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# Resource/Boundary Evaluation for Lands Adjacent to Black Canyon of the Gunnison National Monument Colorado



United States Department of the Interior  
National Park Service

Rocky Mountain Regional Office



FEDERAL  
PUBLICATION

**RESOURCE/ BOUNDARY EVALUATION  
FOR LANDS ADJACENT TO  
BLACK CANYON OF THE GUNNISON  
NATIONAL MONUMENT**

**JANUARY 1990**

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**UNITED STATES DEPARTMENT OF THE INTERIOR/ NATIONAL PARK SERVICE**

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## **SUMMARY**

### **RESOURCE SIGNIFICANCE**

As a result of this resource assessment and boundary evaluation, it was determined that the lower gorge of the Gunnison River between the west boundary of Black Canyon of the Gunnison National Monument (BLCA) and the confluence of the North Fork River contained significant natural resources and opportunities for public enjoyment that were directly related to the purpose for which BLCA was established. The significance of such resources was further reinforced when it was revealed that such resources represented a primary element not currently represented within BLCA. These resources are included in Alternatives 1 and 2, which represent expansion of the monument boundary.

The significant natural resources within that portion of the Gunnison Gorge being evaluated, primarily involve geologic formations hundreds of feet thick that have eroded away from the monument portion of the landscape. These features would add a significant scientific and geologic aspect to the monument that is currently non-existent. The lower gorge also contains world class examples of large-scale faulting. The geologic story of BLCA is incomplete without access and reference to the lower gorge area.

The national significance of the lower gorge was reinforced by the 1979 *Final Environmental Statement Wild and Scenic River Study*, which concluded that the 13.5-mile section of the Gunnison River from the park boundary downstream represented the lower portion of a 26-mile section of the Gunnison River, including a 13.5-mile segment in this boundary study, was worthy of inclusion in the National Wild and Scenic River System.

The lower gorge also provides a significant cold water fishery. This has been recognized by the State of Colorado in designating the area a Gold Medal Stream and Wild Trout Waters.

Further attention as an outstanding recreation resource came when the Bureau of Land Management (BLM), in their September 1988 *Uncompahgre Basin Resource Management Plan and Environmental Impact Statement*, recommended 21,038 acres of the lower gorge adjacent to the monument, to be suitable for "wilderness" designation.

### **ALTERNATIVES**

In view of the significance of these resources and associated opportunities for public enjoyment, the National Park Service (NPS) prepared and evaluated alternatives for the management of the resources. This planning effort was coordinated with the Bureau of Land Management and other Federal, State, and county Agencies, as well as with various special interest groups and individuals.

The evaluation resulted in the identification of three alternatives for management of the resources involved. Alternatives 1 and 2 constitute expansion of the BLCA. In general, Alternatives 1 and 2 include that portion of the Gunnison Gorge between the west boundary of BLCA and the confluence of the Gunnison and North Fork Rivers. Alternative 2 differs from Alternative 1 in that it takes advantage of topographic features for portions of the boundary.

Alternative 1 would constitute an expansion of 25,170 acres, bringing the total monument acreage to 45,936. Alternative 2 would constitute an expansion of 24,290 acres, which would bring the total monument acreage to 45,056.

Alternative 3 represents continued management by the BLM. This Alternative encompasses the entire 64,139-acre Gunnison Gorge Recreation Area (GGRA), which is subdivided into the Gunnison Gorge Wilderness Study Area (WSA) and those lands outside the WSA but within the GGRA. The BLM has identified two options for managing the GGRA, which primarily represent name changes only. These designations are Gunnison Gorge Special Recreation Management Area (GGSRMA), and Gunnison Gorge National Conservation Area (GGNCA). Neither of these designations would effect the current wilderness or scenic river recommendations. The differences between the two designations would be in the subtle emphasis that may develop on a broader scale, resulting from either the conservation or special recreation management label.

## **FUTURE ACTIONS AND CONSIDERATIONS**

In view of congressional interest for the National Park Service to evaluate the feasibility of up-grading the status of the national monument to that of national park, it was determined that implementation of Alternative 1 or 2 would be the key to justifying such action, considering the degree of diversity in resources and opportunities for public enjoyment.

In general, the major steps involved in passing legislation to change a boundary of a national park unit and/or modify its status would first require enough congressional interest to sponsor such a bill. Following the introduction of the bill to Congress and after extensive review and deliberation, it must pass the committees in both the House and Senate and then the full House and full Senate. Following this, the President of the United States may then sign the bill into law.

The extensive review process, which would take place at all levels of both the Senate and House, could involve public hearings in Washington, D.C., and in the vicinity of the lands being considered. Provisions to expand a boundary of a national park unit as well as change its status may appear in the same legislation.

# **INTRODUCTION**

## **PURPOSE OF STUDY**

The NPS, in accordance with report language from the Interior Appropriations Act (PL 100-446, 102 Stat. 1174) approved on September 27, 1988, and supporting Congressional Record, was directed to conduct a study of lands adjacent to Black Canyon of the Gunnison National Monument. Refer to Figure 1 for the location of the general area studied. The primary purpose of the study was to (1) assess the subject area to determine if it included significant natural, cultural, and recreational resources related to the purpose of the monument, (2) determine if the study area or portion thereof would fill a management or administrative need for resource protection and public use in relation to the existing monument, (3) evaluate existing and other alternatives for managing the resources determined to be significant, and (4) determine if BLCA would qualify for national park status were any or all of the study area added to the existing monument.

## **COMPLIANCE**

This study has been determined to be among those actions designated as categorical exclusions, exempt from the requirements of the National Environmental Policy Act; therefore, a formal environmental assessment of the study of alternatives will not be required. This decision is based on the guidelines contained in 516 DM 6 Appendix 7.4 B(10), which covers the "Preparation of internal reports, plans, studies, and other documents containing recommendations for action, which NPS develops preliminary to the process of preparing a specific service proposal or set of alternatives for decision."

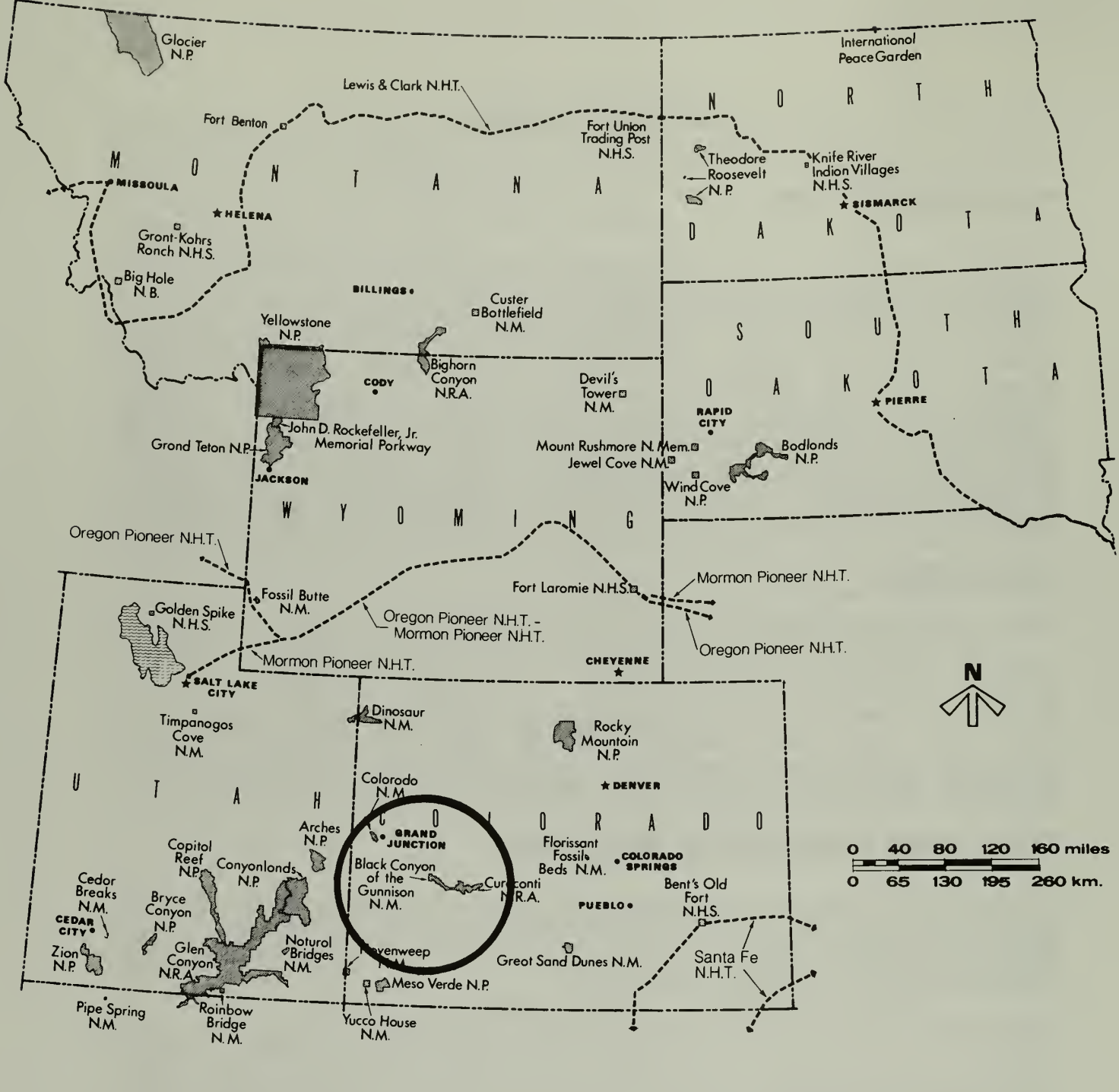
## **STUDY AREA AND ZONE OF INFLUENCE**

As referenced in Figure 1, the area evaluated is located in southwestern Colorado on the west slope of the Rockies in the counties of Montrose and Delta. The nearest towns are Montrose, Delta, Olathe, Hotchkiss, Crawford, and Paonia, Colorado. The area evaluated is located in the Third Congressional District.

The primary area of concern, as indicated in the House Report language, is an area referred to as the lower Gunnison Gorge, which is situated between the west boundary of BLCA and the confluence of the North Fork and the Gunnison Rivers. However, since BLM identified the lower gorge as a part of the GGRA in their management plans, it was logical to expand the study to include the larger area in the evaluation of alternatives.

Within a day's drive are four major metropolitan areas: (1) the Colorado Front Range, including Fort Collins, Denver, Colorado Springs, and Pueblo; (2) the Wasatch Front in Utah, including Salt Lake City, Provo and Ogden; (3) the Grand Junction/Grand Valley area; and (4) the Santa Fe/Albuquerque area of New Mexico. The total population for these areas exceeds four million (Refer to Figure 2).





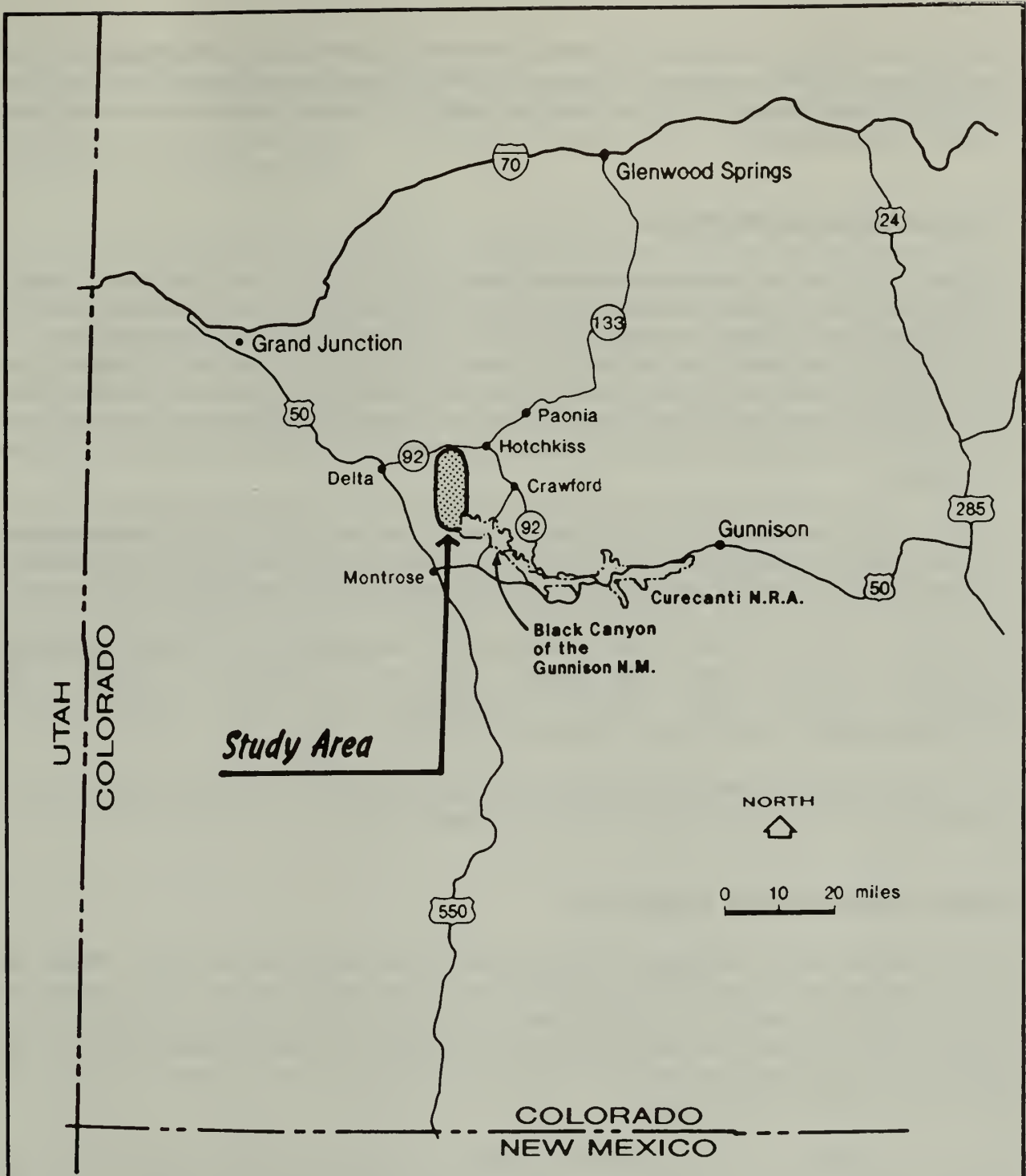
**Legend**

- Locations of Major Cities
- ★ Locations of State Capitals
- State Boundary Lines
- ▭ National Park Service Areas
- National Park Service Historical Trails

**FIGURE 2**  
**ROCKY MOUNTAIN REGION**

National Park Service  
 United States Department of the Interior





**FIGURE 1**  
**Vicinity Map**

Access to the area is excellent. The area is served by two airlines and a major bus line. The primary highways serving the area are U.S. 50 and State Highway 92. For more information concerning the socioeconomics, refer to Appendix A, *Socioeconomics and Visitor Use Assessment*.

## **RECREATION OVERVIEW**

National Park Service areas within approximately 100 miles include: Colorado (National Monument) NM, Arches National Park (NP), Black Canyon of the Gunnison NM, Canyonlands NP, Curecanti National Recreation Area (NRA), and Dinosaur NM. In addition, there are portions of six National Forests (Grand Mesa, Gunnison, Manti-La Sal, San Juan, Uncompahgre, and White River), several million acres of Federal land administered by the Bureau of Land Management, several recreation areas managed by the States of Colorado or Utah, and numerous private or non-profit museums and other attractions.

Some of the more popular recreational activities in the region include: sightseeing, camping, hiking, rafting, boating, fishing, hunting, bicycling, and 4-wheeling. Opportunities to engage these activities are abundant in western Colorado and eastern Utah.

Recreation use within the GGRA is managed in accordance with those guidelines contained in BLM's *Interim Management Policy and Guidelines for Lands Under Wilderness Review* (IMP), Resource Management Plan (RMP) Recreation Area Management Plan (RAMP), and Addition to the RAMP.

For more detailed information concerning recreation use and visitation trends, refer to Appendix A, *Socioeconomic and Visitor Use Assessment*.

## **LAND OWNERSHIP AND USE**

The Gunnison Gorge Recreation Area includes approximately 64,139 acres. Within the boundaries approximately 62,192 acres (97 percent) are under Federal surface ownership and managed by the BLM. Approximately 1,947 acres (3 percent) are privately owned. Nearly all of the privately owned property is used as part of a ranch operation with grazing of livestock being the dominant use. No permanent year around residences are located within the study area boundary.

The BLM property is managed under a resource management plan as Units 4, and 6. Unit 4 (40,792 acres) is identified as the Gunnison Gorge Special Recreation Area with stipulations for oil and gas development, locatable minerals development, salinity control, wildlife habitat development, livestock grazing, harvesting woodlands, off-road-vehicle use, visual resource management for Class IV lands, development of utility facilities, access development and fire management.

Unit 6 is 22,078 acres and is identified as the Gunnison Gorge Wilderness Study Area.

BLM is mandated by Congress to protect the wilderness character of the gorge until Congress decides whether or not to officially designate the area as wilderness. Oil and gas development is restricted. In addition, approximately 74 percent of the area is withdrawn from mineral entry. General off-road-vehicle use and major utilities development are also restricted.

175 acres referred to as the Gunnison Forks Wildlife Management Area in T14s R93w Sect. 31 were purchased by the Bureau of Reclamation for public recreation purposes to mitigate the loss of fish and wildlife habitat at the Blue Mesa reservoir, which is located upstream within Curecanti National Recreation Area. This land was conveyed to the BLM for management with assurances of unrestricted public access, fishery use, and intensive habitat management for wildlife. A memorandum of agreement dated March 1979 is in place between the Bureau of Reclamation and the BLM outlining the conditions for managing this property which lies at the confluence of the Gunnison and North Fork Rivers.

Most of the private lands adjacent to the GGRA are used as farm or ranch land. Where water is available to irrigate, the land is used to raise crops, small grains, or hay, or as irrigated pasture. Where water is not available for irrigation, the land is devoted to rangeland grazing. There are no major developments adjacent to the study area except for the occasional farm building or residence. At the southwest end, the study area joins federally owned land presently managed by the BLM.





# STUDY AREA RESOURCES

## NATURAL RESOURCES

### Geology

The area evaluated is located within the eastern margins of the Colorado Plateau, a physiographic province of some 150,000 square miles that is generally typified by gently dipping sedimentary rocks, high relief produced by deeply incised drainages, elevations above 5,000 feet and a semi-arid climate. Because soils are thin and vegetation is sparse in this dry region, infrequent episodes of brief but intense rainfall yield often massive runoffs of surface water. These, in concert with the more insidious chemical and mechanical effects of migrating groundwater, have eroded the nearly horizontal rock units of alternating hardness exposed in the province to create its characteristic stair-step topography.

Though the resulting erosional escarpments and benches are dominant landforms throughout the Colorado Plateau, other features often reflect the distinct influence of a local tectonic disturbance. Among these rather anomalous structures is the Uncompahgre Uplift, a long, linear bulge in the earth's crust upon which the study area is also situated.

During Mesozoic times (about 180 million years ago), sediments were laid down on the flat, eroded surface of much older rocks. The sedimentary rocks underwent periodic erosion and then were covered by volcanic flows, which subsequently were eroded away. The Gunnison River established its course, cutting downward into the relatively soft sedimentary rocks. Approximately two million years ago, as the river cut downward, the land began to gradually rise. The river, established in its course, continued to cut downward into the hard and resilient Precambrian rock.

### Paleontology

There is one known paleontological site within the study area which consists of fragments of a theropod posterior caudal vertebrae, a sauropod dinosaur rib, and numerous fragments of vertebrae and limb bones that are unidentifiable. The bone fragments occur in the Salt Wash Member of the Morrison Formation. The formation is a well-cemented sandstone, mudball and pebble conglomerate. The site was located in the early 50s by uranium exploration miners. BLM became aware of the site in 1984. This site has been classified by BLM as a Category II. Category II classifications are identified as geologic formations or parts of formations that have produced fossils of scientific value or known vertebrate localities elsewhere, thus indicating potential for the discovery of fossils of scientific value. Outcrops of the Morrison Formation and other geologic formations elsewhere may also be Category II areas.

A letter from the Museum of Western Colorado dated March 19, 1986, states, "...due to

the fact that the remains were mined, and further broken-up and disarticulated, I (Curator of Paleontology) don't believe much further paleontological work can be conducted at this locality."

## **Minerals**

The BLM holds a 25,070-acre withdrawal on lands within the Gunnison Gorge (23,791 acres Federal surface/Federal minerals; 1,279 acres private surface/Federal minerals). This withdrawal segregates the lands from operation of the general mining laws. That is, no locatable mineral developments are permitted on these lands.

Energy and mineral resources that may occur in the study area include coal, precious and base metals, clays, and sand and gravel. The Grand Mesa, Paonia-Somerset, and Tongue Mesa coal fields are adjacent to this area. Precious metals may occur as placers near Cedar Flats. Sand and gravel occurs along the Gunnison River and its tributaries.

The Gunnison Gorge WSA, which is included in Alternatives 1 and 2 for expanding the monument boundary, contains no known mineral deposits, with only a few mineralized areas. United States Geologic Survey Bulletin 1715, addressing the mineral resource values of the study area states there are subeconomic resources of gypsum in the Wanakah formation and coal in the Dakota sandstone. The entire area has low mineral and energy resource potential for copper, gold, lead, zinc, silver, uranium, and geothermal. There is no potential for oil and gas.

## **Soils**

The study area includes stony loam Torriorthent soils of variable depth and sandstone rock outcrop along the steep canyon sideslopes. The more gentle slopes above the canyon have shallow, loamy Kech and Lazear and moderately deep, loamy Progresso soils along with sandstone rock outcrop. The adobe hills west of the gorge are composed of bare Mancos shale outcrop and shallow, silty clay loam soils on the hills with deep alluvial, silty clay loam soils in the drainages. Most of the soils in the adobes are highly saline. Natural erosion rates are high for most of the soils in the area due to steep slopes and sparse vegetation cover.

## **Water Resources**

The Gunnison River, which is the most prominent water resource in the study area, is a tributary of the Colorado River, which it joins near Grand Junction, Colorado. The Bureau of Reclamation (BOR) administers a series of dams and reservoirs upstream of the Gunnison Gorge. BOR tries to maintain a minimum flow of 300 cubic feet per second (cfs) through the Gunnison Gorge. During both the summers of 1983 and 1984, flows approached 10,000 cfs through the Gunnison Gorge due to higher than normal spring-summer runoff.

A portion of the current stream flows in the Smith Fork and Crystal Creek (Red Canyon) are diverted for irrigation purposes. Springs within the study area are fairly rare, and

those that exist are not always reliable water sources. There are some reservoirs within this area primarily used for livestock operations. There is a potential for sub-surface water.

The Gunnison River, as it traverses through the Gunnison Gorge, flows perennially and is controlled by three reservoirs upstream: Crystal, Morrow Point, and Blue Mesa. The average daily flow is 1,050 cfs. Water quality is considered to be good.

## Vegetation

This area, which is in an ecological transition zone between the Rocky Mountain Forest and Colorado Plateau Province, is predominantly vegetated with pinyon-juniper and desert shrub types. On the private lands adjacent to the GGRA, there are some irrigated farmlands which produce fruit, corn, alfalfa hay and other crops.

Along the river grow some isolated ponderosa pine, grasses, poison ivy, single leaf ash, box elder, and a very few cottonwood. Most of the Gunnison Gorge and eastern uplands are vegetated with pinyon-juniper, scrub oak, mountain mahogany, grasses, and occasional cactus. The western portion of the study area is very sparsely vegetated with desert shrubs such as Mormon tea, buckwheat, and four-wing saltbush.

The endangered clay-loving buckwheat (*Eriogonum pelinophilum*) has been discovered within the GGRA boundary. One threatened plant species, the Uinta Basin hookless cactus (*Sclerocactus glaucus*), is known to occur within the study area. *Penstemon retrorsus* and Delta lomatium (*Lomatium concinnum*), candidate species, occur on shale slopes within the GGRA boundary. Barneby's columbine (*Aquilegia barnebyi*), a sensitive species, can be found within the gorge on steep shale talus slopes.

## Terrestrial Wildlife

A wide variety of terrestrial wildlife species is found within the study area. This area includes winter habitat for both mule deer and elk. A small population of deer are year-round residents within the Gunnison Gorge.

The Gunnison Gorge is historic bighorn sheep range and bighorn sheep have been reintroduced into the gorge by the Colorado Division of Wildlife (DOW). The area is habitat for mountain lion, coyote, and black bear.

A herd of feral goats was observed (1984) in the gorge, in the vicinity of the Chukar and Red Rock Canyons.

In 1977, the DOW reintroduced the river otter into the Gunnison River within the Gunnison Gorge. The river otter is on Colorado's State endangered wildlife list. The current status of the river otter population is unknown.

A wide variety of birds is found within the GGRA. The most numerous game bird species is the mourning dove, which nests in trees, bushes, and on cliff ledges. Introduced by



DOW, the Chukar partridge is a year-round resident on both sides of the gorge. Observations have revealed that the gorge serves as a resting area and refuge for thousands of ducks and geese in mid-winter. Birds of prey include prairie falcon, kestrels, golden eagles, and red-tailed hawks. The area supports a small population of turkey vultures and is historic range for peregrine falcon. It is also within the hunting range of the pair of falcons using BLCA as a nesting site. In addition, the area is heavily used by wintering bald eagles.

Several species of reptiles are found in the area; predominantly lizards and snakes.

The Oedipodine grasshopper, found in this area, is a researched example of a topographic barrier to gene flow. On the southwest side of the Gunnison Gorge, the grasshoppers have predominantly yellow wings, and on the northeast side, orange wings.

### **Aquatic Wildlife**

The Gunnison River, flowing through the Gunnison Canyon, was designated a "Gold Medal Trout Fishery" in 1982, by the Colorado Division of Wildlife. Northern pike, eastern brook, German brown, and rainbow trout are the game species found in the river. Non-game native species of suckers, dace, and chubs also exist. The Gunnison River also contains a high concentration of aquatic insects which helps with the excellent fishery resource.

### **Air Quality**

Relatively isolated from major sources of air pollution, the GGRA has air quality ranging from very good to excellent. On October 27, 1977, the Colorado Air Quality Control Act designated the Black Canyon of the Gunnison National Monument and the study area as Colorado Category I for sulfur dioxide. Under the Clean Air Act of 1977, the wilderness area of BLCA was designated a Class I area.

## **CULTURAL RESOURCES**

To date, very little archeological work has been done in the GGRA. Nonetheless, it is possible to discuss the contexts of area history in general stages, based on the recent summaries prepared for the Colorado State Historical Society: *West Central Colorado Prehistoric Context* (Reed 1984) and *Colorado Mountains Prehistoric Context* (Guthrie, Gadd, Johnson, and Lischka 1984.)

### **Paleo-Indian Stage**

Peoples of the Paleo-Indian period, dating approximately 12,000 to 7,500 years (10000-5500 BC), were the first to inhabit the region. This stage represents an efficient and enduring adaptation to terminal Pleistocene environments, characterized by small groups exploiting regional resources in a migratory lifestyle. Utilization of Pleistocene megafauna, such as mammoth and giant bison, was an important part of seasonal activities, although undoubtedly acquisition of plant resources was an important part of life as well. Paleo-



Indian material culture reflects the mobile, big-game hunting lifestyle with tool kits generally suited for animal killing and processing. Habitation structures are extremely rare, with none being reported from west central Colorado.

### **Archaic Stage**

As terminal Pleistocene environmental conditions were replaced by those more similar to today's environment, the big-game hunting tradition evolved into a lifeway that focused on plant collection and processing and on hunting a great variety of small fauna. This lifeway endured from approximately 5500 BC to AD 500 in west central Colorado, where the resources appear to have been sufficient to support a relatively large population compared to both the Paleo-Indian and the subsequent Formative stages. Isolated evidence of this stage has been documented within the region.

### **Formative Stage**

The Formative stage in west central Colorado is marked by the appearance of agriculture (probably horticulture in the GGRA) and the resultant establishment of a sedentary or semi-sedentary lifeway. About the time of Christ, there was an important shift in the economy of the inhabitants of the region that has been documented by scattered evidence of cultigens, masonry structures, and ceramics. Well-known traditions, such as the Anasazi in southwestern Colorado and the Fremont of Utah and northwestern Colorado, flourished in areas where there was the appropriate combination of reliable water and arable land. There is nothing in the National Monument or the GGRA that indicates true Formative occupation.

### **Proto Historic/Historic Stage**

Following the disappearance of the Formative stage for reasons that remain unclear, a highly mobile, Archaic-style lifeway reappeared in west central and mountainous Colorado with hunting and gathering again forming the subsistence base. This time period between AD 1200 and the appearance of what can definitely be called the Ute tradition is documented by only one site in west central Colorado (Reed 1984), which is located in the Ridgeway Reservoir project southwest of the study area.

The Ute are believed to have entered this region sometime between AD 1200 and 1400, based on linguistic and archeological evidence. However, the earliest firm evidence of Ute occupation is AD 1490, from a site in Curecanti Recreation Area. The first Euro-American observation of the Utes was during the 1776 Dominguez-Escalante expedition just to the west of the GGRA.

### **Euro-American Stage**

The 1776 Dominguez-Escalante expedition heralded Euro-American movement into the area, although use became intense only after the 1850s' gold rush. The Black Canyon of the Gunnison was discovered by two trappers in 1809 (Schroeder 1953). Permanent settlement came in the form of two forts: Fort Roubideau near Delta and Fort

Uncompahgre near Roubideau, built in the 1820s and 1830s respectively. Captain John W. Gunnison followed the Gunnison River in search of a railroad route in 1853, and by the 1880s, miners moving into the area had forced out the indigenous Ute Indians, who were removed to reservations. The GGRA contains 11 documented occurrences of root cellars, log cabin remains, privies, corrals, trails, inscriptions, sheds, trash scatters, a dam and canal, and other archeological remains of short-term Euro-American occupation.

## **ANALYSIS OF SIGNIFICANCE**

### **EVALUATION CRITERIA**

The boundary study criteria contained in the National Park Service *Management Policies* (Chapter 2:8), states that "The National Park Service will conduct studies of potential boundary adjustments and may recommend boundary revisions to include significant resources or opportunities for public enjoyment related to the purposes of the park; address operational and management issues such as access and boundary identification by topographic or other natural features or roads; and protect park resources critical to fulfilling the park's purposes. The latter two criteria are not applicable to this study since there was not a situation where there was a related issue. Primary justification for expanding the boundary would be to include significant resources and opportunities for public enjoyment related to the purpose of the park."

The "purpose" of BLCA is stated in Presidential Proclamation No. 2033 dated March 2, 1933, which established the area. This document cites the purpose as being "...for the preservation of the spectacular gorges and additional features of scenic, scientific, and educational interest.

Those resources and opportunities within the study area determined to be significant in relation to the purpose of the monument and of scientific and public interest follow.

### **SIGNIFICANT FEATURES**

#### **Geological Values**

Renowned geologist, Wallace R. Hansen, has thoroughly studied the lower gorge area and offers the following comments on its character. "This reach of the canyon shares many of the attributes of the monument, but in many ways, it is much different, particularly with respect to the sedimentary cap rocks, which are poorly exposed in the monument but are exceptionally well exposed downstream. These rocks, Jurassic and Cretaceous in age, add a scenic and geologic aspect to that part of the canyon that is essentially nonexistent in the monument.

"Both sections of the canyon, however, are integral parts of one huge physiographic entity and they complement one another rather than compete. Neither section alone tells the whole story. The whole Black Canyon is truly a world-class gorge, among the best that America has to offer the visiting public, and the geologic story is incomplete without reference to its downstream section.

"One of the most significant geologic attributes of the downstream section of the canyon is the extent and display of large-scale faulting and the relationship of faulting to the geologic history of the Gunnison uplift and the canyon itself. This concept may at first



seem abstruse, but because of the excellence of the exposure, one need not be a professional geologist to appreciate and readily grasp the meaning of the faulting. On several occasions, having pointed out the salient features, I have had the pleasure of seeing visitors' faces light up with recognition and intellectual excitement. ...One can safely say that the display of this fault zone is among the most straightforward in the United States." Refer to Appendix A.

### **Wilderness Values**

The September 1988 "Final Uncompahgre Basin Resource Management Plan and Environmental Impact Statement" has established the 21,038 acres within the lower gorge is "preliminarily suitable for wilderness designation." The area referred to as the Gunnison Gorge WSA (CO-030-388) was determined "...to be natural, and to provide outstanding opportunity for solitude and primitive/unconfined recreation." The area is therefore worthy of addition to the Wilderness Preservation System. These qualities reinforce the significance of the study area's resources.

### **National Wild and Scenic River Values**

In September of 1979, a Wild and Scenic River study was completed for the Gunnison River downstream from the point where it enters BLCA. The study covered approximately 29 miles downstream to the confluence with the North Fork.

Based on the criteria specified in the Wild and Scenic Rivers Act, it was determined that the upper 26 miles of this study area qualified for designation as a wild river. The study determined that the Gunnison is free-flowing, its length is sufficient to provide a meaningful recreational experience, it has an adequate volume of high quality water to support naturally occurring aquatic resources, its watershed and shoreline are primitive and relatively inaccessible, and its environs possess outstanding remarkable scenery, geology, recreational and wildlife values. The lower 13.5 miles of the 26-mile section determined to be eligible for inclusion in the National Wild and Scenic River System, is situated in the lower Gunnison Gorge. The 13.5-mile section beginning at the west boundary of BLCA extends downstream about 1 mile below the confluence with the Smith Fork River. This section of the river beginning at the Chukar trailhead launch site, which is situated downstream approximately 2 miles from the west monument boundary, to the confluence of the North Fork River, is the most used section of the river by floaters. This is due in part to the fact that the upstream portion contains many treacherous elements, such as major rock jams, steep stream grades, and steep-walled cliff areas. River runners in this stretch must carry their equipment over many obstacles that require technical climbing experience. The Gunnison River has also received national acclaim for its Gold Medal Trout Fishery.

### **CONCLUSION**

In conclusion, it has been determined that those resources described above are significant in relation to the purpose for which BLCA was established. Therefore, alternatives for including such resources within the boundary of BLCA were developed



and are presented herein.

Furthermore, considering (1) the significant resources involved, (2) the exceptional opportunity to expand and interpret ecological components and geological features, (3) the superlative opportunity for recreation and scientific study, (4) the high degree of integrity offered as a true, accurate, and relatively unspoiled example of a resource, and (5) the relationship of the subject lands to BLCA if the lands within Alternatives 1 or 2 were added to the monument, there would be justification for considering national park status for an expanded unit of the National Park System.



## **ALTERNATIVES FOR MANAGEMENT**

### **BASIS FOR FORMULATING ALTERNATIVES**

Considering the interest in the general area by the BLM and the NPS, in view of the values the area offers in complementing existing Federal ownerships and management programs, alternatives for management were narrowed down to only those involving the two Federal Agencies. This rationale is further reinforced by the fact that both Agencies are represented locally with supporting infrastructure essential to properly and effectively administer the area. For the same reason, it was also determined there would be no real advantage in designating the lands as being under the administration of one Federal Agency yet managed by the other. Furthermore, each Agency is currently managing similar resources nationwide.

The primary area of concern as reflected in the legislative mandate to conduct this study involves the Gunnison River Gorge area downstream from the monument boundary. As indicated in the Analysis of Significance section of this document, the first responsibility in developing alternatives for boundary expansion is to determine if significant resources are present that relate to the purpose for which a park unit was established. Upon making such a determination, boundary alternatives developed to include such resources should also reflect any additional lands needed to properly administer the resources as well as provide for visitor use.

Based on the preceding, it was determined that only those lands included in Alternatives 1 and 2 of this document actually qualified for addition to the monument. This rationale is further reinforced from the standpoint that there is an extensive and diverse multiple use interest particularly in those lands adjacent to the boundaries identified in Alternatives 1 and 2. Such interest included development of oil and gas resources, 188 mining claims, community borrow pits (bentonite), salinity control projects, water impoundment for livestock, extensive semi-primitive and primitive roads which have invited use by off-road-vehicles (ORVs), off-trail-motorcycles, and touring bicycles. Extensive use of firearms is also evident in vandalism to signs and other forms of property. In comparison to those lands included in Alternatives 1 and 2, the adjacent lands also represent the most accessible and productive for supporting grazing activities.

Considering these factors, the NPS, with assistance from BLM, has identified three alternatives for the management of those lands within the study area. In general, Alternatives 1 and 2 represent modification to the boundary of BLCA, which would include all of the Lower Gunnison Gorge area. Alternative 3, represents management by the BLM. Alternative 3 also identifies two management options for the BLM.

In alternatives where the boundary of the national monument is modified to include other lands, a determination was made that the added lands would be feasible to administer considering the size, configuration, ownership, cost, outside threats, and other factors that would possibly impact management and administration of the subject land. All evidence

indicates that through normal actions such as fencing, signing, routine patrols, and interagency coordination, the alternatives, as presented, could be easily administered with minimal impacts on visitor use, staffing and funding levels for each Agency involved. For those alternatives involving expansion of the monument boundary, additional planning would be required to assure appropriate access, determine development needs, and provide effective information and orientation services. A general management plan would be completed should the monument boundary be expanded. Should the area be designated a National Conservation Area, the BLM would complete comparable plans for management.

In cases where the boundary of the national monument is expanded, it is assumed that existing, adjacent land uses will continue at the same levels and not be perceived as a threat to the lands added to the monument. It is also assumed that should BLM make significant changes in the management of adjacent lands, such actions will be preceded by appropriate public involvement.

Each alternative boundary and the proposed management of the lands within must be evaluated on a case-by-case basis. The matrix included in Appendix B was prepared to simplify the comparison of the alternatives.

## **ALTERNATIVES**

In the following presentation of alternatives, Alternatives 1 and 2 represent additions to Black Canyon of the Gunnison NM. The justification and formulation of these two alternatives are based on the rationale as presented in the previous section, *ANALYSIS OF SIGNIFICANCE*. Alternative 3 represents two BLM management options.

### **ALTERNATIVE 1**

#### **Description**

This alternative provides for expanding the boundary of Black Canyon of the Gunnison National Monument. The expansion as indicated in Figure 3 would be an increase of 25,170 acres, which would include approximately 627 acres of private land. The expansion would bring the total monument acreage to 45,936. The expansion delineated by section lines would extend from the west and northwest boundary of BLCA north to State Highway 92. The boundary would include approximately 95 percent of the Wilderness Study Area identified by BLM and sufficient lands either side of the WSA to provide for adequate resource protection and visitor use.

#### **Analysis of Alternative 1**

**General.** The NPS would manage all of the lands and portions of river corridors acquired. This alternative would change the management concept of the area involved from one of



multiple use and preservation of wilderness characteristics by BLM, to one based on preservation by NPS, which excludes some uses.

Unless specifically provided for by Congress through enabling legislation, the NPS would preclude uses inconsistent with the preservation of natural and cultural resources or those which would conflict with visitor use and enjoyment of the area. Based on the preservation concept, uses such as grazing, hunting, mining and mineral developments, wood cutting, ORV use, etc., would be eliminated. The Federal Government would be required to make just or fair compensation for all mineral or grazing rights acquired.

Should the lands included in this alternative eventually be added to the monument and Congress initiate action to change the status of the monument to that of national park, there would be no difference in the manner in which the area would be managed. This is also basically true with regard to NPS lands established as wilderness. The primary emphasis placed on lands designated as wilderness is to preserve the resources of an area in their natural condition. Lands designated as wilderness are primarily more restrictive with regard to certain types of developments and uses. Appendix B provides further clarification on restrictions associated with lands designated as wilderness.

**Water Resources.** The issue concerning water rights implications related to expanding the monument boundary to include the Gunnison River are secondary in that the decision to embrace or reject such rights rests with elected representatives who introduce the enabling legislation that would address such rights (refer to Appendix C). It does not appear as though this alternative would have any effect on in-place upstream water developments.

**Development Needs.** Considering the primitive character and scenic values recognized in the area, facility development (i.e., roads, visitor and administrative facilities) would be very minimal. Considering the lands north and adjacent to the confluence of the North Fork and Gunnison Rivers as an exceptionally important visitor use area, it would be worthwhile to provide adequate facilities for visitor use and administration of the area. Decisions, however, on the need, type, extent, and specific location of any supporting visitor/administrative facilities would be addressed in a General Management Plan/Development Concept Plan for the added lands. Such planning would commence only after the United States Congress authorized expansion of the monument boundaries. All Federal, State, and county Agencies as well as interested individuals and special interest groups would be encouraged to participate fully in the preparation of such planning documents, during the public meetings held to discuss these issues.

**Interpretation.** BLCA is currently isolated from those resources determined not only to be nationally significant, but also a missing element in the interpretation of the geologic process associated with the monument. This alternative would permit adjustments of the monument boundaries to include such resources, thus affording enhanced opportunity for direct interpretation of the total geologic process associated with BLCA.

**Wilderness/Scenic River Values.** Those lands recommended for wilderness as well as the 13.5-mile Gunnison River Corridor recommended for inclusion in the Wild and Scenic

Rivers System, would be managed to protect such values regardless of congressional action to formally designate the area as wilderness or as part of the Wild and Scenic Rivers System and would be under NPS administration. This alternative would place the entire 26 miles of the wild and scenic river under the management of one Federal Agency, the National Park Service.

**Land Tenure.** Under NPS administration, the private lands included in the alternative could be acquired through donation, exchange, or purchase. The NPS would place a high priority on acquiring private lands within the boundary where on-going or proposed use would pose a threat to park resources or visitor use and enjoyment. Those of high priority would include lands that block or make visitor access unreasonably difficult or those which, if developed, would create dominant, negative visual impacts that would detract from the visitors' experience and the natural setting. In cases where scenic or access easements would be adequate, such options would be considered. The Federal Government would also be required to make just and fair compensation for all lands acquired. The NPS is committed to overseeing efforts to insure long-term protection of the resources as well as considering the interest of individual landowners within and adjacent to NPS administered lands. Acquisition of the private lands involved under this alternative would also have a very slight impact on the county tax base.

**Cultural.** The paleontological and archeological resources will be protected, preserved and developed for public enjoyment, interpretation, and scientific research in accordance with park management objectives and approved resource management plans. Research by the academic community will be encouraged and facilitated under the terms of a research permit, providing it meets certain requirements as identified in the NPS *Management Policies*.

**Grazing.** Alternative 1 would include portions of grazing allotment numbers 4017, 5001, 5002, 5007, 5008, 5017, 5020, 5022, and 5023. These allotments represent a total of 6,413 animal unit months (AUMs). Should Alternative 1 be implemented and grazing ultimately phased out, such actions would reduce the total acreage of public land represented in the above allotments (96,235) by 17,685 acres. This would reduce Federal revenues by \$973.00. The value of such AUMs to ranchers would be \$15,660. Refer to Appendix D.

**Wildlife.** A majority of the area included in this alternative contains winter habitat for elk, mule deer, and bald eagles. A portion of the area, approximately 10-15 percent, represents "critical winter range" for mule deer. Cessation of hunting for this species may reduce the ability to control wildlife numbers, resulting in damage to adjacent private lands. The Colorado Division of Wildlife is currently responsible for reimbursing landowners for such damage and for controlling length of seasons and bag limits that have a great effect on game numbers and associated impacts.

Emphasis would be placed on minimizing human impacts on natural population dynamics within the area.

Sixty bighorn sheep were introduced into the area with plans to place 20 additional sheep



during the winter of 1989. Part of the plan for managing the species includes recreational hunting. A portion of this introduced herd has migrated into the present monument and is protected.

**Threatened and Endangered species.** The National Park Service will identify, monitor and manage threatened and endangered or candidate species in their critical habitats. Active management programs, usually in cooperation with other Agencies, will be initiated to perpetuate natural distribution and abundance of T&E species and ecosystems on which they depend.

**Mining and Minerals.** There are approximately 22 placer mining claims located within the area identified as Alternative 1. Most of these claims (13) are 160 acres in size, with the remaining varying from 20 to 80 acres (4 claims - 80 acres each, 2 claims - 40 acres each, and 3 claims -20 acres each) for a total of 2,540 acres covered by mining claims. Presently 18,989 acres of land are withdrawn from locatable mineral entry by a protective withdrawal and the remaining 6,181 acres are open to mineral entry.

All Federal lands acquired under this alternative would be closed to future interest in mineral resources and appropriate actions would be taken to acquire outstanding interest where such interest would be inconsistent with NPS management. All mineral interest within Alternative 1 are federally owned with the exception of a few acres associated with private inholdings.

**Utilities.** Certain lands in the Gunnison Forks area have been identified by BLM as "...open to but not preferred for development of new major utility development if there are no feasible alternatives." These openings would most likely be eliminated. Such developments as a rule are discouraged in NPS units. Any existing utility developments would be honored but efforts would be made to minimize the potential impacts of the existing and future utility needs that might be approved.

**Recreation.** Those lands identified as the Gunnison Forks Wildlife Management Area (approximately 175 acres) would continue to be managed as a wildlife reserve or refuge. Access to the area for traditional NPS forms of recreation (fishing, picnicking, float trips, etc.) would continue. As previously stated, however, the area would be closed to hunting. The Gunnison River would continue to be managed for its resources as a "Gold Medal Stream" and "Wild Trout Waters." This alternative may also close approximately 5,800 acres of Federal land currently listed as open on a limited basis to ORV use, on established roads and trails in the Gunnison Forks area.

**Socioeconomic.** Preliminary estimates indicate Alternative 1 would require an annual funding increase of approximately \$68,600 in the budget for BLCA to administer those lands which would be added to the monument. Such costs would be subdivided as follows:





section.

## Analysis of Alternative 2

**Grazing.** This alternative includes the same grazing allotments as Alternative 1, however, it only represents a 16,203-acre reduction in public lands available for grazing should enabling legislation preclude grazing as an acceptable use. Such action would constitute a reduction of 510 AUMs. This would equate to a reduction of \$869.00 in Federal revenues. The value of such AUMs to ranchers would be \$13,980, based on \$30.00/AUM. Refer to Appendix D.

## Mining and Minerals

The same conditions listed under Alternative 1 apply here, except for a change in acreage. Under this alternative, 17,916 acres are withdrawn from locatable mineral entry and 6,374 acres are open.

**Socioeconomic.** The boundary that represents Alternative 2 is delineated by a combination of land lines and topographic features. By taking advantage of natural features, there was a slight decrease (9 percent) in the number of acres impacted. The difference in socioeconomic impacts between Alternatives 1 and 2 are insignificant. In summary, these impacts are as follows:

| ACTIVITY       | VALUE     |
|----------------|-----------|
| Hunting        | -\$2,200  |
| Forestry       | N/A       |
| Grazing        | *-13,980  |
| Mining         | -500      |
| Tourism gain** | **+50,000 |
| Net benefit    | +\$33,320 |

This summary is based on a more detailed assessment included in Appendix E

\*Value to rancher, not revenue to government.

\*\*Conservative 1 percent increase.

## ALTERNATIVE 3

### Description

This alternative represents the same geographic area described as the Gunnison Gorge Recreation Area, which encompasses 64,139 acres (refer to Figure 3). The Uncompahgre Basin Resource Management Plan and Record of Decision (RMP/ROD) approved on July 26, 1989, divided the GGRA into Units 4 and 6. The management of these units are

covered under a more detailed Recreation Area Management Plan. Unit 6, which contains 22,078 acres of public land, represents the Gunnison Gorge WSA (CO-030-388). Unit 4, which contains 40,792 acres of public land, represents the remaining area within the GGRA. (Reference Figure 3.)

The BLM has also identified two options to place special designations on the management of the GGRA (Units 4 and 6). These designations are *Gunnison Gorge Special Recreation Management Area (GGSRMA)* (existing management) and *Gunnison Gorge National Conservation Area (GGNCA)*. These designations essentially represent a change in name and management presence only. The GGSRMA designation is the same as existing management, which is described in the Uncompahgre Basin Resource Management Plan and Record of Decision. Neither of these special designations would effect the current Wilderness or Scenic River recommendations.

The Analysis of Alternatives section below describes the management strategies that would be implemented for the GGRA under the designation as the GGSRMA or GGNCA. The management strategies are also subdivided depending on whether they apply to the Wilderness Study Area (Unit 6) or those lands outside the WSA (Unit 4), but within the GGRA.

### **Analysis of Alternative**

Some of the resource management programs will be standard regardless of special designations placed on the overall GGRA or units within. Unless changes in, or additions to standard management directions are specifically addressed under Option A or B below, the following standards will apply.

**Air Quality.** Activities and projects on public land will comply with applicable local, State, and Federal air quality regulations. Mitigation to minimize air quality degradation will be incorporated into project proposals as appropriate.

**Coal.** Federal coal estate will be identified as acceptable for further leasing consideration.

**Oil, Gas, and Geothermal Resources.** Federal oil, gas, and geothermal estate on both Federal surface and split-estate lands will be open to leasing with standard lease terms. Other conditions for leasing, such as no surface occupancy and seasonal stipulations are assigned in each management unit prescription; special stipulations and conditions also apply to Federal surface and split-estate lands. Any special stipulations (i.e., seasonal closures) prescribed for a management unit will also apply to seismic and drilling activities.

Resource information for split-estate lands, upon which the recommended stipulations are based, has not been verified by the BLM. Verification will occur during review of Applications for Permit to Drill (APDs). On-site inspection and consultation with the surface owner and operator may reveal that (1) the impacts addressed by the stipulation will be avoided or mitigated to an acceptable level, or (2) the resources of concern are not

present. Upon either of these determinations by the Authorized Officer, the stipulations can be waived, modified, or excepted without public notice, other than that provided for the APD. Consultation with the surface owner also requires the consideration of private uses of the surface. If, after on-site inspection and consultation, it is determined by the Authorized Officer that conditions necessary to avoid impacts to private resources would adversely impact the public resources addressed by these stipulations, the impacts will be assessed. If, based upon such assessment, the Authorized Officer makes a decision to substantially change or waive one or more stipulations, a 30-day public review period will be provided in addition to the public notice period for receipt of the APD. (These two 30-day notice and review periods may overlap.)

**Soils and Water Resources.** Water quality and erosion conditions will be inventoried and monitored. Measures designed to minimize erosion and water quality deterioration will be required in site specific plans for surface-disturbing land use activities. The area will be open to land treatments and development of in-channel structures and project facilities.

**Riparian/Aquatic Systems.** Riparian zones and aquatic habitats will be inventoried and monitored where necessary to provide information to determine proper management. Vegetation conditions and streambank cover will be maintained or improved. Measures designed to minimize site-specific riparian and aquatic deterioration will be required in site specific plans for surface-disturbing land use activities.

**Threatened and Endangered Species.** Threatened and endangered species and unique plant associations will be inventoried and monitored where necessary to provide information to determine proper management. Clearances will be conducted on all proposed surface-disturbing activities and the U.S. Fish and Wildlife Service (USFWS) will be consulted as required. Measures designed to protect threatened and endangered species and their habitat will be required in all land use activity plans. Supplemental releases and reintroduction of Federal- and State-listed endangered, threatened, and candidate species may be authorized following environmental analysis and consultation with the USFWS, the Colorado Division of Wildlife, and other affected parties.

**Wildlife Habitat.** Wildlife forage allocations will remain at current levels until studies determine adjustments are needed to achieve management objectives. Additional forage allocations will be divided equally between wildlife and livestock grazing. Wildlife habitat monitoring studies will be established and/or maintained on all crucial winter ranges. The planning area will be open to land treatments and project facility development. Existing wildlife facilities and treatments will be maintained. Supplemental releases and reintroduction of native or naturalized fish and wildlife species (excluding Federal- or State-listed endangered, threatened, or candidate species) may be authorized by the District Manager following environmental analysis.

**Livestock Grazing.** Suitable public lands will be available for livestock grazing use. Livestock utilization will be managed at current forage allocation levels until studies indicate adjustments are needed to achieve management objectives. New or additional available forage will be divided equally between livestock and wildlife. Existing livestock



facilities will be maintained. Existing allotment management plans (AMPs) will be updated as needed and new AMPs will be developed. New livestock facilities and land treatment projects will be developed if needed to achieve AMP objectives. Vegetation condition and trend monitoring studies will be established and/or maintained. Maximum sustained livestock utilization levels of key forage species will be 50 percent. Allotment categorization will determine management and monitoring intensity.

**Forestry.** Suitable commercial forest lands and pinyon-juniper woodlands will be managed for sustained yield production within the allowable cut restrictions determined by the Timber Production Capabilities Classification (TPCC) inventory.

**Recreation.** Public lands will be managed for extensive and diverse recreational use.

**Cultural Resources.** Cultural and historical sites will be inventoried. Clearances will be conducted on sites of all proposed surface-disturbing activities. Measures designed to protect cultural and historical resources will be developed in consultation with the Advisory Council on Historic Preservation and the State Historic Preservation Officer and will be required in all land use activity plans.

**Paleontological Resources.** Paleontological resources will be inventoried and appropriate protective measures will be developed if necessary.

**Powersite Withdrawals.** Pending determination of potential, existing powersite withdrawals will be maintained. These lands will not be subject to further consideration for disposal. No significant long-term investments will be made on these lands unless the investment could be recovered prior to development.

**Access.** In addition to the specific access needs identified in the management unit prescriptions, the access needs identified in the resource area's transportation plan will be acquired as opportunities arise.

**Fire Management.** Any fire which occurs in a fire use category area before a prescribed burn plan is approved, or which is not within the limits of the prescription, or which threatens life of property, will be suppressed as a conditional suppression area fire.

## **Option A - Gunnison Gorge Special Recreation Management Area (Existing Management)**

### **Wilderness Study Area (Unit 6)**

**General.** The WSA, totalling 22,078 acres, will be recommended as preliminarily suitable for wilderness designation. Until a final congressional decision on wilderness designation or non-designation is made, the Gunnison Gorge WSA will be managed according to the Wilderness Interim Management Policy and the Gunnison Gorge RAMP. If designated as Wilderness by Congress, activities and land uses that are consistent with preserving the natural condition and wilderness character of the area would be permitted.



The management unit would be managed within Federal air quality Class II guidelines unless the State of Colorado reclassifies the area, or other areas, as a result of procedures prescribed in the Clean Air Act as amended in 1977. Under other State authorities, the Gunnison Gorge WSA is currently managed as a Category I area where more restrictive sulfur dioxide requirements apply.

**Oil and Gas.** Federal oil and gas estate would be closed to future leasing. There are no pre-Federal Land Policy and Management Act (FLPMA) leases in the WSA. Development of any post-FLPMA leases would be permitted only if activities would result in no impairment of wilderness characteristics.

**Locatable Minerals.** The management unit would be closed to mineral entry and location except for pre-FLPMA claims determined to have valid discoveries. The majority of the area (74 percent) is presently withdrawn from mineral entry and location. This withdrawal will be recommended for retention.

**Mineral Materials.** The management unit would also be closed to disposal of mineral materials.

**Soil and Water Resources.** Where natural recovery is unlikely, deteriorated watershed conditions would be restored if life, property, or wilderness values are threatened, or if serious depreciation of important environmental qualities outside the wilderness area is evident. Revegetation efforts would be limited to use of native or naturalized species. Whenever feasible, non-motorized access and project development methods would be required. Approval of the BLM Director would be required for all watershed restoration projects.

**Threatened and Endangered Species.** Threatened and endangered species research and habitat improvement would be permitted if activities are consistent with protection of wilderness values. Habitat would be managed for federally listed bald eagles and peregrine falcons and State-listed river otters. Recreation use would be restricted if necessary for the protection of threatened and endangered species.

**Wildlife Habitat.** Wildlife habitat would be managed to allow for natural distribution, numbers, and interaction of indigenous wildlife and fish species. Developed facilities, if necessary for the continued existence or welfare of a wildlife species, would be permissible if wilderness characteristics would not be impaired. Bighorn sheep habitat and deer and elk winter range would be managed in cooperation with the Colorado DOW. Supplemental releases of bighorn sheep would be permitted as identified in the 1986 reintroduction plan or its future amendments.

**Livestock Grazing.** Livestock grazing and facility maintenance would be managed at levels and conditions established prior to wilderness designation. New rangeland improvements would be permissible if determined to be necessary for rangeland and/or wilderness protection.

**Forestry.** Woodland harvest and/or management would be permitted only for control of insects and disease if determined necessary to protect resources outside the management unit. There is a total of 337 acres of productive woodlands within the WSA that would be unavailable for harvest.

**Recreation.** Recreation use would be regulated as necessary to protect wilderness values. Highest priority would be given to low-impact recreation activities that could not be accommodated outside the wilderness environment. Opportunities for non-motorized recreation in a predominantly natural environment would be maintained. Facilities, improvements, and signs would be limited to those necessary to protect wilderness resources along with public health and safety. Permits would be required for all commercial recreation uses and, if necessary to protect wilderness values, for all non-commercial recreationists. Hunting, fishing, and recreational trapping would be permitted.

The river corridor would be managed to maintain very low human group concentrations and little overall evidence of human use. River-boating use would be limited to six to ten group encounters per day with no more than two (as per the 1988 Gunnison Gorge RAMP) commercially outfitted trips allowed per day. Allocations between private and commercial river-boating use would be made if necessary to protect wilderness values or to emphasize opportunities for specific recreational experiences such as self-reliance as opposed to guided and outfitted experiences.

**Off-Road Vehicles.** Vehicle use in general would be eliminated from the management unit. Vehicle use would be permitted in certain circumstances involving valid existing rights, livestock grazing, fire suppression, life-threatening emergencies, and wilderness area administration. The rugged canyon area has few vehicular access routes.

**Cultural and Paleontological Resources.** In most instances, cultural and paleontological resources would be subject to the forces of nature in the same manner as other wilderness resources. Study or management would not entail excavation, stabilization, or interpretation. Exceptions may be granted by the BLM State Director for unusually significant cultural or paleontological resources.

**Visual Resources.** The management unit would be managed under VRM Class I guidelines.

**Major Utilities.** The management unit would be closed to development of utility facilities. The area is not within the lands identified as needed for future major utility development in the 1980 and 1985 Western Regional Utility Corridor Study(s).

**Hydroelectric Developments.** Several hydroelectric projects have been proposed for development on the Gunnison River which would be within or affect the WSA. Protective withdrawals have restricted major on-the-ground evaluations by the proponents. The existing powersite reserves and BOR withdrawals affecting the Gunnison Gorge would be recommended for revocation. However, the final determination on the status of these withdrawals will be made by the President and Congress. Congress could elect to establish Wilderness and yet retain power of withdrawal, giving them the prerogative to

later develop for water and power purposes.

**Access.** Public access to the WSA boundary in the Red Canyon area would be identified for acquisition.

**Agriculture Development.** No agricultural or related development would be permitted within the management unit. The BLM would recommend revocation of the portion of the BOR Fruitland Mesa withdrawal that is within the WSA.

**Fire Management.** A total of 21,038 acres would be managed under the fire-use category where fire would be utilized as a management tool. Only natural ignitions meeting pre-determined prescriptions would be allowed in this area.

#### **Lands Adjacent to WSA but within GGSRMA (Unit 4)**

40,792 acres of public surface; 8 percent of the planning area.

Management Unit 4 consists of the 40,792 acres of public lands surrounding the Gunnison Gorge.

Maps, interpretive materials, and facilities will be developed. Recreation use will be monitored and possibly restricted as necessary to protect natural features and recreation opportunities.

Lands in the Peach Valley area (15,610 acres) will be managed for ORV recreation opportunities. A minimum of restrictions would be placed on surface-disturbing activities and a high concentration of recreation users will be permitted within this area. Motorized access to the remainder of the management unit (25,182 acres) will be limited to designated roads and trails, the majority of which are primitive in character. This area will be managed to maintain a predominantly natural environment with low but evident human concentrations and impacts.

**Oil and Gas.** Federal oil and gas estate will be open to leasing. A seasonal stipulation on seismic and drilling activities will be in effect from December 1 through April 30, on crucial deer and elk winter range (8,077 acres of Federal surface and 280 acres of split-estate). Variances in this seasonal restriction may be granted.

**Locatable Minerals.** Federal mineral estate will be open to entry and location. The BLM protective withdrawal (PL 5261; September 15, 1972) will be revoked and the BOR withdrawal on Fruitland Mesa will be recommended for revocation. Revoking these mineral withdrawals will allow for mineral exploration and development, facilitate resource management, and permit long-term land use planning.

**Mineral Materials.** Federal mineral estates will be open to disposal of mineral materials.

**Soils and Water Resources.** The Elephant Skin Wash salinity control project will be maintained to reduce saline runoff. Elephant Skin Wash will be protected from surface-



disturbing activities.

**Wildlife Habitat.** Bighorn sheep habitat in the Smith Fork Canyon (2,250 acres) will be monitored and protected. Activities and land uses that are consistent with maintaining the necessary forage and isolated habitat requirements of bighorn sheep will be permitted.

**Livestock Grazing.** Livestock grazing will continue at current forage allocation levels and seasons of use unless studies indicate that adjustments are needed. The 140-acre Gunnison Forks habitat management area will remain unallotted for livestock grazing. Livestock forage utilization will be limited to 35 percent in the Elephant Skin Wash area (2,370 acres) if necessary to protect soils by maintaining an optimum basal ground cover.

**Forestry.** A 1,255-acre portion (in the Black Ridge area) of the 2,500 acres of harvestable woodlands within the management unit will be available for harvest. This area will be closed to harvest from December 1 through April 30, to protect crucial deer and elk winter range. The remaining harvestable woodlands (1,245 acres) will be closed to harvest.

**Off-Road Vehicles.** A total of 15,610 acres in the Peach Valley area will be open to ORV use. To protect natural and scenic values, vehicle use in the Elephant Skin Wash area and the remainder of the management unit will be limited to designated roads and trails yearlong.

**Visual Resources.** The 15,610 acres open to ORV use will be managed under VRM Class IV guidelines.

**Major Utilities.** A total of 2,462 acres in the Smiths Mountain and Gunnison Forks areas will be open to, but not preferred for, development of new major utility facilities. These lands may be utilized for major utility development if there are no feasible alternatives. The remainder of the management unit will be closed to new major utility development to protect natural and scenic values.

**Acquisition of non-Federal lands.** Actions will be initiated to acquire 2,200 acres of non-Federal lands as identified in the Gunnison Gorge Recreation Area Management Plan, that are necessary to facilitate public access and enhance recreational values.

**Access.** Public access will be acquired along the Gunnison Gorge rim southwest of the Gunnison Forks and from Colorado Highway 92 to the Gunnison River in the Austin area for recreation purposes.

**Fire Management.** A total of 26,070 acres of public land will be managed under the fire suppression category and identified as conditional suppression areas. A total of 14,722 acres will be managed under the fire-use category where fire will be utilized as a management tool. Planned or natural ignitions meeting pre-determined prescriptions will be allowed on these areas.

For more detailed information concerning the existing management of Units 4 and 6, contact the BLM area or State office.





within the area (i.e., grazing, hunting, etc.). Should Congress designate wilderness, such action would draw attention to the area. An effective marketing program could draw further attention to the area and result in an increase in visitation. These increases in visitation would result in an economic benefit to the region.

## **PUBLIC INVOLVEMENT AND COORDINATION**

### **GENERAL OVERVIEW**

During January 1989, the NPS prepared and completed a review of the draft task directive for conducting this study. The BLM assisted the NPS in formulating and reviewing the task directive, which was approved in February 1989.

During the week of January 23, 1989, public meetings were conducted in Fruita, Montrose, Grand Junction, Delta, and Glade Park, Colorado, to explain the study process and hear public comments and concerns relative to the project and study area. In preparation for these meetings, over 1,400 brochures were distributed to potentially interested individuals, special interest groups and various Federal, State and local Agencies. News releases were distributed to over 200 public media outlets. The BLM also assisted the NPS in developing a list of potentially interested individuals, special interest groups, and other Federal, State and county Agencies by providing information from their public involvement files.

A total of approximately 225 people attended the meetings, in which both the Black Canyon and Colorado National Monument studies were presented.

In July 1989, the NPS also published a newsletter informing the public of the status of the studies.

On October 6, 1989, over 700 copies of the document were distributed to those who had expressed an interest in the study. The study documents were transmitted under cover letter, which identified the dates for the public involvement meeting and deadline for responding with review comments. News releases announcing the availability of the document and scheduled public involvement meeting were also provided to various forms of news media. These releases also identified the final date for submission of comments.

Thirty-one days following the distribution of documents, public meetings were conducted. These included meetings in Delta, and Montrose, Colorado, on November 8, and 9 respectively. A special presentation was also made on November 9, to a local committee appointed by Congressman Ben Nighthorse Campbell.

The primary purpose of these meetings was to explain the results of the study and respond to public questions and concerns. A total of approximately 148 people attended the meetings, and approximately 82 formal written responses were received as a result of the public involvement process, which terminated on November 20, 1989.

Following the termination of the public review period, the NPS began evaluating comments. This also involved an additional meeting with the BLM, where each comment was reviewed and discussed and appropriate revisions incorporated into the document.

## **SUMMARY OF COMMENTS**

Generally the comments and public statements fell into three categories, which included: (1) continued BLM management under multiple use concepts, (2) management by the NPS and changing status of monument to National Park, and (3) general comments, which expressed no preference for Agency management, but dealt with management and planning concepts in general. Categories are discussed in more detail below.

### **Continued BLM Management**

A number of individuals or groups preferred the multiple use management concept with the comments favoring a wide range of protection, from as little government control as possible and no restrictive designations (i.e., no wilderness, wild and scenic river, or conservation area) to the most restrictive, which would be wilderness designation.

The largest group of individuals who conditionally supported BLM management were the users of ORVs, who had circulated several petitions soliciting signatures in support of BLM and continued ORV use on lands presently open to this activity. This group was concerned that converting the lower gorge to NPS management would jeopardize their access to recreational lands, such as the Adobe Badlands, Peach Valley and the Flattop area, which actually lie outside the NPS boundaries for expansion identified as alternatives 1 and 2. Since this concern is beyond the scope of this study, we recommend ORV users opposed to expansion of the monument because of a threat of losing the above-referenced recreational lands, should concentrate their efforts with BLM to assure this activity will continue whether or not the park expansion takes place.

The Colorado Division of Wildlife was opposed to park expansion and favored continued BLM management so their programs of hunting and enhancement of wildlife habitat could continue. The Division also was concerned that increased big game numbers in the expanded monument could increase the potential for them to pay game damage on private lands in Bostwick Park, Peach Valley, Fruitland Mesa and the North Fork Valley. The Rocky Mountain Bighorn Society opposed the inclusion of the area to the monument, as it would preclude certain big game management activities, such as water hole construction and habitat enhancement. The Division of Wildlife also has an interest in establishing a viable herd of Rocky Mountain Bighorn Sheep for recreational enjoyment, including sport hunting and pleasure viewing in the lower gorge area.

The Department of Natural Resources favored a National Conservation area designation. The city of Delta supported the Designation of Black Canyon as a National Park, but suggested it should be done without adding the BLM lands to the existing monument. The DOW and a few individuals commented that the figures listed in the study for economic values of hunting were too low and should be increased to the level recommended by the Division of Wildlife studies.



## **Management by NPS and Change Status of Monument to National Park**

A number of commentators or groups expressed a preference for expanding the present monument as described for alternative 1 or 2 and designation of the larger area as a National Park. The Montrose Visitor and Convention Bureau, the Montrose Chamber of Commerce, the City of Montrose, and the Montrose County Commissioners recommended that alternative 2 be adopted with a modification that would place the west boundary line approximately 1,000 feet west of and paralleling the canyon rim. The NPS feels this is a logical and feasible recommendation. Furthermore, a similar modification may also be an appropriate alternative along the east boundary side of the canyon rim. Neither of these modifications would jeopardize the potential for a change in status to National Park.

The Paonia Chamber supported National Park Service expansion and recommended an access to the monument between Delta and Hotchkiss. The motel and restaurant association endorsed the expansion of the monument and change in status to National Park for the expanded area. The Land and Water Fund of the Rockies supported the designation of the Gunnison Gorge as a wilderness area and the transfer of this wilderness to the Park Service with a redesignation as National Park. The National Parks and Conservation Association supported the expansion of the monument and redesignation as a National Park. They also stressed the Gunnison Gorge should be designated as a wilderness to protect the unique values of the area.

## **General Comments**

Several individuals or groups expressed no preference for BLM or NPS management of the study area. A number of people were concerned with what would happen to the ORV lands adjacent to the proposed Black Canyon addition. The faculties and students of the Montrose High and Centennial Junior High schools wanted the area around Flattop and Unit 4 of the GGRA open for continued ORV use. This comment also came from two individual responders. Trout Unlimited did not have a preference for BLM or NPS as long as the area was protected as a National Park or wilderness area and the outstanding fishery continued. A representative of the Colorado Environmental Coalition commented that in their opinion, the document should not have been considered a categorical exclusion of the National Environmental Policy Act of 1969, and therefore, they felt the document was inadequate and they needed additional information before they could make a decision. Other comments included support for a Black Canyon National Park, without acquiring additional land to achieve this status; need for harvest of deer in the area around the gorge; and the National Park Service should recognize the prior rights associated with the AB Lateral hydropower facility. The Colorado Natural Areas Program and the Office of the State Engineer had no preference for management of the area.

The NPS was asked if it would be possible to just change the national monument status to that of national park without any additional resources being added. To be able to simply change the status of an area without justification and for the sake of giving it "greater status" would jeopardize the credibility of the concept for recommending status. Furthermore, such action and flexibility would in itself degrade the very meaning and

importance of status and negate any benefit derived from changing to national park status.

An area that qualifies for national park status represents an area that contains a *multitude* of resources, all of which have been determined to be nationally significant. These various resources are individually identified in the enabling legislation. In contrast, Black Canyon of the Gunnison National Monument was established and designated as a monument primarily in view of its "spectacular gorges". Therefore, BLCA was established and given status as a national monument due to a single nationally significant resource that drew attention to it. In the opinion of the NPS, the existing monument does not contain the diversity of nationally significant resources and recreational opportunities essential for justifying a change to national park status.

The Uncompahgre Basin Resource Area BLM office also provided a 16 page review of the document. This review contained suggested changes to correct some of the inconsistencies they thought the draft document contained. Representatives from the National Park Service Regional Office and the Monument met with BLM officials and discussed comments and made appropriate revisions in the study document.



## United States Department of the Interior

GEOLOGICAL SURVEY  
 BOX 25046 M.S. 913  
 DENVER FEDERAL CENTER  
 DENVER, COLORADO 80225

TAKE  
 PRIDE IN  
 AMERICA

REC  
 BLACK CANYON

FEB 21 1989

February 16, 1989

IN REPLY REFER TO:

Mr. John E. Welch  
 Superintendent  
 Black Canyon of the Gunnison National Monument  
 P.O. Box 1648, Highway 50 East  
 Montrose, Colorado 81402-1648

Dear Mr. Welch:

Thank you for inviting me to respond to your letter of February 3 and to express my views about the reach of the Black Canyon downstream from the monument boundary to the North Fork. My views are about the same now as stated in my July 1967 article in National Parks Magazine. That article was reprinted in the Congressional Record at the request of the late Senator Peter Dominick of Colorado. This reach of canyon shares many of the attributes of the monument, but in many ways it is much different, particularly with respect to the sedimentary cap rocks, which are poorly exposed in the monument but are exceptionally well exposed downstream. These rocks, Jurassic and Cretaceous in age, add a scenic and geologic aspect to that part of the canyon that is essentially nonexistent in the monument.

Both sections of the canyon, however, are integral parts of one huge physiographic entity and they complement one another rather than compete. Neither section alone tells the whole story. The whole Black Canyon is truly a world-class gorge, among the best that America has to offer the visiting public, and the geologic story is incomplete without reference to its downstream section.

One of the most significant geologic attributes of the downstream section of the canyon is the extent and display of large-scale faulting and the relationship of faulting to the geologic history of the Gunnison Uplift and the canyon itself. This concept may at first seem abstruse, but because of the excellence of the exposure, one need not be a professional geologist to appreciate and readily grasp the meaning of the faulting. On several occasions, having pointed out the salient features, I have had the pleasure of seeing visitors' faces light up with recognition and intellectual excitement.

The large Ute Indian Fault Zone, a case in point, is exposed south to north about 8 miles, mostly in striking view of the river and rims of the canyon. Here, close at hand, the visitor can gain insights into the character, mechanics, causes, and meanings of past earth movements and how they affect the evolution of the landscape. One can safely say that the display of this fault zone is among the most straightforward in the United States.



Other geologic aspects of this part of the Black Canyon that are special include (1) "drape" folding in relation to faulting, (2) unconformities and ancient fossil soils at the contact between the Precambrian and the younger rocks, (3) exposures of varied metamorphic features, and (4) exposures of plutonic igneous features. None of these are unique to the lower Black Canyon in any strict sense, but they are graphically exposed and can be readily examined close up from foot trails or river-rafting trips. To the extent that comparable features are seen in the national monument and elsewhere, they are generally less accessible or less well-exposed.

In the years since my 1967 article appeared, rafting has become a growing recreational activity on the river downstream from Chukā Canyon, but, as you know, recreational rafting is unfeasible in the national monument, owing to difficult access, hazardous rock conditions and falls of various sorts between Pulpit Rock and Painted Wall. The river is floatable in the monument below Red Rock Canyon, but poor access to Red Rock and the difficulty of manhauling rafts down Red Rock Canyon preclude recreational use. The only good rafting, therefore, is downstream from the monument.

Rafting downstream, moreover, is a memorable experience, and as seen from the river, the canyon is very scenic and surely is of national significance. From the mouth of Crystal Creek to Smith Fork the gradient of the river is about 35 feet per mile, averaged out between short, steep, splashy pitches and broad still pools of exceptional beauty beneath towering cliffs. The trip, therefore, can be swift and exciting or leisurely and contemplative, depending on the stage of the river. About 600-800 cfs is optimal. The geology en route is varied and interesting, both from the raft and from short walks away from the river.

Rafting and enjoying the scenery are ends in themselves to many visitors, but many fishermen are attracted to the river also, and the trout fishing is outstanding. The habitat seem to be especially well suited to the propagation and growth of trout, and trout productivity of the river is reported to be exceptionally high. Last Year (1988) Former President Jimmy Carter, who is widely known as an expert trout fisherman and is a published author on the subject, floated and fished that reach of river in an unheralded and unpublicized visit. According to the attending boatmen, he regarded the Black Canyon as having the best trout fishing he had ever experienced in the conterminous USA. Ready access to the canyon via easy hiking trails, moreover, provides safe approaches to the river for fishing and scenery enjoyment alike, without recourse to rafting. The river is much more accessible here than in the monument. In brief, I feel that the lower reach of the Black Canyon has enormous recreational potential for hiking, back packing, and communing with nature in a wilderness setting, both along existing trails and along undeveloped routes.

Please let me know if I can be of further help.

Sincerely yours,

*Wallace R. Hansen*

Wallace R. Hansen, Geologist (ret.)  
Branch of Central Regional Geology









| ALTERNATIVE                      | MANAGEMENT DIFFERENCES  |   |
|----------------------------------|---|---|
|                                  | DE  | VISUAL RESOURCE MANAGEMENT  |
| 1<br>NPS                         | Prov<br>expa<br>situa<br>ge in<br>confi<br>or<br>Bour<br>incre<br>*3. | Management emphasis on maintaining natural scene. Within designated or potential wilderness areas, the preservation of wilderness character and resources is the primary management responsibility. Should Congress decide not to designate wilderness, VRM would be based on the concept of preservation.  |
| NPS                              | Prov<br>expa<br>situa<br>Fork<br>land<br>woul<br>*2 a                 | Same as Alternative 1.  |
| 3<br>BLM<br>OPTION A<br>(GGSRMA) | Optio<br>as th<br>the a<br>Recre<br>as ex<br>this c<br>for w          | Visual resource class ranges from Class I to V with Class I affording the most protection for scenery. The majority of the Gunnison Gorge is within a VRM Class II with management objectives to design projects with a low visual contrast. Area open to ORV use managed as VRM Class IV. The Smith Fork and Red Canyon areas are Class III designation. |
| OPTION B<br>(GGNCA)              | Optio<br>will<br>Conse  | Same as Alternative 3, Option A.  |

\*1. Effect management. This is also basically true for NPS lands designated as national potential are identified under "MANAGEMENT DIFFERENCES" column. This management may impact use of the area if designated as wilderness.

... of this alternative will continue to be managed in accordance with BLMs

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# APPENDIX B

## ALTERNATIVES MATRIX

| ALTERNATIVE                      | DESCRIPTION OF ALTERNATIVE  | ACREAGE AFFECTED |         |       | MANAGEMENT DIFFERENCES   |   |
|----------------------------------|---|------------------|---------|-------|--|---|
|                                  |   | BLM              | PRIVATE | OTHER | AIR QUALITY  | VISUAL RESOURCE MANAGEMENT  |
| 1<br>NPS                         | Provides for expanding the boundary of BLCA. The expansion would primarily include the Lower Gunnison Gorge situated between the west boundary of BLCA, and the confluence of the Gunnison and North Fork Rivers. Boundaries are defined by land lines. This expansion would increase the monument acreage to 45,936. Refer to *2 and *3.                                       | 24,543           | 627     | N/A   | Federal classification (Class II) would remain unchanged, unless redesignated Class I by State action. No change in allowable increment, no threat to economic development or to industries using best available controls. | Management emphasis on maintaining natural scene. Within designated or potential wilderness areas, the preservation of wilderness character and resources is the primary management responsibility. Should Congress decide not to designate wilderness, VRM would be based on the concept of preservation.  |
| NPS                              | Provides for expanding the boundary of BLCA. The expansion would primarily include the Lower Gunnison Gorge situated between the confluence of the Gunnison and North Fork Rivers. Boundaries are defined by a combination of land lines and natural topographic features. This expansion would increase the monument acreage to 45,056. Refer to *2 and *3.                    | 23,505           | 785     | N/A   | Same as Alternative 1.   | Same as Alternative 1.  |
| 3<br>BLM<br>OPTION A<br>(GGSRMA) | Option A. This alternative takes in the same geographic area as the Gunnison Gorge Recreation Area. Under this alternative the area would be designated as the Gunnison Gorge Special Recreation Management Area (GGSRMA), which is the same as existing management. The land being considered under this option also includes the 22,078-acre area recommended for wilderness. | 61,830           | 2,309   | N/A   | Same as Alternative 1.   | Visual resource class ranges from Class I to V with Class I affording the most protection for scenery. The majority of the Gunnison Gorge is within a VRM Class II with management objectives to design projects with a low visual contrast. Area open to ORV use managed as VRM Class IV. The Smith Fork and Red Canyon areas are Class III designation. |
| OPTION B<br>(GGNCA)              | Option B. Same as above with the exception that the area will be designated as the Gunnison Gorge National Conservation Area.   | 61,830           | 2,309   | N/A   | Same as Alternative 1.   | Same as Alternative 3, Option A.  |

\*1 The missions of the NPS & BLM are different and represent an important and necessary concept in the management of our nation's resources. In reviewing each alternative, one must keep in mind that such differences often result in considerably different management guidelines. For reference purposes, the missions are as follows:

**NPS MISSION**

Conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations (Organic Act 1916)

**BLM MISSION**

Provide for the protection (including fire suppression), orderly development, and use of the public lands and resources under principles of multiple use and sustained yield. (FLPMA 1976, Government Manual)

\*2 A change in status to National Park would not affect management. This is also basically true for NPS lands designated as wilderness. Any uses that could affect wilderness potential are identified under "MANAGEMENT DIFFERENCES" column. This column also identifies management requirements that may impact use of the area if designated as wilderness.

\*3 It is assumed that all BLM lands outside the boundaries of this alternative will continue to be managed in accordance with BLM's current Resource Management Plan.

| ALTERNATIVE  | RED   | LIVESTOCK GRAZING   |
|--|---|---|
| <p style="text-align: center;"><b>1</b><br/><b>NPS</b></p>   | <p>angered or<br/>management<br/>ies, would<br/>undance<br/>system on</p> | <p>Existing permits usually allowed to continue for time specified by Congress in enabling legislation. Eventually over long term, all grazing would be phased out to promote, as near as possible, a natural ecosystem. In wilderness areas where grazing is authorized by Congress, the use of motorized or mechanical equipment and construction of improvements to facilitate grazing would be prohibited.</p>  |
| <p style="text-align: center;"><b>2</b><br/><b>NPS</b></p>   |   | <p>Same as Alternative 1.</p>   |
| <p style="text-align: center;"><b>3</b><br/><b>BLM</b><br/><b>OPTION A</b><br/><b>(GGSRMA)</b></p> | <p>N<br/>r<br/>s</p>  | <p>Throughout the GGSRMA grazing permitted at existing authorized levels. Use of mechanized equipment in WSA allowed with certain restrictions to repair/restore stock dams and other grazing related developments. Livestock grazing to continue at current forage allocation levels and season of use unless studies indicate adjustments are needed. New rangeland improvements would be permitted if determined to be necessary for rangeland and/or wilderness protection.</p> |
| <p style="text-align: center;"><b>OPTION B</b><br/><b>(GGNCA)</b></p>                              | <p>S</p>  | <p>Same as Alternative 3, Option A.</p>   |

| ALTERNATIVE                      | MANAGEMENT DIFFERENCES   |   |  |  |
|----------------------------------|--|---|--|--|
|                                  | VEGETATION   | FIRE MANAGEMENT   | THREATENED & ENDANGERED SPECIES  | LIVESTOCK GRAZING  |
| 1<br>NPS                         | Management emphasis on minimizing human impacts on natural succession. Remedial projects may be undertaken in accordance with approved plans to restore vegetative resources. Portions may be managed to restore threatened or rare species of plants or animals. Vegetative manipulation may be conducted in wilderness areas only in cases where wilderness values or human health and safety are in jeopardy. | Under an approved fire management plan, zones are identified where a range of options including suppression, prescribed natural fires and prescribed fires, are implemented. Fire management activities conducted in wilderness areas will conform to the basic purpose of wilderness.  | Identify, monitor and manage threatened and endangered or candidate species and their habitats. Active management programs, usually in cooperation with other Agencies, would be initiated to perpetuate natural distribution and abundance of the threatened and endangered species and ecosystem on which they depend. | Existing permits usually allowed to continue for time specified by Congress in enabling legislation. Eventually over long term, all grazing would be phased out to promote, as near as possible, a natural ecosystem. In wilderness areas where grazing is authorized by Congress, the use of motorized or mechanical equipment and construction of improvements to facilitate grazing would be prohibited.  |
| 2<br>NPS                         | Same as Alternative 1  | Same as Alternative 1   | Same as Alternative 1.   | Same as Alternative 1.   |
| 3<br>BLM<br>OPTION A<br>(GGSRMA) | Managed under the multiple use concept to accommodate recognized uses and values, such as grazing, wildlife, T&E species, etc., as long as wilderness values are protected.  | A portion of those areas outside the WSA will be managed under the fire suppression category and identified as conditional suppression areas. The remainder of the area within the GGSRMA including the WSA will be managed under the fire-use category, where fire will be utilized as a management tool. Planned or natural ignitions meeting pre-determined prescriptions will be allowed to burn. | Same as Alternative 1.   | Throughout the GGSRMA grazing permitted at existing authorized levels. Use of mechanized equipment in WSA allowed with certain restrictions to repair/restore stock dams and other grazing related developments. Livestock grazing to continue at current forage allocation levels and season of use unless studies indicate adjustments are needed. New rangeland improvements would be permitted if determined to be necessary for rangeland and/or wilderness protection. |
| OPTION B<br>(GGNCA)              | Same as Alternative 3, Option A  | Same as Alternative 3, Option B   | Same as Alternative 1.   | Same as Alternative 3, Option A.   |



| ALTERNATIVE   |  |   |
|---|--|---|
|   |  | VISITOR SERVICES  |
| <p style="text-align: center;"><b>1</b></p> <p style="text-align: center;"><b>NPS</b></p>   | <p>nd works<br/>prevent<br/>NPS also<br/>access is<br/>to access<br/>character of<br/>areas or<br/>built or<br/>itted only<br/>tion.</p>       | <p>Information, interpretation and visitor assistance services available on-site 7 days/week at existing facility adjacent to resource. Scheduled services provided during peak seasons through ranger-guided walks and campfire programs. Publications available throughout the year. Special programs available on request.</p> |
| <p style="text-align: center;"><b>2</b></p> <p style="text-align: center;"><b>NPS</b></p>   | <p>Same</p>  | <p>Same as Alternative 1.</p>   |
| <p style="text-align: center;"><b>3</b></p> <p style="text-align: center;"><b>BLM</b></p> <p style="text-align: center;"><b>OPTION A</b></p> <p style="text-align: center;"><b>(GGSRMA)</b></p> | <p>nd works<br/>Se prevent<br/>inc Agency<br/>sp access.<br/>ha ea. River<br/>wi Motorized<br/>and general<br/>Div permitted<br/>pression.</p> | <p>Existing BLM management provides information and personnel seven days a week in the summer. Services are provided in the summer by volunteers stationed in two temporary locations within the lower gorge.</p>   |
| <p style="text-align: center;"><b>OPTION B</b></p> <p style="text-align: center;"><b>(GGNCA)</b></p>  | <p>Same</p>  | <p>Same as Alternative 3, Option A, with increases in staffing and visitor facilities.</p>  |

| ALTERNATIVE                      | MANAGEMENT DIFFERENCES  |  |   |  |
|----------------------------------|---|--|---|--|
|                                  | WILDLIFE MANAGEMENT   | PALEO/ ARCHEOLOGICAL RESOURCES   | PUBLIC ACCESS   | VISITOR SERVICES   |
| 1<br>NPS                         | Management emphasis on minimizing human impacts on wildlife population dynamics. Appropriate treatments are taken to mitigate adverse effects of human activity on native wildlife species.   | Pending planning decisions, all cultural resources will be protected in their existing conditions. Paleontologic resources will be protected for public enjoyment, Interpretation and scientific research. Research by the academic community will be encouraged and facilitated under the terms of a research permit. | NPS encourages recreational use of park land and works toward acquiring public access where private lands prevent same through easements and land acquisition. NPS also develops trailheads and primitive trails. Vehicular access is normally restricted to perimeter of area. River access (motorized and non-motorized craft) depend on character of past use and protection of resource. In wilderness areas or areas with wilderness potential, roads will not be built or retained. Temporary vehicular access may be permitted only to meet minimum requirements of emergency situation. | Information, interpretation and visitor assistance services available on-site 7 days/week at existing facility adjacent to resource. Scheduled services provided during peak seasons through ranger-guided walks and campfire programs. Publications available throughout the year. Special programs available on request. |
| 2<br>NPS                         | Same as Alternative 1.  | Same as Alternative 1.   | Same as Alternative 1.  | Same as Alternative 1.   |
| 3<br>BLM<br>OPTION A<br>(GGSRMA) | Selective modifications of vegetation and topography to increase population and/or promote welfare of selected species (Bighorn Sheep at Smith Fork Canyon). Wildlife habitat improvements would be required to be compatible with protection of wilderness values. Bighorn Sheep, deer and elk winter range managed in cooperation with Colorado Division of Wildlife. | Archeology - protected collecting by academic community allowed under permit. Paleo-large scale collecting allowed only under BLM authorized permit for scientific purposes. Within WSA, study or management would not normally entail excavation, stabilization or interpretation.                                    | BLM encourages recreational use of park land and works toward acquiring public access where private lands prevent same through easements and land acquisition. Agency proposes acquiring some private lands blocking access. Vehicles restricted to perimeter of wilderness study area. River access by non-motorized craft above Smith Fork. Motorized and non-motorized below Smith Fork. Vehicle use in general eliminated from wilderness area. Some use permitted associate with valid existing rights, grazing, fire suppression. BLM also develops trailheads and primitive trails.      | Existing BLM management provides information and personnel seven days a week in the summer. Services are provided in the summer by volunteers stationed in two temporary locations within the lower gorge.   |
| OPTION B<br>(GGNCA)              | Same as Alternative 3, Option A   | Same as Alternative 3, Option A.   | Same as Alternative 3, Option A.  | Same as Alternative 3, Option A, with increases in staffing and visitor facilities.  |

| ALTERNATIVE  |  | CAMPING   |
|--|--|---|
| <p style="text-align: center;"><b>1</b><br/><b>NPS</b></p>   | <p>The public use limited to avoid adverse impacts.</p>        | <p>Permitted. Open campfires may be prohibited to protect biomass, reduce risk of forest fire and preclude contamination of dateable prehistoric hearth deposits. Backcountry use may be regulated if warranted by increased levels of public use to prevent crowding, reduce resource impacts, and enhance visitor experience.</p> |
| <p style="text-align: center;"><b>2</b><br/><b>NPS</b></p>   | <p>Same as Alternative 1.</p>                                  | <p>Same as Alternative 1.</p>   |
| <p style="text-align: center;"><b>3</b><br/><b>BLM</b><br/><b>OPTION A</b><br/><b>(GGSRMA)</b></p> | <p>The trail is restricted to low impact use as indicated.</p> | <p>Open fires are generally permitted. Camping may be restricted in areas of concentrated use. Open fires within the WSA are prohibited. Camping may be restricted in areas of concentration along the river to protect wilderness values.</p>  |
| <p style="text-align: center;"><b>OPTION B</b><br/><b>(GGNCA)</b></p>                              | <p>Same as Alternative 3, Option A.</p>                        | <p>Same as Alternative 3, Option A.</p>   |

| ALTERNATIVE                      | MANAGEMENT DIFFERENCES   |   |   |  |
|----------------------------------|--|---|---|--|
|                                  | OFF ROAD VEHICLES  | PACK/ SADDLE TRIPS  | BOATING   | CAMPING  |
| 1<br>NPS                         | The use of licensed motorized vehicles and mountain bikes limited to park roads. The use of unlicensed vehicles not permitted.   | Permitted. Overnight users may be required to pack in processed feeds to reduce grazing impacts and potential for introduction of exotic plant species. | Motorized and non-motorized craft permitted. Public use managed to prevent unacceptable impacts and/or adverse effects on visitor enjoyment.  | Permitted. Open campfires may be prohibited to protect biomass, reduce risk of forest fire and preclude contamination of dateable prehistoric hearth deposits. Backcountry use may be regulated if warranted by increased levels of public use to prevent crowding, reduce resource impacts, and enhance visitor experience. |
| 2<br>NPS                         | Same as Alternative 1  | Same as Alternative 1   | Same as Alternative 1   | Same as Alternative 1  |
| 3<br>BLM<br>OPTION A<br>(GGSRMA) | The GGSRMA is divided into 3 ORV designations: (1) <i>open</i> (15,610 acres), (2) <i>limited to designated roads and trails</i> (26,529 acres), and (3) <i>closed</i> (22,078 acres). The latter acreage constitutes the WSA. | Permitted   | Recreation use monitored and possibly restricted as necessary to protect valuable feature and recreational opportunities. River corridor managed to maintain low human group concentrations. Allocation for trips restricted for commercial and private boaters. Hike-in not limited. | Open fires are generally permitted. Camping may be restricted in areas of concentrated use. Open fires within the WSA are prohibited. Camping may be restricted in areas of concentration along the river to protect wilderness values.  |
| OPTION B<br>(GGNCA)              | Same as Alternative 3, Option A  | Same as Alternative 3, Option A.  | Same as Alternative 3, Option A   | Same as Alternative 3, Option A  |



| ALTERNATIVE   |   |   | HUNTING  |
|---|---|---|--|
| <p style="text-align: center;"><b>1</b></p> <p style="text-align: center;"><b>NPS</b></p>   |   |   | <p>Usually not permitted in order to provide for the protection of wildlife species. Permitted only in parks where specifically authorized by Federal law.</p> |
| <p style="text-align: center;"><b>2</b></p> <p style="text-align: center;"><b>NPS</b></p>   | S |   | <p>Same as Alternative 1.</p>  |
| <p style="text-align: center;"><b>3</b></p> <p style="text-align: center;"><b>BLM</b></p> <p style="text-align: center;"><b>OPTION A</b></p> <p style="text-align: center;"><b>(GGSRMA)</b></p> | S | P | <p>Permitted subject to State hunting regulations.</p>   |
| <p style="text-align: center;"><b>OPTION B</b></p> <p style="text-align: center;"><b>(GGNCA)</b></p>  | S |   | <p>Same as Alternative 3, Option A.</p>  |

| ALTERNATIVE                      | MANAGEMENT DIFFERENCES   |  |  |   |
|----------------------------------|--|--|--|---|
|                                  | COLLECTING   | DOGS/ PETS   | FISHING                                    | HUNTING   |
| 1<br>NPS                         | Casual collecting is not permitted. All resource values are fully protected. Collecting of non-endangered plants, animals and geologic specimens and fossils for serious academic research may be authorized by specific permit. | Permitted in vehicles and on leash in developed areas. To eliminate potential for conflicts with other visitors and impacts on wildlife, not permitted in the backcountry. | Permitted subject to Colorado regulations. | Usually not permitted in order to provide for the protection of wildlife species. Permitted only in parks where specifically authorized by Federal law. |
| 2<br>NPS                         | Same as Alternative 1.   | Same as Alternative 1.   | Same as Alternative 1.                     | Same as Alternative 1.  |
| 3<br>BLM<br>OPTION A<br>(GGSRMA) | Collecting of rock specimens permitted. No vegetative matter can be collected without a permit. Collecting permits may be issued for serious academic research.  | Permitted.   | Same as Alternative 1.                     | Permitted subject to State hunting regulations.   |
| OPTION B<br>(GGNCA)              | Same as Alternative 3, Option A.   | Same as Alternative 3, Option A.   | Same as Alternative 3, Option A.           | Same as Alternative 3, Option A.  |

| ALTERNATIVE  | FACILITIES DEVELOPMENT                                     |  |
|--|--|--|
|  | <p style="text-align: center;"><b>1</b><br/><b>NPS</b></p> | <p>ing and<br/>view of<br/>ould not<br/>directly<br/>unnison</p>   |
| <p style="text-align: center;"><b>2</b><br/><b>NPS</b></p>   | <p>Sa</p>  | <p>Same as Alternative 1.</p>  |
| <p style="text-align: center;"><b>3</b><br/><b>BLM</b><br/><b>OPTION A</b><br/><b>(GGSRMA)</b></p> | <p>nts have<br/>evelopers.<br/>co<br/>reserves</p>         | <p>Developments limited to signing, delineation of trailhead parking, and sanitary facilities for the major trail access points.</p> |
| <p style="text-align: center;"><b>OPTION B</b><br/><b>(GGNCA)</b></p>                              | <p>Sa</p>  | <p>Will construct trailheads, restrooms, and visitor contact stations.</p>   |

**MANAGEMENT DIFFERENCES**

| ALTERNATIVE  | PLINKING   | FORESTRY   | HYDRO-DEVELOPMENT   | FACILITIES DEVELOPMENT  |
|--|--|--|---|---|
| <p align="center">1<br/><b>NPS</b></p>   | <p>Loaded weapons of any kind not permitted in NPS units in order to provide for visitor safety and to reduce potential for searching and vandalism.</p> | <p>Woodcutting not allowed. Some harvest may be authorized to control major insect or disease problems.</p>  | <p>None allowed in National Park areas. Enabling and subsequent legislation prohibits this type of use in view of associated resource degradation. The NPS also would not support any proposals within the region that would directly or indirectly alter the character or use of the Lower Gunnison Gorge.</p> | <p>Would be determined upon completion of General Management Plan and public involvement. In NPS wilderness, facilities limited to the types and number essential to meet minimum requirements for administration of wilderness area. Generally facilities restricted to development zones along the perimeter.</p> |
| <p align="center">2<br/><b>NPS</b></p>   | <p>Same as Alternative 1.</p>  | <p>Same as Alternative 1.</p>  | <p>Same as Alternative 1.</p>   | <p>Same as Alternative 1.</p>   |
| <p align="center">3<br/><b>BLM</b><br/><b>OPTION A</b><br/><b>(GGSRMA)</b></p> | <p>Generally permitted. Can be restricted in areas of concentrated use.</p>  | <p>Portion of area identified as suitable for management and harvest of pinyon/juniper woodland in the Black Ridge area. In WSA, woodland harvest only permitted for control of insect and disease if necessary to protect resources outside of management unit.</p> | <p>Temporary withdrawals for hydropower developments have disallowed major on-the-ground evaluation by developers. BLM would recommend the revocation of powersite reserves and BLM withdrawals affecting the Gunnison Gorge.</p>   | <p>Developments limited to signing, delineation of trailhead parking, and sanitary facilities for the major trail access points.</p>  |
| <p align="center"><b>OPTION B</b><br/><b>(GGNCA)</b></p>                       | <p>Same as Alternative 3, Option A.</p>  | <p>Same as Alternative 3, Option A.</p>  | <p>Same as Alternative 3, Option A.</p>   | <p>Will construct trailheads, restrooms, and visitor contact stations.</p>  |



| ALTERNATIVE   |   | <u>MINERALS</u><br><b>LEASABLE/ SALABLE/ LOCATABLE</b>  |
|---|---|---|
| <p style="text-align: center;"><b>1</b></p> <p style="text-align: center;"><b>NPS</b></p>   | <p>N<br/>l<br/>g<br/>n<br/>o<br/>r<br/>e<br/>d,<br/>a<br/>d<br/>m<br/>i<br/>s<br/>s<br/>i<br/>o<br/>n<br/>o<br/>f<br/>i<br/>n<br/>t<br/>r<br/>u<br/>s<br/>i<br/>o<br/>n.<br/>n<br/>e.<br/>v.</p>  | <p>Closed to all mineral entry. The NPS would seek to eliminate valid mining claims and non-Federal mineral interests in wilderness through acquisition.</p>  |
| <p style="text-align: center;"><b>2</b></p> <p style="text-align: center;"><b>NPS</b></p>   | <p>S</p>  | <p>Same as Alternative 1.</p>   |
| <p style="text-align: center;"><b>3</b></p> <p style="text-align: center;"><b>BLM</b></p> <p style="text-align: center;"><b>OPTION A</b></p> <p style="text-align: center;"><b>(GGSRMA)</b></p> | <p>A<br/>m<br/>u<br/>n<br/>i<br/>s<br/>o<br/>n<br/>f<br/>a<br/>c<br/>t<br/>o<br/>r<br/>o<br/>f<br/>m<br/>a<br/>j<br/>o<br/>r<br/>L<br/>o<br/>c<br/>a<br/>t<br/>i<br/>o<br/>n<br/>o<br/>f<br/>a<br/>d<br/>v<br/>e<br/>r<br/>s<br/>e<br/>m<br/>i<br/>n<br/>e<br/>r<br/>a<br/>l<br/>e<br/>n<br/>t<br/>r<br/>y<br/>t<br/>o<br/>t<br/>h<br/>e<br/>a<br/>r<br/>e<br/>a.</p> | <p>Presently 22,078 acres (WSA) temporarily closed by congressional action to oil and gas leasing, pending action by Congress on the wilderness recommendation. The remainder of the area is open with seasonal stipulations (40,792 acres). Also temporarily withdrawn from locatable mineral entry are 25,070 acres. The remainder of the area is open to entry. Approximately 5,443 acres are within the WSA and are not withdrawn from mineral entry. Any mining claims located in the WSA would be subject to validity determinations upon wilderness designation.</p> |
| <p style="text-align: center;"><b>OPTION B</b></p> <p style="text-align: center;"><b>(GGNCA)</b></p>  | <p>S</p>  | <p>Same as Alternative 3, Option A.</p>   |

| ALTERNATIVE                      | MANAGEMENT DIFFERENCES   |   |  |  |
|----------------------------------|--|---|--|--|
|                                  | PRIVATE LANDS  | WATER RIGHTS  | UTILITIES  | MINERALS<br>LEASABLE/ SALABLE/ LOCATABLE   |
| 1<br>NPS                         | NPS can develop cooperative agreements or acquire fee or less than fee interest as authorized. Long-range goal is to acquire all private lands within park on willing seller/buyer basis. Lands would be restored as near as possible to natural condition. Proposed development, if contrary to park values, could result in acquisition by condemnation.             | Congress, in any future enabling legislation could specifically include or exclude reserve water rights. If included, any water rights would come from water then unappropriated under State law, would have a priority date as of the date of the new reservation, and would be for the minimum amount necessary to prevent defeat of the reservation's primary purpose. | Rights-of-way with existing facilities would be honored, however, work with utility company to relocate transmission lines within right-of-way so as to minimize visual intrusion. No major new utility development within natural zone.                               | Closed to all mineral entry. The NPS would seek to eliminate valid mining claims and non-Federal mineral interests in wilderness through acquisition.  |
| 2<br>NPS                         | Same as Alternative 1  | Same as Alternative 1.  | Same as Alternative 1.   | Same as Alternative 1.   |
| 3<br>BLM<br>OPTION A<br>(GGSRMA) | Agency has authority to negotiate land exchanges. Actions may be initiated to acquire non-Federal lands necessary to facilitate public access and enhance recreational values. Long-range goal in wilderness is to acquire all private lands on willing seller/buyer basis. Outside wilderness goal is to acquire for needed developments or to consolidate ownership. | This is existing management, which is not a withdrawal of public lands; therefore, there are no Federal reserved water rights.  | A total of 2,462 acres in the Smiths Mountain and Gunnison Forks area open but not preferred for development of major utility facilities. Remainder of management closed to new major utility development. The WSA is closed to the development of utility facilities. | Presently 22,078 acres (WSA) temporarily closed by congressional action to oil and gas leasing, pending action by Congress on the wilderness recommendation. The remainder of the area is open with seasonal stipulations (40,792 acres). Also temporarily withdrawn from locatable mineral entry are 25,070 acres. The remainder of the area is open to entry. Approximately 5,443 acres are within the WSA and are not withdrawn from mineral entry. Any mining claims located in the WSA would be subject to validity determinations upon wilderness designation. |
| OPTION B<br>(GGNCA)              | Same as Alternative 3, Option A.   | Same as Alternative 1.  | Same as Alternative 3, Option A.   | Same as Alternative 3, Option A.   |

| ALTERNATIVE                      | MANAGEMENT DIFFERENCES  |  |
|----------------------------------|---|--|
|                                  | SOCIO-ECONOMIC IMPACTS  | LAW ENFORCEMENT/<br>SEARCH & RESCUE  |
| 1<br>NPS                         | <p>Eventual phase out of grazing could have an adverse impact on individual permittees. Any economic benefits of sport hunting would be adversely impacted by its elimination. These adverse impacts would be offset at least partially, if not fully, by increased attraction to the area due to traditional name recognition of NPS area. Watchable wildlife opportunities would at least partially offset any adverse impact of hunting closure.</p> | <p>NPS maintains round-the-clock law enforcement and search and rescue capability. Maintains EMS capability. Concurrent jurisdiction enables NPS to enforce broad spectrum of both State and Federal laws.</p> |
| 2<br>NPS                         | <p>Same as Alternative 1.</p>   | <p>Same as Alternative 1.</p>  |
| 3<br>BLM<br>OPTION A<br>(GGSRMA) | <p>No economic impact on current uses (i.e., grazing, hunting, etc.). An effective marketing program could increase visitation and result in economic benefits to community.</p>  | <p>Maintains limited law enforcement and relies on County Sheriff for search and rescue and EMS. Proprietary jurisdiction limits BLM to enforcement of resource-related Federal regulations.</p>               |
| OPTION B<br>(GGNCA)              | <p>Same as Alternative 3, Option A.</p>   | <p>Additional full-time ranger on duty. Proprietary jurisdiction limits BLM to enforcement of resource-related Federal regulations.</p>  |



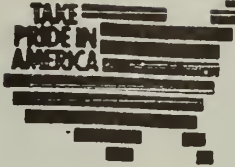




# United States Department of the Interior

## NATIONAL PARK SERVICE

WATER RESOURCES DIVISION  
301 SOUTH HOWES ST., ROOM 335  
FT. COLLINS, COLORADO 80521



IN REPLY REFER TO:

June 8, 1989

L54(479)  
RMR/BLCA, COLM

### Memorandum

To: Superintendent, Black Canyon National Monument  
Superintendent, Colorado National Monument

From: Chief, Water Rights Branch, Water Resources Division

Subject: Possible Unit Expansions—Water Rights Implications

As requested of the Chief, Water Resources Division, the following assessment of the water rights implications of the possible expansion of Colorado National Monument (COLM) and Black Canyon of the Gunnison National Monument (BLCA) is prepared for your information.

It is our understanding that integral to deliberations surrounding possible expansion of BLCA and COLM is the issue of Federal reserved water rights. Specifically at issue is Congressional language to explicitly exclude such water rights from the enabling legislation. This memorandum is prepared to provide perspective on the ramifications of such action.

### RECENT TRENDS

Until recently, the creation of a National Park, Monument, Forest, or other Federal reserve has not been attended by the explicit reservation or rejection of water rights under the Federal reserved water rights doctrine. However, the creation of Great Basin National Park, and El Malpais, Haggerman Fossil Beds, and City of Rocks National Monuments has seen the inclusion in their enabling legislation of explicit language regarding Federal reserved water rights. This language (attached) has neither uniformly embraced nor rejected such rights. To understand the meaning of such language, it is appropriate to briefly describe the history and nature of the Federal reserved water right before proceeding further.

### BACKGROUND

First, it is important to note that the Federal reserved water rights doctrine is a creation of the courts. It began in 1908 with a finding by the U.S. Supreme Court regarding an Indian reservation. The Court determined that, even though there was no treaty language addressing water rights and State law governed the ownership of the right to use water, water rights were engendered by the Federal Government's creation of the Fort Belknap Indian Reservation. The doctrine was gradually expanded until the early 1970's when the Court began to limit its application.



In summary, a simplistic description of the doctrine of reserved rights is--a right for the Federal Government to use unappropriated water arises, by implication, on the date of (and by the act of) the Federal Government's creation from the Public Domain of a reservation for specific purposes. The water right is for the primary purposes of that reservation and is only for the minimum amount necessary to prevent the defeat of those purposes.

#### THE COLM/BLCA SITUATION

On the basis of the foregoing we may view the COLM/BLCA situation as follows. Any reserved water rights created, implied, or explicitly stated in the enabling legislation, would come from water then unappropriated under State law, would have a priority date as of the date of the new reservation, and would be for the minimum amount necessary to prevent defeat of the reservation's primary purposes. As a practical matter, such a water right would not likely be very good in this particular instance. It would be in a basin whose water has been allocated under terms of an interstate compact and, within the State, is probably fully appropriated. A late 1980's or early 1990's priority date would have little real significance in providing water for the reservation. Furthermore, because the Federal reserved water right is for the minimum amount to prevent defeat of the primary purposes of the reservation, significant debate would likely surround the determination of the quantity of water actually reserved.

It is important to note that a water right, even a very junior one, has implications which could be viewed as either problematical or advantageous, depending upon perspective. In Colorado, as in most western states, changes in existing water rights (e.g., changes in location of diversion and/or use and changes in timing or type of beneficial use) must be approved by the State through either court or administrative action. Before such changes are approved, however, it must be demonstrated that junior appropriators will not be injured. Such a determination may be made more difficult by the existence of a Federal reserved water right, especially if that right were for in situ uses such as instream flow or environmental protection/enhancement. Thus, those interests which look for future changes in water development may perceive a Federal reserved water right, implicit or expressed, as a potential limitation upon future development opportunities.

On the other hand, while actual amounts of water which could be secured for present and future use may be limited, a Federal reserved water right could provide a limited degree of assurance that existing resource conditions may be protected into the future. Further, in view of the fact that water deliveries are required to downstream states and the Federal reserved water right might be non-consumptive in nature, a late date reserved right could possibly be created and met through interstate deliveries. The shortcoming of such a scheme would probably be found in the longer term average nature (10-year mean) of the delivery requirement in contrast to the annual needs of a National Park/Monument.

#### WILDERNESS

Because part of the land proposed for expansion is now a wilderness study area under Bureau of Land Management jurisdiction, another aspect of the COLM/BLCA situation that needs to be considered is Federal reserved water rights associated with wilderness designation. This was the focus of a Supplemental





Solicitor's Opinion dated July 26, 1988, which was affirmed in a memorandum signed by the Attorney General on July 28, 1988. Briefly, the opinion concludes that, without express language to the contrary, Federal water rights are not reserved when wilderness areas are designated. The opinion reasoned that Congress intended that the original reservation of the land, be it National Forest, National Park, or National Preserve, would carry with it water rights sufficient for primary reservation purposes. Subsequent wilderness designation was a "secondary purpose" for which no water was reserved. The original reserved water rights would be sufficient for the new "purposes."

However, in the case of most of the land administered by the BLM, designation as wilderness would likely be the original reservation. Thus, it could be argued that water should be reserved for wilderness purposes. Ignoring, for argument's sake, the Supplemental Solicitor's Opinion, the designation of a wilderness overlying a National Monument could be viewed as a new reservation, even though secondary, which could be construed to expand the purposes of the area and thereby expand the reserved water rights. In either case, these water rights would carry a priority date coincident with the date of reservation as wilderness and would have the characteristics of junior water rights discussed earlier.

Having said this, it should be noted that the Supplemental Solicitor's Opinion stands and designation of land in Colorado as wilderness is doubtful in the near future because the question of water rights continues to be debated.

The decision to include in enabling legislation language addressing reserved water rights rests with elected representatives. So, too, the decision to embrace or reject such rights. With regard to National Park Service (NPS) management of these areas if expanded, the existence of such a right could provide the NPS with opportunity to limit, through action by the State in its protection of junior water rights holders, impacts to primary reservation purposes. However, this opportunity represents uncertainty and potential conflict in the eyes of those who have expectations of future water resource development or change.

I hope this information is of value to your assessment effort. If additional assistance, clarification, or background information is required, please call me at (303) 221-8301. If a legal opinion is needed from either the Office of the Solicitor or the Department of Justice, the Water Resources Division will be happy to assist in the formulation of a request.



Attachment

cc: RMR - Rouse, Hermance  
WRD - Ponce, Kimball, Jackson, Pettee, Czarnowski



APPENDIX D

GRAZING ALLOTMENT SUMMARY

| ALLOTMENT NO. | ALLOTMENT NAME     | ACRES OF PUBLIC LAND | PUBLIC ACREAGE EXCLUDED UNDER ALT #1 | PERCENT OF LAND EXCLUDED UNDER ALT #1 | EXISTING ACTIVE #3 AUMS | EXISTING TOTAL #1 AUMS | ADJUSTED #2 ACTIVE AUMS ALT #1 | POTENTIAL FEDERAL REVENUE REDUCTION #4 ALT #1 | POTENTIAL FEDERAL REVENUE REDUCTION #4 ALT #2 | CAPITALIZED RANCH VALUE REDUCTION #5 ALT #1 | CAPITALIZED RANCH VALUE REDUCTION #5 ALT #2 |
|---------------|--------------------|----------------------|--------------------------------------|---------------------------------------|-------------------------|------------------------|--------------------------------|---|---|---|---|
| 4017          | Aikali Flats       | 35,439               | 1,748                                | 5                                     | 3,915                   | 4,655                  | 3,719                          | \$365   | \$365   | \$5,880                                     | \$5,880                                     |
| 5001          | Smith Mt.          | 3,477                | 114                                  | 3                                     | 376                     | 376                    | 365                            | 21  | 8   | 330   | 120   |
| 5002          | Dedication site    | 1,509                | 676                                  | N/A                                   | 44                      | 44                     | 24                             | 37  | N/A   | 600   | N/A   |
| 5007          | Upper Peach Valley | 3,727                | 327                                  | 9                                     | 415                     | 415                    | 378                            | 69  | 69  | 1,110                                       | 1,110                                       |
| 5008          | Brush Point        | 18,205               | 4,191                                | 23                                    | 32                      | 32                     | 25                             | 13  | 13  | 210   | 210   |
| 5017          | Green Mtn.         | 21,170               | 6,237                                | 29                                    | 639                     | 765                    | 454                            | 344   | 344   | 5,550                                       | 5,550                                       |
| 5020          | Black Ridge        | 10,600               | 3,254                                | 31                                    | 42                      | 42                     | 29                             | 25  | 25  | 390   | 390   |
| 5022          | Rabbit Gulch       | 1,640                | 1,098                                | 67                                    | 77                      | 77                     | 25                             | 97  | 97  | 1,560                                       | 690   |
| 5023          | Sulphur Gulch      | 468                  | 40                                   | 9                                     | 7                       | 7                      | 6                              | 2   | 2   | 30  | 30  |
| <b>TOTAL</b>  |                    | <b>96,235</b>        | <b>17,685</b>                        | <b>16,203</b>                         | <b>5,547</b>            | <b>6,413</b>           | <b>5,025</b>                   | <b>\$973</b>                                  | <b>\$869</b>                                  | <b>\$15,660</b>                             | <b>13,960</b>                               |

\*1 The totals for each allotment presented below include "Existing Active AUMs" and "Voluntary non-use/suspended grazing preference" (AUMs temporarily withheld from active grazing use.)

\*2 Total Active AUMs remaining in each allotment as a result of excluding from grazing those public lands included in NPS Alternatives 1 and 2.

\*3 That portion of the total grazing in AUMs available to be licensed for use during any one grazing year.

\*4 Reduction is the difference between Existing Active AUMs and Adjusted Active AUMs x \$1.86...the amount U.S. Government receives for use of lands.

\*5 Reduction is the difference between Existing Active AUMs and Adjusted Active AUMs x \$30.00. This represents the value to ranchers.





## APPENDIX E SOCIOECONOMIC AND VISITOR USE ASSESSMENT

**Social Setting.** Social values and lifestyles within the planning area are characteristic of rural counties in western Colorado. Agriculture (ranching, farming, and fruit production) is the primary land use with commercial support services located in towns. Slow, controlled growth is generally accepted. Lifestyles are primarily rural and a high value is placed on independence, open space, and outdoor recreational opportunities. Thus, the resources managed by the Federal Government are of interest to much of the population.

Many residents value the rural character of the area as an important part of their lifestyles. An appreciation for the wide-open spaces, natural value, solitude and personal freedom is widespread. Many residents resent control of land or any kind of outside interference. Government participation in projects is generally solicited only when problems cannot be solved locally.

**Population.** The Black Canyon economic planning area includes areas of three counties. The majority of the population is located near Montrose and Delta. Ouray County has both the lowest population and the lowest growth rate. The city of Grand Junction (population 28,144 in 1980) lies just outside of the planning area and is the largest population center in western Colorado.

### Population

| Area            | 1986<br>Population | 1970-1980<br>Change | 1980-1986<br>Change |
|-----------------|--------------------|---------------------|---------------------|
| Delta County    | 22,972             | +40 percent         | +7 percent          |
| Montrose County | 25,240             | +34 percent         | +3 percent          |
| Ouray County    | 1,866              | +23 percent         | -4 percent          |
| 3-county Region | 50,078             | +36 percent         | +4 percent          |
| Colorado        | 3,266,149          | +31 percent         | +12 percent         |

Source: Bureau of Economic Analysis

**Employment.** The majority of the employers are located in Montrose and Delta Counties. Available jobs in Ouray County have recently been increasing at a rate twice that experienced by the entire State. The following table reports jobs in each county. Some of these jobs may be filled by people who live in nearby counties.

### Total Employment

| Area            | 1986<br>Employment | 1970-1980<br>Change | 1980-1986<br>Change |
|-----------------|--------------------|---------------------|---------------------|
| Delta County    | 9,377              | +45 percent         | +8 percent          |
| Montrose County | 12,102             | +54 percent         | +4 percent          |
| Ouray County    | 1,098              | -15 percent         | +27 percent         |
| 3-county Region | 22,577             | +45 percent         | +7 percent          |
| Colorado        | 1,570,003          | +61 percent         | +11 percent         |

Source: Bureau of Economic Analysis

The most important sectors of the regional economy are services, retail, government and farm. Tourism is an important part of the regional economy. It is not treated as a separate sector, but is included within the retail and services sectors.

### 1986 Employment by Sector

| Sector                        | Delta      | Montrose   | Ouray      |
|-------------------------------|------------|------------|------------|
| Farm                          | 14 percent | 10 percent | 13 percent |
| Agricult. Services            | 11 percent | 2 percent  | 2 percent  |
| Mining                        | 1 percent  | 3 percent  | 3 percent  |
| Construction                  | 6 percent  | 6 percent  | 16 percent |
| Manufacturing                 | 5 percent  | 7 percent  | 1 percent  |
| Transportation &<br>Utilities | 3 percent  | 8 percent  | 1 percent  |
| Wholesale                     | 2 percent  | 2 percent  | 0 percent  |
| Retail                        | 14 percent | 14 percent | 23 percent |

| Sector                | Delta      | Montrose   | Ouray      |
|-----------------------|------------|------------|------------|
| Finance & Real Estate | 9 percent  | 8 percent  | 6 percent  |
| Services              | 19 percent | 22 percent | 23 percent |
| Government            | 16 percent | 16 percent | 12 percent |

Source: Bureau of Economic Analysis

**Coal.** Coal production is very important in Delta and Gunnison Counties. Studies by BLM and the USGS indicate that the study area has no potential for the discovery of minable coal.

**Oil and Gas.** Most oil and gas wells drilled in and near the study area have been dry. However, two oil and gas leases are located within the study area and most of the remainder of the area is open to leasing.

**Other Minerals.** Studies by BLM and USGS indicate no mineral values except for gypsum along the west rim of the gorge. The lands that constitute the Gunnison Gorge Recreation Lands Area (GGRLA), (Ref. Figure 3) contain approximately 210 claims, primarily placer gold. Approximately 22 of these claims are within the area presented in Alternatives 1 and 2 of this study. Along the rim and mesa tops there is potential for bentonite, dimension stone, and borrow material. Small sales for bentonite, fill material, and moss rock have been made in the past. Total annual sales for all these minerals are usually under \$5,000 for all Federal lands within the Gunnison Gorge Recreation Lands Area. Estimates are that less than 10 percent (\$500.00) would be attributed to NPS Alternatives 1 and 2.

**Agriculture.** Livestock and crop production is the principal agricultural activity in both Montrose and Delta counties. The primary crop is hay in both counties. Fruit (apples, peaches, cherries, pears) is an important crop in the North Fork area of Delta County.

With the exception of 5,676 acres in the inner gorge, the entire GGRA is used for livestock grazing. A total of 6,413 AUMs are distributed among the 9 allotments associated with Alternatives 1 and 2. Alternative 1, which would have the greatest impact on grazing, would constitute a reduction of approximately 522 AUMs. At a value of \$30 per AUM, Alternative 1 represents a total value to the ranchers of \$15,660 and \$13,980 for Alternative 2. At the current charge of \$1.86 each, these generate an annual Federal revenue of \$973.00 for Alternative 1 and \$869.00 for Alternative 2.

**Woodland Harvesting.** Forest production is fairly low throughout the region. Alternative 1 is the only alternative which affects this resource. The alternative would eliminate approximately 170 acres from harvest. On a pro-rated basis, this would represent an average annual sale of less than \$150.00. Average annual sales from this tract are

probably less than \$1,000.

**Income.** All of the counties in this region have a notably lower per capita income than the Colorado average. The reported decrease in Delta County reflects a decrease in terms of buying power. In this county, inflation increased more rapidly than income. Ouray County has the highest per capita income in the region.

#### Per Capita Income

| Area            | 1986 Income | 1980-1986 Change |
|-----------------|-------------|------------------|
| Delta County    | \$10,321    | -5 percent       |
| Montrose county | 10,681      | + 2 percent      |
| Ouray County    | 13,890      | + 7 percent      |
| Colorado        | 15,233      | + 9 percent      |

Source: Bureau of Economic Analysis

**Tourism.** Tourist travel in the planning area generates significant levels of income and employment. Travel-related payroll for 1980 was estimated at \$23 million and was responsible for 3,721 jobs.

#### 1983 Tourism-related Payroll

| Area            | Expenditures | Payroll      | Jobs  |
|-----------------|--------------|--------------|-------|
| Delta County    | \$ 9,580,000 | \$ 3,517,758 | 261   |
| Montrose County | 17,356,000   | 6,806,390    | 505   |
| Ouray County    | 8,367,000    | 3,194,286    | 237   |
| 3-county Region | \$35,303,000 | \$13,518,434 | 1,003 |

Source: Business Research Division

The payroll estimate was based on an average 1983 tourism-related salary of \$13,478. Tourism-related employment has probably been increasing in recent years.

**Use of Black Canyon National Monument.** 1988 use was 269,073 visits. The vast majority of these visitors enjoy the gorge from the top rather than hiking down to the river.



## Use Within The Gunnison Gorge Special Recreation Management Area

**River Use.** A variety of outfitter services are offered: whitewater float boating, walk-in fishing, float fishing, and jet boat touring. Use in recent years has fluctuated widely in response to water conditions. The average for 1986-1988 was 526 private users and 1,117 users in commercial groups. Both types of use appear to be increasing.

BLM has established a river corridor carrying capacity of 75 persons per day. Floaters should have no more than six encounters per day with other floating parties and no more than ten encounters per day with parties on shore.

Commercial river outfitter launches are limited to a maximum of two per day. The target figure for private launches is a maximum of four per day. Six river outfitters participate in multi-year permits. If carrying capacity is exceeded and resource deterioration occurs, the BLM may limit use by private boaters, hikers, and horse users.

**Fishing.** Outfitter services are offered for both walk-in fishing and float fishing. The majority of the fishermen walk in and fish from the bank. 1988 use for this group was 7,072 and appears to be increasing.

**Off-Road-Vehicle Use.** Off-road-vehicle play and motorized competitive events are allowed in designated open areas. Approximately 2,000 motorized users and 500 mountain bike users came in 1988. Both types of use appear to be increasing.

### Regulation of Motorized Vehicles and Bicycles

|              |  |
|--------------|--|
| 23,000 acres | closed                                 |
| 19,000 acres | limited to designated roads and trails |
| 12,000 acres | open                                   |

**Hunting.** All BLM lands in the area are open to the hunting of waterfowl, upland birds, and big game. With the exception of a small wildlife management area, the entire area is also open for target shooting. Dogs are allowed with no physical restraints. Approximately 300 hunters used the Gunnison Gorge Recreation Lands Area in 1988 and no increase has occurred in recent years. Since virtually all of the hunters are local residents, their average daily expenditure while hunting is probably quite low. If they spend \$20.00 per day, expenditures attributed to the study area would total approximately \$6,000. On a pro-rated basis, NPS Alternatives 1 and 2 would constitute a reduction of approximately \$2,400 and 2,200 respectively.

**Visitation Projections.** Under current management, all categories of visitor use (except hunting) are likely to continue to grow. Indications are that changing the name of a unit from national monument to national park has little measurable effect on visitation; however, increases in visitation can occur as a result of increased and improved highway signing, providing information to visitors within the monument, and through various other marketing efforts. The success of such a program would depend on the energy put into it and the features of the resource which could be marketed. This includes a name

change (from national monument to national park) and an increase in diversity resulting from combining the existing monument with the resources and recreation opportunities primarily associated with the Lower Gunnison Gorge. An effective marketing program could generate an increase in tourism (and tourism expenditures) of 2 to 5 percent more than would be possible if the same program operated under existing conditions.

The greatest potential for increasing visitation will result from lands presently included within the monument, considering visitation to the monument exceeded 270,000 during 1988. Each 1 percent increase in visitation to the monument alone is equivalent to approximately 2,700 visitors. Assuming trip expenditures similar to those at Mesa Verde (\$18.00), this would result in increased expenditures of approximately \$50,000.

**Land Ownership.** 97 percent of the lands that constitute the GGRLA are managed by BLM. 1,947 acres are private land used for grazing. No permanent year-around residences are located within the study area. BLM currently plans to acquire 2,200 non-Federal acres that would be necessary to facilitate public access and enhance recreational values.

## **APPENDIX F GLOSSARY OF ACRONYMS**

|               |   |
|---------------|---|
| <b>AMP</b>    | Allotment Management Plan                         |
| <b>APD</b>    | Application for Permit to Drill                   |
| <b>AUM</b>    | Animal Unit Month                                 |
| <b>BLCA</b>   | Black Canyon of the Gunnison National Monument    |
| <b>BLM</b>    | Bureau of Land Management                         |
| <b>BOR</b>    | Bureau of Reclamation                             |
| <b>COLM</b>   | Colorado National Monument                        |
| <b>DOW</b>    | Division of Wildlife                              |
| <b>EIS</b>    | Environmental Impact Statement                    |
| <b>FLPMA</b>  | Federal Land Policy and Management Act            |
| <b>GGNCA</b>  | Gunnison Gorge National Conservation Area         |
| <b>GGRA</b>   | Gunnison Gorge Recreation Area                    |
| <b>GGSRMA</b> | Gunnison Gorge Special Recreation Management Area |
| <b>IMP</b>    | Interim Management Policy                         |
| <b>NCA</b>    | National Conservation Area                        |
| <b>NM</b>     | National Monument                                 |
| <b>NP</b>     | National Park                                     |
| <b>NPS</b>    | National Park Service                             |
| <b>NRA</b>    | National Recreation Area                          |
| <b>ORV</b>    | Off-Road-Vehicle                                  |
| <b>PSD</b>    | Prevention of Significant Deterioration           |
| <b>RAMP</b>   | Recreation Area Management Plan                   |
| <b>ROD</b>    | Record of Decision                                |
| <b>RMP</b>    | Resource Management Plan                          |
| <b>TPCC</b>   | Timber Production Capabilities Classification     |
| <b>USFWS</b>  | U. S. Fish and Wildlife Service                   |
| <b>USGS</b>   | U. S. Geological Survey                           |
| <b>VRM</b>    | Visual Resource Management                        |
| <b>WSA</b>    | Wilderness Study Area                             |
| <b>WSR</b>    | Wilderness Study Report                           |





## GLOSSARY

**AIR QUALITY CLASSES.** Classifications established under the Prevention of Significant Deterioration portion of the Clean Air Act, which limits the amount of air pollution considered significant within an area. Class I applies to areas where almost any change in air quality would be significant; Class II applies to areas where the deterioration normally accompanying moderate well-controlled growth would be considered insignificant; and Class III applies to areas where industrial deterioration would generally be considered insignificant.

**ALLOTMENT.** An area of land where one or more operators graze their livestock. It generally consists of public lands, but may include parcels of private lands. The number of livestock and period of use are stipulated for each allotment.

**ANIMAL UNIT MONTH.** The amount of forage necessary to sustain one cow or its equivalent for a period of one month.

**BIG GAME.** Larger species of wildlife that are hunted, such as elk, deer, bighorn sheep, and pronghorn antelope.

**CANDIDATE SPECIES.** Any species not yet officially listed, but which are undergoing a status review or are proposed for listing according to Federal Register notices published by the Secretary of the Interior or the Secretary of Commerce.

**CRITICAL RANGE.** The portion of land used by a population or herd of a wildlife species that is vital to the survival of that population or herd.

**CULTURAL RESOURCES.** Those fragile and non-renewable remains of human activity, occupation, or endeavor reflected in districts, sites, structures, buildings, objects, artifacts, ruins, works of art, architecture, and natural features that were of importance in human events.

**ENDANGERED SPECIES.** Any species, or significant population of the species, in danger of extinction throughout all or a significant portion of its ranges. Usually refers to those on lists of species recognized by Federal and State governments to be endangered.

**ENVIRONMENTAL IMPACT STATEMENT (EIS).** A formal public document prepared to analyze the impacts on the environment of a proposed project or action and released for comment and review. An EIS must meet the requirements of NEPA, CEQ guidelines, and directives of the Agency responsible for the proposed project or action.

**EXISTING ROADS AND TRAILS.** Roads and trails identified through a road inventory process.

**FEDERAL LAND POLICY AND MANAGEMENT ACT (FLPMA).** The Federal Land Policy and Management Act of 1976 (Public Law 94-579, 90 Stat. 2743, 43 USC 1701).

**GENERAL MANAGEMENT PLAN.** A plan that sets forth the management concepts for park units; establishes a role for the units within the context of regional trends and plans for conservation, recreation, transportation, economic development, and other regional issues; and identifies strategies for resolving issues and achieving management objectives, usually within a period of 15 years. All other plans are consistent with the direction established in this lead

planning document. No new development or major rehabilitation may be undertaken without an approved GMP.

**HABITAT.** A specific set of physical conditions that surround a single species, a group of species, or a large community. In wildlife management, the major components of habitat are considered to be food, water, cover, and living space.

**HABITAT SITE.** A mapped unit of land containing a distinct set of vegetation characteristics.

**LEASE.** An instrument through which interests are transferred from one party to another, subject to certain obligations and considerations.

**LEASABLE MINERALS.** Those minerals or materials designated as leasable under the Mineral Leasing Act of 1920. They include coal, phosphate, asphalt, sulphur, potassium and sodium minerals, and oil and gas. Geothermal resources are also leasable under the Geothermal Steam Act of 1970.

**LOCATABLE MINERALS.** Minerals or materials subject to claim and development under the Mining Law of 1872, as amended. Generally includes metallic minerals such as gold and silver, and other materials not subject to lease or sale (some bentonites, limestones, talc, some zeolites, etc.). Whether or not a particular mineral deposit is locatable depends on such factors as quality, quantity, mineability, demand, and marketability.

**MINERAL ENTRY.** Claiming public lands (administered by the BLM) under the Mining Law of 1872 for the purpose of exploiting minerals. May also refer to mineral exploration and development under the mineral leasing laws and the Material Sale Act of 1947.

**MINERAL MATERIALS.** Common varieties of sand, building stone, gravel, clay, moss rock, etc., obtainable under the Minerals Act of 1947, as amended.

**MULTIPLE-USE.** Management of the various surface and subsurface resources so that they are jointly utilized in the manner that will best meet the present and future needs of the public, without permanent impairment of the productivity of the land or the quality of the environment.

**OFF-ROAD VEHICLE (ORV).** Any motorized vehicle capable of or designed for travel on or immediately over land, water, or other natural terrain. (Same as off-highway vehicle [OHV].)

### OFF-ROAD VEHICLE DESIGNATIONS.

**OPEN.** Designated areas and trails where off-road vehicles may be operated (subject to operating regulations and vehicle standards set forth in BLM Manuals 8341 and 8343).

**LIMITED.** Designated areas and trails where the use of off-road vehicles is subject to restrictions such as limiting the number or types of vehicles allowed, dates and times of use (seasonal restrictions), limiting use to existing roads and trails, or limiting use to designated roads and trails. Under the designated roads and trails designation, use would be allowed only on roads and trails that are signed for use. Combinations of restrictions are possible such as limiting use to certain types of vehicles during certain times of the year.

**CLOSED.** Designated areas and trails where the use of off-road vehicles is permanently or temporarily prohibited. Vehicle use can be permitted for emergency purposes and special permitted uses.

**OUTSTANDING.** 1. Standing out among others of its kind;

conspicuous; prominent. 2. Superior to others of its kind, distinguished, excellent.

**PARK LAND.** Land administered by the National Park Service.

**POST-FLPMA.** After October 21, 1976, the date of approval of the Federal Land Policy and Management Act.

**PRE-FLPMA.** Before October 21, 1976, the date of approval of the Federal Land Policy and Management Act.

**ROAD.** Vehicle routes that have been improved and maintained by mechanical means to ensure relatively regular and continuous use.

**SIGNIFICANT.** Representing an outstanding example of a particular type of resource, possessing exceptional value or quality, offering superlative opportunity for recreation, public use and enjoyment, and retaining a high degree of integrity as a true, accurate and relatively unspoiled example of a resource.

**SOLITUDE.** 1. The state of being alone or remote from habitations; isolation. 2. A lonely, unfrequented, or secluded place.

**THREATENED SPECIES.** Any species, or significant population of that species, likely to become endangered within the foreseeable future throughout all or a significant portion of its range. Usually includes only those that have been recognized and listed as threatened by Federal and State governments.

**VALID EXISTING RIGHTS.** Legal interests that attach to a land or mineral estate that cannot be divested from the estate until that interest expires or is relinquished.

**VISUAL RESOURCE.** Land, water, vegetation, animal and other visible features.

**VISUAL RESOURCE MANAGEMENT (VRM).** The inventory and planning actions taken to identify visual values and to establish objectives for managing those values; and the management actions taken to achieve the visual management objectives.

**VISUAL RESOURCE MANAGEMENT (VRM) CLASSES.** Identify the degree of acceptable visual change within a characteristic landscape. VRM classes are assigned to public land through management decision, using the guidelines of scenic quality, visual sensitivity, and visibility. The value of land uses that may be affected plays an important, constraining role in determining VRM decisions.

**CLASS I:** Preserve the existing character of the landscape. Includes congressionally authorized areas (e.g., wilderness) and areas approved through the RMP where the goal is to provide a landscape that appears unaltered by man.

**CLASS IV:** Provide for management activities which require major modification of the landscape. The level of change to the characteristic landscape can be high. Management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and other landscape management practices.

**WILDERNESS.** An area formally designated by Act of Congress as part of the National Wilderness Preservation System. The definition contained in Section 2(c) of the

Wilderness Act of 1964 (78 Stat. 891). "A wilderness in contrast with those areas where man and his own work dominate the landscape is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean...an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or habitation, which is protected and managed so as to preserve its natural conditions which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or primitive and unconfined types of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition and (4) may also contain ecological, geological or other features of scientific, educational scenic, or historical value."

**WILDERNESS STUDY AREA (WSA).** A roadless area determined to have wilderness characteristics as described in Section 603 of FLPMA and Section 2(c) of the Wilderness Act of 1964 (78 Stat. 891).

**WITHDRAWAL.** An action which restricts the use of public land and segregates the land from the operation of some or all of the public land and mineral laws. Withdrawals are also used to transfer jurisdiction of management of public lands to other Federal Agencies.

PUBLIC DOCUMENTS  
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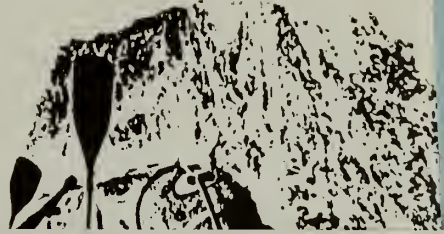
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As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural and cultural resources. This includes fostering wise use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people. The department also promotes the goals of the Take Pride in America campaign by encouraging stewardship and citizen responsibility for the public lands and promoting citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration. NPS D-21a



