

APPENDIX 4

Colorado Canyons National Conservation Area Black Ridge Canyons Wilderness Management Plan



Moore Canyon, Black Ridge Canyons Wilderness

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Part I—Introduction

Background

The 75,550-acre Black Ridge Canyons Wilderness (BRCW) was designated as a component of the National Wilderness Preservation System on October 24, 2000, when the Colorado Canyons National Conservation Area and Black Ridge Canyons Wilderness Act of 2000 was signed into law. The BRCW makes up the core area (61 percent) of the 122,300-acre Colorado Canyons National Conservation Area (CCNCA).

Purpose of Management Plan

This Draft Wilderness Management Plan establishes the objectives, policies, and actions for managing the BRCW for the next 10 to 15 years. The final plan will set forth a schedule for implementing actions, fulfilling the Bureau of Land Management (BLM) requirement that a management plan be prepared for the Wilderness area. This plan incorporates many of the decisions from the 1998 Ruby Canyon/Black Ridge Integrated Resource Management Plan.

Location/Access

The BRCW is located 2 miles southwest of Fruita in Mesa County, Colorado, with about 5,200 acres of the Wilderness extending into Grand County, Utah. The Wilderness is situated on the northwest flank of the Uncompahgre Plateau. The King's View (I.3 Road) Road, the Black Ridge access road, BS Road, and the Ruby Canyon section of the Colorado River provide access to the Wilderness (see Figure A-1). The lower Black Ridge road is open August 15 to February 15, while the upper road is open April 15 to August 15.

Wilderness Boundary

The Wilderness boundary follows private lands and the Colorado River (100-year floodplain) on the north; a narrow utility corridor on the east that parallels the Colorado National Monument; the Black Ridge and BS Roads (boundary is 30 feet from centerline) and private property on the south; and the Mountain Island Ranch road (boundary is 30 feet from center line), Utah state lands and private property on the west.

Ownership/Land Use

The BLM administers all land within the Wilderness. There are no state or private surface, or subsurface, inholdings or utility rights-of-way within the BRCW.

**Figure A-1
Wilderness Access**

Wilderness Values

The BRCW has long been recognized as one of Colorado's premier wildlands with its impressive canyons and sandstone arches. The area is characterized by a high east-west ridgeline, eroded by seven major canyons draining north to the Colorado River. The Wilderness landscape is predominantly natural in character with more than 60 miles of canyons and negligible human imprint. While the canyon systems remain primarily pristine, the upland mesas hold fence lines, stock reservoirs, and trails. Because of their location and screening, all of these have a minor impact on the area's naturalness.

The expansive Wilderness area provides exceptional opportunities for primitive and unconfined recreation based on outstanding scenery, diverse landscape, geologic features, and cultural and paleontological resources. Intermittent watercourses and geologic features, such as spires, the arches in Rattlesnake Canyon, and the very large alcove in Mee Canyon enhance hiking opportunities, accentuating solitude by dispersing visitors both horizontally and vertically. Other activities in the BRCW include horseback riding, nature study, photography, arches viewing, and backpacking.

The BRCW also possesses a number of internationally renowned paleontological, archaeological, and ecological values and offers significant potential in both education and scientific research.

Climate/Air/Water

The BRCW's climate is that of a high desert; primarily semi-arid with variable precipitation. Annual precipitation in Grand Junction, 7 miles to the east, averages slightly less than 9 inches of rainfall and 22 inches of snowfall per year. Temperatures in Grand Junction range from a mean maximum of 65 degrees F to a mean minimum of 38 degree F. Summers in the BRCW are hot with many days in the 90s. Most activity in the Wilderness occurs in spring and fall when temperatures are moderate.

Mesa County is in attainment with the National Ambient Air Quality Standards.

Intermittent flowing streams generally characterize the canyons within the BRCW. The upper parts of Mee and Knowles Canyons have seasonal flows, and all canyons have some short-term flows associated with snowmelt and summer rainstorms. Water quality for these canyons is excellent.

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 beings. Ambient noise levels are not available within the BRCW. In general, noise levels

are assumed low except for vehicular traffic noise on roadways bordering the Wilderness, locomotive engine noise and whistles from trains traveling through Ruby Canyon, noises associated with motorboat use on the Colorado River, and noises associated with approved administrative uses of the Wilderness.

Soils

South of the Colorado River, the majority of soils are developing in sandstone parent material and eolian deposits under predominantly pinyon-juniper vegetation. Soils are generally shallow over hard sandstone bedrock with rock outcrops. In the Black Ridge area, shales of the Morrison and Dakota Formations have had a greater influence in soil development, and they contain more clay. Nearly all soils in the BRCW have high water-erosion potential, and trails need to be carefully located to prevent accelerating soil loss. Cryptobiotic crusts are common on soil surfaces and, once disturbed, take long periods to re-establish.

Land Health Assessments, performed in spring 2001, showed that at least 84 percent of the area south of the Colorado River (within the CCNCA) met health standards. Areas adjacent to livestock reservoirs, and areas dominated with non-native plant species, were primarily the areas not meeting the health standards.

Vegetation

Vegetation, along the canyon floors, consists of a combination of grassy meadows and sparse stands of pinyon-juniper woodland. Isolated stands of cottonwood trees and other riparian species, such as willow and box elder, can also be found along the drainages. The largest Colorado population of the rare plant *Canyonlands Lomatium* clings to the soil around the bases of the Rattlesnake Canyon arches.

Vegetation on the mesas consists of moderate-to-dense stands of pinyon-juniper woodland. The low-to-moderately dense stands support a diverse understory of shrubs, forbs, and grasses, which provide important desert bighorn sheep habitat. Sagebrush parks are scattered throughout the uplands and provide vital deer winter range. Some parks are dominated by crested wheatgrass, introduced by the BLM in the 1950s and 1960s.

Non-native plants are also found in the BRCW. For definition, the noxious weed program focuses on plants characterized as “noxious” by the BLM, State Department of Agriculture, and/or Mesa County. These listed plants are generally invasive in nature. In general, the upland portion of the Wilderness has few infestations of noxious weeds, while Canada thistle and tall whitetop are found in Flume Canyon. Major canyon drainages host an abundance of scattered tamarisk.

Rangeland Health Standards for public lands in Colorado (approved in 1997) were applied to the Black Ridge Canyons Wilderness in 2001 and 2002. Five public land standards were used for determining if the standards are being met. The five Land Health Standards include: 1) upland soils, 2) riparian systems, 3) healthy, productive plant and animal communities, 4) special status, threatened and endangered species, and 5) water quality. A site was determined to be “meeting the standards for land health” if all standards were being met. Within the meeting category, a subcategory of “meeting with problems” was developed to illustrate a few problems, such as the presence of cheatgrass, minor reductions in plant diversity, slight amount of soil movement, or the presence of non-native plants such as tamarisk or noxious weeds that exist within the CCNCA. The category of “not meeting” the standard was assigned to a site if any one of the standards was not being met as judged against the indicators.

Figure A-2 displays the Land Health Standards areas for the Wilderness, with approximately 99 percent of the Wilderness meeting these standards.

Wildlife

The fauna found within the BRCW is characteristic of the Colorado Plateau. To date, 10 mammals and 36 birds have been inventoried in the area. Big game species include desert bighorn sheep, mule deer, and elk. Other species of note include the golden and bald eagles, peregrine falcons (5 to 6 nesting pairs), and the collared lizard. A rare butterfly, Minor’s Indra swallow tail, is a valued resident of the Wilderness.

Recreation

As discussed in *Wilderness Values*, the BRCW provides outstanding opportunities for primitive and unconfined recreation. According to a survey conducted by Northern Arizona University (NAU) in 2001-2002, hiking, horseback riding, and nature study are the most satisfying activities in the Wilderness.

The current recreation management of the Wilderness is based on Benefits-Based Management (BBM), which is discussed in more detail in Appendix 5. The BBM approach manages recreation by targeting opportunities for visitors to achieve benefits. In short, achievement of recreation benefits is defined as the output of the recreation management process.

Recreation management has evolved from managing for activities, to managing for experiences, to currently managing for both experiences and recreation benefits. Managers may strive to provide visitors the opportunity to obtain their desired experiences by manipulating the physical, social, and managerial settings of an area. These settings are based on the Recreation Opportunity

Figure A-2
Wilderness Land Health Assessment

Spectrum (ROS), which classifies recreation settings on a scale from primitive to urban (see Appendix 5). These ROS classes help to reflect the ability of visitors to achieve specific experiences. BBM builds on these experiences and focuses on an array of benefits identified through research.

In 1992-1993, the BLM, NAU, and the USDA Forest Service’s Rocky Mountain Forest and Range Experiment Station participated in a BBM pilot project for the CCNCA. The *Ruby Canyon-Black Ridge User Study* assessed how the visitors used the CCNCA, keying in on activities, experiences, and benefits. This information was organized by zones based on ROS. The CCNCA was then re-surveyed by NAU in 2001-2002. These surveys provide important baseline and trend data that shows what is happening with recreation in the Wilderness. Especially important is focusing on the visitors’ abilities to realize desired experiences and benefits by sub-zone.

Sub-Zone 1: Rattlesnake Arches/Fruita Front Country

MOST DESIRED EXPERIENCES:

Scale of Importance: -2(least) to 2(most)	Desired Experiences	Ability to Realize 1(low) to 4(high)
1.8	Savoring Wilderness aesthetics	3.5
1.8	Savoring area canyon country aesthetics	3.6
1.7	Escaping everyday responsibilities for a while	3.7
1.6	Releasing or reducing some built-up mental tensions	3.6
1.5	Enjoy frequent exercise	3.5
1.5	Feeling good about being isolated and independent	3.4
1.5	Enjoying easy access to diverse primitive and unconfined outdoor recreation environments	3.4
1.5	Enjoying exploration	3.2

MOST DESIRED BENEFITS:

Scale of Importance: -2(least) to 2(most)	Desired Benefits	Ability to Realize 1(low) to 4(high)
1.8	Increase quality of life	3.4
1.7	Improved physical fitness/better health maintenance	3.5
1.6	Greater freedom from urban living	3.3
1.6	Enhanced sense of freedom in being able to get to this special place	3.4
1.6	Greater sense of overall wellness	3.5
1.6	Renewed human spirit	3.4

Sub-Zone 2: Jones, Knowles, and Mee Canyons

MOST DESIRED EXPERIENCES:

Scale of Importance: -2(least) to 2(most)	Desired Experiences	Ability to Realize 1(low) to 4(high)
1.8	Savoring Wilderness aesthetics	3.6
1.7	Savoring area canyon country aesthetics	3.7
1.7	Escaping everyday responsibilities for a while	3.8
1.7	Feeling good about being isolated and independent	3.2
1.6	Enjoying easy access to diverse primitive and unconfined outdoor recreation environments	3.9
1.5	Enjoying exploration	3.6

MOST DESIRED BENEFITS:

Scale of importance: -2(least) to 2(most)	Desired Benefits	Ability to Realize 1(low) to 4(high)
1.7	Increase quality of life	3.4
1.6	Improved physical fitness/better health maintenance	3.5
1.6	Greater aesthetic appreciation	3.4

Fire

Fire is an agent of vegetative change for the Wilderness ecosystem. Bureau records indicate that since 1980, 146 fires have burned 5,500 acres in the BRCW. The average fire has burned 38 acres, although many fires have been only a few acres in size. Fire management in the Wilderness is guided by the Grand Junction Field Office Fire Management Plan (2000) and the Ruby/Black Ridge Guidebook for Natural Ignition Fire Planning and Implementation (1998).

Based on these documents, fire management objectives in the Wilderness are:

1. Use fire to achieve desired plant communities.
2. Permit lightning-caused fires to play their natural ecological role.
3. Reduce risks and consequences of wildland fire escaping from the Wilderness to an acceptable level.

The overriding goal is to preserve the ecological integrity of the Wilderness and adjoining lands by allowing lightning-caused fires to burn that do not appear to jeopardize life or resources.

Cultural Resources

Man has occupied Western Colorado sporadically for about 13,000 years. The earliest cultural tradition was the Paleo-Indian, characterized by the hunting of now extinct megafauna and the production of distinctively fluted spear points. This was followed by the Archaic culture based on hunting and gathering. The Formative Period in western Colorado was a period of expansion/colonization by farmers from the southern Colorado Plateau. These Period sites are assignable to the Fremont cultural tradition that produced grayware ceramics, basketry, and impressive rock art. The Fremont abandoned the region by 650 B.P. (Before Present). The Utes, who were hunters and gatherers, occupied the region until their forced removal to a reservation in 1881.

Ranchers then moved into the area, having found it to provide excellent habitat for cattle and sheep. Historic cabins and many of the trails date from this period.

Paleontological Resources

Known fossiliferous formations within the BRCW include the Morrison Formation, Burro Canyon Sandstone, and the Dakota Sandstone. Fossil locations in the Morrison have consistently yielded many scientifically important fossils, including over 12 varieties of small-to-large dinosaurs; well-preserved varieties of early mammals, eggs, crocodilians, turtles, fish, numerous invertebrates; as well as a variety of fossil wood, pollen, and other plant remains. The Burro Canyon Formation has produced 115 to 120 million-year-old sycamore-like flowers, which may be among the world's oldest.

Livestock Grazing

The BRCW is divided into 11 grazing allotments, with three livestock operators. Approximately 4,900 Animal Unit Months (AUM) of forage is available for livestock use. Grazing use permits have been issued for managing grazing duration, timing, and livestock numbers to attain desired land health standards. Authorized Use Agreements have also been signed between the BLM and livestock operators to provide specific guidance on exceptionally restrictive use of motorized vehicles within the Wilderness. Motorized use is allowed only as the minimal tool for grazing allotments that were in operation prior to the Wilderness designation. Fences, stock ponds, water catchments, and two-track routes to support livestock operations are located in the upland portion of the Wilderness. Grazing use is restricted to cattle only. Sheep use has been discontinued because of the possible transfer of disease from domestic sheep to the desert bighorns that inhabit the area. All grazing activity has been discontinued in all of the canyon bottoms within the state of Colorado to protect riparian values.

Administration

Administrative use of the BRCW is guided by the “minimum tool” concept derived from Section 4. (c) of the Wilderness Act. This Act generally prohibits motorized equipment, or mechanized transport, in designated wilderness, although it does allow these modes of transportation “as necessary to meet the minimum requirements for administration of the area.” This concept applies to grazing administration, on-the-ground wilderness management, emergency services, fire, and other resource management. These uses will always be in accordance with minimum tool principles. This means that motorized or mechanized means may be used to accomplish necessary objectives, because there is not a practical method of accomplishment through non-motorized or non-mechanized means. Authorized use agreements for motorized-vehicle use in the Wilderness have been prepared with all of the grazing permittees based on minimal tool guidelines. Emergency services in the Wilderness are covered by agreements with the Mesa County Sheriff’s Department, and emergency situations are reviewed and approved by the CCNCA manager. The CCNCA manager reviews proposals for motorized access into the Wilderness on a case-by-case basis. This Memorandum of Understanding (MOU), which is updated annually, provides clear guidelines for emergency personnel in determining the appropriate type and level of response.

Part II—National Wilderness Management Goals

Four standard management goals have been established by the BLM for its designated Wilderness areas. The goals are as follows:

1. To provide for the long-term protection and preservation of the area’s wilderness character under a principle of non-degradation. The area’s natural condition; outstanding opportunities for solitude; exceptional opportunities for primitive and unconfined types of recreation; and any ecological, geological, or other features of scientific, educational, scenic, or historical value present; would be managed for remaining unimpaired.
2. To manage the Wilderness area for the use and enjoyment of visitors in a manner that would leave the area unimpaired for future use and enjoyment as wilderness. The Wilderness resource would be dominant in all management decisions where a choice must be made between preservation of the Wilderness and visitor use.
3. To manage the area using the minimum tool, equipment, or structure necessary to successfully, safely, and economically accomplish the objective. The chosen tool, equipment, or structure should be the one that least degrades wilderness values temporarily or permanently.

4. To manage nonconforming but accepted use permitted by the Wilderness Act, and subsequent laws, in a manner that would prevent unnecessary or undue degradation of the area's wilderness character. Nonconforming uses are the exception rather than the rule; therefore, emphasis is placed on maintaining wilderness character.

Part III—Wilderness Management Strategy

Limits of Acceptable Change

Limits of Acceptable Change (LAC) provide a process for determining appropriate resource and social conditions in recreation settings. LAC would provide the basis for monitoring in the BRCW. The primary emphasis of the LAC system is on the conditions desired, rather than on how much use, or abuse, an area can tolerate. The management challenge is not in how to prevent human-induced change to the physical, biological, or social settings within the BRCW, but rather in deciding how much change will be allowed to occur and where, and then what management actions are needed for controlling the change. Once in place, LAC can alert the BLM to levels of unacceptable change and the necessary management action. In this way, LAC provides long-term protection and preservation of the character of the BRCW. LAC is flexible enough to allow for site-specific situations, is cost effective, and is an excellent tool for public participation.

Two distinct Wilderness management sub-zones exist in the BRCW. The Rattlesnake Arches/Fruita Front Country sub-zone is primarily a day-use area. On the south side of this sub-zone is the Black Ridge road, which provides 4-wheel-drive access to within one-half mile of the popular arches in Rattlesnake Canyon. Most of the use in this southerly zone is day use. Access on the north side of this area is by hiking and equestrian trails concentrated in the Devils, Flume, and Pollock Canyons complex (see Figure A-1). The Jones/Knowles/Mee Canyons sub-zone is more remote, difficult to access, and provides both day and overnight use.

The LAC process is based on “indicators” and “standards” for each sub-zone. Indicators measure important biophysical or social conditions, while standards define how much is acceptable for a given setting. For example, a social indicator could be the number of encounters per day. The standard could be less than three. Other indicator examples are: camp encounters, attraction site encounters, disturbance of cryptobiotic soils, number of camps, feet/percent with braided trails, and percent of sites with litter/human waste. Good indicators must be easily and reliably measured and provide early warning of changes on the ground.

The LAC process also requires developing a set of management actions to be taken when desired standards are not being met. These could be educational

actions, regulatory actions, development actions (modifying a trail system), or even use-limit actions.

Indicators, standards, and management actions for mitigation purposes, when standards are approached, will be developed for inclusion in the final Wilderness plan.

Part IV—Issues

Identification of Issues

Issues concerning planning and managing the BRCW were gathered during public scoping meetings, from written comments, and through the participation of the Wilderness Working Group during initial meetings held in April and May 2002. These issues were consolidated and prioritized and are integral in developing plan alternatives.

The Working Group was composed of interested individuals from the local community. The group was instrumental in developing Wilderness Zone management recommendations through the alternative development stage. The Wilderness Working Group participated in 12 meetings (through January 2003) and 2 field trips (see Chapter 5 for more information).

Issues:

1. Long-term protection of wilderness characteristics (including naturalness, outstanding opportunities for solitude and primitive recreation, and supplemental features).
 - What monitoring indicators and standards should be used to determine when changes to wilderness settings are unacceptable?
 - How will wilderness characteristics be maintained?
 - What actions should be taken when LAC standards are not being met?
 - How will BLM gather information from Wilderness users and incorporate into planning and management?
 - How will recreation outside the Wilderness boundaries be managed to protect wilderness values?
2. Management of recreation use.
 - What visitor facilities are appropriate for the Wilderness?
 - How will commercial recreation be managed in the Wilderness?
 - If a need arises, how can non-commercial recreation be more restrictively managed?
3. Management of vegetation.
 - How should livestock grazing be managed in the Wilderness?
 - How should weeds be managed in the Wilderness?

- How should fire be managed in the Wilderness? What is the role of fire in BRCW's ecosystem?
 - How does BLM's Rangeland Health Standards apply to the Wilderness?
4. Management of nonconforming uses (administrative, fire management, special situations).
- How will nonconforming uses in the Wilderness be mitigated?
 - What criteria will best determine when an emergency situation warrants the possible impacting of wilderness values?
 - What restrictions should apply to fire suppression activities?
 - When should the Colorado Division of Wildlife be allowed motorized access to manage wildlife?

Part V—Wilderness Management

Desired Future Conditions

When asked what the optimum future setting would be for the Wilderness, collaboration with Working Groups produced the following desired conditions:

- Maintain wilderness values.
- Keep the resources in as pristine a condition as possible.
- As a general rule, do not allow motorized or mechanized access.
- Visitors should experience a minimal number of contacts with other visitors.
- Grazing should be maintained at no higher than the current level.
- Minimal facilities should be provided for visitors:
 - New trails only as needed to prevent resource degradation;
 - Minimal signage;
 - Facilities for parking, information, camping, etc. should be limited and provided outside the Wilderness boundary.

Introduction to Objectives

In this section, objectives are established to address BRCW issues. Management proposals are identified that will help meet Wilderness management goals and desired future conditions. Monitoring will be conducted in determining the proposal's effectiveness, as well as BLM's ability to maintain

desired Wilderness resource conditions and the Wilderness visitors' abilities to realize desired experiences and benefits.

Objective 1: Maintain and enhance Wilderness values (naturalness, solitude, primitive and unconfined recreation, and supplemental features).

Management Common to Both Sub-Zones (Proposed Actions)

Motorized/mechanized use would not be allowed within the BRCW except for administrative use, which is guided by the "minimum tool" concept derived from Section 4. (c) of the Wilderness Act. This section allows for the use of motorized equipment or mechanized transport in Wilderness "as necessary to meet the minimum requirements for administration of the area." All proposed actions are subject to a minimum tool analysis and approval by the CCNCA manager. MOUs would be developed to provide guidance for grazing operations, search and rescue, and fire operations.

The BRCW would be closed to all recreational collecting (rockhounding) to ensure that paleontological materials, except for scientific collecting by permit, will generally be left in place.

Trails would be generally designated for hiking and equestrian use, although some of the trails are not traversable by horse.

Campers along upper and lower Black Ridge roads and BS Road would be required to use designated sites, personal portable toilets, and fire pans.

Treatment of Russian knapweed and Canada thistle would continue.

The discharge of any projectile by any means, but not limited to firearms, bows, crossbows, and paintball guns, would be prohibited except for law enforcement or hunting in conformance with laws and regulations.

Livestock grazing would be restricted in Mee, Knowles, and Rattlesnake Canyons to protect riparian values, with the Colorado River remaining unallotted. The public would be educated about livestock grazing and its relationship to the environment.

The BLM would work closely with the Colorado National Monument and the urban interface community, including the city of Fruita, regarding but not limited to:

- Fruita
 - Snooks Bottom parcel
 - Trails connectivity
 - Gateway Community

Colorado National Monument
Trail connectivity
Management consistency/coordination
Urban Interface
Community needs
Resource protection

The BLM would collaborate with the Federal Aviation Administration (FAA) to develop appropriate flight restrictions over the BRCW and request that this advisory be included on National Aeronautical Charts.

A comprehensive “Interpretive Plan” for the CCNCA and the BRCW that fully addresses interpretation, education, and public outreach would be developed.

No special recreation permits would be granted for air tours over the CCNCA/BRCW.

Group size within the Wilderness, beyond the first 2 miles south of the Colorado River, would be limited to 25. Group size elsewhere in the Wilderness would be limited to 12.

Dogs would be required to be on a leash in high-use areas but under voice control in other areas.

Rattlesnake Arches/Fruita Front Country (Proposed Actions)

The Rattlesnake Arches Trail, Pollock Bench trail system, and the Flume and Devils Canyon trail systems would be the designated trail system.

The Rattlesnake Arches access road and trailhead would be designated for day use only. The vicinity within and near the outside of the Rattlesnake Arches Loop Trail would be designated for day use only (no camping).

The lower Black Ridge road and the Rattlesnake Arches access road would be maintained at the current standard.

Parking along the Rattlesnake Arches road would only be allowed at designated locations. Additional parking and improved turnarounds would be provided along the Rattlesnake Arches access road. Additional parking areas and turnarounds would be provided along the Rattlesnake Arches Trailhead.

Jones, Knowles, and Mee Canyons (Proposed Actions)

A mandatory self-registration system would be implemented. Groups or individuals in this sub-zone would be required to have a completed self-issue registration signed and in their possession for each visit. This system would help

in better managing the Wilderness by providing information about user demographics, itineraries, group characteristics, and other information.

The trails in Jones, Knowles, and Mee Canyons would be the designated trails in this sub-zone.

Objective 2: Provide for primitive-based recreation opportunities.

Management Proposals

Rattlesnake Arches/Fruita Front Country

Maintaining opportunities for visitors to realize their most important experiences and benefits in this sub-zone would be based on BBM and the 2001-2002 NAU survey data. Visitors were asked how easily they were able to realize their most important benefits from their recreation activities in this zone. The top four benefits realized were:

1. Increased quality of life
2. Improved fitness/better health maintenance
3. Greater freedom from urban living
4. Enhanced sense of freedom in being able to get to this special place

All visitor benefits were realized, but future surveys would be important in determining trends in realizing benefits.

Jones, Knowles, and Mee Canyons

Maintaining opportunities for visitors to realize their most important experiences and benefits in this sub-zone were also based on BBM and the NAU survey data. Visitors were asked how easily they were able to realize their most important benefits from their recreation activities in their favorite zone. The top three benefits realized in this sub-zone were:

1. Increased quality of life
2. Improved physical fitness/better health maintenance
3. Greater aesthetic appreciation

All benefits in this sub-zone were realized by visitors as well.

Monitoring Recreation Use

Benefits-Based Management

The ability to determine if benefits were maintained or enhanced over time will be dependent on follow-up surveys of the CCNCA/BRCW. Every three to five years

would be best in helping determine trends and providing valid analysis. If benefits were not maintained or enhanced, appropriate management actions would be initiated to remedy the physical, social, and/or managerial settings to allow realization of desired experiences and benefits.

Recreation settings play a major role in the realization of recreation experiences and benefits. Visitors participating in the 2001-2002 NAU survey of the CCNCA/BRCW were asked specific questions about their preferences for setting characteristics. These questions included visitors' preferences for amount and type of facilities (trails, signs inside Wilderness), contacts with other people, evidence of use, management controls, and visitor services. Visitors indicated that there should only be trails and limited signing inside the Wilderness. They also wanted very little contact with other users and minimal evidence of other users. Few management controls/regulations were desired.

Limits of Acceptable Change

Resource attributes and associated recreation use would be systematically monitored using the Limits of Acceptable Change (LAC) process. To do this, indicators for biological, social, and managerial conditions in each sub-zone would be determined. Indicators should:

- a. Reflect Wilderness issues and concerns.
- b. Be measurable through relatively simple field inventory and evaluation.
- c. Be reliable and reflect overall Wilderness conditions.
- d. Help detect changes in resource conditions that are responsive to management control.
- e. Be distinct for each sub-zone.

Each indicator would be inventoried on the ground to establish baseline readings for current resource conditions and to evaluate the effectiveness of potential indicators. This would require a one-year minimum of monitoring visitation in the BRCW.

Once current conditions are known, the standards can be defined. These would reflect the minimum desired conditions to be maintained for each sub-zone. These indicators, standards, and desired conditions would become the LAC Plan for the Wilderness and appended to this Wilderness Management Plan.

Objective 3: Maintain a Wilderness ecosystem and healthy natural processes.

Management Proposals

Monitor for land health and maintain existing areas meeting BLM Rangeland Health Standards.

Implement restoration and reclamation projects on Black Ridge and other sites currently not meeting land health standards. Emphasis would be placed on improving plant diversity, particularly in those areas dominated by cheatgrass or crested wheatgrass.

Control noxious weeds in the Wilderness through inventory, treatment, and education. Continue treatments of Russian knapweed and Canada thistle until gone. Manage around spring sites and drainages to control tamarisk. Release bio-agents, if approved, for large-scale reduction in extensive stands.

Manage wildlife habitat in the Wilderness to maintain existing species.

Manage surface water to meet or exceed water quality standards, i.e. meet land health standards. Springs would not be developed but continue to be used by hikers and wildlife, and to sustain associated riparian areas.

The Soils, Riparian, and Wildlife Programs would continue to be monitored for rangeland health, especially in those areas where Rangeland Health Standards are not being met.

Attain, or maintain, plant community objectives determined in the Ruby Canyon/Black Ridge Integrated RMP.

Continued grazing use would be in accordance with grazing permits, Allotment Management Plans, BLM Policy, and the Wilderness Act. The BLM and the grazing permittees would work together to manage grazing for sustainability and conservation in accordance with land health guidelines and standards for rangeland health.

Any range improvements would be maintained in accordance with Cooperative Agreements and the Wilderness Act.

Current livestock management would be maintained but changes would be made if monitoring indicates downward trends or standards not being met.

Jones Canyon would be added to current restrictions on livestock grazing to protect riparian values.

Objective 4: Provide minimal facilities to meet visitor needs.

Management Common to Both Sub-Zones (Proposed Actions)

All roads administered by the BLM would be maintained in their current condition, and no improvement would be permitted through rights-of-way (ROW) authorizations.

Non-designated roads and ways not used for administration would be closed and rehabilitated.

All parking facilities would have containment to prevent encroachment into the surrounding area.

Restrooms would be constructed at designated Wilderness trailheads as need arises.

Fences that no longer have a purpose would be removed.

Rattlesnake Arches/Fruita Front Country (Proposed Actions)

If future demand or resource impacts dictate, a campground would be provided outside the southern boundary of the Wilderness.

As future demand warrants, additional parking and turnarounds would be provided along the Rattlesnake Arches road.

The parking area and a turnaround at the trailhead would be improved. All parking would have containments to prevent encroachment.

Jones, Knowles, and Mee Canyons (Proposed Actions)

Additional dispersed camping along BS road between Knowles Canyon and Jones Canyon Trailheads would be limited to designated locations only.

The Knowles Canyon Trailhead would be moved and expanded to accommodate additional parking.

A parking area for horse trailers would be developed along BS Road in the area of the large alcove (Spur C; see Figure A-1).

A trail heading north from the Jones Canyon Trailhead would be constructed to provide an alternate hiking route.

Part VI—Plan Implementation

After the comment period has closed on the Draft Plan, this section will outline planned actions. Actions will be prioritized in a general order for implementation, and costs projections will be included. Actual implementation will shift each year when the Annual Work Plan (AWP) is developed. The AWP will look at shifts in the priority list over time and the ability to implement projects based on available funding. Where practical, alternate funding sources should be pursued to avoid implementation delays.

Part VII—Plan Evaluation

Evaluate actions that have been completed.

Conduct a formal evaluation every five years to make sure that proposed actions are being implemented, and that management is still consistent with the Plan direction. Determine if objectives are being met.

When formal LAC monitoring takes place (every 3 to 5 years), a comprehensive evaluation of the data will be necessary to see if standards are being approached.