritage tourism resources and those along vehicle transportation routes and assist where needed with preservation efforts at these sites.	X				BLM & Historic Societies	Medium
Winter Transportation System						
Work cooperatively with such groups as the Continental Divide Snowmobile Club in Lake City and the Silverton Snowmobile Club in Silverton to allow them to groom authorized routes. .	X				BLM	High
Monitor the winter transportation system periodically to ensure that it meets recreation goals for the area, and to ensure that inappropriate impacts to other resources are minimized or eliminated.	X				BLM & Snowmobile Clubs	Medium
Maintain and improve partnerships with cross-country skiing organizations to address such issues as trail grooming, safety, and skier education.	X				BLM & Nordic Skiers	Low
Work with the snowmobile community to educate snowmobile operators on wilderness restrictions and boundaries.	X				BLM & Snowmobile Clubs	High
Patrol the boundaries of designated wilderness and WSAs to identify and resolve illegal snowmobile incursions into these areas.	X				BLM	Medium
Public Access Easements						
Develop a process for identifying those easements which are currently needed or may be needed in the future in order to support the transportation management network.	X				BLM & Counties	Medium
Prioritize the acquisition of these easements across private lands from willing landowners.	X				BLM & Counties	Medium
Pursue public access easements, with willing landowners, on private property that is crossed by Grouse Gulch Trail and Maggie Gulch Trail.	X					

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Management Action Implementation Schedule

Action Item	Timeframe Within				Lead & Partners	Priority
	On Going	2 Yrs	5 Yrs	10 Yrs		
RECREATION MANAGEMENT – SPRING, SUMMER, AND FALL USE (Section 3.2.2)						
Visiting Cultural Sites and Heritage Tourism						
Cooperate with cultural program specialists and other partners to identify, document and prioritize the cultural resources on public land that attract visitors and residents or are marketed as heritage tourism sites and can benefit from improved management and stabilization.	X				BLM	Medium
Prepare Public Use and Preservation Plans for these sites and stabilize historic structures to prevent their deterioration.			X		BLM	Medium
Repair damage to historic structures from public use and natural causes where feasible or necessary to resolve or maintain safety issues and assure site accessibility/interpretability for public use.	X				BLM & Historical Societies	Medium
Continue to cooperate with a variety of interests including historical societies, individuals, and groups in surrounding towns as well as national and state conservation groups and educational institutions to accomplish cultural resource programs.	X				BLM & many partners	Medium
Look for grant opportunities, assistance from the State Historic Fund, and other funding sources to help accomplish cultural resource programs in accordance with the Secretary of the Interior's Standards and Guidelines for Historic Preservation.	X				BLM & Historical Societies	Medium
Investigate marketing strategies to get cultural resource program work done through the recreation industry.						
Update the Alpine Triangle CRMP to direct and schedule implementation to assure sustainable heritage tourism			X?		BLM	Medium
Work with agency Cultural Resource Specialists to initiate a Site Steward program in Hinsdale County with volunteers to help monitor and preserve high priority heritage tourism sites.	X				BLM & Historical Societies	Medium
Continue to support the San Juan Mountain Association's Cultural Site Steward Program to provide a cadre of trained monitoring and preservation volunteers for San Juan County.	X				BLM & Historical Societies	High
Identify high priority cultural resource sites on private land that are in reasonably good condition, played an important role in the history of the area, and are currently visited by the public or have the potential to be an interesting site that the public could visit.		X			BLM	Medium
Prohibit camping or fires within 150 feet of historical structures.		X			BLM	Medium
Review undeveloped campsites for impacts to cultural resources and close or dismantle campsites that have been established too close to cultural sites.	X				BLM	Medium
Acquire private parcels through purchase or exchange, to the extent allowed by budget and staffing to help ensure the protection of high value historical buildings or sites.	X				BLM	Medium

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Management Action Implementation Schedule

Action Item	Timeframe Within				Lead & Partners	Priority
	On Going	2 Yrs	5 Yrs	10 Yrs		
Develop educational recreation programs targeted at discovering, protecting, interpreting and enhancing cultural resource sites through stewardship activities at heritage tourism sites.	X				BLM	Medium
Work with recreation outfitters that visit historic sites to include historic preservation practices and education in their offerings.	X				BLM	Medium
Document and preserve the historic landscape on BLM (and adjacent visible FS lands).	X				BLM	Medium
Work with counties and private landowners to eliminate or minimize impacts to the quality of heritage tourism.	X				BLM & Counties & landowners	Medium
Hunting and Shooting						
Continue regular patrols during hunting season.	X				BLM	High
Fishing						
Clearly mark boundaries of isolated parcels of public land that offer good opportunities for fishing.	X				BLM	High
Maintain and improve streams with good fishery potential. Look for opportunities to cooperate with the CDOW and interest groups (e.g., Trout Unlimited) to carry out appropriate habitat improvement projects.	X				BLM & DOW & Trout Unlimited	Medium
Reduce the amount of impacts to riparian vegetation from recreation and other causes to provide shade, hiding cover and food sources.	X				BLM	Medium
Continue ongoing efforts to identify point source pollution coming from old mines and remediate those problems to improve water quality.	X				BLM & CO Mined Land Reclamation	High
Work with County Road crews and other partners to reduce the amount of sediment that flows into streams.	X				BLM & Counties	Medium
Camping						
Provide maintenance for developed and undeveloped campground sites.	X				BLM & volunteers	High
Recruit and support volunteer campground hosts to help with maintenance and to offer information and education to visitors.	X				BLM & volunteers	Medium
Acquire and install bear boxes at all sites in campgrounds where bears are becoming a problem.			X		BLM	High
Patrol the Project Area to detect and resolve problems with illegal squatters and campers staying beyond the 14-day limit.	X				BLM	High
Continue discussions with San Juan County concerning the possibility of developing a campground near the historic townsite of Eureka.						
Designate already established vehicle-based dispersed camping sites as appropriate and manage them to reduce impacts from parking and camping activities.			X		BLM	Low

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Management Action Implementation Schedule

Action Item	Timeframe Within				Lead & Partners	Priority
	On Going	2 Yrs	5 Yrs	10 Yrs		
Rock Climbing						
Monitor known climbing areas to evaluate the amount of use they are receiving and to detect problems or resource impacts.	X				BLM	Medium
Close climbing areas where active cliff nesting birds are present within 100 yards on either side of the nest until the birds have left the nest for the season.	X					Medium
Evaluate undesignated trails leading to climbing areas following the objectives and management actions prescribed under Travel Management and Access.	X					Medium
Remove anchors found in wilderness areas.						
Horseback Riding and Pack Animals						
Consider establish hitching racks, adequate parking for vehicles with horse trailers or other horse related accommodations at trailheads receiving regular stock.	X				BLM	Low
Geocaching						
Remove artificial cache materials established in designated wilderness or WSAs.	X				BLM	Low
Review the location of existing caches on public land to identify those that may be steering increased use to sensitive areas or encouraging trespass on private lands.	X				BLM	Medium
Consider identifying existing cache locations that are in appropriate places and providing information on those caches to visitors.	X				BLM	Low
RECREATION MANAGEMENT – WINTER USE (Section 3.2.3)						
Snowmobiling						
Continue to work with snowmobile clubs to decide which trails may be groomed. Apply for grant funding from the State Snowmobile Fund to support grooming future trails as they are identified.	X				BLM & Snowmobile clubs	High
Review and permit grooming operations on approved trails, as appropriate.	X				BLM & Snowmobile clubs	Medium
Manage and maintain trailhead facilities for winter recreation activities.	X				BLM & Snowmobile clubs	Medium
Monitor less traditional downhill activities (i.e., hybrid skiing) that are supported with snowmobiles to detect and resolve any resource impact, skier conflicts, or safety concerns that may be occurring.	X				BLM	Low
Developed Downhill Skiing, Snowboarding, Cross-country Skiing, and Snowshoeing						
Monitor the operations at Silverton Mountain Ski Area to ensure that they are following the terms of their lease.	X				BLM	High

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Management Action Implementation Schedule

Action Item	Timeframe Within				Lead & Partners	Priority
	On Going	2 Yrs	5 Yrs	10 Yrs		
Monitor the operations at Kendall Mountain Ski Area and Lake City Ski Hill to ensure that they are following the terms of their Recreation and Public Purposes Act lease.	X				BLM	Medium
Ice Climbing						
Evaluate natural ice climbing areas to determine their suitability for regular use based on legal access, resource impacts, and safety.			X		BLM & Ice Climbers	Medium
Consider marking access routes to ice climbing areas to avoid trespass or inappropriate resource impacts.	X				BLM & Ice Climbers	Medium
RECREATION MANAGEMENT – RESOURCE PROTECTION (Section 3.2.4)						
Threatened, Endangered, and Sensitive Species						
Manage recreation to minimize or eliminate impacts to federally listed threatened, endangered, or candidate species in accordance with the Endangered Species Act (ESA).	X				BLM	High
Manage recreation to prevent associated impacts from pushing sensitive species on to the list of federally threatened, endangered, or candidate species.	X				BLM	High
Comply with Canada lynx conservation measures as required by USFWS.	X				BLM	High
Continue to manage the upper part of the hiking trail to Redcloud Peak to reduce off-trail travel that could impact habitat for the endangered insect that occurs there.	X				BLM	High
Outfitters would be required and the public would be encouraged to camp below 12,000 feet in the Silver Creek drainage.	X				BLM	Medium
Wilderness and Wilderness Study Areas						
Manage WSAs in the Project Area as directed by the BLM's IMP Handbook.	X				BLM & Volunteers	High
Manage commercial outfitter use in designated wilderness and WSAs to reduce crowding and to maintain the desired social settings for RMZs.	X				BLM & Outfitters	Medium
Lands & Realty						
Work with willing landowners to reduce impacts that threaten the Project Area's recreation potential on private inholdings by means of education, conservation easements, donation, exchange, or acquisition.	X				BLM & Landowners	Medium
Work in partnership with organizations, such as the San Juan Alpine Task Force and Red Mountain Project, to protect and preserve historic landscapes and structures within the project area through acquisition from willing sellers.	X				BLM & Alpine Task Force, Red Mt. Project	Medium
Local Land Use Plans						

APPENDIX B

Management Action Implementation Schedule

Action Item	Timeframe Within				Lead & Partners	Priority
	On Going	2 Yrs	5 Yrs	10 Yrs		
Participate in local land use planning efforts to ensure that public land perspectives are considered.	X				BLM & Counties & Towns	High
Visual Resources						
Work with local municipalities, land trusts and other willing partners to acquire lands or conservation easements on lands that are key scenic assets as viewed from the Alpine Triangle.	X				BLM & many partners	Medium
Educate local land owners, municipalities and other willing partners concerning best management practices for protection of scenic qualities of the natural and cultural landscape.	X				BLM & landowners	Medium
Conduct a visual resource inventory of the Alpine Triangle to assess current visual resource conditions, to identify valued cultural components and landscapes, and to identify areas for enhancement and restoration.						
Other Resources						
Identify incentives and options for willing landowners to protect cultural resources located on their private property. If possible, work with landowners and local governments to create these incentives or options if they do not exist.	X				BLM, Historical Societies & landowners	Medium
Look for opportunities to improve water quality to help ensure healthy fisheries.	X				BLM & CO DRMS	High
Treat known weed infestations to reduce the potential for recreation activities to spread seeds.	X				BLM	High
Work with livestock operators to exclude or minimize the time that livestock spend in and around popular recreation sites and facilities to reduce conflicts between grazing and recreation.	X				BLM & ranchers	Low
Coordinate the annual release and collection of domestic sheep to be sure it does not occur on weekends or over holidays during July and August.	X				BLM & ranchers	High
Work with livestock operators to ensure that sheep camps are 500 feet from historic structures, and require livestock operators to educate their employees on the laws protecting cultural resources, which include prohibiting the use of wood from historic structures as firewood.	X				BLM & ranchers	Medium
RECREATION MANAGEMENT – FACILITIES, SIGNS, AND INTERPRETATION AND EDUCATION (Section 3.2.5)						
Facilities						
Continue to manage the BLM visitor contact station in Lake City in cooperation with the Chamber of Commerce and U.S. Forest Service.	X				BLM, FS & Chamber	High
Continue to manage the BLM visitor contact station at the Silverton Public Lands Center in cooperation with the San Juan Mountains Association and U.S. Forest Service.	X				BLM & FS	High

APPENDIX B

Management Action Implementation Schedule

Action Item	Timeframe Within				Lead & Partners	Priority
	On Going	2 Yrs	5 Yrs	10 Yrs		
Continue to work in partnership with the U.S. Forest Service to provide informational and educational materials to the Visitor Information Centers in Ouray, Montrose and Durango for distribution to visitors.	X				BLM & Chambers	Medium
Work in cooperation with local communities (e.g., Chambers of Commerce), counties, and other stakeholder groups to identify and prioritize the need for additional facilities.	X				BLM & Chambers	Low
Maintain facilities using the guidance outlined in Section 3.2.5 of the RAMP.	X					
Signs						
Maintain an inventory of all signs in the Project Area, and regularly evaluate their necessity and effectiveness.	X				BLM & Counties	Medium
Work in cooperation with local communities, counties, and other stakeholder groups to develop and maintain an effective sign program using the criteria outlined in Section 3.2.5 of the RAMP.	X				BLM & various partners	Medium
Maintain and monitor signs, including replacing/repairing at the beginning of each season, as necessary.	X				BLM & Counties	Medium
Outfitters and Special Events						
Encourage outfitter permittees to incorporate interpretive/educational components into their trips.	X				BLM & Outfitters	Medium
Develop and offer training programs, as necessary, to assist outfitters and guides in understanding and presenting Tread Lightly, Leave No Trace, local history, cultural site etiquette and other topics to their clients.	X				BLM & Outfitters	Medium
Fees						
Reevaluate fees periodically to ensure that they are at or near fair market value.	X				BLM	Medium
RECREATION INFORMATION, EDUCATION, AND MARKETING (Section 3.2.7)						
Work with community partners to develop, produce, fund, and distribute a variety of appropriate information and marketing materials, including periodic review of these materials, to ensure consistency with the management objectives and framework identified and to ensure that information is accurate.	X				BLM, FS & Chambers	Medium
Develop general message materials using a variety of media for the following: information, rules and regulations, education and interpretation, and promotion and advertising.	X				BLM, FS & Chambers	Medium
Develop specific message materials using a variety of media for the following activities: motorized vehicle recreation; hunting; fishing; boating; cultural resources; mountain biking; camping; rock climbing; geocaching; horse use; snowmobiling; cross-country skiing; ice climbing; noise; interpretation; and education.	X				BLM, FS & Chambers	Medium

APPENDIX B

Management Action Implementation Schedule

Action Item	Timeframe Within				Lead & Partners	Priority
	On Going	2 Yrs	5 Yrs	10 Yrs		
Continue to develop, review, update, and distribute the following marketing materials: Alpine Loop two-fold lure piece; Alpine Explorer; The Alpine Loop, ATV's and Unlicensed Motorcycles Summer Travel Routes; Guided Tour of Animas Forks and the Sound Democrat Mill; Alpine Wildflowers brochure; Wildlife of the Alpine Loop.	X				BLM, FS & Chambers	Medium
Work with local clubs, Chambers of Commerce, U.S. Forest Service and others to actively promote winter recreation activities (e.g., snowmobiling, skiing, snowshoeing, ice climbing) as a means of drawing additional business to local communities during the slow winter season.	X				BLM, FS & Chambers	Medium
RECREATION MONITORING (Section 3.2.8)						
Develop a monitoring strategy that uses key indicators to evaluate social, environmental, and administrative standards and documents findings (Appendix A).	X				BLM	Medium
Continue to work with a variety of partners including the counties, county historical societies, San Juan Mountain Association, Colorado Historical Society, and willing private land owners to assist with identifying, monitoring and preserving heritage tourism sites.	X				BLM & various partners	Medium
Assess and managing vehicle-use in the Project Area applying the monitoring strategy outlined in Section 3.2.9 of the RAMP.	X				BLM	High
Monitor physical, social, and administrative conditions of each RMZ to ensure that the desired settings are being managed for.	X				BLM	Medium
RECREATION COLLABORATION (Section 3.2.9)						
Build and maintain partnerships with agencies, groups, and individuals that have an interest in recreation and recreation resource management in the Project Area.	X				BLM & various partners	High
Work toward entering into cooperative agreements with non-profit organizations (e.g., Mountain Studies Institute) and citizens and user groups that have adequate resources and expertise to assist in the management of public lands in the Project Area.	X				BLM & various partners	Medium
Consider, where appropriate, contracting with private sector businesses, nonprofit organizations, academic institutions, or State and local agencies to accomplish essential studies, monitoring, or project development.	X				BLM & various partners	Medium
MANAGEMENT UNIQUE TO EACH RECREATION MANAGEMENT ZONE (Section 3.3)						
Specific Management for RMZ 1 – Alpine Backcountry						
Facilities and Signs						
Allow a limited number of signs for resource protection or public safety.	X				BLM	Medium

APPENDIX B

Management Action Implementation Schedule

Action Item	Timeframe Within				Lead & Partners	Priority
	On Going	2 Yrs	5 Yrs	10 Yrs		
Install a sign would along Silver Creek Trail, where it descends from Redcloud Peak, educating visitors to stay on the trail to avoid Uncompahgre Fritillary Butterfly colonies located in the area.		X			BLM	High
Periodically maintain trails to provide access for recreation but no additional water, restrooms, or other visitor amenities or facilities would be provided unless they are necessary to protect resource values.	X				BLM & various partners	Medium
Resource Protection						
No ground-disturbing activities would be allowed in snow willow patches above 12,500 feet in elevation in order to protect potential habitat for the Uncompahgre Fritillary Butterfly.	X				BLM	High
Specific Management for RMZ 2 – Heritage Roads						
Facilities and Signs						
Facilities and signs would be added as necessary for visitor use, safety, and the protection of sensitive resources.	X				BLM	Medium
Develop a designated camping area at Cunningham Gulch to include up to 10 camping areas that could accommodate 2-3 vehicles and one larger area for 8-10 vehicles; install vault toilets and picnic tables.						
Develop a designated camping area in close proximity to the town of Eureka only if San Juan County partners with BLM toward funding its construction and long-term maintenance.						
Work in partnership with Hinsdale County to formally develop manmade ice climbing opportunities outside the town of Lake City on the south side of Henson Creek canyon as far up as the Henson Creek ATV Staging Area (~0.5 mile).			X		BLM & Ice Climbing group	Medium
Work in partnership with San Juan County to formally designate and improve the existing Eureka ice-climbing area, outside the historic town of Silverton.						
Examine the necessity of installing a universal access vault restroom near the entrance to American Basin.	X				BLM	Low
Specific Management for RMZ 3 – Animas/Lake Fork River Corridor						
Whitewater Boating						
Look for an opportunity to identify and secure a legal put-in for boaters in or near Lake City that includes some parking and reasonable access to the river.	X				BLM, Town & County	Medium
Improve boater's access to the river at the Devil's Creek Bridge area by clearing a path down to a suitable launch site on the river.		X			BLM	Medium
Improve boater access to the river at or near the Red Bridge Campground.			X		BLM	Medium
Construct a put-in for boaters and kayakers along the Animas River.						
Conduct periodic patrols during the early boating season to determine if there are obstructions on private land that might lead to trespass if boaters portage around these obstacles.	X				BLM & River outfitters	Medium

APPENDIX B

Management Action Implementation Schedule

Action Item	Timeframe Within				Lead & Partners	Priority
	On Going	2 Yrs	5 Yrs	10 Yrs		
Work with volunteers during National Rivers Week in May to conduct cleanup, rehabilitation or improvement of the river and riparian corridors.	X				BLM & Volunteers	Medium
Work cooperatively with the Colorado River Outfitters Association (CROA) to educate boaters and/or improve the river and riparian corridors under the existing Memorandum of Understanding (MOU) that BLM has signed with them.	X				BLM & River Outfitters	Medium
Travel Management and Access						
Maintain and improve public access to fishing and boating opportunities, whenever possible.	X				BLM	Medium
Facilities and Signs						
Add facilities and signs as necessary for visitor use, safety, and the protection of sensitive resources.	X				BLM	Medium
Improve public fishing opportunities by appropriately signing existing public land and public fishing easements.	X				BLM	High
Resource Protection						
Work in cooperation with CDOW to evaluate the need to institute a mandatory catch and release program.	X				BLM & DOW	Low
Comply with conservation measures for wintering bald eagles required by the USFWS.	X				BLM	Medium

APPENDIX C

EXAMPLE OF DRAFT MONITORING PLAN STRATEGY FROM GUNNISON FIELD OFFICE

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Monitoring Plan Example – Compliance with Travel Designations

Management Goal – Motorized and mechanized vehicle users are expected to comply with BLM travel designations. During the spring, summer and fall all motorized vehicles and mountain bikes will stay on routes designated as open for those uses and vehicle type. During the winter, snowmobiles, snowcats, tracked ATVs and other motorized vehicles may travel over the snow, but must not operate within the boundaries of designated Wilderness or Wilderness Study Areas.

Monitoring Actions – BLM staff and volunteers will be made aware of the vehicle and route designations in the SRMA by formal training and on-the-job training. During regular duties of patrol, maintenance and visitor contact BLM staff and volunteers will make observations and routinely monitor for evidence of non-compliance with designations. BLM Rangers, the cooperative Alpine Ranger, and the local sheriff office will be encouraged to periodically patrol the routes in the SRMA looking for conditions generally and violations of travel designations. Periodic patrols during the winter would be carried out to detect inappropriate snowmobile use in closed areas as resources allow. Reports of inappropriate use from the staff/volunteers/public would be followed used to determine patterns of use or reported to BLM Rangers for investigation if necessary

Indicators That Will Be Monitored – Staff will look for vehicles parked or driving off the designated routes. They will also look for evidence such as tracks, disturbed soil or crushed vegetation that indicates patterns of vehicles traveling off designated routes.

Locations and Times BLM Plans to Monitor – The land immediately adjacent to all designated routes are the most likely places to detect inappropriate use. The boundaries of Wilderness and Wilderness Study Areas will be high priority areas for regular patrols to detect and deal with inappropriate uses. A recurring problem spot that should be regularly monitored is the Snare Creek Road. Particular attention should also be paid to the boundaries between public land and private land where unauthorized access routes can often develop. Popular camping areas such as Burrows Park and the Eureka Townsite are also likely locations for vehicles to push into areas that they should not be. Popular, scenic or sensitive areas such as American Basin or Animas Forks are also areas that should be regularly monitored. The peak of the summer season (July 1st to August 20th) and the hunting season (Sept 1st to November 15th) will be a priority for patrols.

Limits of Acceptable Change – Isolated instances of vehicle violations rarely cause enough damage to be of significant concern though violations in wet or muddy conditions can be more noticeable. These isolated violations will be treated as an enforcement issue. Patterns of repeated violations occurring in the same area require corrective management action. Areas with repeated violations can start to create a noticeable route that other recreationists follow. With increased use on a particular unauthorized route, impacts to soils, vegetation and scenery are more noticeable. These would be considered unacceptable changes since these types of impacts are often slow to heal in alpine and subalpine ecosystems. Our goal would be to curtail repeated use before these noticeable impacts develop.

Corrective Actions To Be Taken – BLM will continue to be sure that information about vehicle designations and responsible use are included in visitor information materials. All observed violations of vehicle designations should be dealt with immediately. If vehicles are noted in areas they should not be the staff will make an attempt to contact the owner or operator of the vehicle either directly or with a written warning to encourage compliance with the rules. If the violation is blatant or causes significant damage then staff will be encouraged to record pertinent information such as name, location, date, time, license number and photographs so that law enforcement can follow up. Violations detected after the fact should be repaired or obliterated as much as possible to discourage repeated use. Areas where repeated violations are starting to occur should be physically blocked with rocks, logs or other barriers. Signs reminding visitors to stay on the designated routes may also be appropriate. These areas would also benefit from increased patrol.

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APPENDIX D

TRAVEL MANAGEMENT PLAN ROUTE INVENTORY

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Name	Ownership	MAINT_RESP	Allowable Use in Travel Management Network	Miles
Unknown Route Name	BLM		Foot, Horse and Mountain Bike	1.4
Unknown Route Name	BLM		Foot, Horse, Mountain Bike, Motorcycle, ATV and Full Sized Vehicles	0.2
Unknown Route Name	BLM	BLM	Foot, Horse, Mountain Bike, Motorcycle, ATV and Full Sized Vehicles	2.5
Unknown Route Name	BLM	County	Foot, Horse, Mountain Bike, Motorcycle, ATV and Full Sized Vehicles	12.0
Unknown Route Name	BLM	County	Foot, Horse, Mountain Bike and Street Legal Vehicles	0.2
Unknown Route Name	FS	None	Foot, Horse and Mountain Bike	0.1
Unknown Route Name	PUB	BLM	Foot, Horse, Mountain Bike and Street Legal Vehicles	0.1
Unknown Route Name	PUB	City	Foot, Horse, Mountain Bike and Street Legal Vehicles	0.1
Unknown Route Name	PVT		Foot, Horse, Mountain Bike, Motorcycle, ATV and Full Sized Vehicles	0.6
Unknown Route Name	PVT	County	Foot, Horse, Mountain Bike, Motorcycle, ATV and Full Sized Vehicles	10.6
Unknown Route Name	PVT	County	Foot, Horse, Mountain Bike and Street Legal Vehicles	3.2
Unknown Route Name	PVT	Private	Foot, Horse, Mountain Bike, Motorcycle, ATV and Full Sized Vehicles	0.1
Unknown Route Name	PVT	Private	Foot, Horse, Mountain Bike and Street Legal Vehicles	1.0

Total Mileage Unknown Named routes	**32.1**

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APPENDIX E

VEGETATION COMMUNITIES

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APPENDIX E. VEGETATION COMMUNITIES

Vegetation analysis for the Project Area (186,252 acres) was based upon the South West ReGap Analysis Project (SWReGAP). SWReGAP land classifications were grouped into 14 generalized vegetation communities, as described below, for the purposes of analyzing impacts to resources from the Proposed Action: spruce-fir, conifer, aspen, piñon-juniper, alpine tundra, mountain shrubland, sagebrush shrubland, mountain grassland, riparian, open water, cliff and canyon, agricultural, developed, and disturbed.

1. SPRUCE-FIR

The spruce-fir vegetation community is dominated by Engelmann spruce (*Picea engelmannii*), subalpine fir (*Abies lasiocarpa*), and lodgepole pine (*Pinus contorta*) trees and generally occurs at the highest elevation of forested types ranging from 9,000 - 12,000 feet.

Corresponding SWReGAP Landcover Classification:

- S028. Rocky Mountain Subalpine Dry-Mesic Spruce-Fir Forest and Woodland
- S030. Rocky Mountain Subalpine Mesic Spruce-Fir Forest and Woodland
- S031. Rocky Mountain Lodgepole Pine Forest

2. CONIFER

The conifer forest vegetation community is composed of conifer trees not included in the spruce-fir vegetation community, including ponderosa pine (*Pinus ponderosa*), white fir (*Abies concolor*), and Douglas-fir (*Pseudotsuga menziesii*) trees. This broad vegetation community is found 6,000 – 10,500 feet in montane climate zones (Buttery and Gillam 1987).

Corresponding SWReGAP Landcover Classification:

- S032. Rocky Mountain Dry-Mesic and Montane Mixed Conifer Forest and Woodland
- S034. Rocky Mountain Montane Mesic Mixed Conifer Forest and Woodland
- S036. Rocky Mountain Ponderosa Pine Woodland

3. ASPEN

The aspen vegetation community is dominated by aspen (*Populus tremuloides*) trees. It is associated with the subalpine and montane climate zones, and is best developed in the central and southwestern portions of Colorado (Buttery and Gillam 1987). Aspens occur at elevations ranging from about 6,000 to 10,500 feet.

Corresponding SWReGAP Landcover Classification:

- S023. Rocky Mountain Aspen Forest and Woodland
- S042. Inter-Mountain West Aspen-Mixed Conifer Forest and Woodland Complex

4. PIŇON-JUNIPER

The piñon-juniper vegetation community is typically dominated by piñon pine (*Pinus edulis*), Rocky Mountain juniper (*Juniperus scopulorum*), Utah juniper (*Juniperus osteosperma*), and one-seed juniper (*Juniperus monosperma*) trees. It occurs on mountains, hills, and mesas at elevations ranging from about 5,000 to 8,500 feet (Buttery and Gillam 1987).

Corresponding SW ReGAP Landcover Classification:

- S039. Colorado Plateau Pinyon-Juniper Woodland
- S038. Southern Rocky Mountain Pinyon-Juiper Woodland

APPENDIX E. VEGETATION COMMUNITIES

5. ALPINE TUNDRA

Alpine tundra is a mountaintop vegetation community that typically occurs at elevations >11,500 feet (Dick-Peddie 1992). Krummholz (or "twisted wood") occurs in this community, as well as scree, talus, and rock fields. Alpine tundra is characterized by short, cool growing seasons, long winters, snow, high wind, and intense sunlight.

- S002. Rocky Mountain Alpine Bedrock and Scree
- S003. Rocky Mountain Dry Tundra
- S001. Rocky Mountain Alpine Fell-Field
- S102. Rocky Mountain Alpine-Montane Wet Meadow

6. MOUNTAIN SHRUBLAND

The mountain shrubland vegetation community is a diverse, shrub-dominated community occurring on mountains, hills, and canyon slopes at elevations ranging from about 6,000 to 9,500 feet. It occurs on upland sites with well-drained soils, and is often found on steep slopes with southerly aspects. It occurs as small patches in forest-dominated landscapes, but sometimes occupies extensive areas (Jeff Redders, SJPLO ecologist, personal communication).

Corresponding SWReGAP Landcover Classification:

- S046. Rocky Mountain Gambel Oak-Mixed Montane Shrubland
- S047. Rocky Mountain Lower Montane-Foothill Shrubland
- S050. Inter-Mountain Basins Mountain Mahogany Woodland and Shrubland

7. SAGEBRUSH SHRUBLAND

The sagebrush shrubland vegetation community is a sagebrush-dominated community occurring on hills, mesas, and valley floors at elevations ranging from about 6,000 to 10,000 feet. It occurs as small patches in forest-dominated landscapes, in association with piñon-juniper, ponderosa pine, and mountain grassland communities

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Corresponding SWReGAP Landcover Classification:

- S054. Inter-Mountain Basins Big Sagebrush Shrubland
- S078. Inter-Mountain Basins Montane Sagebrush Steppe

8. MOUNTAIN GRASSLAND

The mountain grassland vegetation community typically occurs as openings in forest-dominated landscapes. It is associated with the lower montane, montane, and subalpine climate zones at elevations ranging from about 7,500 to 11,800 feet (J. Redders, pers. comm.).

Corresponding SWReGAP Landcover Classification:

- S085. Southern Rocky Mountain Montane-Subalpine Grassland
- S090. Inter-Mountain Basins Semi-Desert Grassland
- S083. Rocky Mountain Subalpine Mesic Meadow
- D06. Invasive Perennial Grassland
- S012. Inter-Mountain Basins Active and Stabilized Dune

APPENDIX E. VEGETATION COMMUNITIES

9. RIPARIAN

The Riparian vegetation community can occur at all elevations. It occurs on valley floors and in other low-lying landscape positions, and is primarily associated with perennial streams. This community is frequently flooded with plant species, soils, and topography that differ considerably from those of the adjacent uplands (Elmore and Beschta 1987).

Corresponding SWReGAP Landcover Classification:

- S091. Rocky Mountain Subalpine-Montane Riparian Shrubland
- S093. Rocky Mountain Lower Montane Riparian Woodland and Shrubland

10. OPEN WATER

Corresponding SWReGAP Landcover Classification:

- N11. Open Water

11. CLIFF AND CANYON

Corresponding SWReGAP Landcover Classification:

- S006. Rocky Mountain Cliff and Canyon

12. AGRICULTURE

Corresponding SWReGAP Landcover Classification:

- N80. Agriculture

13. DEVELOPED

These are areas most commonly associated with single-family housing units or more low-intensity development such as a mixture of construction materials with mostly vegetation in the form of lawn grasses.

Corresponding SWReGAP Landcover Classification:

- N22. Developed, Medium – High Intensity
- N21. Developed, Open Space- Low Intensity

14. DISTURBED

These areas include hose that have been recently logged (i.e. clear-cut or thinned ≥50%), as well as areas that have been recently mined or quarried (i.e. >4.9 acres).

Corresponding SWReGAP Landcover Classification:

- D10. Recently Logged Areas
- D03. Recently Mined or Quarried

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APPENDIX F

COLORADO BLM STATE DIRECTOR'S SENSITIVE SPECIES FOR BLM GUNNISON AND SAN JUAN FIELD OFFICES

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APPENDIX F. COLORADO BLM STATE DIRECTOR'S SENSITIVE SPECIES FOR BLM GUNNISON AND SAN JUAN FIELD OFFICES

Status	Common Name	*Scientific Name*	Field Office	Habitat Association	Potential to occur in Project Area (PA)
G4/S2	Crandall Rockcress	*Arabis (Boechera) crandallii*	GN	Limestone chip-rock and stony areas, often among sagebrush 7,600–9,880 feet	None. PA not within range of this species – occurs in the Arkansas Headwaters Watershed
G2/S2	Cronquist's milkvetch	*Astragalus cronquistii*	SJ	Low, sandy or gravelly ridges and sandy washes in blackbrush and salt desert shrub communities on sandstone or red sandstone of the Cutler and Morrison formations. (4,000-5,000 feet elevation)	None. Elevation of PA is >7,500 feet
G3/S2	**Gunnison milkvetch**	***Astragalus anisus***	**GN**	**Sagebrush Shrubland on flats on the floor of the Gunnison Basin and on hillsides. (7,500-9,500 feet elevation)**	**Potential to occur**
G1/S1	**Skiff milkvetch**	***Astragalus microcymbus***	**GN**	**Open sagebrush or juniper-sagebrush communities on moderately steep to steep slopes. Often found in rocky areas with a wide variety of soil conditions (7,800-8,500 feet elevation)**	**Potential to occur**
G3/S2,S3	Naturita milkvetch	*Astragalus naturitensis*	SJ	Cracks and ledges of sandstone cliffs and flat bedrock area with some shallow soil development, within pinyon-juniper woodland. (5,400-6,700 feet elevation)	None. Elevation of PA is >7,500 feet
G2/S1	Kachina daisy	*Erigeron kachinensis*	SJ	Low elevation seeps and hanging gardens to high elevation mesic	None. Elevation of PA not within range of this

APPENDIX F. COLORADO BLM STATE DIRECTOR'S SENSITIVE SPECIES FOR BLM GUNNISON AND SAN JUAN FIELD OFFICES

				sandstone outcrops in aspen and ponderosa pine communities. Saline soils (5,200-8,200 feet elevation)	species – occurs in Montrose County
G3/S1	Comb Wash buckwheat	*Eriogonum clavellatum*	SJ	Sandy to heavy clay washes, hills, and slopes; also on shales. Occurs on the Cutler Formation as well as the Mancos Shale Formation. Found within shadscale, blackbrush, and saltbush communities. Co-occurring species include *Astragalus cronquistii* and *Astragalus tortipes*. (4,200-6,000 feet elevation)	None. Elevation of PA is >7,500 feet
G3/S2	Colorado wild buckwheat	*Eriogonum coloradense*	GN	Subalpine and alpine. Gravels and clays of high mountain parks up to talus slopes of the alpine. Gravelly or sandy soil, often subalpine and alpine slopes, sometimes montane grasslands (8,500-12,500 feet elevation)	None. PA not within range of this species – Occurs in northern Gunnison, Park, Pitkin, and Saguache Counties
G1/S1	Pagosa trumpet gilia	*Ipomopsis polyantha var. polyantha*	SJ	Occurs in a 13-mile range on outcrops of Upper Cretaceous Mancos Shale in Archuleta County	None. PA not in Archuleta County
G2/S2	Pagosa bladderpod	*Lesquerella pruinosa*	SJ	Mancos Shale. open clay barrens surrounded by montane grasslands (6,810 -7,440 feet elevation)	None. Occurs only in Pagosa Springs, Colorado
G4/S2	Northern twayblade	*Listera borealis*	GN	Moist, shady spruce forests. 8700-10,800 feet elevation	None. PA not within range of this species

Source: http://www.blm.gov/co/st/en/BLM_Programs/botany/Sensitive_Species_List_.html; accessed January 2009
SJ=San Juan, GN=Gunnison Field Office
Status = Colorado Natural Heritage Program ranking:

APPENDIX F. COLORADO BLM STATE DIRECTOR'S SENSITIVE SPECIES FOR BLM GUNNISON AND SAN JUAN FIELD OFFICES

G1 - critically imperiled globally (5 or fewer occurrences or very few remaining individuals); critically endangered throughout its range
G2 - imperiled globally (6 to 20 occurrences); endangered throughout its range
G3 - very rare or local throughout its range or found locally in a restricted range (21 to 100 occurrences); threatened throughout its range
G4 - apparently secure globally, though it might be quite rare in parts of its range, especially at the periphery
G5 - demonstrably secure globally, though it might be quite rare in parts of its range, especially at the periphery
T - taxa of subspecies or varieties, ranked on same criteria as G1-G5
GQ - Indicates uncertainty about taxonomic status
S1 - critically imperiled in Colorado (5 or fewer occurrences or very few remaining individuals); critically endangered throughout Colorado
S2 - imperiled in Colorado (6 to 20 occurrences); endangered or threatened in Colorado
S3 - rare in Colorado (21 to 100 occurrences)
S4 - Watchlisted; specific occurrence data are collected and periodically analyzed to determine whether more active tracking is warranted

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APPENDIX G

SPECIES OF CONCERN FOR SAN JUAN PUBLIC LANDS

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APPENDIX G. SPECIES OF CONCERN FOR SAN JUAN PUBLIC LANDS

Status	Common Name	Scientific Name	Habitat Association	Potential to occur in Project Area (PA)
G2, S1	Nodule cracked lichen	Acarospora nodulosa var. nodulosa	Pinyon-Juniper, Semi-desert shrubland, Sagebrush	None. PA not within range of this species – occurs in the Upper Dolores watershed
G2, S2	Cliff Palace milkvetch	Astragalus deterior	Pinyon-Juniper, In sand-filled depressions of flat rimrocks, on cliffs, and on adjacent sandy talus. Always associated with the white zone of the Upper Cliff House Sandstone. Populations occur where this zone is cut by small streams and where the soils below are white zone-derived. (6,400-8,100 feet elevation)	None. PA not within range of this species – occurs in Montezuma County
G2, S2 BLM Sensitive	Naturita milkvetch	Astragalus naturitensis	Pinyon-Juniper, Sandstone mesas, ledges, crevices and slopes (5,000 to 7,000ft elevation)	None. Elevation of PA >7,500 feet
G1, S1	Gypsum Valley Cateye	Cryptantha gypsophila	Pinyon-Juniper, Semi-desert shrubland, Sagebrush	None. PA not within range of this species – occurs in Upper and Lower Dolores and San Miguel Watersheds
G3, S3	Thick-leaf Whitlow-grass	Draba crassa	Alpine, talus or rock ridges (10,000 -12,000ft elevation)	Potential to occur
G3, S1	Porsild's Whitlow-grass	Draba porsildii	Moist to sometimes drier sites, generally rocky or gravelly, in the subalpine and alpine zones on ridges, slopes, cliffs, ledges, and summits. Habitats include limestone or shale talus, scree, and gravel slopes; moist banks; moist turfy sites (incl. slopes); moist gravelly open soil; and grassy meadows. Sites sometimes within boreal spruce forest matrix.	Potential to occur

APPENDIX G. SPECIES OF CONCERN FOR SAN JUAN PUBLIC LANDS

G2, S2	San Juan Whitlow-grass	Draba graminea	exposed ridges and slopes and in alpine fell-fields. Typically in late snowmelt areas. Above 12,000ft elevation	Potential to occur
G3, S3	Colorado Divide Whitlow-grass	Draba streptobrachia	Alpine, Occurs on scree slopes and edges of talus slopes and sometimes in fell-fields	Potential to occur
G3, S2	Giant Helleborine	Epipactis gigantea	Riparian/Wetland, Decomposed sandstone; sandstone seeps; 4,800- 8,000 feet elevation	None. PA not within range of this species
G1, S1 BLM Sensitive	Kachina Daisy	Erigeron kachinensis	Riparian/Wetland, Saline soils in alcove and seeps in canyon walls (4,800 to 5,600 feet elevation)	None. Elevation of PA >7,500 feet
G4, S3, T3, N3	Altai Cotton-grass	Eriophorum altaicum var. neogaeum	Riparian/Wetland	Potential to occur
G3, S2	San Juan gilia	Gilia haydenii	Pinyon-Juniper, Blackbrush, matchweed, and shadscale communities. (4,500-5,000 feet elevation)	None. Elevation of PA >7,500 feet
G3, S1	largeleaf gypsoplaca lichen	Gypsoplaca macrophylla	Semi-desert Grassland, Semi-desert Shrubland	None. PA not within range of this species – occurs in Eagle and Upper Dolores Watersheds
G1, S1	Colorado stickseed	Hackelia gracilenta	Dense litter of oakbrush canyons; deep loam or sandy soil associated with pinyon-juniper woodlands. Primarily a plant of shady canyons, but in times of above average precipitation it has also been found on mesa tops.	None. PA not within range of this species – occurs in Montezuma County

APPENDIX G. SPECIES OF CONCERN FOR SAN JUAN PUBLIC LANDS

			Anecdotal information suggests fire tolerance - a population is reported to have returned with increased vigor following a burn. (6,900-8,000 feet elevation)	
G1, S1 USFWS Candidate, BLM Sensitive	Pagosa Gilia	Ipomopsis polyantha	Mountain Grassland, Mountain Shrubland, Mancos shale; barren shrublands; 6,800-7,200 feet elevation	None. PA not within range of this species, occurs in Archuleta County
G1, S1		Lecanora gypsicola	Pinyon-Juniper, Semi-desert shrubland, Sagebrush	None. PA not within range of this species – occurs in San Miguel County
G2, S2 BLM Sensitive	Pagosa Springs bladderpod	Lesquerella pruinosa	Mountain Grassland, Mountain Shrubland, Mancos shale; ponderosa pine, Gambel oak, open clay barrens surrounded by montane grasslands (6,800 - 7,500ft elevation)	None. PA not within range of this species – Occurs in Archuleta County
G3, S1 BLM Sensitive	Eastwood's monkeyflower	Mimulus eastwoodiae	Riparian/Wetland, Shallow caves and seeps on canyon walls, Moist seeps and hanging garden communities in sandstone cliffs in the Canyonlands. Co-occurring species include Primula specuicola, Adiantum capillus-veneris, Aquilegia micrantha, and Epipactis gigantea (4,700 to 5,800ft elevation)	None. Elevation of PA >7,500 feet
G3, S2 BLM Sensitive	aromatic Indian breadroot	Pediomelum aromaticum	Semi-desert Shrubland, Sagebrush (4,800-5,700 feet)	None. Elevation of PA >7,500 feet
G3, S2	Short-stem beardtongue		Sandstone and shale, in clayey loam soils, in	None. Elevation of PA >7,500 feet

APPENDIX G. SPECIES OF CONCERN FOR SAN JUAN PUBLIC LANDS

		Penstemon breviculus	sagebrush, pinyon-juniper and desert grassland communities (4,800-6,700ft elevation)	
G2, S2	Gray's Townsend daisy	Townsendia glabella	Ponderosa pine, Pinyon-Juniper, steeply sloping shale slopes, in lower altitudes	None. PA not within range of this species
G2, S2	Rothrock's Townsend daisy	Townsendia rothrockii	Alpine, Spruce-Fir Areas above timberline that retain snow into summer. Also high plateau ridgetops in openings in ponderosa pine forest. (8,000-13,500 feet elevation)	Potential to occur

Status = Colorado Natural Heritage Program ranking:
G1 - critically imperiled globally (5 or fewer occurrences or very few remaining individuals); critically endangered throughout its range
G2 - imperiled globally (6 to 20 occurrences); endangered throughout its range
G3 - very rare or local throughout its range or found locally in a restricted range (21 to 100 occurrences); threatened throughout its range
G4 - apparently secure globally, though it might be quite rare in parts of its range, especially at the periphery
G5 - demonstrably secure globally, though it might be quite rare in parts of its range, especially at the periphery
T - taxa of subspecies or varieties, ranked on same criteria as G1-G5
GQ - Indicates uncertainty about taxonomic status
S1 - critically imperiled in Colorado (5 or fewer occurences or very few remaining individuals); critically endangered throughout Colorado
S2 - imperiled in Colorado (6 to 20 occurrences); endangered or threatened in Colorado
S3 - rare in Colorado (21 to 100 occurences)
S4 - Watchlisted; specific occurrence data are collected and periodically analyzed to determine whether more active tracking is warranted

APPENDIX H

PLANT SPECIES of INTEREST FOR SAN JUAN PUBLIC LANDS

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APPENDIX H. PLANT SPECIES OF INTEREST FOR SAN JUAN PUBLIC LANDS

Status	Common Name	Scientific Name	Habitat Association	Potential to Occur in Project Area (PA)
G5, S2	Southern maiden-hair fern	*Adiantum capillus-veneris*	Dripping cliffs, sandstone orcalcareous rocks, (elevation 4,800-7,800 feet)	None. PA not within range of this species
S1	Pygmy sagebrush	*Artemisia pygmaea*	Semi-desert Shrubland, Sagebrush on Green River Shale or Mancos Shale	None. Occurs in Rio Blanco and San Miguel counties
G5, S1 BLM Sensitive	Green sedge	*Carex viridula*	Riparian/Wetland (elevation 8,700-9,200 feet)	None. PA no within range of this species
S1	Nine-awned Pappus Grass	*Enneapogon desvauxii*	Semi-Desert Grassland	None. Occurs in the Upper Dolores watershed

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- G3 - very rare or local throughout its range or found locally in a restricted range (21 to 100 occurences); threatened throughout its range
- G4 - apparently secure globally, though it might be quite rare in parts of its range, especially at the periphery
- G5 - demonstrably secure globally, though it might be quite rare in parts of its range, especially at the periphery
    - T - taxa of subspecies or varieties, ranked on same criteria as G1-G5
- GQ - Indicates uncertainty about taxonomic status

- S1 - critically imperiled in Colorado (5 or fewer occurences or very few remaining individuals); critically endangered throughout Colorado
- S2 - imperiled in Colorado (6 to 20 occurrences); endangered or threatened in Colorado
- S3 - rare in Colorado (21 to 100 occurences)
- S3S4 Watchlisted; specific occurrence data are collected and periodically analyzed to determine whether more active tracking is warranted