UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
CANYONS OF THE ANCIENTS NATIONAL MONUMENT
ANASAZI HERITAGE CENTER
27501 Hwy 184
Dolores, Colorado 81323
(970) 882-5600

In Reply, Refer to:
9101 (COS07000)

Dear Reader:

The Record of Decision (ROD) and Approved Resource Management Plan (Approved Plan) for Canyons of the Ancients National Monument (the Monument) are attached. The Approved Plan is the result of extensive agency and public input. The purpose for developing this land use plan is to ensure that public lands and resources administered by the Bureau of Land Management (BLM) at the Monument are managed in accordance with the intent of the Presidential Proclamation that established the Monument; all applicable laws, policies, and guidelines; and with the principles of multiple use and sustained yield.

The ROD and Approved Plan provide guidance for the management of approximately 170,965 acres of BLM-administered lands at the Monument, which is located in the Four Corners region of southwestern Colorado (approximately 50 miles west of Durango, 10 miles west of Cortez, and 12 miles west of Mesa Verde National Park) in Dolores and Montezuma Counties.

The Federal Land Policy Management Act (FLPMA) requires the development and maintenance, and, as appropriate, the revision of land use plans for public lands. The National Environmental Policy Act (NEPA) requires Federal agencies to prepare an Environmental Impact Statement (EIS) for major Federal actions that could significantly affect the environment. In fulfillment of these requirements, a Draft Resource Management Plan/Draft Environmental Impact Statement (DRMP/DEIS) incorporating analysis and input provided by the public; local, State, and other Federal agencies and organizations; Native American tribes; Cooperating Agencies, and BLM personnel was published in October of 2007. After additional input, analysis, and review, a Proposed Resource Management Plan/Final Environmental Impact Statement (PRMP/FEIS) was published in July 2009.

Throughout the analysis, the focus was on five primary issues: cultural resource protection, livestock grazing, fluid mineral development, recreation use, and transportation management. After minor adjustments that update acreage changes as a result of recent acquisitions, and miles in the transportation system, the BLM approved the PRMP/FEIS (Alternative VI) as the Approved Plan)for the Monument. The Approved Plan provides an optimal balance between the protection of sensitive cultural and natural resource values within the Monument and authorized resource uses.

Copies of the ROD and Approved Plan can be obtained on the Internet at: http://www.blm.gov/co/st/en/BLM_Programs/land_use_planning/rmp/canyons_of_the_ancients.html. Additional printed or CD copies may be obtained at: 27501 Highway 184, Dolores, CO 81323; or requested by email at: Heather_Musclow@blm.gov; or by telephone at: 970-882-5600.

We appreciate the extensive public involvement and the involvement of groups, organizations, cooperating agencies; the Monument Advisory Committee and Southwest Resource Advisory council Monument Subgroup; local, State, and other Federal agencies; and Native American tribal representatives who contributed to the completion of the Monument's Resource Management Plan.

This participation informed and improved the planning process and the planning documents. We encourage your continued involvement as we implement and monitor the Approved Plan, and as we manage the public lands in the Canyons of the Ancients National Monument.

Sincerely,

LouAnn Jacobson
Monument Manager

2 Enclosures:

1-Canyons of the Ancients National Monument Record of Decision
2-Canyons of the Ancients National Monument Approved Resource Management Plan

U.S. Department of the Interior
Bureau of Land Management
Colorado State Office

Canyons of the Ancients National Monument

Record of Decision
and
Resource Management Plan

June 2010

BLM MISSION STATEMENT

The BLM is responsible for the balanced management of BLM-administered lands and resources, and their various values, so that they are considered in a combination that will best serve the needs of the American people. Management is based upon the principles of multiple use and sustained yield, a combination of uses that take into account the long-term needs of future generations for renewable and non-renewable resources.

NATIONAL LANDSCAPE CONSERVATION SYSTEM MISSION STATEMENT

The mission of the National Landscape Conservation System (NLCS) is to conserve, protect, and restore nationally significant landscapes with outstanding cultural, ecological, and scientific values for the benefit of current and future generations.

CANYONS OF THE ANCIENTS NATIONAL MONUMENT

RECORD OF DECISION
AND
RESOURCE MANAGEMENT PLAN

Location:	Canyons of the Ancients National Monument U.S. Department of the Interior Bureau of Land Management Dolores and Montezuma Counties, Colorado
Lead Agency:	U.S. Department of the Interior Bureau of Land Management Canyons of the Ancients National Monument 27501 Hwy 184 Dolores, CO 81323 970-882-5600
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June 2010

ABSTRACT

This Record of Decision (ROD) and Approved Resource Management Plan (Approved Plan) describe management options for approximately 170,965 acres of public lands administered by the Bureau of Land Management (BLM) in Canyons of the Ancients National Monument (the Monument). The Monument is located in the Four Corners region of southwestern Colorado (approximately 50 miles west of Durango, 10 miles west of Cortez, and 12 miles west of Mesa Verde National Park) in Dolores and Montezuma Counties. Information provided by the public; local, State, and other Federal agencies and organizations; Native American tribes; and BLM personnel were used to develop and analyze the six alternatives considered in the Proposed Resource Management Plan/Final Environmental Impact Statement (PRMP/FEIS). The PRMP/FEIS was based upon results from public review of the Draft Resource Management Plan/Draft Environmental Impact Statement (DRMP/DEIS). Throughout the analysis, the focus was on five primary issues: cultural resource protection, livestock grazing, fluid mineral extraction, recreation use, and transportation management. The ROD/Approved Plan is based upon the PRMP/FEIS and seeks to provide an optimal balance between authorized resource uses and the protection and long-term sustainability of sensitive cultural and natural resource values within the Planning Area.

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CANYONS OF THE ANCIENTS NATIONAL MONUMENT

RECORD OF DECISION

1.1 INTRODUCTION

The Bureau of Land Management (BLM) has prepared this Record of Decision (ROD) and Resource Management Plan (RMP) for the Canyons of the Ancients National Monument (the Monument). The RMP (Approved Plan) was described and analyzed as the Proposed Action (Alternative VI) of the Proposed Resource Management Plan/Final Environmental Impact Statement (PRMP/FEIS). The ROD provides the background on the development of the Approved Plan; summarizes management considerations and decisions; describes the issues and alternatives, and the rationale for approving the management decisions; presents a summary of public comments and protests; describes mitigation measures and monitoring strategies; and describes public participation in Plan implementation.

Under Section 2 of the Antiquities Act of June 8, 1906 (34 Stat. 225, 16 U.S. Code [USC] 431), the President of the United States can establish as national monuments "historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated upon the lands owned or controlled by the Government of the United States."

On June 9, 2000, Presidential Proclamation Number 7317 (the Proclamation) established the Canyons of the Ancients National Monument to ensure the protection of the area's cultural and natural objects. The Proclamation states:

> *Containing the highest known density of archaeological sites in the Nation…natural resources and spectacular landforms…rugged and dissected geology…and wildlife species…I proclaim for the purpose of protecting the objects identified above…Canyons of the Ancients National Monument.*

The Monument is located in the Four Corners region of southwestern Colorado, approximately 50 miles west of Durango, 10 miles west of Cortez, and 12 miles west of Mesa Verde National Park in Dolores and Montezuma Counties. The "Monument" consists of lands within the original Monument boundary, including inholdings that have been acquired since the Monument was established in June of 2000. The Monument includes approximately 170,965 acres of public lands. There are approximately 12,164 acres of private land inholdings and approximately 400 acres of Federal lands managed by the National Park Service (NPS/Hovenweep National Monument) inside the Monument boundary. The "Planning Area" includes the Monument, acquired edgeholdings, and the Anasazi Heritage Center (AHC). For the purposes of this document, the Monument will refer to the entire Planning Area.

The Monument is a part of the BLM's National Landscape Conservation System (NLCS). The NLCS was created by the BLM in 2000 in order to protect the remote and wild character of unique places on BLM-administered lands. The U.S. Congress formally established the NLCS when it passed the Omnibus Public Land Management Act of 2009. The Omnibus Public Land Management Act was signed into law by President Obama on March 30, 2009.

The term "landscape" in the NLCS title is a key element as to how public lands within the NLCS are managed. The emphasis is on protecting entire landscapes for cultural and natural values, instead of preserving only isolated parcels and fragmented ecosystems. Therefore, for the Monument, management and protection is extended to settlement clusters and the surrounding

natural resources (the "setting") in order to gain a better understanding of how people settled and used the land.

The Monument will be managed in compliance with the Proclamation, the Federal Land Policy and Management Act of 1976 (FLPMA); the National Environmental Policy Act (NEPA) of 1969; and all other relevant laws, regulations, policies, and guidelines.

1.2 THE RECORD OF DECISION

This Decision approves the attached Approved Plan for the Monument. The Approved Plan replaces relevant decisions in the San Juan/San Miguel RMP (BLM 1985), and the BLM Colorado State Director's Guidance regarding Interim Management for Canyons of the Ancients National Monument (BLM 2001b). The FLPMA (43 USC 1712 [a]) requires the BLM to "develop, maintain, and when appropriate, revise land use plans" for public lands. In accordance with the regulations of 43 Code of Federal Regulations (CFR) Part 1600, which cover implementation of the FLPMA, the Approved Plan was prepared for the Monument. The NEPA [Section 102(2)(C)] requires all Federal agencies to prepare an Environmental Impact Statement (EIS) for major Federal actions that could significantly impact the environment. In accordance with the Council on Environmental Quality (CEQ) regulations of 43 CFR 1500-1508, which cover implementation of the NEPA, an EIS was prepared in order to assess the impacts of implementing the Approved Plan and other alternatives. The Approved Plan was analyzed as the Proposed Action (Alternative VI) in the PRMP/FEIS. All decisions covered by the ROD are land use planning decisions that were protestable under the land use planning regulations (43 CFR Part 1610).

1.3 KEY MANAGEMENT DECISIONS

Key management decisions described in the Approved Plan, along with the rationale for the resource-specific decisions, are provided below.

1.3.1 Cultural Resources Management

The area now known as Canyons of the Ancients National Monument has been a focal point for archaeological exploration and research for 135 years. To date, 6,355 sites have been recorded and 20,000 to 30,000 total sites are predicted. (The pink dots on Map 1 represent recorded sites. If the entire Monument was inventoried, the area would be completely pink.) All time periods of occupation are represented within the Monument, including PaleoIndian, Archaic, Basketmaker, and Ancestral Puebloan, as well as historic Ute, Navajo, and Anglo cultures.

The goal of the BLM at the Monument is to manage cultural resources on a landscape scale, in accordance with the mission of the NLCS, and to recognize the integral and interdependent relationships between sites. In 1999, prior to the establishment of the Monument, the Southwest Resource Advisory Council (SWRAC) advised Secretary of the Interior Bruce Babbitt that "Cultural resources [in this area] should be protected within a landscape context which includes scenery, solitude, and rural agrarian lifestyle" (BLM 1999b).

The Monument Proclamation refers to the "intertwined natural and cultural resources" found at the Monument, and emphasizes how this "offers an unparalleled opportunity to observe, study, and experience how cultures lived and adapted over time in the American Southwest." This recognition of the extraordinary value of the interrelationship between cultural resources and the natural environment reinforces the BLM's responsibility to consider future management of the Monument for long-term public benefit. It also reinforces the responsibility of management and

staff at the Monument to incorporate a perspective that considers and preserves these relationships and connections on a landscape scale.

The importance of the cultural resources managed and protected within a landscape context, and the challenges of management and preservation within a multiple-use/sustained-yield context, have long been recognized by the BLM. This has resulted in the development and implementation of several innovative cultural RMPs in the 1980's, including the "Anasazi Cultural Multiple-Use Area of Critical Environmental Concern Management Guidelines" (BLM 1986a) and the "Mockingbird Mesa Cultural Resource Management Plan" (BLM 1986c).

For this planning effort, the concept of archaeological communities was initially used as a management tool, honoring the intent of the Proclamation and the mission of the NLCS. However, the use of the term "community" proved highly controversial. (Although supportive of the philosophy, archaeologists could not agree on the definition and use of the term.) After reviewing archaeological literature and comments on the DRMP/DEIS, the BLM at the Monument has changed the terminology from "communities" to "settlement clusters." Settlement clusters are defined as "numerous sites located in proximity to each other."

In terms of recreational opportunities, only 13 to 25 cultural resource sites will be allocated for development and public use (with associated interpretive signs and brochures). However, visitors will be able to visit the backcountry, where they will earn their experience through self-discovery – as part of the Monument's "Outdoor Museum" strategy. (The BLM received many comments requesting that the agency manage the area with a "light hand" and that development should be minimized. The visiting public, members of local communities, and Native American tribes have all expressed that they do not want the BLM to implement an intensive visitor services management approach at the Monument.)

In terms of standing architecture, emphasis will be placed on documentation using Historic American Building Survey (HABS) standards. The Monument will adhere to the Native American tribal philosophy of allowing sites to go back to the Earth. However, in some cases, standing architecture will be stabilized in order to address visitor safety, as well as to repair human-caused impacts. Stabilization may occur at other sites, at the discretion of the Monument Manager. The costs of initial stabilization and maintenance are very high; therefore, the number of sites where this level of effort is invested will be limited.

In terms of research, proposals will be reviewed by Monument staff, in consultation with other professional archaeologists familiar with cultural resources and research in southwestern Colorado.

(See Table 2-1 of the attached Approved Plan for specific Goals, Objectives and Management Actions for this resource.)

1.3.2 Fluid Minerals Management

Currently, approximately 80 percent (about 131,000 acres) of the Monument is leased for fluid minerals development. (The blue areas on Map 2 are not leased.) Most of these leases are unitized and held by production. Production of CO_2 is a major economic driver in Montezuma County, and is expected to continue for up to 50 years. However, oil and natural gas production is coming from small algal mounds, and this type of production is declining. Presently, there are approximately 125 wells producing oil, natural gas, and CO_2. It is anticipated that there will be up to 150 wells on up to 121 new locations over the life of the Approved Plan (81 oil and natural gas; 69 CO_2).

The exceptionally high archaeological site density (approximately 100 sites per square mile) makes protection of the Monument's cultural resources, while allowing development of fluid mineral resources, a challenge. Prior to the approval of specific undertakings, the BLM will meet the agency's obligations under Section 106 of the National Historic Preservation Act (NHPA) and to the Monument Proclamation.

The goal of the BLM at the Monument is to manage in a manner that preserves and protects irreplaceable cultural resources, as well as their interrelationships and their physical setting, to the maximum extent possible. At the same time, the goal is to manage in accordance with the provisions of the Proclamation related to honoring valid existing rights, and for issuing new fluid mineral leases under certain conditions. To that end, surface-disturbing activities and/or development proposals will:

- avoid direct, indirect, and cumulative impacts to historic properties (objects of the Monument) to the maximum extent possible;
- keep ground disturbance to the smallest footprint possible;
- prevent landscape fragmentation to the maximum extent possible; and
- maintain visual quality.

The issuance of new leases, and the development of existing leases, will require an appropriate level of NHPA and NEPA analysis, as described below:

- **New leases -** Existing cultural resource information, and additional information gathered through consultation with Native American tribes and the State Historic Preservation Office (SHPO) was analyzed for the RMP. As a result, all new lease offerings will be considered undertakings under Section 106 of the NHPA. In addition, consultation with Native American tribal entities will be completed prior to any decision regarding leasing.

  In order to minimize conflicts between developing new leases and protecting the objects of the Monument, new oil and gas leases will be allowed up to 880 acres for drainage purposes only. Up to 2 new well pads in 20 years on new leases, based upon the RFD, may be permitted. (Fluid mineral development for drainage purposes allows the BLM to recover the minerals and the associated revenue from underlying government lands, rather than letting the Federal minerals drain to neighboring leases.)

  The Approved Plan identifies constraints that new leases will be subject to; including the stipulation that all new lease areas on the Monument will be offered for sale with a No Surface Occupancy (NSO) stipulation prohibiting physical occupancy and surface disturbance within the lease area (see Appendix G).

- **New lands acquired and expired leased lands –** The PRMP/FEIS was published in 2009; since that time, private lands have been acquired by the Monument. These lands have unleased Federal minerals (BLM 2009); therefore, the acreage of unleased lands has increased within the Monument.

  If newly acquired unleased lands are leased as part of the 880 acres for drainage purposes, then all stipulations will apply, including the NSO stipulation. If newly acquired lands have existing leases, then existing stipulations will apply.

If leases for currently leased lands expire, then the lands will be included as part of the 880 acres that could be sold for drainage, and all stipulations for new leases, including the NSO stipulation, will apply.

- **Existing leases –** The Monument Proclamation requires that existing lease rights be honored. However, it also requires that development should not create any significant new impacts to cultural resources or to other objects that the Monument was established to protect. In order to implement management objectives, the preferred management strategy is to protect cultural resources, their associated settings, and surface and subsurface resources, especially in areas of high site density. This will be accomplished by avoiding cultural resource sites, providing adequate physical buffers that ensure avoidance, and minimizing disturbance and visual fragmentation of the associated natural setting. This strategy will avoid direct impacts and minimize indirect and cumulative impacts to the maximum extent possible. Early and careful planning, and the use of all available technologies and design criteria, will be necessary in order to accomplish this objective. If avoidance is not possible, then mitigation, denial of components, and/or denial of entire proposals will also be management options.

  In order to protect cultural and natural resources, fluid minerals development will be based upon a landscape-level analysis that includes analysis of individual sites. Therefore, it is strongly recommended that development of existing fluid mineral lease areas within the Monument utilize the “Geographic Area Development Plan” (GADP) Best Management Practice (BMP) described in BLM Instruction Memorandum (IM) No. 2003-152 (BLM 2003a). By increasing the geographic scale of planning, the GADP will facilitate the identification, by the BLM and by the permit applicant, of locations for proposed developments that minimize the direct, indirect, and cumulative impacts of development to cultural resources and their associated settings.

  As part of the GADP process, the BLM would identify an appropriate scale for cultural and natural resource data analysis. Once the natural resource data gathering and the Class IIII cultural resource inventory have been completed, areas containing no cultural resources, or a low site density with a scattered settlement pattern, would be identified as potentially appropriate for oil and gas development. Areas with high site densities and/or settlement clusters (numerous sites located in proximity to each other) would be identified as not appropriate for oil and gas development. [The BLM has recently demonstrated the utility of completing a comprehensive cultural resource inventory for on-the-ground development planning (BLM 2010).] This information would form the basis for the GADP. The GADP would then become a reference document that provides guidance for the submission of Applications for Permits to Drill (APDs). This process would resolve issues prior to the submission of APDs, and would eliminate or reduce delays in processing. The efficiencies realized by this process would be advantageous to both the Proponent and to the BLM.

  Pre-APD planning by the Proponent, as well as by BLM staff and managers, will be essential to successfully locating and designing developments that meet the Monument’s cultural and natural resource management objectives. Once project-specific APDs are prepared, NEPA analysis and a Section 106 review will be conducted on individual project Plans of Development (PODs). For cultural resources, the BLM will determine the potential impacts to cultural resources, and will determine appropriate mitigation measures. This will be done in accordance with the policies and procedures

contained within the BLM National Programmatic Agreement and State Protocols (BLM 1998a, BLM 1999), and as indicated in any lease stipulations.

As part of the NEPA analysis and NHPA review process for evaluating the APDs, the BLM will consult with all Native American tribes that have historical or cultural ties to the areas affected by exploration and leasing. Consultation will emphasize the need to identify, evaluate, and protect sacred sites and places of traditional religious or cultural importance (such as Traditional Cultural Properties) at a landscape-level scale.

In accordance with relevant BMPs, development will be allowed where preservation of the integrity of cultural resources, their spatial relationships, and physical setting can be accomplished.

Using the GADP and BMPs, such as directional and horizontal drilling (see Map 10), existing leases will be managed more comprehensively. For each Exploration Plan and POD, the BLM will attach terms and conditions, and/or stipulations, necessary in order to protect the cultural and natural resource values of the area. This approach will minimize impacts to cultural and natural resources, minimize the disturbance footprint, and streamline the APD process.

(See Table 2-1 of the attached Approved Plan for specific Goals, Objectives and Management Actions for this resource.)

1.3.2.1 Protest Response

Protest Issue Number 7.4 – During the protest period, the issue was raised that oil and gas development may be subject to a statutory or administrative Categorical Exclusion (CE) from additional NEPA analysis. The protester is correct that CEs established by Section 390 of the Energy Policy Act of 2005 do not require review of extraordinary circumstances (H-1790-1, Section 4.1, page 18). This is because these CEs are established by statute, and their application is governed by that statute. Extraordinary circumstances do not apply to these CEs; however, there are other criteria that must be considered in applying them (such as size restrictions, date of previous approval or land use plan, etc.) (see BLM H-1790-1, Appendix 2 for full list of criteria). It should also be noted that other procedural requirements, such as consultation under the Endangered Species Act (ESA) and the NHPA, still apply to actions taken under these CEs.

In accordance with the Council on Environmental Quality (CEQ) regulations (40 CFR 1501.3) and the BLM's NEPA Handbook (Chapter 4, page 17), the BLM may elect to prepare an Environmental Assessment (EA) for Proposed Actions that would otherwise be categorically excluded when the decision-maker believes that an EA would be helpful in planning or decision-making. Typically in these cases, the rationale for completing an EA when a CE could be used is included in the NEPA document. Due to the high density of cultural resource sites within the Monument, an EA will most likely be the expected level of NEPA analysis.

1.3.3 Livestock Grazing Management

Concerns related to livestock grazing included resolving conflicts between cultural resource preservation and recreational use as they related to livestock grazing. The BLM is required to meet the Colorado Public Land Health Standards and Guidelines for Livestock Grazing Management (BLM 1997), and to implement mitigation measures that ensure grazing allotments are achieving, or are moving toward achieving, land health standards (43 CFR 4110.3-2). In the past, some suspended Animal Unit Months (AUMs) within the Monument were still attached to

grazing permits, even though carrying capacity (as determined by the 2001 Land Health Assessment, and reflected in Permittees' long-term average actual use reports) were lower than permitted numbers. Under the Approved Plan, the BLM will continue to recognize the importance of livestock grazing to local culture and to the local economy; however, changes in livestock grazing management are required in order to achieve improvements in land health.

Currently, there are 28 allotments (see Map 3) and 18 grazing Permittees on the Monument. In 2001, Comprehensive Rangeland Health Evaluation and Ecological Site Inventories were conducted for the 28 allotments. At that time, 354 data points were examined in order to determine conformance with the Colorado Standards for Public Land Health and Guidelines for Livestock Grazing Management (BLM 1997 and Appendix C). The Public Land Health Standards and Guidelines address the health of upland soils; riparian systems; plant or animal communities; special status, threatened and endangered species; and water quality.

The analysis included 18 indicators that gauged 3 attributes of rangeland health: 1) biotic integrity, 2) site-soil stability, and 3) hydrologic function. The following data were also documented and analyzed: proper functioning condition (PFC) of riparian zones; rangeland condition (species composition); trend/long-term monitoring; vegetation production; utilization; and range capability (steep slopes, rock, water availability, and cultural resource site density). Forage production studies, along with the Land Health Assessments and other monitoring data, were used in order to estimate the carrying capacity for each allotment. Once the analysis was concluded, Rangeland Health determinations were signed by the Monument Manager (in 2003 and 2004).

In order to match carrying capacity, the number of permitted AUMs will be reduced from 8,492 AUMs to 6,437 AUMs. This is a reduction of 1,931 AUMs. As the BLM has completed permit renewals, AUMs have been reduced. With only a few minor exceptions, allotments are now permitted at the recommended carrying capacity. Suspended AUMS will be removed from grazing permits (per guidance in 43 CFR Part 4100.0-5.)

The Approved Plan permits 23 allotments, covering approximately 150,036 acres. The Approved Plan cancels 5 allotments in order to protect cultural resources and to minimize conflicts with recreational activities. The 5 allotments proposed for cancellation cover approximately 6,059 acres with 124 AUMs. These allotments are the East and West Sand Canyon, Goodman Gulch, Trail Canyon, and Rock Creek allotments. The first 4 allotments are currently vacant. The Rock Creek permit will not be cancelled until the current Permittee is no longer operating a livestock business. (The average actual use for the Rock Creek allotment is 15 AUMs.) These actions will assist the BLM in meeting the Colorado Standards for Public Land Health, which is required by 43 CFR Part 4180.1 and 4180.2.

If an allotment becomes vacant on the Monument, it will be evaluated for conformance with the BLM criteria for establishing common reserve allotments. Common reserve allotments will be available for Permittees who need flexibility due to such circumstances as drought, fire, or poor resource conditions.

(See Table 2-1 of the attached Approved Plan for specific Goals, Objectives and Management Actions for this resource.)

1.3.4 Recreation Management

The BLM designates Special Recreation Management Areas (SRMAs) in order to manage unique recreational opportunities, including recreation "niches," recreation management objectives, character setting conditions, and management strategy. These areas present

exceptional opportunities for visitor recreation, as well as for cultural resource interpretation. It is the goal of the BLM to preserve the distinctive character and setting of the Monument. To that end, frontcountry SRMAs will be managed in a manner that protects the natural setting for developed, but primitive, visitor experiences at cultural resource sites. Backcountry SRMAs will be managed in a manner that allows Monument visitors to experience cultural and natural resources through self-discovery – as an "Outdoor Museum."

Within the Monument, 6 SRMAs (see Map 4) will be managed in order to protect natural settings while, at the same time, allowing primitive recreational experiences and some developed recreational experiences, as well providing opportunities to visit unique cultural resource sites.

The Approved Plan promotes an undeveloped (Outdoor Museum) management strategy for 3 SRMAs. A destination strategy is established for the AHC, Pueblo Sites, and Sand Canyon/Rock Creek SRMAs.

Recreational shooting within the Monument is prohibited. Visitor safety is a major concern (especially in high visitor use areas such as Sand Canyon, Sand Canyon Pueblo, Painted Hand Pueblo, and Lowry Pueblo.) In addition, recreational shooting (including the associated shell casings, clay pigeons, broken glass, cans, etc.) has resulted in damage (vandalism) to cultural resource sites (rock art panels and standing masonry walls) and natural resources (cliff faces and ground surfaces). There are no locally or nationally organized recreational shooting groups in the vicinity of the Monument; however, there are local facilities and opportunities available for recreational shooting. As stated in the Proclamation, hunting will continue to be allowed, and will be managed by the Colorado Division of Wildlife (CDOW).

The Approved Plan allows rock climbing in designated areas only. Geocaching is prohibited. Camping and campfires are prohibited within the Pueblo Sites, Sand Canyon/Rock Creek, and the AHC SRMAs. (These activities are either rarely occurring, or are already prohibited, in these areas.)

(See Table 2-1 of the attached Approved Plan for specific Goals, Objectives and Management Actions for this resource.)

1.3.5 Transportation Management

The Secretary of the Interior directed Monument staff to examine transportation issues, specifically issues related to mountain biking, during the planning process. Conflicts between currently allowed uses (such as mountain biking on the Sand Canyon Trial) and Proclamation language that prohibits off-road mechanized use were especially challenging. Planning within this context had to determine a balance between appropriate access into both the frontcountry and backcountry SRMAs while, at the same time, protecting the objects of the Monument.

The Proclamation states, "For the purpose of protecting the objects identified above, the Secretary of the Interior shall prohibit all motorized and mechanized use off road, except for emergency or authorized administrative purposes." Therefore, the Proclamation closed the Monument to all motorized and mechanized off-road use in order to protect the objects of the Monument. However, the Proclamation does not specifically define "off road." In 2000, the Secretary of the Interior instructed, "The Proclamation will be implemented through the management plan for the area and should include a transportation plan that addresses road closures, travel restrictions as necessary to protect the objects identified in the Proclamation, and the continued use of the Sand Canyon/East Fork Rock Creek mountain bike loop" [Memo dated June 28, 2000 from the Secretary of the Interior to the Director of the BLM (USDOI 2000; BLM 1993)].

BLM IM No. 2008-014 (BLM 2008b) defines a route as “a group or set of roads, trails and primitive roads that represent less than 100% (excluding non-designated routes; for example, temporary permitted routes for oil and gas development) of the BLM transportation system.” A road is defined as “a linear route declared a road by the owner, managed for use by low-clearance vehicles having four or more wheels, and maintained for regular and continuous use.” Components of the Transportation System for the Monument are described as routes. A road is a named county, State, or Federal route of travel. All designated routes within the Monument are identified on the Transportation Map (see Map 5). Travel off of a designated route is considered cross-country or off-road travel.

Based upon several years of monitoring, the Approved Plan considers mechanized travel (bicycles) a conditional use in the Sand Canyon/Rock Creek SRMA. However, if damage begins to occur to the objects of the Monument due to this type of mechanized travel, the use will be prohibited. The Approved Plan reflects what the Monument Manager and staff believe will best “protect the objects of the Monument” while, at the same time, allowing mountain biking on some existing routes.

All off-route use will be prohibited in the Sand Canyon/Rock Creek SRMA. This is because heavy visitor use in this area is damaging both natural and cultural resource values. User-created trails continue to develop in fragile areas (including those with unique soils and cultural resource surface sites and cliff dwellings). For this SRMA, the Monument Manager will have discretion for approving Special Recreation Permits (SRPs) for non-motorized/non-mechanized off-route use associated with educational purposes.

Transportation planning for the Monument followed the Transportation Planning Process detailed in Appendix F and Appendix K. Generally, decisions on route designations and what type of use would be allowed on each route were based upon such factors as: the need for access to private inholdings; the need for administrative use by Permittees and by BLM staff; the presence of known cultural resource sites; impacts occurring to cultural and/or to natural resource values; access to NPS destinations; recreational opportunities and visitor access; and maintenance of backcountry values. Routes necessary for oil and gas development are considered temporary; therefore, they are not identified on the Transportation Map. Based upon historical routes identified by landowners, access to private inholdings is designated for either public use or limited use; however, private landowners are encouraged to apply for legal access pursuant to the requirements of the FLPMA, and in accordance with Federal regulations at 43 CFR Part 2800 (see Appendix L).

Within the Monument, travel is allowed on designated routes only (Map 5). Only routes authorized by this Approved Plan, or by Permit, are designated for use within the Monument. All other routes are closed. Designating travel routes on any acquired lands will require an amendment to the Transportation Plan.

(See Table 2-1 of the attached Approved Plan for specific Goals, Objectives and Management Actions for this resource.)

1.3.6 Acquired Lands

Under the Approved Plan, the BLM will work with willing sellers in order to acquire private inholdings and edgeholdings. This will be accomplished by means of acquisition, exchange of BLM lands targeted for disposal outside of the Monument, donation, or conservation easement. The BLM has worked with several willing sellers on acquisitions since the Monument was established.

On November 13, 2009 (since the time the PRMP/FEIS was published), the Monument acquired 4,573 acres of private land (4,453 inholding acres; 120 edgeholding acres) (BLM 2009b). As a result of this acquisition, 82 acres will be added to the Cannonball Area of Critical Environmental Concern/Research Natural Area (ACEC/RNA). The remaining newly acquired acreage falls outside any designated ACEC/RNA.

This ROD and the Approved Plan apply to all previously acquired lands (June 9, 2000 to the present), and to all lands acquired by the Monument in the future.

1.3.7 Collection of Specimens

The Monument is closed to the collection or removal of any rocks, mineral specimens, petrified wood, common invertebrate fossils, or semiprecious gemstones.

Table ROD-1 Summary of Major Management Action Decisions
Cultural Resource Management
Develop the Outdoor Museum concept.
Allocate 13 to 25 sites for public use.
Protect cultural resource settlement clusters and individual sites.
Document and allow standing walls to deteriorate; authorize stabilization (at the discretion of the Monument Manager) with special consideration for human-caused impacts.
Conduct Class III Inventory of areas receiving high public use; areas lacking intensive inventory; areas needing records clarification; and areas with little previous inventory, as funding is available.
Develop research goals, with peer review.
Livestock Grazing
Permit 6,437 active preference AUMs.
Administer 23 allotments.
Establish common reserve allotments, when advantageous.
Oil and Gas
Lease up to 880 new acres for drainage only, with up to 2 new well pads in 20 years on new leases, based upon the RFD Scenario.
Anticipate up to 150 wells on up to 121 new locations (81 oil and gas/69 CO2).
Recreation Management
Promote an undeveloped management strategy for 3 SRMAs; promote a destination management strategy for the Monument's other 3 SRMAs.
Manage 7,875 acres for public visitation and 163,090 acres for backcountry use.
Prohibit recreational shooting and geocaching.
Allow climbing in designated areas only.
Prohibit camping and campfires in Pueblo sites, Sand Canyon/Rock Creek, and AHC SRMAs; allow these activities in other SRMAs.
Identify 9 recreation/transportation facilities.
Allow up to 10 recreation SRPs.
Transportation Management
Total route mileage equals 172 miles.
Manage 39,653 acres as closed to OHV travel and manage 131,312 acres as limited to OHV travel (travel allowed on designated routes only).

1.4 ALTERNATIVES

Six alternatives, including a No Action Alternative, were analyzed in detail in the PRMP/FEIS. The alternatives were developed in order to address major planning issues identified through the scoping process, and to provide direction for resource programs influencing land and resource management.

1.4.1 Issues Identified During Scoping

Planning issues identify demands, concerns, and/or conflicts regarding the use or management of public lands and resources. Typically, these issues express potential impacts to land and resource values. During the planning process for the Approved Plan, 5 issues accounted for almost 62 percent of the scoping comments received from local communities (including Durango, Dolores, Cortez, and Mancos) and agencies. These issues were:

- **Cultural Resource Issues:** Concerns included the protection/preservation of cultural resources for the purposes of current and future scientific research, education, and Native American cultural heritage; development opportunities; access to cultural resource sites; and looting.
- **Fluid Mineral Resources:** Concerns included limitations on oil and gas exploration and development, and mitigation of impacts from existing and new mineral exploration and development.
- **Rangeland Management/Grazing:** Concerns included management for Public Land Health Standards, administration of grazing allotments, and evaluation of grazing impacts in terms of current standards and guidelines.
- **Recreation:** Concerns included permitted and restricted types of recreation and their allocated “zones” or locations, and related routes and transportation issues (such as motorized and mechanized access and limitations).
- **Transportation:** Concerns included route closures and access, and route maintenance and improvements.

1.4.2 Alternatives Considered, But Not Further Analyzed

During the planning process, two alternatives were considered, but not further analyzed:

- **No New Oil and Gas Leasing:** An alternative allowing for no new oil and gas leasing could not be carried forward because the BLM is required by law, at a minimum, to lease for drainage purposes.
- **No Livestock Grazing:** An alternative allowing for no livestock grazing could not be carried forward. Closing the Monument to all livestock grazing would not be in compliance with the Proclamation, the NEPA, the Taylor Grazing Act, and/or the FLPMA. The issue of livestock grazing was analyzed; however, no issues or conflicts were identified that required the complete removal of livestock grazing. Conflicts between livestock grazing and other resources were addressed by adjusting stocking levels, seasons-of-use, and/or forage allocation levels.

1.4.3 Alternatives Considered

The alternatives developed and analyzed during the planning process reflected a reasonable range of potential management actions. The alternatives were based upon the Analysis of the Management Situation (AMS); local, State, other Federal agency, and Native American tribal consultation and input; and public scoping. However, due to Proclamation language requiring the protection of the objects of the Monument, the range of alternatives was narrower than that typically found in the development of RMPs.

The alternatives considered during the planning process for the Monument were:

- **Alternative I:** Alternative I was the No Action Alternative (in accordance with NEPA/CEQ regulations, which require a No Action Alternative be presented in all environmental analyses in order to serve as a "base line" or "benchmark" from which to compare all proposed "action" alternatives). This alternative represented, in effect, no change from current management.

  The No Action Alternative did not address the management requirements and expectations required by the Proclamation; public expectations associated with National Monument status; concerns raised during agency and public scoping; or concerns of the SWRAC in their 1999 Report to Secretary Babbitt. In addition, Alternative I did not reflect changes in regulations and policy that have occurred since the San Juan/San Miguel RMP was approved in 1985.

- **Alternative II:** Alternative II emphasized cultural resource values (including Native American tribal values), cultural resource protection (including settlement clusters, sites, and isolated finds), and natural resource protection and enhancement.

  Alternative II offered the most protection to cultural and natural resources; however, including isolated finds would have made it difficult, if not impossible, to accommodate valid existing rights related to fluid minerals development and traditional uses (such as livestock grazing). In addition, the expectation of managing within the context of multiple use could not be honored.

- **Alternative III:** Alternative III emphasized cultural resource site protection (including settlement clusters and sites), and natural resource values protection and enhancement while, at the same time, providing for resource use and development.

  Alternative III contained a "middle-of-the road" mix, in terms of resource protection and development. However, it did not fully address the Proclamation's requirements for protecting the objects of the Monument, especially cultural resources.

- **Alternative IV:** Alternative IV emphasized cultural resource site protection (including settlement clusters and sites) and natural resource values protection and enhancement while, at the same time, encouraging resource use and development.

  Alternative IV viewed resource use and development as the dominant management factors. As a result, the "objects of the Monument" could not be protected on a landscape scale.

- **Alternative V:** Alternative V was the Preferred Alternative in the DRMP/DEIS. It was developed using a combination of management actions from Alternatives I through IV. This alternative emphasizes cultural resource values (including Native American tribal values) cultural resource (including settlement clusters and sites) and natural resource

protection and enhancement while, at the same time, providing for resource use and development.

Alternative V was customized in order to ensure compliance with Proclamation requirements for the protection of the objects of the Monument. It also incorporated management goals and objectives that served to allow multiple use and sustained yield. In addition, this alternative maximized management flexibility in terms of dealing with unique circumstances and the challenges of multiple use in areas of extremely high site density.

- **Alternative VI:** Alternative VI (the Proposed Alternative on which the Approved Plan is based) emphasized cultural resource values (including Native American tribal values) cultural resource (including settlement clusters and sites) and natural resource protection and enhancement while, at the same time, providing for resource use and development.

  Alternative VI is virtually identical to Alternative V; however, it included minor changes and clarification of management intent. It is the environmentally preferred alternative, offering an appropriate balance of resource use and protection in a national monument.

1.5 MANAGEMENT CONSIDERATIONS

Thirty years ago, Bill Lipe, a nationally respected southwest Archaeologist, perfectly summarized the challenges related to the management of unique and special areas, such as those found at the Monument:

> *We are moving into an era of managed remoteness, of planned romance. I think that is probably how it has to be if we are to preserve the qualities of the area at all in an increasingly mobile and exploitive society. The challenge is to have an effective management that does not itself overwhelm the values it is designed to protect (*Lipe 1980).

The management of the Monument is subject to the overriding purpose of protecting the objects described in the Proclamation within the context of multiple use and sustained yield. The FLPMA defines “multiple use” as the “harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output” (43 USC 1702).

The FLPMA [Section 302(1)] also states “except that where a tract of such public land has been dedicated to specific uses according to any other provisions of law it shall be managed in accordance with such law.” This section of the FLPMA directs that when an area of public land is set aside by Presidential Proclamation issued under the Antiquities Act of 1906, the designating language is the controlling law. Therefore, when the management direction of the Proclamation conflicts with the FLPMA’s multiple-use mandate, the designating language supersedes that section of the FLPMA (BLM 2009a). Appropriate management tasks are mandated under the Proclamation and the FLPMA, as well as in accordance with numerous other laws and regulations that govern the management of public lands for various purposes and values.

1.5.1 Approved Plan

The management alternatives described above, and their associated environmental impacts and related issues, were described and analyzed in the DRMP/DEIS and in the PRMP/FEIS. The alternative chosen (Alternative VI) fully addresses the changing needs of the Planning Area, offering a management strategy that best achieves an effective combination of management actions, including:

- establishing goals and objectives (desired outcomes) for managing resources and resource values according to the principles of multiple use and sustained yield while, at the same time, adhering to the Proclamation mandate to protect the objects of the Monument;
- addressing all of the BLM-administered lands within the Monument;
- employing a community-based planning approach that complies with applicable local (to the extent possible), State, Federal, and Native American tribal laws, standards, policies, and implementation plans, as well as with all BLM polices and regulations;
- consulting/coordinating with Native American tribes in order to identify sites, areas, and objects important to their cultural and religious heritage;
- selecting land use planning decisions that will guide future land management actions and site-specific implementation decisions within the Monument;
- considering current scientific information, research, new technologies, and the results of relevant resource assessments, monitoring, and coordination;
- recognizing the Nation's needs for domestic sources of minerals, food, timber, and fiber, and incorporating the requirements of the Energy Policy and Conservation Act Reauthorization, the Energy Policy Act, the National Fire Plan, the Healthy Forest Restoration Act, and the Healthy Forest Initiative;
- considering current and potential future uses of the public lands within the Monument through the development of reasonable foreseeable future development and activity scenarios based upon historical, existing, and projected levels of use;
- recognizing valid existing rights while, at the same time, complying with the Proclamation, the FLPMA, the NEPA, and all other applicable laws, regulations, policies, and guidance; and
- retaining flexibility so that the Monument can adapt to new and emerging issues and opportunities, and can provide adjustments to decisions over time, based upon new information and monitoring.

The Approved Plan provides an effective balance between protecting Monument resource values and providing opportunities for the public to observe, study, and enjoy those values. The Approved Plan also establishes a balance between protection of cultural and natural resource values and continued multiple use. It is consistent with the BLM's policy guidance and requirements, including the Proclamation and the multiple-use and sustained-yield mandates of the FLPMA. Implementation of the Approved Plan is expected to improve resource conditions, provide consistent resource management, and ensure public health and safety.

1.6 MITIGATION MEASURES

As defined by CEQ regulation 1508.20, mitigation includes: 1) avoiding the impact altogether by not taking a certain action or parts of an action; 2) minimizing impacts by limiting the degree or magnitude of the action and its implementation; 3) rectifying the impact by repairing, rehabilitating, or restoring the affected environment; 4) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and 5) compensating for the impact by replacing or providing substitute resources or environments.

The Approved Plan includes mitigation measures for each resource, with the goal of maintaining balanced use and minimizing conflicts between resource use and resource preservation. In addition, the BLM has BMPs (see Appendix D) designed to minimize surface disturbance and impacts to resources. The BMPs will also improve resource conditions impacted by multiple use. Individual projects may be subject to additional site-specific NEPA analysis and additional, project-specific mitigation measures.

1.7 PLAN MONITORING

Monitoring is the repeated measurement of activities and conditions over time. The implied purpose is to use this information to adjust management, if needed, in order to achieve or maintain resource objectives. The BLM planning regulations (43 CFR Part 1610.4-9) call for monitoring RMPs on a continual basis and establishing intervals and standards based upon the sensitivity of the resource to the decisions involved. CEQ regulations implementing NEPA state that agencies may provide for monitoring in order to assure that their decisions are carried out, and that they should do so in important cases (40 CFR Part 1505.2(c)).

As outlined in the Approved Plan and consistent with BLM planning regulations (43 CFR 1610.4-9), the BLM will monitor plan implementation and effectiveness, and will report on:

- the management actions undertaken;
- the management actions remaining to be undertaken; and
- the effectiveness of actions toward meeting goals and objectives.

Monitoring strategies will be developed that identify indicators of change, acceptable thresholds, methodologies, protocols, and timeframes. These indicators will be used to evaluate and determine whether desired outcomes are being achieved.

Monitoring will determine whether mitigation measures are satisfactory; whether there have been significant changes in related plans of local, State, other Federal agencies; and Native American tribal entities; or whether there is new data of significance to the Approved Plan. The Deciding Officer will determine whether there is sufficient cause to warrant amendment or revision of the Approved Plan. Where appropriate, an Adaptive Management Strategy will be applied to implementation decisions for the Monument.

1.8 PUBLIC INVOLVEMENT IN THE PLANNING PROCESS

One of the BLM's primary objectives during the development of the Monument's Approved Plan was to understand the views of various publics by providing opportunities for meaningful participation in the resource management planning process. The BLM interdisciplinary (ID) planning team used the scoping process to identify issues relevant to the Planning Area. Through communication media (such as meetings, newsletters, and news releases), the public was provided opportunities to identify issues that needed to be addressed in the Approved Plan.

The goal was for this process to result in an increased sense of the planning process, the decisions that result from it, and the importance of collaborative stewardship as a strategy for implementation.

Additionally, CEQ regulations mandate that Federal agencies responsible for preparing NEPA analysis and documentation do so "in cooperation with State and local governments" and other agencies with jurisdiction by law or special expertise. In accordance with this mandate, public involvement, consultation, and coordination efforts conducted during this planning process involved individuals, groups, and organizations; coordinating and cooperating agencies; local, State, and other Federal agencies and officials; Native American tribes; and BLM staff. The Approved Plan for the Monument represents an extensive public involvement effort conducted throughout the various stages of the RMP development process. Public involvement in the planning process is described below.

1.8.1 Public Scoping

The NEPA requires that Federal agencies hold an open and early process for determining the scope of issues to be addressed in an EIS in order to identify the significant issues that could be associated with the Proposed Action. Formal public scoping conducted during the planning process identified potential issues and concerns. Information obtained by the BLM during public scoping was combined with issues identified by the agency and established the focal points for the DRMP/DEIS. Public scoping efforts included:

- **Notice Of Intent (NOI):** The formal scoping process was initiated on April 24, 2002 with the publication of a Notice of Intent (NOI) to prepare a DRMP/DEIS in the *Federal Register*. The BLM provided an extended public scoping period, between April 2002 and November 2003, in order to allow ample opportunity for public comment and for involvement in the initial stages of planning. During this time, input was received from BLM staff, other Federal resource and land management agencies, local governments, State government, Native American tribes, individual citizens, environmental groups, commercial entities, and other interested parties.
- **Website:** A planning website was developed to electronically convey information to the public during the planning process. The website (http://www.blm.gov/rmp/canm/) provided access to newsletters, planning documents, Monument Advisory Committee (Advisory Committee) meeting dates and meeting minutes, press releases, contact information, and links to additional information sources.
- **Newsletters:** Newsletters were produced in order to provide updates on the planning process. Newsletter No. 1 was published in January of 2003. It introduced the public to the planning process, presented the AHC as the headquarters of the new Monument, detailed an overview of important resources within the Monument, and listed opportunities for the public to get involved. In the summer of 2003, an update provided information on the public participation process (including how to submit a comment and how to stay informed and involved). It also provided a scoping worksheet. Newsletter No. 2 was published in the winter of 2003-2004. It provided the public with an update of the scoping process, a list of comments received and issues raised, as well as information on planning criteria. Newsletter No. 3 was published in the spring of 2005. It provided an update on planning efforts, the status of the Advisory Committee, and the final planning criteria.

- **Public Notices and Announcements**: The dates and locations of an introductory meeting, and the dates of scoping workshops, were announced in newspaper articles, flyers, television broadcasts, and radio announcements. The dates and locations of Advisory Committee meetings were advertised in the *Federal Register*, as well as in local newspapers.
- **Meetings and Workshops:** The BLM hosted 3 scoping workshops in order to encourage public involvement and participation. These meetings were held in Cortez, Durango, and Denver, Colorado. Total attendance was 74 individuals.

  The BLM hosted a planning "Kick-Off" meeting on August 18, 2003 in order to encourage local, State, and other Federal agency consultation, as well as Native American tribal consultation and participation. The BLM hosted a community-based stewardship workshop in Cortez, Colorado on September 11-13, 2003 in order to assist with the preparation of the DRMP/DEIS. The BLM, along with the Sonoran Institute, co-hosted a workshop on November 13, 2003 entitled "Economic Profile System." This workshop was presented in order to discuss the role public land plays in local economies.

1.8.1.1 Results of Public Scoping

The BLM received 1,868 comment submittals during public scoping, with a total of 23,744 comments. Of the total submittals, 1,761 were form letters and 107 were individual letters, comment forms, or e-mails. The source of comments was: approximately 11 percent from local, regional, and State sources; approximately 82 percent from within the United States (but from outside of the region); and approximately 7 percent from outside of the United States.

1.8.2 Public Review of, and Comment on, the DRMP/DEIS

Public review of, and comment on, the DRMP/DEIS was the second primary period for active public involvement in the planning process. The objective was to ensure that the DRMP/DEIS was readily available, and to encourage public review and understanding of its contents so that meaningful comments could be submitted.

Public review of, and comments on, the DRMP/DEIS included the following:

- **Notice of Availability (NOA):** The Notice of Availability (NOA) of the "Canyons of the Ancients Draft Resource Management Plan and Draft Environmental Impact Statement, Colorado" was published in the *Federal Register* by the EPA on October 26, 2007 (Volume 72, Number 207). The publishing of the NOA officially started the 90-day comment period. The comment period ended on January 30, 2008.
- **DRMP/DEIS Distribution**: Copies of the DRMP/DEIS were distributed to an extensive list of individuals and agencies in hard copy and/or in CD form. The distribution list included 4 BLM offices, 24 other Federal agency offices, 2 State offices, 4 city offices, 25 Native American tribal governments, 11 members of the SWRAC Monument Subgroup, 9 elected officials, 4 public libraries, and 8 additional organizations. Upon request, additional hard copies and CDs were provided during the public comment period.
- **Website:** The planning website was updated in order to announce the release of the DRMP/DEIS to the public. The website (http://www.blm.gov/rmp/canm/) provided an electronic copy of the DRMP/DEIS, along with supporting documents. Geographic Information System (GIS) layers for maps contained in the DRMP/DEIS were made available on the website. The website also contained a comment form and complete

instructions on how to submit a comment via the website, or by fax or mail. The website was updated with Press Releases, newsletters, Advisory Committee and SWRAC Monument Subgroup meeting dates and meeting minutes, and contact information. Between October 2007 and April 2008, the website received 1,502,060 page views.

- **Newsletter:** Newsletter No. 4 was published in October of 2007, coinciding with the release of the DRMP/DEIS. The newsletter outlined alternatives developed in the DRMP/DEIS, and provided information on obtaining a copy of the DRMP/DEIS. The newsletter also provided a comment form and instructions on submitting comments.
- **Public Notices and Announcements**: The release of the DRMP/DEIS was announced on the website, as well as in newsletters, newspaper articles, and public notices. In addition, it was listed on the Schedule of Proposed Actions (SOPA) for the San Juan Public Lands. (This schedule is mailed out to approximately 286 people, and is available on the San Juan Public Lands website at http://www.fs.fed.us/r2/sanjuan/projects/.)
- **Meetings:** During the 90-day comment period, 3 open house forums were held, 1 each in Durango, Cortez, and Denver, Colorado. A total of 102 people signed in at these meetings, with a total attendance of approximately 150 people. Meetings were also conducted with Native American tribal representatives at the annual Mesa Verde Native American Tribal Meeting, Crow Canyon Archaeological Center, SWRAC Subgroup, BLM AHC, BLM-U.S. Forest Service (USFS) Dolores Public Lands Office, NPS-Hovenweep National Monument, CDOW, Colorado Department of Public Health and Environment (CDPHE), Colorado Historical Society, National Trust for Historic Preservation (NTHP), Colorado Preservation Inc., The Wilderness Society, the Montezuma Board of County Commissioners, and the Dolores Board of County Commissioners.

1.8.2.1 The Results of Public Review of, and Comment on, the DRMP/DEIS

During the review period for the DRMP/DEIS, approximately 290 unique letters/comment forms were received. In addition, approximately 14,210 form letters were received. A total of approximately 574 unique comments were received, focusing on: range/grazing (22 comments), minerals (160 comments), cultural resources (56 comments); recreation/transportation (180 comments); other (budget, preservation, process) (156 comments).

1.8.3 Public Review of, and Protest on, the PRMP/FEIS

Public review of, and protest on, the PRMP/FEIS was the final period for public involvement during the planning process. The PRMP/FEIS contains the Proposed Plan, a summary of changes between the DRMP/DEIS and the PRMP/FEIS, predictable impacts of the Proposed Plan, a summary of the written and verbal comments received during the public review period for the DRMP/DEIS, and responses to the comments.

Public review of, and protest on, the PRMP/FEIS included the following:

- **Notice of Availability (NOA):** The Notice of Availability (NOA) of the “Canyons of the Ancients Proposed Resource Management Plan and Final Environmental Impact Statement, Colorado” was published in the *Federal Register* by the EPA on July 31, 2009 (Volume 74, Number 146). The publishing of the NOA officially started the 30-day protest period. The protest period ended on August 31, 2009.
- **PRMP/FEIS Distribution:** Copies of the PRMP/FEIS were distributed to an extensive list of individuals and agencies in hard copy and/or in CD form. The distribution list included 4 BLM offices, 22 other Federal agency offices, 2 State offices, 4 city offices, 25

Native American tribal governments, 11 members of the SWRAC Monument Subgroup, 8 elected officials, 4 public libraries, and 9 additional organizations. Upon request, additional hard copies and CDs were provided during the protest period.

- **Website:** The planning website was updated in order to announce the release of the PRMP/FEIS to the public. The website (http://www.blm.gov/rmp/canm/) provided an electronic copy of the PRMP/FEIS, along with supporting documents. GIS layers for maps contained in the PRMP/FEIS were made available on the website. The website was updated with Press Releases, newsletters, SWRAC Monument Subgroup meeting dates and meeting minutes, and contact information. The website also provided information on obtaining a PRMP/FEIS, and instructions on how to file a protest.
- **Newsletter:** Newsletter No. 5 was published in July of 2009, coinciding with the release of the PRMP/FEIS. The newsletter summarized comments received during public review of the DRMP, outlined the Proposed Plan, and identified the differences between the DRMP/DEIS and the PRMP/FEIS. The newsletter also provided information on obtaining a copy of the PRMP/FEIS, and on how to file a protest.
- **Public Notices and Announcements:** The release of the PRMP/FEIS was announced on the website, as well as in newsletters, newspaper articles, and public notices. In addition, it was listed on the SOPA for the San Juan Public Lands. (This schedule is mailed out to approximately 286 people, and is available on the San Juan Public Lands website at http://www.fs.fed.us/r2/sanjuan/projects/.)
- **Meetings:** During the 30-day protest period, meetings were conducted with Native American tribal representatives at the annual Mesa Verde Native American Tribal Meeting, SWRAC and SWRAC Monument Subgroup, BLM AHC, BLM-USFS Dolores Public Lands Office, NPS-Hovenweep National Monument, CDOW, Colorado Historical Society, NTHP, The Wilderness Society, the Montezuma Board of County Commissioners, and the Dolores Board of County Commissioners.

1.8.3.1 The Results of Public Review of, and Protest on, the PRMP/FEIS

During the protest period for the PRMP/FEIS, 15 protests were received. Protest issues focused on transportation terminology, Native American tribal access for hunting (associated with the Brunot Agreement), and issues associated with fluid minerals development (such as valid existing rights, restrictions on existing leases, concern over “settlement cluster” and “landscape” terminology, and RFD estimates for future development). The most controversial issues expressed during the protest period related to the Proclamation language stating “…the Secretary of the Interior shall manage the development, subject to valid existing rights, so as not to create any new impacts that interfere with the proper care and management of the objects protected by this proclamation…”

Protests were resolved by the BLM Director, whose decision constitutes final agency action for the BLM.

1.8.4 Native American Tribal Consultation

Consultation with Native American tribes was initiated prior to the official designation of the Monument, and has continued throughout the development of the Approved Plan. The BLM honors cultural and traditional Native American beliefs, and integrates those beliefs into its management decisions. Consultation with Native American groups will continue throughout the implementation of the Approved Plan.

The BLM first initiated consultation with Native American tribes in 1993. Consultation specifically related to the Native American Graves Protection and Repatriation Act (NAGPRA) was conducted intermittently until 2000. After the Monument was established, Monument and AHC staff formally initiated consultation with 25 tribes in order to identify tribal management concerns and issues. These tribes were: the Ute Mountain Ute Tribe, the Uintah-Ouray Ute Tribe, the Southern Ute Tribe, the Navajo Nation, the Hopi Tribe, the Pueblo of Acoma, the Pueblo of Cochiti, the Pueblo of Isleta, the Pueblo of San Felipe, the Pueblo of Santa Ana, the Pueblo of Santo Domingo, the Pueblo of Jemez, the Pueblo of Laguna, the Pueblo of Sandia, the Pueblo of Zia, the Pueblo of Zuni, the Pueblo of Nambe, the Pueblo of San Juan, the Pueblo of Picuris, the Pueblo of Pojoaque, the Pueblo of San Ildefonso, the Pueblo of Santa Clara, the Pueblo of Taos, the Pueblo of Tesuque, and the Jicarilla Apache.

The goals of the consultation effort were:

- to identify groups that, under NAGPRA, claim cultural affiliation with the human remains and associated funerary objects in the collections housed at the AHC; and
- to identify Native American groups that have traditional association with the landscape now known as Canyons of the Ancients National Monument.

In accordance with legal requirements under the NHPA, the NAGPRA, the Archaeological Resources Protection Act (ARPA), and the American Indian Religious Freedom Act (AIRFA), the BLM must honor cultural and traditional Native American beliefs, and must integrate those beliefs into land management activities within the Monument. A “Cultural Affiliation Study for Canyons of the Ancients National Monument, Southwest Colorado” was published in a document dated December 6, 2002 (Gilpin et al 2002). The affiliation study details tribal comments on the management of resources, as well as on the treatment of human remains within the Monument. Native American tribes also made recommendations concerning their involvement in the development of the RMP.

In addition to one-on-one meetings that formed the basis of the cultural affiliation study, several inter-tribal consultations were conducted:

- **November 3-5, 2003:** A 3-day inter-tribal meeting introduced tribal representatives to the BLM’s planning process, and encouraged the tribes to voice their concerns and visions for the management of the Monument.
- **September 9, 2004:** The Monument hosted a tour of cultural resource sites within the Monument, followed by an evening meeting. Discussions included transportation planning, public visitation to archaeological sites, tribal input into the planning process, and tribal representation on the Monument Advisory Committee.
- **January 24, 2007:** Monument staff met with the Ute Mountain Ute Tribal Council in order to review the DRMP/DEIS.
- **October 5, 2007:** The San Juan Public Lands Center (SJPLC) Manager presented the DRMP/DEIS to tribal members attending the Annual Tribal Meeting at Mesa Verde National Park.
- **September 3, 2008 and December 1, 2008:** The Monument hosted field trips and meetings in order to discuss tribal concerns related to the protection of cultural resources during fluid mineral development activities. (These concerns and recommendations are reflected in the Approved Plan.)

- **August 2009:** After the PRMP/FEIS was mailed to the 25 tribes, Monument staff contacted (by phone) all 25 tribes in order to ensure that they had received the PRMP/FEIS, and to see if they had any questions. There were no comments or questions.
- **September 9, 2009:** The Monument hosted a field trip and tribal consultation, and reviewed the PRMP/FEIS with tribal representatives. There were no comments or concerns.

1.8.5 Cooperating Agencies and Agency Coordination

Cooperating Agency status offers the opportunity to assume additional roles and responsibilities beyond the collaborative planning processes of attending public meetings and reviewing and commenting on plan documents.

On February 20, 2003, the BLM mailed out invitations to potential Cooperating Agencies. The invitation was sent to 4 Federal agencies, 2 State agencies, 2 local governments, and 25 Native American tribes. Two agencies returned the Memorandum, and requested Cooperating Agency status: the Colorado Historical Society, and the U.S. Fish and Wildlife Service (USFWS).

In addition to public workshops, the BLM met with local, State, and other Federal agencies in order to gather feedback on resource issues and concerns. Agencies involved throughout the planning process included the NPS at Hovenweep National Monument, the SJPLC, the USFWS, the USFS, the BLM Utah San Juan Field Office, the Environmental Protection Agency (EPA), the CDPHE, the CDOW, the Colorado Historical Society, and Montezuma and Dolores Counties.

1.8.6 Monument Advisory Committee

On June 6, 2003, an 11-member Monument Advisory Committee (Advisory Committee) was established. Member selection was based upon knowledge, as well as on level of expertise in specific areas of interest. The Advisory Committee's duties included gathering and analyzing information; conducting studies and field examinations; hearing public testimony; advising the BLM on establishing priorities, goals, and objectives; developing recommendations for management implementation; and advising the BLM on local collaborative management approaches. The Advisory Committee identified 6 priority issues and provided recommendations for each issue. The issue topics included: grazing management, mineral development, cultural resources protection, recreation management, transportation planning, and private land access. (Advisory Committee actions are detailed in the Canyons of the Ancients National Monument Scoping Report.)

The development of the Plan took longer than anticipated; therefore, membership on this Advisory Committee, authorized by the Federal Advisory Commission Act (FACA), lapsed for most members before the DRMP/DEIS was complete. The process to appoint members to this federally sanctioned committee is elaborate and lengthy; therefore, the Advisory Committee was re-established as a Monument Subgroup operating under the direction of the SWRAC (which is also a FACA-chartered advisory council). Throughout the planning process, the Advisory Committee and Monument Subgroup met 24 times.

1.8.7 Other Stakeholders and Partners

Numerous partners, stakeholders, and individuals have shown interest in, and participated in, the planning process, including education and interpretation organizations, colleges and

universities, professional and avocational archaeological organizations, preservation organizations, environmental organizations, “Friends” groups, volunteer organizations, and recreational user groups.

1.9 CONSISTENCY REVIEW

A 60-day Governor’s Consistency Review period was provided for the State of Colorado. No comments were received from the Governor’s office regarding inconsistencies with State and local plans, programs, or policies.

Consistency of the Approved Plan with local, State, other Federal, and Native American tribal plans and policies was also considered as a factor in Plan development. The Approved Plan is consistent with plans and policies of the U.S. Department of the Interior (USDOI), the BLM, other Federal agencies, the Colorado State government, and local governments to the extent that such plans and policies are also consistent with the purposes, policies, and programs of Federal law and regulation applicable to public lands.

1.10 PUBLIC PARTICIPATION IN PLAN IMPLEMENTATION

There are numerous opportunities for the public to be involved in the implementation of the Approved Plan. NEPA analyses will be required prior to implementation of some site-specific decisions. These analyses often solicit public input and provide further protest or appeal options.

Consultation with Native American tribes was initiated prior to the official designation of the Monument, and has continued throughout the development of the Approved Plan. The BLM honors cultural and traditional Native American beliefs, and will integrate those beliefs into land management in the Monument. Consultation with Native American groups will continue throughout the implementation of the Approved Plan.

Many partners, stakeholders, and individuals have participated in the Monument planning process, as well as in Monument resource management. Currently, programs exist that allow individuals to be involved in research; cultural resource site documentation, preservation and protection; visitor services; interpretation and education; natural resource monitoring; and on-the-ground project implementation. The Monument Subgroup will also continue to assist the BLM in implementing the Approved Plan.

1.11 APPROVAL

Monument Manager Recommendation

Having considered a full range of alternatives, associated impacts, and public and agency input, I recommend the adoption and implementation of the attached Approved Plan as the Canyons of the Ancients National Monument Resource Management Plan.

Recommended:

Date: 05-14-2010

LouAnn Jacobson
Monument Manager
Canyons of the Ancients National Monument

San Juan Public Lands Center Manager Concurrence

I concur with the adoption and implementation of the Canyons of the Ancients National Monument Resource Management Plan.

Concurrence:

Date: 5/14/2010

Mark Stiles
Center Manager
San Juan Public Lands Center

District Manager Concurrence

I concur with the adoption and implementation of the Canyons of the Ancients National monument Resource Management Plan.

Concurrence:

Date: 14 May 2010

Lori A. Armstrong
District Manager
Colorado Southwest District

State Director Approval

In consideration of the foregoing, I approve the Canyons of the Ancients National Monument Resource Management Plan.

Approved:

Date: 5/14/2010

Helen Hankins
Colorado State Director

CANYONS OF THE ANCIENTS NATIONAL MONUMENT

RESOURCE MANAGEMENT PLAN

CHAPTER 1 INTRODUCTION

1.1 HISTORICAL BACKGROUND

At first glance, Canyons of the Ancients National Monument (the Monument) presents itself as a strikingly harsh, rugged environment; a landscape of expansive vistas, high rocky mesas, and deep, dry arroyos. Upon closer inspection, the Monument reveals a cultural and historical landscape that offers magnificent, yet fragile, testimony to the people who once lived upon the land; people who established homes, shared meals, raised families, and gathered around campfires to tell stories. The landscape still holds the invaluable remnants of their lives; a vast array of irreplaceable objects that connect the people who visit these lands today with the people who lived in the area a thousand years ago.

People have lived and labored to survive among the area's canyons and mesas for thousands of years, from the earliest known hunters crossing the area 10,000 years ago; to the Ancestral Puebloan farmers; to the Ute, Navajo, Pueblo, and European settlers whose descendants still call this area home. Farming in the area blossomed from between A.D. 450 and A.D. 1300, when the area was occupied by Ancestral Pueblo people. Year-round villages were established, evolving from pit house dwellings to small pueblos and then to large multi-story dwellings. The Monument has approximately 6,355 recorded sites, reflecting all facets of everyday life, including field houses, check dams, reservoirs, kivas, cliff dwellings, shrines, sacred springs, agricultural fields, petroglyphs, and sweat lodges. Some areas within the Monument have more than 100 archeological sites per square mile. The total number of sites is estimated to be 20,000 to 30,000. The Monument offers an unparalleled opportunity to observe, study, and experience how cultures lived and adapted over time in the American Southwest.

Due to the area's internationally significant cultural resources, the Monument was established as the Anasazi Area of Critical Environmental Concern (ACEC) in 1985. In 1999, Secretary of the Interior Bruce Babbitt made a recommendation to President Clinton that the area be designated as a National Monument.

Presidential Proclamation

Under Section 2 of the Antiquities Act of June 8, 1906 (34 Stat. 225, 16 U.S. Code [USC] 431-433), the President can establish as National Monuments "historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated upon the lands owned or controlled by the Government of the United States."

On June 9, 2000, Presidential Proclamation Number 7317 (the Proclamation) established the Canyons of the Ancients National Monument in order to ensure the protection of the area's cultural and natural objects. The Proclamation states:

> *Containing the highest known density of archaeological sites in the Nation…natural resources and spectacular landforms…rugged and dissected geology…and wildlife species…I do proclaim for the purpose of protecting the objects identified above…Canyons of the Ancients National Monument.*

National Landscape Conservation System

The Monument is a part of the BLM's National Landscape Conservation System (NLCS). The NLCS was created in 2000 in order to protect the remote and wild character of unique places on BLM-administered lands. The U.S. Congress formally established the NLCS when it passed the Omnibus Public Land Management Act of 2009. The Omnibus Public Land Management Act was signed into law by President Obama on March 30, 2009.

1.2 OVERVIEW OF THE RESOURCE MANAGEMENT PLAN

The Federal Land Policy and Management Act (FLPMA) requires the development and maintenance, and, as appropriate, the revision of Resource Management Plans (RMPs), or land use plans, for public lands. The FLPMA provides the authority for the Bureau of Land Management (BLM) to formulate land use plans and requires that an RMP be developed in order to guide management decisions. The FLPMA states that BLM land management will be guided by the principles of multiple use and sustained yield. In addition, Section 302(a) requires that where a tract of land has been dedicated to a specific use according to law, such as the Presidential Proclamation that established the Monument, the tract shall be managed in accordance with the provisions of the designating language.

The National Environmental Policy Act (NEPA) of 1969, as amended, requires Federal agencies to prepare an Environmental Impact Statement (EIS) for major Federal actions that could significantly affect (impact) the environment. The BLM Interim Management for all National Monuments (BLM 2001g) requires completion of land use plan evaluations and stand-alone RMPs for all National Monuments.

In fulfillment of these requirements, a Draft Resource Management Plan/Draft Environmental Impact Statement (DRMP/DEIS) was published in October of 2007. The DRMP/DEIS documented the comprehensive analysis of planning alternatives for the management of public lands and resources administered by the BLM at the Monument. After additional input, analysis, and review, a Proposed Resource Management Plan/Final Environmental Impact Statement (PRMP/FEIS) was published in July 2009. The BLM approved the PRMP/FEIS (Alternative VI) as the Approved RMP (RMP or Approved Plan) for the Monument.

The following are the chapter titles, and brief descriptions of the chapter contents, for this document:

- **Chapter 1 - Introduction:** This chapter presents a brief introduction for this Approved Plan, including historical background (Section 1.1); an overview of the Approved Plan (Section 1.2); the purpose and need for the RMP (Section 1.3); a description of the Planning Area (Section 1.4); an overview of the planning process (Section 1.5); a description of the issues analyzed (Section 1.6); a description of the issues considered, but not further analyzed (Section 1.7); the planning criteria (Section 1.8); legislative requirements and constraints relevant to the land management and planning process (Section 1.9); an overview of the relationship of the RMP to other applicable BLM policies, plans, and programs (Section 1.10); an overview of consultation and coordination efforts (Section 1.11); a description of related plans (Section 1.12); and a summary of Monument policy and vision (Section 1.13).
- **Chapter 2 – Management Decisions:** This chapter describes the decisions to be implemented at the Monument, including Table 2-1, which outlines Goals and Objectives (Desired Future Conditions), Management Actions (Allowable Uses), and Monitoring.

- **Chapter 3 – Implementation:** This chapter describes the public involvement in implementation (Section 3.1); the Approved Plan implementation process (Section 3.2); Approved Plan maintenance (Section 3.3); the process to change and/or amend the Approved Plan (Section 3.4); and "tiering" (the incorporation, by reference, of the content of previous plans into future implementation-level project planning).
- **Chapter 4 – Monitoring, Evaluation, and Adaptive Management:** This chapter describes monitoring (Section 4.1), the evaluation process (Section 4.2), and adaptive management actions (Section 4.3).
- **References, Acronyms, and Glossary –** These sections include published and unpublished reference sources, and definitions of terms.
- **Appendices A through M and Maps –** The Appendices and maps provide supporting information for the chapters described above.
- **Addendum –** The Addendum provides the history and intent behind the establishment of the Canyons of the Ancients National Monument.

1.3 PURPOSE AND NEED FOR THE RMP

The purpose for the development of this RMP (Approved Plan) was to comply with the requirements of the Proclamation, the FLPMA, the NEPA, as well as all other applicable laws, regulations, guidelines, and policies; and to provide an integrated RMP designed to guide land use decisions and project-specific analyses on the Monument.

The development of this RMP was needed because:

- a Presidential Proclamation established the Monument as a discrete management unit;
- the Proclamation required protection of the objects of the Monument pursuant to applicable legal authorities; and
- the San Juan/San Miguel Resource Management Plan (1985) did not adequately address current issues and concerns or desired future conditions.

The Approved Plan identifies the vision, long-term management goals, intermediate objectives, and specific actions needed in order to attain the goals established for the Monument.

Specifically, the Approved Plan:

- ensures compliance with the Presidential Proclamation (Proclamation 7317) that established the Monument;
- protects the scientific and historic objects, as well as other resources, identified in the Proclamation;
- establishes guidance, objectives, policies, and direction for managing the Monument; and
- addresses issues relating to management of the Monument as identified through agency, interagency, and public scoping efforts.

1.4 PLANNING AREA

The Monument is located in the Four Corners region of southwestern Colorado, approximately 50 miles west of Durango, 10 miles west of Cortez, and 12 miles west of Mesa Verde National

Park (Mesa Verde) in Dolores and Montezuma Counties. In general terms, Colorado Highway 491 is on the eastern and northern boundary; Montezuma County Road G, McElmo Creek, and the Ute Mountain Ute Reservation are on the southern boundary, and the Utah/Colorado State line is on the western boundary of the Monument (Figure 1-1).

The “Monument” consists of lands within the original Monument boundary, including inholdings that have been acquired since the Monument was established in June of 2000. The Monument includes approximately 170,965 acres of BLM-administered land. There are approximately 12,164 acres of private land inholdings and approximately 400 acres of Federal land managed by the National Park Service (NPS/Hovenweep National Monument), inside the Monument boundary (Figure 1-2). The “Planning Area” includes the Monument, acquired edgeholdings, and the Anasazi Heritage Center (AHC). For the purposes of this document, the Monument will refer to the entire Planning Area.

The Monument lies within the Colorado Plateau Ecological Province. The Monument exhibits the varied topography, geology, soil, and flora and fauna components typical of this Province (including desert scrub/salt desert, riparian, pinyon-juniper woodlands, mountain shrub, and big sagebrush plant communities). Elevations within the Monument range from approximately 4,900 feet to approximately 7,500 feet above sea level.

Figure 1-1 Location

Figure 1-2 Land Ownership

1.5 PLANNING PROCESS

The BLM uses a multi-step process when developing an RMP. Some of the steps may occur concurrently. Some situations may require the land manager to supplement previous work as additional information becomes available.

In general, the BLM follows a ten-step land use planning process, as outlined below:

- **Step 1 – Identify Planning Issues:** Issues and concerns are identified through a scoping process that includes local, State, and other Federal agencies; Native American tribes; interested groups and agencies; and the general public.
- **Step 2 – Develop Planning Criteria:** Planning criteria are created in order to ensure that decisions address the issues pertinent to the planning effort. They help establish constraints, and determine what will, or will not, be done or considered during the planning process. Planning criteria are derived from a variety of sources, including applicable laws, regulations, guidelines, and policies; existing management plans; coordination with other agencies' programs; and the results of public and agency scoping. As planning proceeds, planning criteria may be updated or changed.
- **Step 3 – Collect Data and Information:** Based upon planning criteria, data and information for the resources within the Monument are collected.
- **Step 4 – Analyze the Management Situation:** Information is gathered on the current management situation. Pertinent physical and biological characteristics are described, and the capabilities and conditions of the resources are evaluated. The collected data and information are assembled into the Analysis of the Management Situation (AMS) document (BLM 2005b).
- **Step 5 – Formulate Alternatives:** A range of reasonable management alternatives are developed that address issues identified during scoping, meet planning criteria, and reflect the data and information collected.
- **Step 6 – Assess Alternatives:** The environmental impacts of each alternative are estimated and analyzed. The Preferred Alternative, which in the judgment of management best resolves the planning issues and promotes balanced multiple use and sustained yield objectives, is selected.
- **Step 7 – Issue Draft and Proposed RMP/EIS:** A DRMP/DEIS, and an associated Notice of Availability (NOA) is issued and made available to the public for a review period of 90 calendar days. After comments are received and analyzed, the DRMP/DEIS is revised and modified, as necessary, and the Proposed RMP/Final EIS (PRMP/FEIS) is published. The PRMP/FEIS is made available for public review for 30 calendar days.
- **Step 8 – Issue Record of Decision, Approved Resource Management Plan:** A Record of Decision (ROD) is signed to approve the final Resource Management Plan (the Approved Plan).
- **Step 9 – Implement and Monitor the Approved Plan:** Implementation and monitoring of the Approved Plan is conducted by the BLM on an ongoing basis.

1.6 ISSUES ANALYZED

The process for developing, amending, or revising a land use plan begins with identifying issues (40 CFR 1501.7; 43 CFR 1610.4-1) and management concerns. The NEPA requires that Federal agencies hold an open and early process for determining the scope of issues to be addressed in an environmental analysis in order to identify significant issues. The CEQ regulations state that: "NEPA documents must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail." Significant issues are identified as "significant" due to the extent of their geographic distribution, the duration of their impacts, and/or to the intensity of interest or resource conflict.

Significant planning issues were identified and defined through an analysis of current land use/management within the Monument; the results of BLM internal scoping; as well as public, agency, Native American tribal, and the Monument Advisory Committee's scoping comments. The scoping comments guided the BLM in determining the appropriate depth of analysis for each issue, as well as in determining which issues were outside of the scope of the RMP. Issues identified during the scoping process were taken into consideration during alternative formulation.

Table 1-1 summarizes issues raised during the scoping process. A total of 5 issues accounted for over 62 percent of the scoping comments received from local communities (Durango, Dolores, Cortez, and Mancos) and agencies. The 5 issues below were the focus of analysis throughout the development of the RMP.

Table 1–1 Planning Issues Raised by the Public and Agency Staff during Scoping (Percent of Comments)
Cultural and Paleontological Issues (15.9 Percent)
Protection and preservation of cultural and paleontological resources for current and future scientific research and development opportunities
Access to cultural resource sites
Looting
General Recreation (14.1 Percent)
Permitted and restricted types of recreation and their allocated 'zones' or locations
Related routes and transportation issues, such as OHV access and limitations
Transportation Network (12.7 Percent)
Route closures and access
Route maintenance and improvements
Rangeland Management/Grazing (10.0 Percent)
Management for healthy plant communities in order to promote ecosystem health
Administration of grazing allotments
Evaluation of impacts of grazing, and adjustment of practices, in terms of current standards and guidelines

Table 1–1 Planning Issues Raised by the Public and Agency Staff during Scoping (Percent of Comments)
Mineral Resources (9.4 Percent)
Limitations on oil and gas exploration and development
Mitigation of impacts resulting from existing and new mineral development
Mineral exploration and development alternatives

1.7 ISSUES CONSIDERED, BUT NOT FURTHER ANALYZED

The CEQ regulations also state that the agency should "identify and eliminate from detailed study the issues which are not significant or which have been covered by prior environmental review."

Numerous issues were identified for consideration during the planning process. All comments received during scoping were classified according to categories. However, only those issues identified and placed under Category A were carried forward for analysis. [The methodology for addressing individual issues is outlined in the Scoping Report (BLM 2004).] The categories and examples of issues placed within each category are as follows:

- **Category A:** Issues to be addressed in the RMP. (Examples: Limit fluid mineral development to existing routes; limit OHV use to designated routes; allow for commercial tours.)
- **Category B:** Issues to be resolved through policy or administrative actions. (Examples: Ban livestock grazing on the Monument; prohibit all fluid mineral development.)
- **Category C:** Issues to be addressed independent of the RMP. (Examples: Evaluate mine facilities that are less than 50 years old for their historical significance; inventory/classify routes; conduct cultural resource inventories.)
- **Category D:** Issues beyond the scope of the RMP. [Examples: Designate Wilderness Study Areas (WSAs); protect private water rights; continue farming and crop production.)

Issues identified and placed under Categories B through D were considered, but not further analyzed.

1.8 PLANNING CRITERIA

BLM planning regulations (43 CFR 1610.4-2) require the development of planning criteria designed to guide preparation of the RMP. Planning criteria are the constraints or "ground rules" that guide and direct the preparation of RMPs. They ensure that the RMP is tailored to the identified issues, and that unnecessary data collection and analyses are avoided. Planning criteria are based upon applicable laws and regulations, agency guidance, and the result of consultation and coordination with local, State, and other Federal agencies, Native American tribes, interested groups and organization, and the public.

Planning criteria were used to guide and direct the planning process for the development of the RMP. Planning criteria helped:

- ensure that the RMP complies with the Monument Proclamation, that it was tailored to the issues identified during the planning process, that unnecessary data collection and analysis was avoided, and that the focus remained on the decisions to be made;
- provide an early basis for determining inventory and data collection needs;
- enable the Monument Manager and staff to develop a preliminary planning base map delineating geographic analysis units;
- stimulate the revision of existing planning criteria and the development of additional criteria through public participation; and
- provide parameters for the decision and alternatives considered in the DRMP/DEIS and in the PRMP/FEIS, taking into account applicable laws, regulations, guidelines, and policies.

1.8.1 Monument Planning Criteria

The planning criteria listed below were identified for the development of the RMP. They are now expressed as part of the Approved Plan:

- The RMP establishes guidance for the management of the resources and values within the Monument. The RMP supersedes the existing 1985 San Juan/San Miguel RMP and will be integrated, to the extent possible, with provisions of existing management plans and policies for adjacent lands (such as the Montezuma County Comprehensive Plan).
- The RMP has been completed in compliance with the Proclamation, the FLPMA, the NEPA, the Endangered Species Act (ESA), as well as with all other applicable laws, regulations, Executive Orders (EOs), and BLM policies.
- The Monument planning team has worked collaboratively with the State of Colorado, Montezuma and Dolores Counties, Native American tribal governments, Cooperating Agencies, municipal governments, other Federal agencies, the Monument Advisory Committee, and all other interested groups, agencies, and individuals.
- The planning process has involved Native American tribal governments, and provided strategies for protecting recognized traditional uses.
- The term “No Surface Occupancy” (NSO) applies only to oil and gas leasing and permitting, whereas the term “No Ground Disturbance” (NGD) applies to all other activities. Similarly, the term “Controlled Surface Use” (CSU) applies only to oil and gas leasing and permitting; whereas the term “Site-Specific Relocation” (SSR) applies to all other activities. Timing limitations (TLs) apply to all activities. Lease notices (LNs) apply only to oil and gas leasing and permitting; however, similar requirements will be applied during permit or application approval for other activities.
- All existing stipulations in the San Juan/San Miguel RMP Amendment Record of Decision (ROD) for oil and gas (BLM 1991a) are carried forward into the Approved Plan.
- The RMP incorporates the Colorado BLM Recreation Guidelines to meet Public Land Health Standards (BLM 2000). It sets forth a framework for managing recreational activities in order to provide for the enjoyment and safety of the visiting public, consistent with the Proclamation.
- The lifestyles and recreational pursuits of area residents have been considered in the RMP.

- All private lands or private interests located within, or immediately adjacent to, the Monument boundary and acquired by the BLM will be managed consistently with the RMP, subject to any constraints associated with the acquisition.
- The RMP addresses Monument boundary adjustments or proposals to change the Proclamation.
- The RMP recognizes valid existing rights within the Monument. The RMP also discusses the process the BLM will use in order to address applications or notices on existing claims or other land use authorizations filed after completion of the ROD and associated Approved Plan.
- The RMP emphasizes the scientific and historic resources of the Monument. It also identifies opportunities and priorities for research and education related to the resources for which the Monument was created. In addition, it describes an approach for incorporating research into management actions.
- The management of livestock grazing is governed by existing laws and regulations. The RMP incorporates Colorado Standards for Public Land Health and Guidelines for Livestock Grazing Management (BLM 1997). The RMP provides a strategy for ensuring appropriate livestock grazing practices are followed within the Monument. The Approved Plan, through the associated ROD, also allocates available livestock grazing AUMs.
- Coordination occurred with the U.S. Fish and Wildlife Service (USFWS), through the Section 7 Consultation process in order to protect and enhance known habitat for threatened and endangered species, and to assist in the recovery of listed species to maintain biological diversity within the Planning Area. Special status species were reviewed, including species proposed for listing under the ESA throughout the Planning Area in order to conserve habitat through inventory, monitoring, and adoption of conservation measures needed to curtail listing.
- Coordination occurred with the Colorado State Historic Preservation Officer (SHPO) throughout the planning process, according to the 1997 National Programmatic Agreement and the BLM Colorado State Protocol.
- The RMP recognizes the State's responsibilities to manage wildlife populations, including uses such as hunting and fishing, within the Planning Area.
- The RMP establishes new guidance and identifies existing guidance upon which the Monument will rely in managing public lands within the Planning Area.
- The RMP carries forward existing WSAs; national trails; Backcountry Byways; Wild and Scenic River (WSR) suitability recommendations; and, as appropriate, existing ACECs.
- Geospatial data was automated within a Geographic Information System (GIS) in order to facilitate discussions of the affected environment, alternative formulation, analysis of environmental consequences, and display of results.
- Resource allocations are reasonable, achievable, supported by technology, and within budgetary constraints. Resource allocations are consistent with current BLM policy.

1.9 LEGISLATIVE POLICY AND CONSTRAINTS

The BLM planning process is governed by the FLPMA and the BLM Planning Regulations listed in 43 CFR Part 1600. RMPs are the primary mechanism for guiding BLM activities so that the mission and goals outlined in the BLM Strategic Plan are achieved. [See the BLM's *Land Use Planning Handbook* (H-1601-1) for program-specific guidance.] RMPs ensure that public land is managed in accordance with the intent of Congress as stated in the FLPMA, under the principles of multiple use and sustained yield.

As required by the FLPMA, as well as by BLM policies and guidelines, the public lands must be managed in a manner that protects the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values; and that, where appropriate, will:

- preserve and protect certain public lands in their natural condition;
- provide food and habitat for fish, wildlife, and domestic animals;
- provide for outdoor recreation and human occupancy and use; and
- recognize the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands [Sec. 102 43 USC 1701 (a)(3)] .

FLPMA Section 302(a) requires that where a tract of land has been dedicated to a specific use according to law, such as the Presidential Proclamation that established the Monument, the tract shall be managed in accordance with the provisions of the designating language (BLM 2009a).

In addition to the FLPMA, the NEPA, and their associated regulations, the BLM must comply with the mandate and intent of all applicable laws, regulations, guidelines, and policies that apply to BLM-administered lands and resources within the Planning Area.

The planning process is intended to develop RMP decisions that resolve conflicts between program priorities, policies and guidelines and that meet the multiple use and sustained yield mandate of the FLPMA.

1.10 RELATIONSHIP TO BLM POLICIES, PLANS, AND PROGRAMS

The BLM has 3 principal levels of land use planning decisions: 1) the RMP level, 2) the activity level, and 3) the site-specific level. This RMP focuses on establishing broad resource objectives and direction while, at the same time, providing some activity-level guidance and site-specific decisions. It builds upon the history of natural resource management in the vicinity of the Monument.

Table 1-2 highlights existing and associated BLM management plans. Table 1-3 highlights the major policies and laws leading up to how the Monument is presently managed. These plans are incorporated into this Approved Plan by reference, but are not included herein. Some of these plans, as well as other related plans, are currently being updated. All of the new and revised plans will be included in the Administrative Record (AR) for this project and made available upon request.

(NOTE: These are not all-inclusive lists and only provide the types of management plans, laws and policies that guide management of the public lands.)

Table 1–2 Existing and Associated BLM Management Plans
San Juan/San Miguel Planning Area RMP (revision in progress) (1985)
Anasazi Culture Multiple Use ACEC Management Plan (1986)
San Juan/San Miguel RMP Oil and Gas Leasing Development Plan Amendment/EIS (1991)
Trail of the Ancients Scenic and Historic Byway Amended Corridor Management Plan (1998)
Fire Management Plan for the San Juan Field Office and San Juan National Forest (2004)
Colorado National Landscape Conservation System Strategic Plan (2007)(BLM 2007d)
Canyons of the Ancients National Monument - A Strategic Plan for Fluid Minerals Management (2008) (BLM 2008c)
Monticello Field Office RMP (2008)
Canyons of the Ancients National Monument Law Enforcement Plan (2010)

Table 1–3 Major Policies and Laws
Environmental Policy • National Environmental Policy Act (1969) (42 USC 4321 et seq.) • BLM Manual 1790 and Handbook H-1790-1 (NEPA Handbook) • Executive Order (EO) 11514 (as amended by EO 11991), Protection and Enhancement of Environmental Quality • EO 12088, Federal Compliance with Pollution Control Standards
Land Use and Natural Resources Management • American Indian Religious Freedom Act (1978) (PL 95-341) • Carlson-Foley Act (1968) (42 USC 1241-1243) • Federal Land Policy and Management Act (1976), as amended (43 USC 1701 et seq.) • BLM Wilderness Recommendations (FLPMA Section 603) • Energy Policy and Conservation Act (2000), as amended (42 USC 6217 et seq.) • Federal Land Exchange Facilitation Act (1988) (PL 100- 409, 102 Stat. 1086. 43 USC 1716) • Federal Land Transaction Facilitation Act (2000) (P.L. 106-248) • Federal Noxious Weed Act (1974), as amended by Sec. 15, Management of Undesirable Plants on Federal Lands (1990) (7 USC 2814) • Federal Onshore Oil and Gas Leasing and Reform Act (1987) (30 USC 181 et seq.) • General Mining Law (1872), as amended (30 USC 22, et seq.), as amended by PL 108-447, Division E, Section 120 (30 USC 23 et seq.) • Healthy Forests Restoration Act (2003) (PL 108-148)

Table 1–3 Major Policies and Laws
• Mineral Leasing Act (1920), as amended (30 USC 181, et seq.) • Noxious Weed Control Act of 2004 [Public Law (PL) 108-412] • Public Rangelands Improvement Act (1978) (43 USC 1901-1908) • Taylor Grazing Act of 1934 (43 USC 315), as amended by the Act of August 28, 1937 (43 USC 1181d) The Wilderness Act (1974) (PL 88-577) • Wild and Scenic Rivers Act (1968), as amended (16 USC 1271 et seq.) • BLM Manual 1601 and Handbook H-1601-1 (Land Use Planning) (BLM 2001g, BLM 2005a) • BLM Instruction Memorandum (IM) 2001-022: Planning Guidance for National Monuments and National Conservation Areas (BLM 2001f) • BLM Manual 4180 and Manual H-4180-1 (Land Health and Rangeland Health Standards) • BLM Standards for Public Land Health in Colorado (BLM 1997) • BLM Manual 8351 (Wild and Scenic Rivers) • EO 12548, Grazing Fees • EO 12898, Environmental Justice • EO 13084, Consultation and Coordination with Indian Tribal Governments • EO 13112, Invasive Species • The Brunot Agreement of 1874 • The Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States Programmatic EIS (PEIS) (2007a) and the Vegetation Treatments on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Report (PER) (2007b) • Wind Energy Development Program and the Final Programmatic Environmental Impact Statement (EIS) on Wind Energy Development on BLM-Administered Lands in the Western United States (BLM 2005d) and the Wind Programmatic EIS ROD (BLM 2005e) • The Federal Lands Hunting, Fishing and Shooting Sports Roundtable Memorandum of Understanding (MOU No. 250-2007-03) • National Off-Highway Vehicle (OHV) Strategy (January 19, 2001) • National Mountain Bike Strategy (November 12, 2002) • Partners Against Weeds, An Action Plan for the Bureau of Land Management (BLM 1996b)
Cultural and Paleontological Resources • Archaeological Resources Protection Act (1979), as amended (16 USC 470a, 470cc and 470ee) • Historic Sites Act (1935) (16 USC 461) • National Historic Preservation Act (1966), as amended (16 USC 470) • Native American Graves Protection and Repatriation Act (1990) (25 USC 3001) • BLM Manual 8100 (The Foundations for Managing Cultural Resources) • BLM Manual 8120 (Tribal Consultation under Cultural Resources) • BLM Manual 8140 (Protecting Cultural Resources) • BLM State Protocol Agreement between the BLM Colorado State Director and the Colorado State Historic Preservation Officer (SHPO) (BLM 1998a) • BLM Programmatic Agreement among the Bureau of Land Management, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers (BLM 1999)

Table 1–3 Major Policies and Laws
• EO 11593, Protection and Enhancement of the Cultural Environment • EO 12866, Regulatory Planning and Review • EO 13084, Consultation and Coordination with Indian Tribal Governments • EO 13287, Preserve America
Air Quality • Clean Air Act (1990) (42 USC 7401, 7642) • State of Colorado Air Quality Standards and Regulations
Water Quality • Clean Water Act (1987) (33 USC 1251), as amended • Soil and Water Resources Conservation Act (1977) (16 USC 2001 - 2009) • State of Colorado Water Quality Regulations • EO 11988, Floodplain Management • EO 11990, Protection of Wetlands
Hazardous Materials • Pollution Prevention Act of 1990 (42 USC 13101-13109) • Resource Conservation and Recovery Act (1976), as amended by the Federal Facility Compliance Act (1992) (42 USC 6901-6992)
Wildlife Resources • Bald Eagle Protection Act (1940) (16 USC 668-668d, 54 Stat. 250) • Endangered Species Act (1973), as amended (16 USC 1531 et seq.) • Fish and Wildlife Coordination Act (1958) (16 USC 661-666) • Fish and Wildlife Improvement Act (1978) (16 USC 742l; 92 Stat. 3110) • Fish and Wildlife Conservation Act (1980), as amended (16 USC 2901-2911) • Migratory Bird Treaty Act (1918) (16 USC 715) • BLM Manual 6840 (Special Status Species Management) • EO 13186, Responsibilities of Federal Agencies to Protect Migratory Birds

1.11 CONSULTATION AND COORDINATION

The BLM Land Use Planning Handbook H-1601-1 (BLM 2005a) encourages the BLM to use a "Collaborative Planning Process" whereby interested parties can work together in order to seek solutions for managing public lands. Public participation assists the agencies in:

- broadening the information base necessary for sound decision making;
- informing the public about the RMP/EIS, as well as about the potential environmental impacts associated with various management decisions; and
- ensuring that public needs and viewpoints are understood by the BLM.

Consultation and coordination efforts involved individuals, groups, and organizations; coordinating and cooperating agencies; local, State, and other Federal agencies and officials; Native American tribes; and BLM staff. These collaborative efforts will continue throughout the implementation of the Approved Plan. The public and other stakeholders also participated in the development of the RMP through the Monument Advisory Committee and the Southwest Resource Advisory Council (SWRAC) Monument Subgroup, which remains active to date.

The development of the Approved Plan provided numerous opportunities for the public to be involved in the process, including, but not limited, to:

- Public scoping meetings were initially held in order to assist the BLM in assessing the scope of the RMP proposed actions and alternatives to be considered.
- Public meetings were held once the DRMP/DEIS was released in order to garner public comments.
- A public protest period was held after the PRMP/FEIS was completed in order to allow for public input before the decisions were finalized in the ROD/Approved Plan.

1.11.1 Native American Tribes

Consultation with Native American tribes was initiated prior to the official designation of the Monument. In 2000, Monument and AHC staff formally initiated consultation with 25 tribes and completed a cultural affiliation study (Gilpin 2002). The affiliation study captured tribal comments on the management of resources, as well as on the treatment of human remains, within the Monument. In addition, the tribes made recommendations concerning their involvement in the development of the RMP. These recommendations included: the BLM providing the tribes with updates during the planning process; the BLM hosting meetings with the tribes in order to collect scoping comments; and the BLM conducting a field trip of the Monument and of archaeological collections at the AHC in cooperation with the tribes.

Throughout the planning process, the BLM actively consulted with the Native American tribes affiliated with the Monument. These efforts included updates via newsletters, meetings, one-on-one contact with tribal members, and at Mesa Verde's annual NAGPRA meetings.

1.11.2 Cooperating Agencies

Cooperating Agency status provides a formal framework for governmental units (local, State, Federal, and Native American tribal) to engage in active collaboration with a lead Federal agency (the BLM, in this case) during the planning process. On February 20, 2003, the BLM mailed out invitations to potential Cooperating Agencies. The invitation was sent to 4 Federal agencies, 2 State agencies, 2 local governments, and 25 Native American tribes. Only 2 entities, the Colorado Historical Society and the USFWS, signed the Cooperating Agency Memorandum of Understanding (MOU).

1.11.3 Intergovernmental/Interagency Consultation and Coordination

In addition to public workshops, the BLM met with local, State, and other Federal agencies in order to gather feedback on resource issues and concerns. Agencies involved throughout the planning process included the NPS (including Hovenweep National Monument, Canyonlands National Park, and Mesa Verde National Park), the BLM and U.S. Forest Service (USFS) at the San Juan Public Lands Center (SJPLC), the USFWS, the BLM Utah San Juan Field Office, the

Environmental Protection Agency (EPA), the Colorado Department of Health and Environment (CDPHE), the Colorado Department of Natural Resources-Division of Wildlife, the Colorado Historical Society, and Montezuma and Dolores Counties.

1.11.4 Monument Advisory Committee

On June 6, 2003, an 11-member Monument Advisory Committee (Advisory Committee) was established. Member selection was based upon knowledge and on level of expertise in specific areas of interest. The Advisory Committee's duties included gathering and analyzing information; conducting studies and field examinations; hearing public testimony; advising the BLM on establishing priorities, goals, and objectives; developing recommendations for management implementation; and advising the BLM on local collaborative management approaches.

During the planning process, the Advisory Committee (and Monument Subgroup) met 24 times. In addition, Advisory Committee members broke out into smaller groups to work on specific topics, and they also held meetings with their constituents.

1.11.5 Other Stakeholders and Partners

Numerous groups and individuals have shown interest in, and participated in, the management of the Monument. Stakeholders are individuals who have an interest in the management of the Monument. Partners have an interest as well, but they have also contributed to the research, protection, and/or management of the Monument. Almost 40 partners and stakeholders participated in the planning process, and have contributed to managing the Monument's resources.

Table 1-4 lists key cooperators and agencies consulted throughout the planning process.

Table 1–4 Key Cooperators and Consulting Agencies

FEDERAL AGENCIES	U.S. Fish and Wildlife Service
	National Park Service
	U.S. Forest Service
	Environmental Protection Agency
STATE AGENCIES	State of Colorado
	Colorado Department of Public Health and the Environment
	Colorado Department of Natural Resources-Division of Wildlife
	Colorado Historical Society, Office of Archaeology and Historic Preservation
NATIVE AMERICAN TRIBES	Ute Mountain Ute Tribe Uintah-Ouray Ute Tribe Southern Ute Tribe

Table 1–4 Key Cooperators and Consulting Agencies	
	Navajo Nation Hopi Tribe Pueblo of Acoma Pueblo of Cochiti Pueblo of Isleta Pueblo of San Felipe Pueblo of Santa Ana Pueblo of Santo Domingo Pueblo of Jemez Pueblo of Laguna Pueblo of Sandia Pueblo of Zia Pueblo of Zuni Pueblo of Nambe Pueblo of San Juan Pueblo of Picuris Pueblo of Pojoaque Pueblo of San Ildefonso Pueblo of Santa Clara Pueblo of Taos Pueblo of Tesuque Jicarilla Apache
COUNTY AGENCIES	Montezuma County
	Dolores County

1.12 RELATED PLANS

Title II, Section 202 of the FLPMA requires the BLM to coordinate planning efforts with local, State, and other Federal agencies, and Native American tribes during the land use planning process. Therefore, to the extent practical, RMPs and amendments must be consistent with officially approved or adopted resource-related plans of local, State, and other Federal agencies, and Native American Tribes (43 CFR 1610). BLM RMPs must also be consistent with the purposes, policies, and programs of the FLPMA, as well as with other Federal laws and regulations applicable to public lands, including Federal and State pollution control laws (43 CFR 1610.3-2 [a]). A Governor's 60-day consistency review ensures compliance with State management plans.

Three primary plans were reviewed in order to determine if the RMP is in compliance with other planning efforts in the area:

- **The San Juan Public Lands (SJPL) Draft Land Management Plan/Draft Environmental Impact Statement (DLMP/DEIS):** This plan was released for public review in December of 2007. The DLMP/DEIS covers management actions on

approximately 2,367,800 acres of lands administered by the USFS and by the BLM in southwestern Colorado. These lands predominately surround the Monument. Many of the Federal employees involved in developing the SJPL's DLMP/DEIS were the same employees who worked on developing the Monument's DRMP/DEIS; therefore, the two plans should complement each other. In addition, both plans are required to abide by many of the same laws and regulations. However, the Monument was established by Presidential Proclamation and falls within the BLM's NLCS. These designations add additional considerations and management requirements for the Monument.

- **The Montezuma County Comprehensive Plan:** This plan was adopted on January 6, 1997. It contains several statements that emphasize the importance of multiple-use management. This coincides with the mission of the BLM. However, the primary philosophy stated in the Montezuma County Plan is, "While recognizing the importance of recreation and resource protection, Montezuma County places the highest priority on the continuation of traditional and historic uses such as grazing, timber harvesting, mining and energy development" (pp. 12-2, No. 4). This management philosophy is contradictory to BLM's requirement that the Monument's RMP be consistent with the Proclamation and the FLPMA. The FLPMA established the mandate that public lands shall be managed for "multiple use" and "sustained yield." The FLPMA defines "multiple use" as the "harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output" (43 USC 1702). In addition, FLPMA Section 302(1) requires that where a tract of land has been dedicated to a specific use according to law, such as the Presidential Proclamation that established the Monument, the designating language is the controlling law (BLM 2009a).
- **The Dolores County Master Plan:** This plan was completed in 1997, and recognizes the important role public lands play in the life-style and economics of the county. The plan states specific objectives, including: the protection of rural character and prime agricultural land; the maintenance of water, air, and wildlife quality; the protection of historic and cultural sites; the maintenance of property rights; and, the importance of coordination between government entities. The Monument's RMP appears to be consistent with the Dolores Master Plan.

1.13 MONUMENT POLICY AND VISION

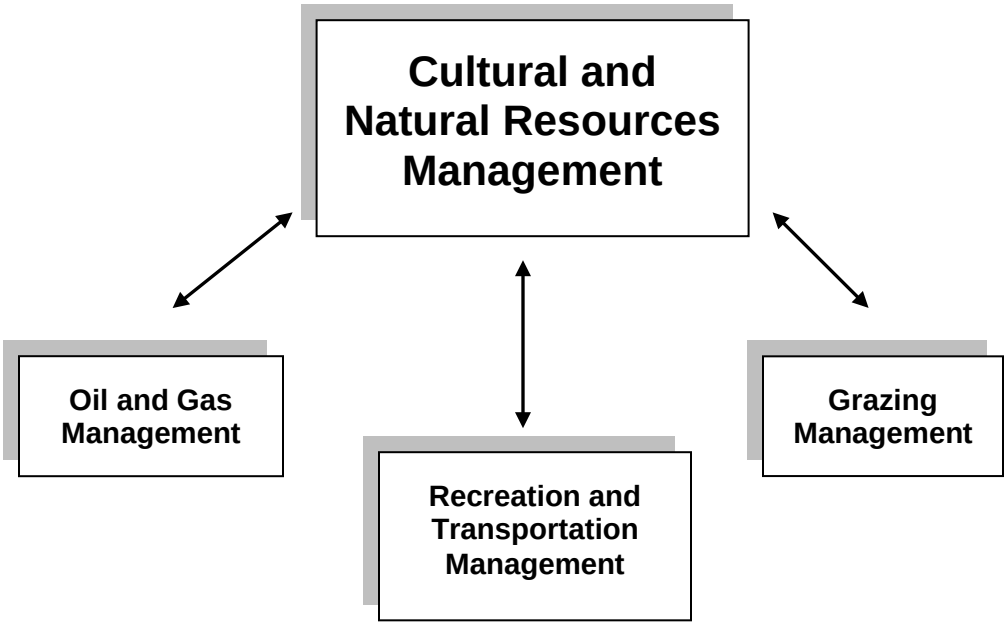
Presidential Proclamation

On June 9, 2000, Presidential Proclamation Number 7317 (the Proclamation) established the Canyons of the Ancients National Monument in order to ensure the protection of the area's cultural and natural objects. The Proclamation states:

> *Containing the highest known density of archaeological sites in the Nation…natural resources and spectacular landforms…rugged and dissected geology…and wildlife species…I do proclaim for the purpose of protecting the objects identified above…Canyons of the Ancients National Monument.*

As mandated by the Proclamation, the focus of this RMP is the preservation of the objects of the Monument, within the context of multiple use and sustained yield, under BLM management. This mandate remained the central focus throughout the planning process, and resulted in a

more narrow range of management alternatives than that typically found in other land use assessments. The following diagram represents the Monument's approach to meeting Proclamation requirements while, at the same time, effectively managing primary issues:



Management and protection of cultural resources is extended to settlement clusters and the surrounding natural resources (the "setting") in order to gain a better understanding of how people settled and used the land.

The management of the Monument is subject to the overriding purpose of protecting the objects described in the Proclamation within the context of multiple use and sustained yield, as defined by the FLPMA. However, FLPMA Section 302(a) requires that where a tract of land has been dedicated to a specific use according to law, such as the Presidential Proclamation that established the Monument, the tract shall be managed in accordance with the provisions of the designating language (BLM 2009a).

The National Landscape Conservation System

The Monument is included in the BLM's National Landscape Conservation System (NLCS). The NLCS was created by the BLM in 2000 in order to protect the remote and wild character of unique places on BLM-administered lands. The U.S. Congress formally established the NLCS when it passed the Omnibus Public Land Management Act of 2009. The Omnibus Public Land Management Act was signed into law by President Obama on March 30, 2009.

The Canyons of the Ancients National Monument is part of the NLCS, with a vision that emphasizes the protection of entire landscapes of cultural and natural values in order to maintain their integrity amongst the surroundings that sustain them. The term "landscape" in the NLCS title is a key element as to how public lands within the NLCS system are to be managed. The emphasis is on protecting entire landscapes for cultural and natural values, instead of preserving only isolated parcels and fragmented ecosystems.

CHAPTER 2 MANAGEMENT DECISIONS

The Approved Plan will direct the management of BLM-administered public lands and subsurface mineral estate (or "split estate," which is where the surface acres are managed or owned by other governmental agencies, groups, or by private individuals) managed by the Monument. RMP decisions are broad-scale decisions that guide future land management actions and subsequent site-specific implementation decisions. The decisions outlined in this document will enable the BLM to comprehensively manage the resources and uses of BLM-administered lands located within the Planning Area.

This chapter presents the land use planning decisions established by the Approved Plan. Table 2-1 divides each resource into 3 sections: Goals and Objectives, Management Actions, and Monitoring. [Note: All acreages presented in Table 2-1 (as well as throughout the RMP) are estimations, even when presented to the nearest acre.]

2.1 GOALS AND OBJECTIVES

Goals and Objectives (Desired Future Conditions) provide overarching direction for BLM actions in meeting the agency's legal, regulatory, policy, and strategic requirements. Goals are broad statements of desired outcome; generally, they are not measurable. Objectives are more specific statements of a desired future condition that may include a measureable component. Desired Future Conditions represent land or resource conditions that are expected to result if planning goals and objectives are fully achieved. Goals and Objectives were identified and refined through the agency and public scoping; through collaboration with Cooperating Agencies, the Monument Advisory Committee, and other interested parties; and through the analysis process.

2.2 MANAGEMENT ACTIONS

Management Actions (Allowable Uses) are established in order to help achieve the Goals and Objectives (Desired Future Conditions). Management Actions identify where certain uses are allowed, restricted, or prohibited in order to achieve goals and objectives, and/or to protect certain resource values. Management Actions often include a spatial (map) component. Management Actions that require additional site-specific project planning, as funding becomes available, will require further environmental analysis.

2.3 MONITORING

Monitoring offers insights into the effectiveness of management actions taken as the result of the implementation of the Approved Plan. Monitoring is the process of repeated measurement of activities and conditions over a period of time, and is intended to detect and document natural and human-caused changes in resource conditions and visitor experiences. Monitoring data is examined in order to determine whether management actions are resulting in the achievement of Goals and Objectives, and, if not, why not. Conclusions drawn from monitoring data are then used to make recommendations on whether to continue current management, or to determine what changes need to be made in management practices in order to meet Goals and Objectives. Success is measured against the benchmark of achieving Goals and Objectives (Desired Future Conditions) through the use of Management Actions (Allowable Uses) established by the Approved Plan.

Monitoring also determines whether planned activities have been implemented in the manner prescribed by the Approved Plan. (This type of monitoring documents the BLM's progress toward full implementation of the Approved Plan management decisions. No specific thresholds or indicators are required for this type of monitoring.) (See Chapter 4, Monitoring, Evaluation, and Adaptive Management for more discussion of monitoring and evaluation strategies.)

2.4 IMPLEMENTATION DECISIONS

Generally, implementation decisions constitute the BLM's final approval allowing on-the-ground actions to proceed. These types of decisions require site-specific planning and NEPA analysis. They may be incorporated into implementation plans (activity or project plans) or may exist as stand-alone decisions.

Where implementation decisions are made as part of the land use planning process, as they are in this ROD and Approved Plan, they are subject to the appeals process and/or to other administrative reviews, as prescribed by specific resource program regulations.

The BLM will continue to involve, and cooperate and collaborate with, the public; local, State, and other Federal agencies; Native American tribes; and interested groups and organizations during implementation of this Approved Plan.

2.5 WHAT THE APPROVED PLAN DOES/DOES NOT PROVIDE

What the Approved Plan Provides

Many RMP decisions are implemented, or become effective, upon approval of the Approved RMP. RMP decisions identify specific areas of public land or mineral resources where certain uses or management actions are allowed, are excluded, or may be restricted in order to achieve a desired future condition or to protect certain resource values. For each resource, additional guidance is presented in the form of Administrative Actions. Administrative Actions are not RMP-level decisions. They are day-to-day activities conducted by the BLM, often as required by the FLPMA, which do not require a NEPA analysis or a decision by a Responsible Official. (See Chapter 3, Management Plan Implementation for more discussion of administrative actions.)

What the Approved Plan Does Not Provide

The Approved Plan does not contain decisions for actions outside the jurisdiction of the BLM. Many decisions are not appropriate at this level of planning; therefore, they are not included in the Approved Plan. Examples of these types of decisions are discussed below.

- **Statutory Requirements -** The decision will not change the BLM's responsibility to comply with applicable laws and regulations.
- **National Policy -** The decision will not change the BLM's obligation to conform to current or future national policy.
- **Funding Levels and Budget Allocations -** Funding levels and budget allocations are determined annually at the national level; therefore, they are beyond the control of the Monument.
- **Monitoring Strategies to Determine the Effectiveness of Management Decisions in Achieving Plan Goals and Objectives -** Monitoring strategies will be addressed in specific activity-based plans or stand-alone decisions that will be completed in order to implement the Approved Plan.

Table 2–1 Goals, Objectives and Management Actions

AIR QUALITY
GOALS AND OBJECTIVES
Goal: Protect air quality within, and outside of, the Monument.
Objectives: 1. Ensure that the air quality within the Monument meets State and Federal air quality standards and regulations. 2. Protect visibility at scenic and important vistas located within the Monument. 3. Cooperate with the State of Colorado, the National Park Service (NPS), and the U.S. Forest Service (USFS) regarding air quality issues at nearby Federal Class I Areas (Mesa Verde National Park and Weminuche Wilderness) in accordance with the Clean Air Act.
MANAGEMENT ACTIONS: ALLOWABLE USES AND ACTIONS
Comply with State and Federal air quality standards.
Obtain State of Colorado permits for emissions for all prescribed burns.
Cooperate with the Four Corners Air Quality Task Force regarding emission-reducing measures for management actions in order to help meet regional air quality standards.
Implement NOx controls on new and retrofit/replacement engines that are less than 300 horsepower (HP). Require all new, retrofit, or replacement stationary internal combustion engines that are less than 300 horsepower (excluding very small engines with less than 40 horsepower) to have a mandatory NOx limit of 2.0 grams per horsepower-hour, or as determined by the appropriate regulatory authority. No specific exception criteria are currently identified. (Authority: FLPMA Sec. 102; Sec. 202; State of Colorado letter to Mark Stiles dated 1/6/2005; EPA letter to Mark Stiles dated 8/10/2006.)
Implement NOx controls on large new and retrofit/replacement engines. Require all new, retrofit, or replacement fluid minerals stationary internal combustion engines that are greater than 300 horsepower to have a NOx limit of 1.0 grams per horsepower-hour, or the minimum acceptable limit as determined by the appropriate regulatory authority. No specific exception criteria are currently identified. (Authority: FLPMA Sec. 102; Sec. 202; State of Colorado letter to Mark Stiles dated 1/6/2005; EPA letter to Mark Stiles dated 8/10/2006).
Limit the number of drilling operations. Allow no more than 4 mineral-related well pads, and associated access roads, to be constructed in any given square mile, with each well construction project permitted no closer than 0.5 miles to another well construction project. (NOTE; This requirement must be implemented in order to minimize air pollution concentrations and to ensure compliance with State air quality standards.) No specific exception criteria are currently identified. [Authority: FLPMA Sec. 102; Sec. 202; the Monument's air quality modeling assumption, as disclosed to the public in the RMP.
Require the use of green mobile well completion equipment for oil and gas wells in order to prevent venting of saleable gas and other air pollutants into the atmosphere. [NOTE: Green mobile well equipment includes mobile tanks, portable separators, sand traps, and portable gas dehydration. Green well completions capture and recover greenhouse gases, such as methane and volatile organic compounds (VOCs); eliminate the need for flaring; provide greater operating safety; and minimize the waste of saleable gas.] Grant exceptions to this requirement, on a case-by-case basis, if a net negative emissions impact can be demonstrated (for example, that green mobile well completion equipment emissions would be greater when compared to traditional method well completion emissions). (Authority: FLPMA Sec. 102; Sec. 202; the San Juan Public Lands (SJPL) air quality modeling assumption, as disclosed in the SJPL DLMP/DEIS).

AIR QUALITY
Construct no more than 4 fluid minerals well pads, and associated access routes, concurrently in any given square mile, with each well permitted no closer than 0.5 mile to another well. (NOTE: This requirement must be implemented in order to minimize air pollution concentrations and to ensure compliance with State air quality standards.)
Adopt emissions controls for new and replacement wellhead engines, as well as for new large compressor stations.
Implement appropriate Best Management Practices (BMPs [see Appendix D]) and measures in order to reduce small particulate pollution (PM_{10} and $PM_{2.5}$) resulting from management actions (such as from dust abatement on existing and new route construction).
Ensure that management activities comply with all requirements of the State of Colorado regarding the protection of scenic and important vistas. Design and implement management actions in a manner that avoids impacts to scenic vistas within the Monument.
Protect air quality in adjacent Class I Areas, commensurate with potential impacts identified through regional air quality modeling.
Optimize/Centralize/Co-Locate new lease or new mineral development areas/facilities. (NOTE: Specific conditions designed to meet this management measure shall be developed during the planning and permitting process. Facilities include roads, well pads, utilities, pipelines, compressors, power sources, and fluid storage tanks.) Require the co-location of wells (more than 1 well per pad) wherever achievable and practicable. Locate utilities, flowlines, and other pipelines within road alignments wherever achievable and practicable. Require optimization (the use of fewer, larger, more efficient engines with lower emissions rates with higher cumulative horsepower, as opposed to the use of a greater number of smaller engines with higher emission rates that are less efficient).
Implement NOx control for existing engines. Encourage the retrofit/replacement of existing internal combustion engines for fluid minerals in order to meet the NOx limits of current standards required for new replacement/retrofit engines of all sizes, as determined by the Four Corners Air Quality Task Force process or by the State of Colorado.
Install lean burn engines on new and retrofit Engines. (NOTE: Lean burn engines that do not require after-treatment are preferred over rich burn engines with low NOx emission after-treatment.) Require Operator to demonstrate compliance with the Monument's NOx limit standards on a quarterly basis, if rich burn engines are selected.
Limit idling of diesel engines on diesel-fueled commercial and passenger vehicles. Limit engine idling to no more than 5 minutes during well drilling, well maintenance, well servicing, well regeneration, and/or other related activities. (NOTE: This excludes diesel engines that must maintain idle for safety reasons, such as maintaining pressure for emergency valve closure or downhole braking for pipe or drill line).
Close tank hatches and valves on all exploration and production tanks (condensation tanks); maintain valves in a leak-free condition. Use pressurized storage and transport of condensate and recovery in order to eliminate the venting of VOCs and hazardous air pollutants (HAPs) emissions.
Limit air pollution emissions from petroleum exploration/production and condensate storage tanks. (NOTE: This can be accomplished by either the installation of vapor recovery units or of inert gas blankets on all tank sizes, and/or through the use of floating roof tanks on larger tank sizes in order to limit VOCs and other liquid petroleum emissions.)
MONITORING
Monitoring efforts will focus on meeting State and Federal air quality standards (and Federal viewshed classes), especially during prescribed burn implementation.

CULTURAL RESOURCES

GOALS AND OBJECTIVES

Goal A: Identify, preserve, and protect significant cultural resources in a manner that ensures long-term public benefits (such as those associated with research, education, and/or the preservation of cultural heritage) in accordance with the FLPMA, Sections 103I, 201 (A), 202 (C); the National Historic Preservation Act (NHPA) Sections 106 and 110; the Archaeological Resources Protection Act (ARPA), Section 14(a); and the Antiquities Act (Section 2).

Objectives:

1. Allocate all cultural resource uses currently recorded, or projected to occur on the basis of existing data synthesis, according to their nature and relative preservation value (BLM Manual Section 8110.42 and Planning Handbook H-1601-1 Appendix C). Cultural Use Allocations include:
   A. Scientific Use;
   B. Conservation for Future Use;
   C. Traditional Use;
   D. Public Use (Developed) and Public Use (Undeveloped);
   E. Experimental Use; and
   F. Discharged from Management.
2. Inventory, document, and evaluate cultural resources in a manner that facilitates proper management, protection, and research.
3. Cooperate with Hovenweep National Monument on the protection and management of cultural resources.

Goal B: Ensure that the objects of the Monument are managed at the landscape level, and that all multiple-use resource management and authorizations for land and resource uses are conducted in compliance with Section 106 and Section 110 of the NHPA, as amended.

Objectives:

1. Manage cultural resources on a landscape level.
2. Manage multiple uses in a manner that ensures the protection of cultural resources, in compliance with Section 106 of NHPA.
3. Manage cultural resources for the protection, preservation, and realization of BLM Cultural Use Allocations.
4. Preserve the existing character of the cultural and physical landscape to the maximum extent possible.
5. Encourage, foster, and conduct scientific research on cultural resources within the Monument.
6. Manage all Monument/Anasazi Heritage Center (AHC) collections in compliance with 36 CFR Part 79; U.S. Department of the Interior (USDOI) Departmental Manual, Part 411; the Native American Graves Protection and Repatriation Act (NAGPRA); and the USDOI Museum Property Handbook, 411 DM, Vols. I-II.
7. Strive toward responsive and sensitive stewardship and management of cultural heritage values associated with cultural resources and landscapes.

Goal C: Uphold Native American Trust responsibilities and accommodate traditional uses within the Monument.

Objective:

Develop a policy in consultation with Native American tribes that specifies how the Monument will provide forest products (such as willow or juniper branches) for traditional cultural use.

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MANAGEMENT ACTIONS: ALLOWABLE USES AND ACTIONS
Allocate all cultural resources to Uses A-D [Public Use D (Developed) and Public Use D (Undeveloped) and E]. [NOTE: For the purposes of this document, the following distinction is made for Public Use D: sites allocated to Public Use D will be identified as: 1) “Public Use D (Developed)” -- sites that are promoted to the public and hardened (see listing below), and 2) “Public Use D (Undeveloped)” -- sites that are not promoted to the public or hardened, but which may be visited in a backcountry context. Both Public Use D (Developed) and Public Use D (Undeveloped) are considered components of the outdoor museum concept. No sites will be allocated to Use F (Discharged from Management).]
Allocate the following sites to Public Use D (Developed): ▪ Lowry Pueblo (5MT1566); ▪ Sand Canyon Pueblo (5MT765); ▪ Painted Hand Pueblo (5MT502); ▪ Castle Rock Pueblo (5MT1825); ▪ House With Standing Curved Wall (5MT132); ▪ Tucked Away Two Story House (5MT133); ▪ Wall Curves With Bedrock House (5MT134); ▪ Sunny Alcove (5MT135); ▪ Double Cliff House (5MT185); ▪ Corncob House (5MT186); ▪ Saddlehorn Hamlet (5MT262); ▪ Escalante Pueblo (5MT2149); and ▪ Dominguez Pueblo (5MT2148). (NOTE: The Interpretation Plan will identify types of sites meeting education goals. Up to 12 additional specific sites will be evaluated by the Monument Archaeologist, based upon criteria outlined in Appendix I)
Add or drop sites from the Public Use D (Developed) allocation in response to changing conditions, or as additional data and information are obtained. [NOTE: Allocation of sites to Public Use D (Developed) does not guarantee that these sites will be developed.]
Use the process and criterion detailed in Appendix I in order to determine the suitability of sites for Public Use D (Developed). Prepare Cultural RMPs for sites allocated to Public Use D (Developed).
Evaluate all Special Recreation Permit (SRP) applications requesting visitation to cultural resource sites allocated to Public Use D (Developed and Undeveloped) in accordance with the established BLM process.

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Require all groups with SRPs to provide experienced and knowledgeable supervision; and to educate participants about the cultural history of the Monument, backcountry site visitor etiquette, and stewardship (see Education and Interpretation. Train permittees in site-monitoring techniques and require them to complete monitoring inspections for each visit, and to submit written results to the BLM. (NOTE: It will be up to the Monument Manager's discretion as to whether groups obtaining a temporary free use permit must meet the above-listed requirement.) Conduct a Class III Cultural Resource Inventory in a manner that complies with Section 110 of the NHPA and Section 14 of the ARPA, as funding is available, according to the following prioritized groups: Group 1 – Areas receiving high public use and/or those that lack intensive inventory in relation to current standards: ▪ Lowry area; ▪ Woods Mesa; ▪ Cannonball Mesa; ▪ McLean Basin; ▪ Pedro Point; ▪ Hamilton Mesa and Slopes; ▪ Cross Canyon; ▪ Ruin Canyon; ▪ Risley/Moccasin Canyon area; and ▪ Hovenweep Canyon. Group 2 – Areas that lack intensive survey coverage and/or those that need records clarification/updating: ▪ San Jose State Hovenweep Inventory-Resurvey; ▪ Cow Canyon and Cow Mesa; ▪ Rincon Canyon; ▪ Cahone Canyon; ▪ Middle/Upper Cross Canyon; ▪ Squaw/Spook Point; and ▪ Sandstone Canyon. Group 3 – Areas with little previous inventory: ▪ Bowdish Canyon/Bluewater Basin; ▪ Mockingbird Mesa slopes and secondary drainages; and ▪ Squaw/Papoose Canyons. [NOTE: Inventory priorities may change in response to changing conditions; uses and input from researchers, educators, and tribes; or other new information. This may result in the identification of additional areas. Inventory and site documentation will conform to the standards listed in BLM 8100 Manual; BLM Colorado Handbook of Guidelines and Procedures for Identification, Evaluation, and Mitigation of Cultural Resources; Colorado Historical Society Office of Archaeology and Historic Preservation (Colorado OAHP) Standards; and the Monument's specific inventory requirements.]
Allow the use of additional field recording protocols in response to research goals and designs, special management, and/or other needs as identified in the future.

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Promote awareness of, and sensitivity to, cultural heritage concerns of Native Americans and others.
Promote awareness of relevant literature, local chronological indicators, and references.
Ensure that all inventories conducted within the Monument comply with: 1) BLM 8100 Manual; 2) BLM, Colorado State Office Handbook of Guidelines and Procedures for Identification, Evaluation, and Mitigation of Cultural Resources; 3) Colorado OAHP Cultural Resource Survey Manual, Volumes 1-2; and, 4) the following additional specific requirements: ▪ Maintain site and survey data in a manner that ensures completeness and accuracy, including both hard copy and Geographic Information System (GIS) databases. ▪ Conduct all archaeological inventories within the Monument at the Class III level. ▪ Use Monument archaeological records, in addition to Colorado OAHP records, for conducting all Class I inventories. ▪ Conduct inventories using BLM archaeologists and/or archaeologists authorized under a current BLM Cultural Resource Use Permit. ▪ Base site-boundary definitions primarily upon surface indications. (NOTE: For some sites, evaluative testing may be warranted in order to determine site extent and subsurface potential. Decisions about the need for evaluative testing will be made on a case-by-case basis, and in accordance with the terms of BLM permits.) ▪ Use Colorado OAHP records in order to determine the NRHP eligibility status for known historic properties. ▪ Limit the collection of artifacts by completing in-field artifact documentation and analysis during Cultural Resource Inventories in order to determine the chronological and cultural placement of sites, and to document an accurate representation of artifact types and materials on the site record. (NOTE: Exceptions to this policy may be made by the Monument Manager in situations where there is a threat of loss or destruction, a rare type of artifact, and/or research objectives that require artifact collections.) ▪ Determine additional criteria for in-field analysis and/or collections during testing or data-recovery projects on a case-by-case basis in the research design/data recovery plan for specific projects. ▪ Consider factors in addition to NRHP eligibility criteria when developing cultural resource management and protection requirements for projects or activities. (NOTE: Such factors may include BLM use allocations; traditional use values held by Native American tribes, other groups, and individuals; and/or regional research contexts.)
Require monitoring during the implementation of all ground-disturbing projects, even in areas having received intensive survey where no sites were located (due to the potential for buried subsurface cultural deposits with no surface indications within the Monument). (NOTE: Exceptions may be granted at the discretion of the Monument Manager.) Require post-project monitoring.
Design or modify multiple-use projects and/or activities whenever possible so that significant cultural resources are avoided, and so that project impact determination is either “no historic properties affected” or “no adverse effect” to the maximum extent possible.
Use a buffer from the edge of disturbance areas to the boundaries of identified cultural sites. [NOTE: Colorado State guidance lists a minimum buffer width of 322 feet (100 meters), with possible adjustments at the discretion of the Monument Manager.] Give consideration, when setting the buffer, to the importance of setting and context in managing and preserving heritage values of particular sites, settlement clusters, and/or use areas.
Identify and implement appropriate actions and/or treatments to mitigate adverse effect(s) to cultural resources from impacts of an action (an “adverse effect” determination of effect), only when all available options for project design modifications, BMPs, and/or other measures designed to minimize or eliminate disturbance to cultural resources have been exhausted. Proceed with mitigation actions only when consultations and requirements under Section 106 are completed. (NOTE: Denial of a proposed action is a management option.)

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Implement natural resource management treatments that also contribute to the long-term preservation of cultural resources, such as the removal of vegetation build-up and/or fuels from sites that are considered sensitive and vulnerable to the effects of wildfire (including, but not limited to, rock art sites, cliff dwellings, sites with standing architecture, and/or historic sites containing flammable materials).
Include standard cultural resources protection Conditions of Approval (COAs) on all projects, in addition to project-specific protection stipulations. These will address: ▪ requirements and procedures for notification/evaluation/treatment of previously unidentified cultural resources during project activities; ▪ requirements and procedures for notification of the discovery of human remains, funerary objects, sacred objects, and/or objects of cultural patrimony encountered during project activities; and ▪ requirements and procedures for project proponents designed to inform employees, contractors, and subcontractors of their responsibilities regarding: 1) protective measures for cultural resources during implementation; 2) the maintenance of confidentiality of site location information; and 3) the requirement that any disturbance to, defacement of, or collection or removal of archaeological, historic, or sacred material will not be permitted. Violations of the laws that protect these resources will be prosecuted.
Encourage cooperative efforts between BLM and NPS staff, including: ▪ law enforcement patrols and vandalism incident investigations; ▪ interpretation and education projects; ▪ visitor services; ▪ technical assistance; ▪ research projects; and ▪ access and Rights-of-Way (ROWs) issues.
Consider proposed NPS development(s) on lands adjacent to BLM lands, with an emphasis on the enhancement and protection of BLM cultural resources.
Encourage cooperative opportunities with the NPS on cultural resource inventory, site evaluation, and site preservation projects.
Ensure that Native American tribes having religious, cultural, and/or historical connections to the Monument are involved in the earliest stages of activity or project planning. Initiate consultation with such tribes for Section 106 compliance with an annual Letter of Notification regarding upcoming projects and activities (such as grazing permit renewals, route maintenance projects, noxious weed and/or other vegetation treatments, fuels management, and/or research and preservation activities within the Monument for which planning or NEPA analysis will be required for implementation).
Conduct follow-up consultations on projects and/or activities identified by Native American tribes for which they desire additional information or consultation, and/or for which they desire to identify places of importance for consideration. (Note: Consultations will be conducted through correspondence, telephone, meetings, and/or field visits, as appropriate.)
Pursue the development of Memoranda of Understanding (MOU) with interested Native American tribes in order to streamline, focus, and facilitate consultations, information exchanges, participation, and incorporation of tribal interests into research, interpretation, and resource management actions.
Implement a phased program of preservation assessments for sites allocated to Public Use D (Developed) that consider sources of site deterioration and that address the use of appropriate potential preservation treatments.
Record all sites located by surveys within the Monument in accordance with BLM and OAHP standards. (NOTE: The minimum level of site

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preservation will be site documentation that is in accordance with BLM and OAHP standards. This includes plotting, mapping, photographing, and/or recording written observations.)
Ensure that all archival preservation methods include detailed recording, photography, scaled maps and drawings, Historic American Building Survey (HABS) documentation, archival research, oral histories, and laser scanning.
Ensure that all physical preservation methods include stabilization, backfilling, conservation, fencing, construction of protective structures or barriers, fuels reduction, erosion control, and monitoring. (NOTE: Certain methods may also require testing/excavation/collection of dating specimens or artifacts as part of treatment.)
Base decisions about the appropriate preservation treatment method upon the evaluation and determination of the cause(s) of the deterioration and site-use allocations.
Use archival preservation methods in response to deterioration from natural forces. [NOTE: Physical preservation intervention will be in response to deterioration resulting from human activity (such as a site that was excavated in the past but not backfilled, or a site that has been vandalized. Exceptions may be made at the discretion of the Monument Manager.]
Document and allow standing walls to deteriorate, except in sites developed for public use where a mix of physical preservation and archival documentation will be used in response to human-caused impacts. (NOTE: Exceptions may be made at the discretion of the Monument Manager.)
Close sites to the public when damage that cannot be mitigated occurs.
Determine whether an increased level of documentation is warranted for some cultural resources. (NOTE: This may be, based upon factors such as public use, research potential, architectural integrity, and cultural significance, or as part of the preparation of a Preservation Plan. Additional documentation may consist of detailed, scaled plan-view maps, scaled plan-view and elevation drawings, large format photography, archival research, oral histories, and/or monitoring documentation.)
Complete a Preservation Plan for sites allocated to Public Use D (Developed), and sites and archaeological districts listed on the NRHP (see Objective 1a). Write a Preservation Plan for National Register Archaeological Districts that addresses the collective preservation needs of the contributing sites within the district.
Require backfilling for any ground-disturbing permit issued for testing/data recovery.
Work with partners, volunteer groups, stakeholders, and/or other interested individuals in order to accomplish site-preservation activities.
Develop a Monitoring Plan for cultural resources that evaluates factors such as use-allocation status, NRHP status, public-use patterns, vandalism occurrences, vulnerability (such as that related to standing architecture, rock art), and cultural sensitivity.
Continue partnership with the Cultural Site Stewardship Program. Conduct monitoring at specified frequencies of sites identified in the Monitoring Plan. Assist in annual on-site steward training and on-going enrichment training for program stewards. Identify sites that are to receive regular patrols and documentation by BLM law enforcement rangers.
Compile monitoring data into an annual summary, and use the summary in order to update annual Monitoring Plans.
Organize and conduct on-going educational programs for school groups, vocational archaeology groups, project proponents, permittees, contractors, and the public, with regard to cultural resource visitor ethics; solicit help from these groups and individuals in reporting incidents of vandalism within the Monument.
Establish cultural resource vandalism, trespass, and human-remains discovery reporting and investigation procedures and protocols with the Dolores Public Lands Office, AHC/Monument staff, BLM law enforcement rangers, and local law enforcement agencies. Ensure that BLM archaeology and law enforcement personnel maintain current training in investigation and case preparation, in accordance with the requirements

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of ARPA.
Develop, with peer review, research goals and methods for cultural resources within the Monument.
Avoid a priori rejection or assignment of low priority to the use of particular methods (such as those involving excavation) when evaluating investigator-initiated research proposals. Consider the scholarly, scientific, and educational benefits of the information that may be realized through the proposed research, as well as the potential gains in future resource management that may result.
Use the AHC as the headquarters, as well as the primary visitor contact station, for the Monument.
Encourage scientific research on cultural resources within the Monument that have the potential to contribute significant new knowledge. (NOTE: Such research should use an interdisciplinary approach and/or contribute to multiple management objectives.)
Compile information on sites having extensive vandalism or damage from other sources (such as from erosion) and provide to researchers in order to encourage consideration of such sites for future research. (NOTE: Research on such sites should be designed to recover remaining information potential, especially when physical in-place preservation or conservation may not be feasible over the long term.)
Require the use of methods that minimize the impact on the resource (such as sampling) while such methods, at the same time, optimizing the recovery of information for research that alters the in-situ archaeological record,
Promote the involvement of Native American tribes and other descendant communities in order to ensure that their input and concerns are considered and incorporated into research designs and project implementation.
Share research results with the general public and with professionals through lectures, site tours, and publications.
Consider regional scientific research goals and data needs in the design of management-related cultural resource studies.
Seek information and input from individuals and groups holding heritage values and having cultural connections to the Monument in order to better learn and manage in consideration of these values. Strive to accomplish management without compromising confidentiality of information.
Encourage visits by Native Americans, and/or by other individuals or groups holding heritage values or having cultural connections, to sacred sites or places of cultural importance within the Monument without notification requirements, as long as the use is consistent with Monument purposes and with the protection of resources, and as long as access is consistent with the Monument's Transportation Plan.
Establish a protocol for conducting consultations with affiliated Native American tribes on inadvertent discoveries of human remains.
Use the AHC as the repository for all new collections from the Monument. Continue to accept transfers from other institutions.
Establish protocols in consultation with Native American tribes who have used the Monument area for gathering materials for cultural and religious purposes.
MONITORING
Monitoring efforts will focus on determining site condition and determining if mitigation measures are successful in preventing impacts. Monitoring of specific cultural sites through the Site Steward Program will continue. Monitoring will determine if required stipulations, COAs, BMPs, and mitigation measures are being implemented during project development and reclamation.

FUELS AND FIRE MANAGEMENT
GOALS AND OBJECTIVES
Goal A: Preserve and protect cultural and natural resources and public and private property, allowing managed fire (including prescribed burns) to play a limited role in accomplishing this goal in fire-dependent ecosystems.
Objective: Ensure an appropriate management response for each reported wildfire within the Monument by developing a Fire Management Plan (FMP) that integrates with the San Juan Public Lands FMP (SJPL FMP) and the Montezuma County and Dolores County Community Fire Plans. [NOTE: The FMP will be based upon Fire Management Zones (FMZs), associated restrictions on fire management activities, and appropriate post-fire management.] Ensure that fire management tactics and strategies maximize firefighter and public safety; and minimize suppression costs, resource loss, and damage. Use prescribed burns in order to realize resource benefits (such as improving landscape diversity within the Monument's vegetation mosaic).
Goal B: Apply fuels and vegetation management treatments in a manner that reduces the likelihood of resource damage due to wildfire, improves firefighter and public safety, and achieves vegetation resource management objectives.
Objectives: 1. Reduce hazardous fuels in and around sensitive cultural resources, critical infrastructure, and designated wildland-urban interface (WUI) boundary areas. 2. Use prescribed burn treatment methods in a manner that improves vegetation conditions in fire-adapted ecosystems.
Goal C: Use a collaborative approach in order to achieve fuels and fire management goals and objectives.
Objectives: 1. Continue to develop and improve the Monument's fuels and fire programs in partnership with relevant governments, agencies, and private landowners. 2. Integrate fuels and fire management strategies with the SJPL FMP, and with the Montezuma County and Dolores County Community Fire Plans.
MANAGEMENT ACTIONS: ALLOWABLE USES AND ACTIONS
Designate the entire Monument as FMZ B (area where natural fire is generally not desired under current conditions and suppression is emphasized). [NOTE: Most of the Monument will be designated as FMA B-General (Appropriate Management Response). The FMZ definition will be analogous to the Fire Management Zone B, as defined in the SJPL 2004 Fire Plan.] Use Appropriate Management Response for all fires within the Monument. Use prescribed burns on a limited basis in order to achieve management objectives or for the safety of firefighters.
Designate 0 areas as FMZ A (areas where fire is not desired at all), FMZ C (areas where natural fire is desired with possible social, political, or ecological constraints), or FMZ D (areas where natural fire is desired and where there are few to no constraints to its use).
Conduct research in order to determine the historic ranges of variability (HRVs) in historic fire regimes, woodland structure, and adjacent vegetation types within the Monument, as funding becomes available. Use these data in order to develop ecologically sound desired future conditions for all vegetation management decisions through adaptive management planning processes.
Conduct a wildfire hazard assessment for the following resources in order to determine hazardous fuel reduction treatment needs: ▪ B-1 – the AHC; ▪ B-2 – the Hovenweep National Monument Protective Zone;

FUELS AND FIRE MANAGEMENT
▪ B-3 – all existing Public Use D (Developed) and Public Use D (Undeveloped) cultural resources; ▪ B-4 – all cultural resource sites and districts listed on the NRHP, including those listed in the future (NOTE: Only those sites and/or districts listed on the NRHP that the Monument currently directs the public to are included on Map 7.); ▪ B-5 – all existing and future major oil and gas facilities, including Mockingbird Mesa, Moqui, Hovenweep, and Sand Canyon carbon dioxide (CO_2) facilities; ▪ B-6 – cultural resources with pictographs, petroglyphs, and/or standing walls (NOTE: Due to the sensitivity and large number of these types of sites, they are not located on Map 7.); ▪ B-7 – all existing and future WUI or Wildfire Hazard Areas, as defined in the Montezuma County and Dolores County Community Fire Plans (NOTE: These plans are updated annually; therefore, they are not included in Map 7); and ▪ B-8 – Western Area Power Administration (WAPA) Communication Sites.
Apply the following restrictions to all fire suppression activities within the Monument: ▪ Require a minimum of 1 permitted or agency fireline-qualified Archaeologist on all handlines during extended attacks. ▪ Require a permitted or agency fireline-qualified Archaeologist to monitor the use of all mechanized equipment.
Provide cultural resource education to local area firefighters at the beginning of each fire season in order to minimize impacts from fire suppression activities.
Limit motorized and mechanized vehicle travel to designated routes for all fire activities. (NOTE: Exceptions to these restrictions will include threats to life or property and/or authorized administrative purposes, such as fuels or vegetation management treatments.)
Suppress fire along all aerial power transmission lines in all FMZs.
Allow no aerial fire retardant drops in perennial streams (including McElmo Creek, Trail Canyon, Yellow Jacket Canyon, Dawson Draw, Cross Canyon, and Cahone Canyon). Allow not aerial fire retardant drops in areas B-3, B-4, or B-6, unless fire is threatening life or property.
Use Minimum Impact Suppression Tactics (MIST) Guidelines, in accordance with recognized USDOI-BLM Standards, for all fire suppression activities.
Consult with a designated Fire Resource Advisor familiar with Wilderness Study Area (WSA) management on all extended attack fires within Recreation Management Zone (RMZ) 4 (Squaw-Cross Canyon).
Evaluate all burned areas in order to determine whether or not fire rehabilitation is required. This evaluation will include the following considerations: ▪ Would life or private property be threatened if rehabilitation practices are not implemented? ▪ Would naturally reestablished vegetation be unacceptable (such as exotic annual grasses or noxious weeds) or not meet vegetation resource management goals and objectives? ▪ Would adequate desirable vegetation recover sufficiently in order to stabilize soil and prevent on or off- site soil erosion problems? ▪ Would immediate or long-term damage (such as erosion) to cultural resources occur? Prepare an Emergency Fire Rehabilitation Plan (EFRP) for all escaped wildland fires if one or more of the above criteria are not met. (NOTE: EFRPs will be in accordance with the Emergency Fire Rehabilitation Handbook and the Monument RMP ROD.) Address all critical resources (including cultural, air, water, vegetation, and soils) in EFRPs, and specifically identify how these resources will be addressed in area rehabilitation.
Conduct a Class III Cultural Resource Inventory following wildfires if such an inventory has not been previously completed in the area. (NOTE: This would be dependent upon available funding as well as upon a determination by the Monument Manager that the potential cultural resources in the

FUELS AND FIRE MANAGEMENT
area justify such an inventory).
Report significant cultural resource finds to the Monument Archaeologist when they may be potentially impacted by fire management activities. Dispatch an Archaeologist to fires that have the potential to grow and/or when there is significant fire activity (such as multiple ignitions).
Follow current direction for Wildland Fire Implementation Plans (initial attack fires) and Wildland Fire Situation Analysis, or equivalent, for extended attack fires. Comply with all fire policies identified in Federal regulations related to Wilderness Areas, threatened and endangered (T&E) species, and cultural/historical preservation, as well as with all Federal and State regulations for air and water quality.
Approve, within 1-3 years following the signing of the ROD, a list of areas requiring fuels management and vegetation management treatments (as determined by the Monument Manager). Prioritize this list based upon such criteria as pending threats to life and property; potential threats to Monument objects (such as cultural resources); vegetation management goals and objectives; consideration of areas where fire suppression has disrupted natural fire regimes, and consideration of areas where similar efforts are being pursued by adjacent landowners. Update this list annually in order to address changing threats, conditions, and opportunities.
Allow all forms of fuels or vegetation management treatments (including mechanical, biological, chemical, and/or prescribed burns) on the Monument where they promote vegetation and cultural resource management goals and objectives. Authorize no mechanical fuels or vegetation management treatment in RMZ 4 (Squaw-Cross Canyon). Determine a treatment's location, size, specific layout, and project design features, as well as any measures needed in order to protect sensitive resources, through the environmental review process. Consider prescribed burns as a treatment option for ecosystems that are identified as fire-dependent or fire-adaptive. Assess fuel loads within the treatment area(s) for expected fire behavior. Mitigate for heavy concentrations (hazardous fuels) prior to prescribed burn ignition. (NOTE: Under these circumstances, prescribed burns will be used, and will attempt to simulate natural fire intensity and timing.)
Develop specific objectives for all prescribed burns prior to use. Conduct and coordinate all fire activities with appropriate fire management personnel, as well as with adjacent landowners.
Authorize prescribed burns in mature pinyon-juniper woodlands and/or in biological crust communities only if it is determined that such burns would not result in irreparable harm.
Determine the allowed proximity of prescribed burns to FMZ B Areas B-2, B-3, B-4, B-5, and B-6 through the environmental review process, giving specific consideration to the protection of cultural resources, as well as to public and private property, within these polygons.
Prohibit chaining.
Determine the allowed proximity of mechanical fuels management or vegetation management treatment methods, including manual pulling and the use of hand tools (such as chainsaws, machetes, and pruners), to cultural resources, as well as to public and private property, within FMZ Areas B-1, B-2, B-3, B-4, B-5, and B-6 through the environmental review process, giving specific consideration to their protection.
Conduct post-treatment monitoring, as necessary, where any fuels management or vegetation management treatment is implemented. Establish monitoring plots and use plant species frequency, density, and distribution data collected in order to evaluate the effectiveness of the treatments toward achieving management objectives and toward providing general baseline data regarding general vegetation dynamics within the Monument.
Conduct a Class I, II, or III Cultural Resource Inventory prior to all prescribed burns, as determined by the Monument Manager.

FUELS AND FIRE MANAGEMENT
Review, on an annual basis, existing agreements between the BLM, local fire agencies, and Montezuma and Dolores Counties (and their Community Wildfire Protection Plans) in order to determine whether or not they continue to meet the needs of the growing number of small parcel landowners within, and adjacent to, the Monument. Coordinate all fire activities (including suppression, fuels management, and vegetation management treatments) with adjacent private landowners, the Navajo Nation, the Ute Mountain Ute Tribe, and public land management agencies in a manner that meets fuels and fire management goals and objectives. Develop a MOU outlining agency and private landowner responsibilities, opportunities to share resources, and an organizational structure for suppression activities, as required. Update this Operating Plan annually.
MONITORING
Monitoring efforts will focus on on-going efforts to identify and treat areas of high fire risk including areas of WUI concern. Monitoring will be used to ensure that Monument fuels and fire management actions meet State and Federal standards with regard to conducting prescribed burns. Areas impacted by wildfire will be monitored to determine rehabilitation needs and rehabilitation effectiveness.

GEOLOGY
GOALS AND OBJECTIVES
Goal A: Manage multiple-use activities in a manner that preserves and protects geologic objects protected under the Proclamation.
Objectives: 1. Manage uses in a manner that prevents damage to sensitive geologic and geomorphologic features. 2. Facilitate appropriate geologic research in a manner that improves understanding of geological resources and processes.
Goal B: Manage multiple-use activities in a manner that protects visitors from geologic hazards.
Objective: Manage uses in a manner that minimizes activities in geological high-hazard areas.
MANAGEMENT ACTIONS: ALLOWABLE USES AND ACTIONS
Restrict visitor activities in areas where damage to sensitive geologic features may occur (including outstanding examples of rock formations, faults, ripple marks, cross-bedding, lithified mudcracks, angular unconformities, and/or geomorphologic features).
Consider scientific research goals and data needs in the design of management-related geological studies. Encourage researchers to share non-sensitive information with the public through lectures, site tours, and other activities/projects. Promote formal publication of research.
Identify high-hazard areas (such as those associated with flash floods, landslides, rockfalls, and/or expansive and collapsible soils) and notify the public of such hazards.
Require a geologic hazard survey prior to construction projects (such as those associated with camping areas, trailheads, communication structures, and/or oil and gas facilities).
Encourage interdisciplinary projects that have the potential to produce significant new ecological or other scientific information, in addition to geological results.

GEOLOGY
Give priority to archaeological resources in cases where geological and archaeological resources occur together, and notify a qualified (BLM or permitted) Geologist as soon as possible.
MONITORING
Monitoring efforts will focus on periodic checking of areas of potential geologic hazard in order to determine if visitor safety is at risk.

PALEONTOLOGICAL RESOURCES
GOALS AND OBJECTIVES
Goal: Preserve and protect scientifically important paleontological resources and ensure that they are available for appropriate uses by present and future generations.
Objectives: 1. Identify areas and geological units containing paleontological resources and evaluate the potential of such areas to contain vertebrate fossils or noteworthy occurrences of invertebrate or plant fossils. 2. Develop management recommendations (including mitigation measures in specific locations) that promote scientific research and other uses of fossils. 3. Protect and preserve important paleontological localities from natural and human-caused impacts. 4. Monitor areas where important paleontological localities have been identified.
MANAGEMENT ACTIONS: ALLOWABLE USES AND ACTIONS
Complete the on-going compilation and analysis of all available paleontological resource data and literature in order to provide an informed basis for understanding paleontological resources within, and/or near, the Monument and in order to provide immediate protection for paleontological resources at risk. Use current policies and procedures when collecting, documenting, and/or maintaining data, records, and maps; and when issuing appropriate surface collection and excavation permits.
Restrict paleontological collecting to scientific purposes and allow only with the use of valid BLM Paleontological Resources Use Permits. Prohibit recreational (non-permitted) collecting of any fossils regardless of type (vertebrate, invertebrate, plant, and/or trace fossils).
Implement a phased program that evaluates the scientific importance of previously recorded localities that have not yet been evaluated. Prioritize localities for evaluation based upon: ▪ vertebrate fossils (includes tracks, gastroliths, and so forth); and ▪ scientifically important invertebrate and plant fossils (as determined on a case-by-case basis). Establish scientifically based standards for paleontological research within the Monument. Require the use of minimal impact for research that alters the in-situ fossils, as approved by the Monument Manager.
Use the AHC as a temporary repository until a permanent repository for the Monument paleontological collection is identified.
Give priority to archeological resources in cases where paleontological and archaeological resources are found together, and notify a qualified (BLM or permitted) Paleontologist as soon as possible.

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Require paleontological clearances and/or mitigation measures deemed necessary by the Paleontologist prior to surface-disturbance activities. Avoid or recover significant resources through the authorization process.
Schedule regular monitoring of known surficial localities of vertebrate or other scientifically important fossils.
MONITORING
Monitoring efforts will focus on protecting known fossil resources from vandalism.

SOIL RESOURCES
GOALS AND OBJECTIVES
Goal: Manage soil resources in a manner that sustains multiple-uses and preserves and/or enhances existing ecological integrity and function.
Objectives: 1. Ensure that the Public Land Health Standards and Guidelines for upland soils are met, or that significant progress is being made toward meeting these standards. 2. On slopes greater than 30 percent, as well as in other areas with high erosion potential, manage uses in a manner that prevents damage to soil resources by protecting them from surface disturbance and by maintaining vegetative cover. 3. Manage soil resources in a manner that supports other resource management objectives.
MANAGEMENT ACTIONS: ALLOWABLE USES AND ACTIONS
Incorporate the Decision Record and Environmental Assessment (EA)/Finding of No Significant Impact (FONSI) for Public Land Health Standards and Guidelines for Livestock Grazing Management in Colorado, March 1997.
Report to the responsible management official all activities on non-Monument lands that are resulting in, or are expected to result in (whether directly or indirectly) soil degradation, water quality deterioration, and/or other damage to Monument lands.
Stipulate site-specific erosion control measures in coordinated RMPs, unless emergency situations exist.
Maintain soil productivity and minimize human-caused soil erosion.
Require implementation of soil resource BMPs (see Appendix D) as COAs to all new leases and permits. Implement applicable BMPs that protect soil resources in all management actions and maintenance activities.
Establish No Ground Disturbance/No Site Occupancy (NGD/NSO) stipulations for areas with slopes greater than 30 percent and/or for soils with high erosion potential.
Apply special management practices to areas with biological soil crust communities, as outlined for vegetation and livestock grazing management.
Maintain a zero-level accelerated erosion standard (NOTE: Accelerated erosion is soil loss caused by human land use decisions rather than by natural or geologic erosion occurring independently of human activities).Allow no rangeland use to contribute to a reduction in the protective attributes of vegetation below a Site Conservation Threshold (point beyond which vegetation is unable to hold the soil in place).
Approve a list of areas for stabilization and rehabilitation required as a result of severe human-caused soil erosion, and begin restoration, as determined by the Monument Manager.

SOIL RESOURCES

MONITORING

Monitoring efforts will focus on maintaining adequate ground cover to prevent soil erosion and to meet Colorado BLM Public Land Health Standards and Guidelines.

TERRESTRIAL AND AQUATIC WILDLIFE SPECIES AND HABITATS

GOALS AND OBJECTIVES

Goal: Manage habitat for native fish and wildlife species in a manner that optimizes biological diversity.

Objectives:

1. Contribute to the maintenance or recovery of federally listed threatened, endangered, proposed, and candidate species; State-listed species; and BLM sensitive species.
2. Contribute to the recovery of the Mexican spotted owl (MSO).
3. Protect nesting and winter concentration areas for bald and golden eagles.
4. Protect active nest sites for raptors other than MSOs, and bald and golden eagles.
5. Contribute to the recovery of the southwestern willow flycatcher (SWWF).
6. Manage, conserve, and enhance habitat for neotropical migrant birds.
7. Manage, conserve, and enhance habitat for sensitive reptile species.
8. Protect breeding habitat for amphibians.
9. Work with the CDOW in order to reintroduce bighorn sheep and Gunnison Sage-grouse.
10. Restore sagebrush grasslands in order to support populations of Gunnison sage-grouse on their historic range.
11. Maintain and restore stable populations of BLM sensitive fish species.
12. Improve tributaries that will contribute to restoring T&E fish populations within the San Juan River basin.
13. Improve forage and cover conditions for mule deer.
14. Manage and control wildlife species that have, or may have, detrimental (negative/adverse) impacts to other resources or land uses.
15. Maintain and/or enhance habitats capable of sustaining existing or increasing wildlife and fish populations.

MANAGEMENT ACTIONS: ALLOWABLE USES AND ACTIONS

Maintain and/or improve riparian wildlife habitat through interdisciplinary design of range improvement projects, as well as through the improvement of the diversity of native vegetation types. Allow habitat improvements. Give special consideration to aquatic and riparian resources at the activity planning stage in order to ensure the maintenance and/or improvement of these resources.

Use BMPs (see Appendix D and other management techniques in order to minimize degradation of aquatic and riparian habitats.

Require that bridges, culverts, and/or other installations be designed in a manner that maintains adequate passage by aquatic life (including fish species).

Require that management actions and/or projects within floodplains, wetlands, and/or aquatic/riparian habitats include measures designed to preserve, protect, and, if necessary, restore their natural functions.

TERRESTRIAL AND AQUATIC WILDLIFE SPECIES AND HABITATS
Monitor and maintain/improve crucial winter range (including winter concentration areas and severe winter range) for elk and deer, focusing initially on the "I" and "M" category grazing allotments. [NOTE: Monitoring the vegetation resource may indicate the need for mule deer and elk reductions (and/or domestic livestock) in localized areas in order to maintain use within the carrying capacity.]
Incorporate forage and cover requirements into Habitat Management Plans (HMPs) specific to primary use areas for deer.
Retain adequate cover and vegetation structural diversity in order to meet game and non-game species habitat requirements. Implement habitat improvement projects, where necessary, in order to stabilize and/or improve unsatisfactory or declining habitat conditions. Evaluate and make recommendations on wildlife reintroductions and fish stocking proposals to the CDOW. Maintain all existing wildlife habitat improvement facilities, focusing this effort on guzzlers, exclosures, and vegetation treatments.
Complete wildlife habitat improvements in a manner that enhances wildlife viewing.
Prohibit activities that would result in direct harm to individuals and/or to populations of threatened or endangered or BLM sensitive species, or that would jeopardize their continued existence through reductions in habitat quality and extent. (NOTE: This provision does not apply to scientific research or to other activities specifically permitted or approved in writing by the USFWS, the CDOW, and/or by the Monument Manager.) Incorporate specific protective actions in accordance with Instruction Memorandum (IM) No. 09-140.
Conduct Endangered Species Act (ESA) Section 7 consultation for all future implementation-level activities where the project may result in disturbance (such as noise) to federally listed species or that may impact suitable habitat of federally listed species.
Drop Areas of Critical Environmental Concern (ACEC) designation except for Research Natural Areas (RNAs) (see Map 9). (NOTE: The Presidential designation of the area as a National Monument supersedes its administrative designation as an ACEC.)
Require a nesting survey for 2 consecutive breeding seasons using the protocol approved by the USFWS prior to approving any permissible activity within a Protected Activity Center (PAC) (such as tree removal, fuel reduction, vegetation treatments, and so forth).
Consult with the USFWS in order to establish design standards for management actions (such as for tree removal, fuel reduction, or vegetation treatments) if such activities are deemed critical to another resource value within the PAC.
Limit permitted or ground-disturbing activities within MSO PACs, or within 0.5 mile of the PAC to mesa tops and rims, in order to reduce impacts to canyon floors.
Establish a PAC within 0.5 mile of any documented (active or inactive) MSO nest. Establish a Timing Limitation (TL) stipulation within a 0.5-mile buffer of a documented occupied or historic MSO nest in order to prohibit ground-disturbing activities (excluding research, monitoring, and/or routine livestock management) and/or excessive noise disturbance from March 15 through September 1.
Establish a TL stipulation for activities within 0.5 mile of active bald eagle or golden eagle nests during the period from March 1 through July 15. Establish a TL stipulation for activities within 0.5 mile of a known bald eagle winter roost or winter concentration area from November 16 through April 15. Establish a NGD/NSO stipulation within 0.5 mile of a known bald eagle or golden eagle nest site, or a bald eagle winter roost site, whether active or historic. Establish a Lease Notice regarding these stipulations.
Prohibit vegetation treatments (such as tree removal, fuel reduction, and vegetation treatments) during the raptor breeding season (from March 1 through July 15), unless a nesting survey reveals that there are no active nest(s) in the tree(s) to be removed or burned within a 0.25-mile buffer. Prohibit any ground-disturbing activity or other potential major source of noise disturbance during the raptor nesting season without prior survey for active nests within a 0.25 mile buffer. Postpone the activity until nesting is completed or relocate the activity to an area more than 0.25 mile from an active nest.

TERRESTRIAL AND AQUATIC WILDLIFE SPECIES AND HABITATS
Establish baseline data for suitable habitat areas, map the areas, and establish conservation management (described below) for occupied and unoccupied habitat patches for the SWWF.
Implement recovery actions as described in the August 2002 SWWF Final Recovery Plan, or the most recent version of the Recovery Plan. Fence suitable SWWF habitat in order to exclude livestock grazing. Avoid vegetation removal or treatment (including fuel-reduction activities), from April 15 through July 15 in order to protect nesting by migratory birds. Implement Final Recovery Plan guidelines for the SWWF (USFWS 2002). Prohibit ground-disturbing activities within SWWF habitat, and within a 0.25-mile buffer of SWWF habitat patches, or establish a TL stipulation for any mapped areas of suitable habitat, and within a 0.25-mile buffer, including during the breeding season (from April 15 through July 15). Conduct SWWF surveys using the approved USFWS protocol prior to any ground-disturbing activity, or other source of major noise disturbance, within 0.25 mile of suitable habitat. Postpone activities until after nesting is complete, if nesting flycatchers are found.
Write a HMP for sensitive lizard species known to occur, or having the potential to occur, within the Monument. Include mapping of sensitive or occupied habitat areas in such plans. Apply TL and ground-disturbing stipulations on activities proposed in reptile management areas.
Prioritize the management of cheatgrass and/or other noxious weeds in areas of occupied or high-potential habitat for these sensitive lizards in order to establish native habitat plant species. Reestablish native grasses and forbs in sagebrush stands in weed management sites.
Maintain and/or improve habitat through interdisciplinary design of range improvement projects and diversity of native vegetation types. Give special consideration to pinyon-juniper woodland, native grassland, and semi-desert shrub habitats at the activity planning stage in order to ensure maintenance or improvement of these resources.
Establish a NGD/NSO stipulation that prohibits ground-disturbing activities within 150 feet of potholes, seasonal pools, stock ponds, streams, and/or other areas of surface water known to support native amphibian breeding habitat. Establish a TL with a 300-foot buffer for potholes, seasonal pools, stock ponds, streams, and/or other areas of surface water known to support native amphibian breeding habitat during the breeding season (from April 1 through July 31). Establish a Lease Notice regarding these stipulations for oil and gas activities in these areas.
Write a MOU with the CDOW in order to reintroduce bighorn sheep into Cross Canyon and Yellow Jacket Canyon. Work cooperatively with the CDOW in order to prevent conflicts between domestic sheep and bighorn sheep.
Write a MOU with the CDOW in order to facilitate future reintroduction of Gunnison sage-grouse.
Implement actions as described in the Rangewide Conservation Plan, the Colorado BLM statewide strategy, and the national grouse strategy for Gunnison sage-grouse.
Apply a NSO stipulation if habitat is determined to be occupied by sage-grouse. Allow no surface-disturbing activities.
Treat over-mature or overly dense sagebrush-steppe habitat in a manner that provides for a diversity of age classes and for a better shrub-grass mosaic. Plant desirable native grasses and forbs.
Apply management actions to aquatic and riparian habitats in a manner that complies with vegetation and water resource management objectives.
Work with the CDOW in order to restore Roundtail chubs to Yellow Jacket Canyon.
Avoid water-depleting activities in tributaries to the San Juan River. Conduct ESA Section 7 Consultation with the USFWS for all water depletions.
Manage habitats for sustainable deer and elk population goals, as established in consultation with the CDOW, by providing sufficient forage, cover, and water on their seasonal habitat. Consider habitat management for deer within the context of the overall biodiversity goals and objectives for the Monument.
Cooperate with the CDOW to identify specific areas where enhancement measures are needed in order to maintain desired populations of deer. Measures may include, but are not limited to:

TERRESTRIAL AND AQUATIC WILDLIFE SPECIES AND HABITATS
▪ prescribed burns; ▪ changes in grazing season/intensity; ▪ implementation of weed control; ▪ revegetation of severely degraded areas in order to increase quantity and quality of forage in specific allocations; and ▪ reduction in the amount of dead wood in chained areas in order to facilitate animal movement.
Modify existing agreements with Animal Plant Health Inspection Serviced (APHIS) in order to prohibit the use of culling and shooting of individual predators, or the destruction of dens to control predators, except when an individual animal poses a safety risk to humans or on a case-by-case basis for individual requests. Apply this agreement throughout the Monument.
MONITORING
Monitoring efforts will focus on known populations and potential suitable habitat of listed species in order to minimize impacts to the species and their habitat. Monitoring will determine if required stipulations, COAs, BMPs, mitigation measures, and the maintenance of Public Land Health Standards for TES (threatened, endangered, and sensitive) species are being met. Overall habitat condition and trend monitoring will be conducted to determine the condition and status in relation to Public Land Health assessment standards.

VEGETATION RESOURCES
GOALS AND OBJECTIVES
Goal A: Sustain a biologically diverse landscape that supports a variety of habitats, as well as native plant and animal species.
Objectives: 1. Protect and/or enhance upland vegetation communities in order to ensure that the Public Land Health Standards and Guidelines for healthy, productive plant and animal communities are met, or that significant progress is being made toward meeting them. 2. Reclaim and rehabilitate disturbed areas affected by wildland fire and other surface-disturbing activities (such as well pad sites, pipeline routes, and closed routes) in a manner that protects soil, water, and vegetation resources. 3. Protect and/or enhance aquatic, wetland, and riparian areas in a manner that ensures that the Public Land Health Standards and Guidelines for riparian systems are met, or that significant progress is being made toward meeting them. 4. Cooperate with other agencies and landowners in the prevention, control, or eradication of invasive pests that threaten the health of the ecosystem.
Goal B: Control existing noxious weed populations and prevent new infestations.
Objectives: 1. Inventory and map existing noxious weed populations. 2. Develop and implement an Integrated Weed Management (IWM) program, in cooperation with adjacent landowners (including counties, private landowners, Hovenweep National Monument, the Navajo Nation, and the Ute Mountain Ute Tribe), that includes, but is not limited to, mechanical, biological, and chemical control techniques, and that emphasizes prevention, inventory, detection and monitoring, and project actions. 3. Prevent the establishment of new infestations of noxious weeds and the spread of existing populations.

VEGETATION RESOURCES
4. Cooperate with neighboring land management agencies and private landowners in order to prevent, control, and eradicate noxious weed populations. 5. Manage noxious weeds according to the Vegetation Treatment Programmatic Environmental Impact Statement (PEIS) (BLM 2007b, or subsequent updates).
MANAGEMENT ACTIONS: ALLOWABLE USES AND ACTIONS
Implement Amendment: Decision Record and FONSI and EA for Standards for Public Land Health and Guidelines for Livestock Grazing Management in Colorado, March 1997: Standard 3 – Plant and Animal Communities.
Implement Amendment: Decision Record and FONSI and EA for Standards for Public Land Health and Guidelines for Livestock Grazing Management in Colorado, March 1997: Standard 2 – Riparian Systems.
Ensure that intensive livestock management plans developed through Allotment Management Plans (AMPs) and/or other Activity Plans are comparable with riparian system management goals.
Consider vegetation treatments on a case-by-case basis with weighted consideration of cultural resource values.
Encourage range, fuels and fire, and vegetation management activities that include the protection and/or enhancement of the health and productivity of native and other desirable plant and animal communities.
Mitigate by restoration and reclamation for disturbance on a project-level basis. Prioritize areas for restoration and reclamation where management changes alone will not improve resource conditions. Implement and monitor new restoration projects, as needed.
Manage past pinyon-juniper chaining areas in a manner that improves their ecological condition. First, prioritize the areas for improvement; then, apply the following actions: ▪ manage noxious weeds; ▪ manage the dead-wood component as a desirable element of future stands; and ▪ seed with desirable native grasses and forbs.
Use reclamation methods and materials that mimic natural disturbance and recovery patterns where small-scale disturbances occur as a result of a land management activity (such as from well pad construction).
Require a plan for reclamation, with a reclamation budget, for all proposed vegetation management treatment projects (including mechanical, biological, and chemical treatments, and prescribed burns).
Require standardized reclamation practices and BMPs (see Appendix D) as COAs for all new leases and permits, and for areas with surface disturbance.
Require a livestock exclusion period of at least 2 years following natural fire or seeding. (NOTE: The length of time may be greater, based upon a site evaluation that determines when the desired plant species could be grazed again.) Evaluate livestock exclusion after prescribed burns on a case-by-case basis.
Use native plant species of local genetic stock, if commercially available, for all reclamation seeding and/or planting actions. Use non-native species in limited situations where considered necessary in order to protect resources and/or to stabilize soils in a timely fashion. In situations where non-native species are required, short-lived perennial or annual species may be used. Require certified weed-free hay, straw, mulch, and certified weed-free seed.
Encourage range, fuels and fire, and vegetation management activities that will protect and/or enhance riparian/aquatic resource conditions.

VEGETATION RESOURCES
Evaluate all proposed projects in order to ensure their compliance with BLM policies on riparian habitat management.
Manage riparian areas in a manner that moves them toward achieving Proper Functioning Condition (PFC). (NOTE: Projects designed for enhancement or improvement of riparian and alluvial sites will not be allowed within 100 feet of active channel edges without appropriate mitigation.)
Conduct PFC assessments for all riparian and wetland areas and springs, as determined necessary. Review route crossings of intermittent or perennial streams on a case-by-case basis.
Use fencing to exclude livestock from some narrow canyon bottom sites in order to prevent excessive utilization and/or to promote the recovery of poor condition sites.
Implement exclusions, including fencing and/or grazing management systems (regular rest and/or deferment), on riparian/wetland areas or springs that will result in such areas achieving or making significant progress toward achieving PFC, and/or that will protect cultural resources located at or near these areas. Implement specific projects (such as cross-fencing of riparian areas, development of water sources outside of riparian areas, and use of seedlings) in a manner that facilitates effective management and promotes recovery and maintenance of riparian/alluvial habitat. Design spring developments that maintain water flow in riparian channels and that, at the same time, provide livestock water outside of the channel and spring source area. Fence springs (and associated cultural resource sites) in livestock use areas. Place stock tanks away from cultural sites and features.
Develop an inventory and an Integrated Pest Management (IPM) Plan.
Apply pesticides in a manner that protects native trees/vegetation from insects (such as bark beetles and/or defoliators) in administrative sites (such as at trailheads, interpretation sites, and in campgrounds).
Implement a systematic weed inventory and mapping program for all noxious weeds listed by the State of Colorado, and by both Montezuma and/or Dolores Counties, within 3 years of the signing of the ROD.
Inventory and prioritize areas for noxious weed treatment (such as routes, riparian areas, stock ponds, and areas of ground disturbance) within 3 years of the signing of the ROD. Monitor, annually, at least 20 percent of treatment areas.
Develop a prioritized plan for detection and eradication of all State of Colorado List A noxious weed species, in accordance with the Colorado Noxious Weed Act.
Control State of Colorado List B noxious weed species, in accordance with the Colorado Noxious Weed Act, using a management priority ranking index based upon such factors as invasiveness, individual species life form, species distribution, sensitivity of habitat being invaded, and area accessibility.
Manage State of Colorado List C noxious weed species on a case-by-case basis, in consultation and cooperation with other local and regional land management organizations.
Incorporate an integrated method approach into every weed control management strategy. Include mechanical, biological, and chemical methods, as appropriate for each species, life form, distribution pattern, and management goal. Use chemical control only after considering the effectiveness of all potential control methods and/or in combination with other control methods. Maintain a noxious weed management database in order to record monitoring results and the effectiveness of integrated treatments.
Target noxious weed management activities in areas where similar efforts are being pursued by adjacent landowners.
Require pre-construction noxious weed inventories prior to all ground-disturbing activities and post-reclamation weed monitoring.
Require, prior to construction activities, treatment of noxious weeds within proposed ground-disturbing project areas if noxious weeds are present.

VEGETATION RESOURCES
Apply all weed prevention BMPs (see Appendix D) to ground-disturbing activities.
Require all route maintenance crews, permittees and leaseholders, and the BLM Weed Coordinator, to work collaboratively in establishing roadside maintenance schedules that control seed produced by noxious weeds.
Manage cheatgrass (downy brome) in long-nosed leopard lizard habitat using an appropriate control plan in order to prevent negative impacts to the lizard.
Conduct monitoring and treat all weed infestations for a minimum of 3 years, or until eradicated, for all wildland fire disturbances over 0.5 acres.
Allow only certified weed-free feed for pack and saddle stock.
MONITORING
Monitoring efforts will focus on ensuring that management actions meet Colorado Public Land Health Standards and Guidelines, stipulations, COAs, BMPs and mitigations measures that assist the BLM in managing for visual quality, soil stabilization, wildlife habitat, and ecosystem health. All known populations of noxious weeds will be monitored to provide an updated inventory and to determine whether the BLM is meeting its weed management objectives. Ground-disturbing activities will be monitored for new infestations. Reclamation and revegetation efforts will be monitored to determine if/when weed-free success is reached.
SPECIAL STATUS PLANT SPECIES AND SIGNIFICANT PLANT COMMUNITIES
GOALS AND OBJECTIVES
Goal A: Manage listed and proposed threatened or endangered plant species in a manner that complies with the provisions of the ESA. Implement management plans that conserve candidate species, and their habitats, in order to ensure that actions authorized, funded, or carried out by the BLM do not contribute to the need for the species to become listed.
Objective: Inventory potential habitat for federally listed and candidate plant species.
Goal B: Manage the condition of special status plants and significant plant communities, and their habitats, to a point where special status recognition is no longer warranted.
Objectives: 1. Inventory potential habitat for special status plants and significant plant and biological crust communities. 2. Monitor known populations of special status plants and significant plant and biological crust communities.
MANAGEMENT ACTIONS: ALLOWABLE USES AND ACTIONS
Establish a Lease Notice that will alert lessees when potential habitat for a threatened, endangered, candidate, and/or other special status plant or animal species may be impacted.
Conduct surveys for all G-2 sensitive plant species that have suitable habitat present within the Monument, in conjunction with other inventory/surveys for proposed development and/or activities.
Evaluate and, as necessary, relocate or realign routes if monitoring indicates damage or disturbance to special status plant species, and/or to significant plant and biological crust communities.
Monitor BLM sensitive plant species populations. Remove, as a first priority for mitigation, the source of a disturbance to sensitive plant species populations to a location that avoids continued damage where disturbance to individuals or habitat is documented.

VEGETATION RESOURCES
Develop a Monitoring Plan for significant plant and biological crust communities. Monitor, annually, the condition and extent of these communities where disturbance is likely to occur.
Develop an Inventory Plan for sensitive plant species and significant plant and biological crust communities within 2 years of the signing of the ROD.
Avoid locating facilities (such as oil and gas, recreation, and livestock improvements) in occupied habitat for significant plant and biological crust communities.
Establish NGD/NSO stipulations for occupied habitat for threatened, endangered, candidate, and/or other special status plant species. This is in compliance with Colorado Stipulation CO-34 (Appendix G, NSO#6).
Close and restore social routes where significant biological crust communities occur in high-use recreation areas.
Locate new routes away from significant biological crust communities, with minimum 50-foot buffers.
MONITORING
Monitoring efforts will focus on known populations of listed species to minimize impacts to the individual plants, as well as to their habitat. Monitoring will determine if required stipulations, COAs, BMPs, mitigation measures, and the maintenance of Public Land Health Standards and Guidelines for listed plant species are being met.

VISUAL RESOURCES
GOALS AND OBJECTIVES
Goal: Manage all activities in a manner that conserves, protects, and enhances the Monument's scenic resources (NOTE: scenic resources include, but are not limited to, the extraordinary topography, geology, biology, and cultural history).
Objectives: 1. Designate Visual Resource Management (VRM) classes throughout the Monument, based upon an inventory of visual resources and management considerations for other uses (see Appendix J). 2. Manage activities within the Monument according to VRM Class objectives.
MANAGEMENT ACTIONS: ALLOWABLE USES AND ACTIONS
Manage all WSAs as VRM Class I, until such time that Congress makes a determination as to their permanent status.
Take into account the importance of visual values in all proposed actions and minimize the impacts projects may have on these values. Use the visual resource contrast rating system as a guide in analyzing potential visual impacts of proposals while, at the same time, completing an environmental analysis for projects. Design projects in a manner that mitigates impacts and conforms to the assigned VRM Class objective.
Sustain and enhance the quality of the visual resource in order to meet public demand for high quality scenery that benefits regional tourism, the local economy, community self-image, and recreational opportunities. Maintain natural-appearing landscapes.
Integrate the management of visual resource values with other resource objectives. Incorporate design features that consider such components as scale, color, texture, orientation, and location in order to achieve VRM Class objectives for the Monument in multiple-use activities.
Maintain healthy vegetation that contributes to scenic values.

VISUAL RESOURCES
Protect, restore, and enhance valued viewsheds, vistas, and cultural and natural landscape elements. (NOTE: Management activities that protect, restore, enhance, or perpetuate long-term valued scenic elements may be evident to visitors in the short-term. These activities may include, but are not limited to, landscape reclamation, fuel reduction, vista creation, wildland fire uses, and insect and disease prevention and suppression.)
Provide visitors with convenient and safe opportunities to view the scenery of the Monument. Provide visitors with opportunities to experience important scenic elements (such as landscape vistas, slick rock canyons, archaeological remains, and cultural landscapes).
Ensure that the built environment (including recreation facilities, utilities, resource management structures, and so forth), including those constructed or maintained by permittees and lessees, reflects and compliments the valued architectural character of the Southwest, and reflects local vernacular architecture and the natural landscape context. Ensure that facilities are rustic and visually subordinate to the overall natural landscape character. Ensure that the quality of the built environment benefits from sound site planning, as well as from energy-saving and environmentally enhancing design principles.
Ensure that projects achieve a condition that meets, or exceeds, the minimum established visual resource objectives for the area. (NOTE: Using the results of the Visual Resource Inventory, as well as other resource allocation considerations, VRM Class objectives are shown on Map 8.)
Ensure that the design of all activities integrates visual values and minimizes the impacts the project may have on these values. (NOTE: The visual resource contrast rating system will be used as a guide in order to analyze potential visual impacts of the proposal and to assist in designing the project to minimize visual effects.) Design projects in a manner that mitigates impacts and conforms to the assigned VRM Class objective, and other objectives including, but not limited to: 1) using natural, or natural appearing, materials as a priority; 2) meeting restoration/revegetation objectives; and 3) complying with BLM and Monument specific BMPs.
Bring existing facilities, or areas with unnatural visual contrasts, into VRM Class conformance when the need or opportunity arises (such as with ROW renewals, mineral material site closures, energy site rehabilitation, and so forth), or to the extent practicable. (NOTE: The VRM classes acknowledge existing visual conditions within the Monument.)
Reassign areas designated as Wilderness to a VRM Class I.
Manage WSAs as VRM Class I. Manage the foreground viewsheds of WSAs (up 0.50 mile outside of the WSA boundary) as VRM Class II.
Manage the immediate vicinity of developed recreation sites (such as trailheads and interpretive sites) as VRM Class III in order to accommodate public recreation support facilities (such as signs, toilets, and parking).
Manage some sites and limited areas within the foreground viewshed of certain travelways as VRM Class IV condition (due to the intensity of energy development at these sites).
Ensure that a robust restoration strategy guides the reclamation of impacted sites within sensitive Monument viewsheds. Ensure that restoration strategies contribute to sustaining the visual resource within desired standards while, at the same time, allowing for other resource uses. Improve visual resource conditions within the Monument using a combination of the reclamation of old sites and the use of BMPs on new activities. Consider off-site restoration as a method to reduce overall visual impacts and to off-set new impacts. Apply BMPs specific to the Monument to all projects in order to minimize, to the extent practicable, any impacts to visual values and in order to reduce contrast with the natural landscape character.
Apply VRM consistent with Monument recreation setting objectives (including the use of the Monument as an outdoor museum).
Ensure that CRMPs address visual resources as an integrated part of cultural landscape management.
VRM Classes (by acre) include: ▪ Class I: 41,916

VISUAL RESOURCES
▪ Class II: 103,366 ▪ Class III: 15,025 ▪ Class IV: 10.650
Include the following: ▪ McElmo RNA, plus expansion, Cannonball Mesa, and Sand Canyon units, as VRM Class I. ▪ WSAs, plus Citizen's Proposed Areas for expansion, as Class I.
Seek to prevent light pollution within the Monument. Propose no actions within the Monument that could contribute to light pollution. Work closely with the surrounding communities in order to minimize light pollution.
MONITORING
Monitoring efforts will focus on meeting required stipulations, COAs, BMPs, and mitigation measures related to maintaining visual quality objectives.

WATER RESOURCES
GOALS AND OBJECTIVES
Goal: Ensure that an appropriate quality and quantity of water resources are available in order to support the proper functioning of ecological processes, consistent with applicable water quality standards.
Objectives: 1. Protect and restore water resources from physical disturbances and adverse impacts associated with land management activities. 2. Ensure the continued availability of water in order to adequately manage resources and multiple-uses. (NOTE: Multiple-uses include both consumptive uses of water, such as livestock, wildlife watering, recreation, and fire suppression, as well as non-consumptive uses, such as flow in streams sufficient to support riparian and fisheries values.) 3. Protect water quantity within, and downstream of, the Monument. 4. Protect water quality within, and downstream of, the Monument. 5. Identify and quantify hydrologic processes and relationships, and monitor changes in both water quality and quantity in order to ensure the proper management of resources, as well as the multiple-uses that depend upon them. 6. Protect groundwater within, and downstream of Monument.
MANAGEMENT ACTIONS: ALLOWABLE USES AND ACTIONS
Maintain and/or improve water quality in accordance with State and Federal laws and approved standards, including consultation with State agencies on proposed projects that may significantly impact water quality.
Report activities on public and private lands outside of the Monument boundary that are resulting in, or are expected to result in, water quality deterioration, soil degradation, and/or other damage to Monument lands, whether directly or indirectly, to the responsible management official in order to work out cooperative solutions.
Include terms and conditions that protect groundwater-source areas for all springs, seeps, and wells on all land use authorizations.

WATER RESOURCES
Prohibit ground-disturbing activities that could impair outstanding remarkable values (ORVs) responsible for stream segments being found suitable for Wild and Scenic River (WSR) designation.
Work in partnership with landowners in order to protect, improve, and/or enhance the quality of water located in watersheds shared between them and the Monument.
Develop and implement a long-term hydrologic data collection program that includes, at a minimum: ▪ flow measurements on perennial streams; ▪ precipitation gauge(s) at locations sufficient to accurately characterize rainfall levels within the Monument; and ▪ regular flow measurements at select springs. Implement additional monitoring protocols in areas where land use activities could potentially impact hydrologic resources (such as dewatering of a spring).
Require implementation of BMPs (see Appendix D), as determined appropriate, in order to protect aquatic resources from ground-disturbing activities.
Secure water rights that support all BLM water uses within the Monument.
Secure BLM water rights that ensure the proper management of both natural resources (such as fish and wildlife, and aquatic and riparian vegetation) and multiple-uses (such as livestock grazing and recreation).
Work cooperatively with the Colorado Department of Natural Resources (CDNR) and the Colorado Water Conservation Board (CWCB) through the MOU of September 14, 2005, or subsequent agreements, in order to ensure that water resources and instream flows necessary for the proper care and management of Monument resources are available. (NOTE: Areas of cooperation, to date, have included Yellow Jacket Creek.) Evaluate other streams.
Permit new BLM water developments only for the following purposes: to better distribute livestock; when deemed to have an overall beneficial impact on Monument resources; to restore or manage native species or populations; to support visitor facilities (such as toilets and parking areas); when consistent with the characteristics of the corresponding RMZ; and/or to mitigate impacts to cultural resources (such as relocating an existing water development away from an archaeological site). Conduct such developments only when an environmental analysis determines that this tool is the best means of achieving the above objectives, and only when the water development will not dewater springs or streams.
Continue management of existing BLM water infrastructure (including ditches, diversions, and dams). Continue to operate existing facilities under their authorizations. Work cooperatively with private facility owners in order to reduce facility impacts to riparian and wildlife habitat. Allow increased diversions through existing facilities only where an environmental analysis demonstrates an overall benefit to Monument resources.
Work closely with the CWCB in order to establish instream flow rights for all types of streams within the Monument (including seasonal reaches that support riparian and wildlife values). Make any new land use authorizations conditional in order to ensure that sufficient flows remain to support water-dependent values on any unprotected reaches.
Discourage private groundwater development as a method for meeting water supply needs. Perform a full analysis on the impact of any proposed groundwater development on surrounding seeps, springs, and streams.
Increase water flows (where large-scale tamarisk removal is planned) by incorporating seeps, springs, and streams into a list of high-priority areas for noxious weed control within the Monument. Develop a specific list of these priority weed control areas and begin treatment within 3 years of the signing of the ROD.
Establish NGD/NSO stipulations in order to protect 5,528 acres of riparian systems. Review ground disturbing projects that are planned to benefit

WATER RESOURCES
the health of riparian systems (i.e., exclosure fences, etc.) on a case-by-case basis, as authorized by the Monument Manager. Apply the NGD/NSO restriction to the widest boundary when combining canyon bottoms, riparian areas, and floodplains. These areas include springs, as well as a combination of canyon bottoms, riparian areas, and floodplains associated with perennial, intermittent, and ephemeral streams. Apply the NGD/NSO restriction to springs with well-developed riparian vegetation (i.e. Blue Water, H-O, and Confluence Springs), with a 300-foot buffer, to protect adjoining wetlands. Apply the NGD/NSO restriction to the remaining springs, with a 100-foot buffer, to protect adjoining wetlands (Appendix G, NSO#6). Permit designated route crossings in canyon bottoms, riparian areas, and floodplains when it is demonstrated that a route crossing would not contribute to a stream segment either not achieving, or not making progress toward achieving, PFC.
MONITORING
Monitoring efforts will focus on meeting State Water Quality Standards and on the maintenance of appropriate hydrologic function to support riparian and aquatic resources.

EDUCATION AND INTERPRETATION
GOALS AND OBJECTIVES
Goal A: Increase public education and appreciation of the objects identified in the Proclamation by creating opportunities for visitors and other users to learn about the Monument's overall landscape and about its multiple-uses, as well as about the needs for protection and stewardship. *Goal B:* Ensure long-term public benefits from research, education, interpretation, and heritage tourism while, at the same time, balancing other uses and considering the effects on the local economy.
Objective: Develop and implement a comprehensive Interpretation, Education, and Heritage Tourism Plan for the Monument. Make available significant resources and areas for interpretation and education, including those identified within the Proclamation (such as the entire cultural landscape, the geology of McElmo Dome, the various species of wildlife, and the unique herpetological resources).
MANAGEMENT ACTIONS: ALLOWABLE USES AND ACTIONS
Manage the AHC as a focal point for the Monument's cultural program.
Develop a comprehensive Interpretation and Education, and Heritage Tourism Plan (Interpretation Plan) for the Monument within 3 years of the signing of the ROD in partnership with Native American tribes, agencies, local governments, organizations, and the public. Address sites allocated as Public Use D (Developed) in this Interpretation Plan.
Organize and conduct on-going education programs for school groups, vocational archaeology groups, project proponents, permittees, contractors, and the public about cultural and natural resource visitor ethics; and encourage their help in reporting incidents of vandalism in the Monument. [NOTE: In the Cultural Resource section, see tasks tied to education and interpretation pertaining to cultural resources, including the outdoor museum concept, sites allocated for Public Use D (Developed) and Public Use D (Undeveloped), and research, and education programs. For education and interpretation pertaining to heritage tourism and visitor use please refer to Appendix I).

EDUCATION AND INTERPRETATION

Encourage cultural and natural resources research that achieves multiple management objectives in addition to contributing significant new knowledge. Require researchers to share information with the public through lectures, site tours, and so forth.

Maintain and manage the McElmo RNA as a Herpetological Research Area, a resource for educational institutions, and as an outdoor classroom.

Evaluate applications for all Special Recreation Permits (SRPs) to visit sites allocated to Public Use D (Developed) and Public Use D (Undeveloped) based upon the criteria listed below. Give priority to SRP applicants for education and tribal visits. (The primary purpose of these criteria is to address backcountry organized activities that involve archaeological site visits.)

Organized Group	Public Use D (Developed)	Public Use D (Undeveloped)
Commercial groups > 15 in size	Require SRP.	Not allowed.
Commercial groups < 15 in size	Require SRP.	Require SRP. Allowed, if applicant is a partner (Assistance Agreement is required). Otherwise, allow at the discretion of the Monument Manager, provided criteria are met.*
Private group, no payments >15	Allow without SRP.	Allow at the discretion of the Monument Manager and with SRP.
Private group, no payments <15	Allow without SRP.	Allow without SRP; however, encourage notification and coordination with the BLM.
Organizations with educational purpose related to public lands management	Allow without SRP.	Allow with temporary free use permit, and at the discretion of the Monument Manager.

*Criteria: Require all groups with SRPs to provide experienced and knowledgeable supervision, and require them to educate participants about the cultural history of the Monument, backcountry site visitor etiquette, and stewardship. Train permittees in site monitoring techniques and require them to complete monitoring inspections for each visit and to submit written results to the BLM. The Monument Manager's discretion will determine whether groups obtaining a temporary free use permit must meet the above requirement.

Allocate all cultural resources to Uses A-D [Public Use D (Developed) and Public Use D (Undeveloped)]. [NOTE: For the purposes of the RMP ROD, the following distinction is made for Public Use D: Sites allocated to Public Use D will be identified as: 1) "Public Use D (Developed)" -- sites

EDUCATION AND INTERPRETATION
that the public is directed to; that are promoted and hardened (see listing below); and 2) "Public Use D (Undeveloped)" -- sites that the public is not directed to; that are not promoted or hardened, but may be visited in the backcountry context. Consider both Public Use D (Developed) and Public Use D (Undeveloped) as components of the outdoor museum concept.]
Identify in the Interpretation Plan the types of sites that will meet education goals. (NOTE: Specific sites will be evaluated by the Monument Archaeologist, based upon criteria outlined in Appendix I.)
Require all permittees to provide experienced and knowledgeable supervision for groups, and require them to educate participants about the cultural history of the Monument, backcountry site visitor etiquette, land stewardship, and the Leave No Trace Program.
Encourage cooperative efforts between BLM and NPS staff, including, but not limited to: ▪ interpretation and education projects; ▪ visitor services; ▪ research; and ▪ heritage tourism.
Minimize, in most case, the presence of on-the-ground interpretive media. Use low-profile visible media to orient visitors and to provide for resource protection. Focus on highly visible media at the staging areas (such as at parking areas, trailheads, and the AHC). Provide visible interpretive media designed to draw attention to interpreted resources, where appropriate.
MONITORING
Monitoring efforts will focus on determining public education and information needs and whether these needs are being met. Monitoring public use sites to determine visitor impact will result in adaptive management to protect the objects of the Monument.

FACILITIES AND INFRASTRUCTURE
GOALS AND OBJECTIVES
Goal: Develop and maintain the smallest number of facilities and infrastructure necessary in order to provide for public safety and to assist in meeting resource management objectives.
Objectives: 1. Coordinate the development and maintenance of facilities and infrastructure with adjacent landowners (including Hovenweep National Monument, the Ute Mountain Ute Reservation, the Navajo Nation, the Utah BLM Monticello Field Office, and private landowners). 2. Ensure that all major BLM facilities are located outside of the Monument in order to protect Monument resources and to provide economic opportunities in the local communities.
MANAGEMENT ACTIONS: ALLOWABLE USES AND ACTIONS
Use the AHC as the headquarters and primary visitor contact station for the Monument. [NOTE: Local communities will provide facility-dependent settings and opportunities (such as campgrounds).]
Maintain existing facilities, subject to compliance with current policies and practices, provided that Monument resources are protected.
Consider applications for new facilities only if they will serve to protect and/or enhance Monument resources.

FACILITIES AND INFRASTRUCTURE
Continue maintenance of existing livestock, watershed, and wildlife development projects without additional ground disturbance.
Implement non-structural livestock, watershed, and wildlife development options whenever possible, in lieu of structural projects.
Coordinate new facility developments, and existing facility improvements, with the AHC in order to optimally meet the needs and desires of that sector of the recreating public interested in such facilities. (NOTE: Initial developments may include signs, register boxes, trails, and parking.)
Construct new livestock, watershed, and/or wildlife development projects only where detailed environmental assessment demonstrates that they will not have an adverse impact on Monument resources protected by the Proclamation.
Work with Hovenweep National Monument in order to determine the feasibility of developing a Visitor Center on the western boundary of the Monument, using the existing NPS Visitor Center in Utah.
Develop visitor contact stations, as determined necessary, outside the boundary of the Monument, and outside of Hovenweep National Monument, in order to mitigate resource impacts and to ensure public safety at high-use areas.
Implement facility and infrastructure BMPs, as determined appropriate.
Work with landowners in order to determine the need for fencing and/or for signage along private/public land boundaries.
Develop a cost-sharing program with private landowners within, and adjacent to, the Monument, in order to install and maintain fencing and/or signage along private/public land boundaries.
MONITORING
Monitoring efforts will focus on determining whether facilities are adequate to meet public needs and/or the protection of the objects of the Monument.

SPECIAL FOREST PRODUCTS
GOALS AND OBJECTIVES
Goal: Allow for the harvesting of forestry products (such as fuelwood, posts, pinyon nuts, and Christmas trees), management of woodland stands, and collection of other resources while, at the same time, protecting the objects (cultural, biological, and geological resources) identified in the Proclamation.
Objective: Manage the harvesting of forestry products and all woodland stands in a manner that helps sustain a biologically diverse landscape that supports a variety of habitats and native plant and animal species.
MANAGEMENT ACTIONS: ALLOWABLE USES AND ACTIONS
Permit no personal fuelwood cutting. Authorize, by permit, commercial fuelwood cutting. Use both dead-and-down wood and live trees for commercial fuelwood harvesting. Require a Class III Cultural Resource Inventory in areas permitted for commercial fuelwood harvesting.
Authorize, by permit, personal removal of Christmas tree and post-forest products.
Authorize, without permit, the gathering of up to 22.5 pounds of pinyon pine nuts for personal and/or traditional use. Prohibit the gathering of pinyon nuts for commercial purposes.

SPECIAL FOREST PRODUCTS
Authorize, on a case-by-case basis, the removal of products not aforementioned for research and/or for traditional purposes.
Allow the commercial removal of special forest products following the completion of a Class III Cultural Resource Inventory, and a determination by the Monument Manager that the use (such as fuelwood harvesting, post cutting, or Christmas tree cutting) will not result in any new impacts that will interfere with the proper care and/or management of the objects (cultural, biological, and/or geological resources). Designate areas for commercial special forest product removal in order to meet vegetation management objectives.
Apply transportation restrictions to special forest product removal. (NOTE: Motorized and mechanized vehicle travel will be limited to designated routes; no cross-country travel will be authorized). Authorize the use of limited access routes for the removal of special forest products, when necessary.
MONITORING
Monitoring efforts will focus on locating areas where forestry products can be provided while, at the same time, managing for woodland health and protecting the objects of the Monument.

LANDS AND REALTY
GOALS AND OBJECTIVES
Goal A: Use land tenure adjustments in a manner that protects objects identified in the Proclamation, improves management, and reduces administration costs.
Objectives: 1. Identify private land within, and/or adjacent to, the Monument boundary for possible acquisition from willing sellers, if the acquisition will contribute to achieving cultural and/or natural resource goals and objectives. 2. Work with landowners in order to resolve encroachment issues.
Goal B: Allow ROW grants in a manner that accommodates facilities supporting multiple-use activities while, at the same time, protecting objects identified in the Proclamation.
Objective: Process ROW requests using evaluation criteria designed to protect Monument objects.
Goal C: Manage special uses in a manner that promotes the protection of, and education about, Monument objects.
Objective: Manage commercial filming so that resource protection goals and objectives are met.
MANAGEMENT ACTIONS: ALLOWABLE USES AND ACTIONS
Make every reasonable effort to provide primary access to private landowners when such access will not result in significant adverse impacts to other resources.
Grant no additional ROWs when reasonable access already exists, unless there is a compelling public need.
Limit ROWs for development of resources to a 16-foot running surface (road) width.
Allow land actions to occur only when they will result in minimal adverse impact(s), when they will be beneficial to cultural resource management, or when there is a clear and significant public need.

LANDS AND REALTY
Acquire or exchange land only when cultural resources management will be enhanced.
Manage all properties acquired at the time of the signing of the Final RMP/Final EIS ROD, and in the future, in accordance with the laws, rules, regulations, policies, standards, and guidelines applicable to the rest of the Monument.
Work with willing sellers in order to acquire private in-holdings and edge-holdings by means of acquisition, exchange of other BLM lands targeted for disposal outside of the Monument, donation, or conservation easement. When, and/or if, the opportunity arises, acquire private parcels that: ▪ adjoin, or are contained within, the Monument boundary; ▪ protect cultural and/or natural resources; ▪ enhance recreation experiences and benefits; ▪ provide additional access to public lands; and/or ▪ contain no, or few, improvements (such as houses, buildings, or facilities), unless they can be used to meet Monument management goals, or they require little or no reclamation.
Authorize only 1 access route to private parcels, unless public safety or local ordinances warrant additional routes. (NOTE: Additional routes will be considered at the discretion of the Monument Manager. The ROW width will be commensurate with the development needs of the individual private parcel.) Work with private landowners to coordinate development of access routes across public lands in order to prevent proliferation of routes (see Appendix L).
Develop a plan for boundary management that prioritizes areas for survey and boundary marking. Include areas needing immediate trespass resolution and areas where trespass is resulting in resource impacts to the criteria used to prioritize these areas. Include in the plan a schedule and budget for completing this work.
Pursue cost-share agreements with willing private landowners within, and adjacent to, the Monument in order to survey and mark the Monument boundary.
Work with private landowners in order to resolve encroachment issues. Resolve historic encroachment issues on an individual basis by establishing ROWs, by issuing permits, and by treating such encroachment as trespass. Manage all new encroachments occurring since the establishment of the Monument (those requiring removal and rehabilitation) through law enforcement action(s).
Prohibit commercial filming (still and movie photography), except for educational purposes relevant to the objectives of the Monument, as determined by the Monument Manager.
Prohibit competitive and special events, except for educational purposes relevant to the objectives of the Monument, as determined by the Monument Manager. Allow private special events, at the discretion of the Monument Manager.
Develop and prioritize a list of easements needed in order to facilitate access to public lands within 1 year of the signing of the ROD. Acquire easements for both limited and public access routes to public lands in partnership with affected landowners.
Include all surface-use stipulations (including NGD/NSO, TL, and protective considerations for cultural resources) on new ROWs.
Allow no new ROWs to be permitted in Squaw/Cross Canyon SRMA, except for access to private land.
Prohibit major utility ROW corridors.
Prohibit the construction of new commercial renewable energy projects (such as wind and solar) on a large-scale basis within the Monument. (NOTE: Small individual uses may be authorized, at the discretion of the Monument Manager.)
Prepare a Monument-wide feasibility study prior to the construction of any new communication sites in order to determine the most appropriate location(s).

LANDS AND REALTY

Apply the following criteria to the management of all ROWs:
C-1: Use existing ROWs when constructing new facilities (including, but not limited to, communication sites and renewable energy projects).
C-2: Align ROWs for new linear facilities (including, but not limited to, pipelines, utility lines, and designated routes) adjacent to existing, or newly designated, routes.
C-3: Bury all new and reconstructed utility lines and pipelines, unless:

- visual resource objectives can be met without burying;
- geologic conditions make burying infeasible;
- burying would potentially impact cultural resources; and/or
- burying would result in more extensive long-term surface disturbance.

C-4: Require all reconstructed and future powerlines to meet non-electrocution standards for raptors. Take corrective measures if problems with existing powerlines occur.
C-5: Construct all powerlines using non-reflective wire. Construct steel towers using matte-finish galvanized steel or non-reflective surfaces. Construct no powerlines along visual high points (such as ridgelines), unless no other location exists.
C-6: Allow no strobe lights at any communication site if other acceptable methods are available to meet aircraft safety requirements.
C-7: Prepare communication site plans for all existing or new sites, as determined necessary. Require communication service providers to share infrastructure (such as towers) and facilities.
C-8: Require all new ROW facilities to meet visual resource objectives.
C-9: Prohibit blasting or cutting of canyon rims in the construction of access routes or other ROWs.
C-10: Keep route development to an absolute minimum standard sufficient to meet the purpose where temporary access is needed (such as at construction access, or exploratory or wildcat wells). Require ROW grants to contain stipulations providing for additional upgrading, as well as for reclamation and rehabilitation.

MONITORING

Monitoring efforts will focus on ensuring compliance with BLM regulations. Special Use Permits will be monitored for fulfillment of requirements. On-going monitoring will be required for boundary compliance (such as where necessary in order to prevent continued and/or additional encroachment).

MINERALS

FLUID MINERALS AND ENERGY RESOURCES

GOALS AND OBJECTIVES

Goal A: Ensure the proper care and management of the objects protected under the Proclamation prior to authorizing continued exploration, development, production, and/or reclamation activity for fluid minerals (such as oil, gas, and CO_2) within the Monument.

Objectives:
1. Determine if any of the 34,221 acres of unleased mineral estate within the Monument should be leased in order to promote conservation of oil

MINERALS
FLUID MINERALS AND ENERGY RESOURCES
and gas resources in any common reservoir now being produced under existing leases, or to protect against drainage. 2. Identify stipulations for new leases in order to ensure that impacts are not created that interfere with the proper care and management of the objects protected by the Proclamation (see Appendix G). 3. Identify stipulations and BMPs for exploration, development, production, and reclamation in order to ensure that impacts are not created that interfere with the proper care and management of the objects protected by the Proclamation (see Appendices D and E).
Goal B: Maintain the acoustic aspect of the traditional cultural landscape.
Objective: Manage all sources of noise in a manner that will not change the characteristics of the traditional landscape.
MANAGEMENT ACTIONS: ALLOWABLE USES AND ACTIONS
Manage in accordance with the fact that authorization for activities on existing mineral leases will be governed by valid existing rights in compliance with all applicable laws and regulations (such as NEPA, NHPA, and the Proclamation).
Implement standard lease terms on individual leases.
Allow no leasing in Cahone Canyon, Cross Canyon, and/or in Squaw/Papoose Canyon WSAs.
Permit off-lease seismic activities only for the purpose of defining the limits of common reservoirs now being produced.
Manage in accordance with the fact that for any existing lease that terminates for failure to pay on, or before, the anniversary date, the full amount of rental may be reinstated under the regulations found in 43 CFR 3108, using the new lease stipulations (see below).
Issue new fluid mineral leases in areas currently not under lease, or in areas currently leased when leases expire, for all federally owned minerals only for the purpose of protecting against drainage, as defined and required in accordance with 43 CFR 3162.2-2 to 3162.2-15. [NOTE: Since the majority of existing leases (i.e., 307 or 92 percent) are actively producing, the potential for existing leases to expire is low.] Ensure that any new lease issued includes the new lease stipulations outlined below. Based upon the analysis presented in the Reasonable, Foreseeable Development (RFD), 880 acres of new fluid mineral leasing is estimated as necessary in order to protect against drainage over the next 20 years in areas currently not under lease. This estimate was derived using the following assumptions: ▪ that there would be 20 new oil and gas wildcat or exploratory wells over the next 20 years; ▪ that 11 (57 percent) of the 20 new oil and gas wells would experience drainage over the next 20 years; ▪ that each of these 11 wells would require a new fluid mineral lease of 80 acres in order to protect against drainage; and ▪ that the average spacing for each of the 11 wells would be 160 acres. [NOTE: The area that could be re-leased (assuming the leases expire) in order to protect against drainage is 143,224 acres[a]. However, as noted, 92 percent of existing leases are located within units held by production. As a result, the potential for these leases to expire is low. Therefore, the single estimate of 880 acres of new fluid mineral leasing occurring in order to protect against drainage is more probable. All newly acquired lands that are obtained without mineral leases will become part of the 880 acres considered for drainage only. Of the 24,462 acres of Federal minerals available for leasing, it is estimated that only 880 acres will be leased in order to protect against drainage. Any new lease issued will include the new lease stipulations.]
Carry forward all existing stipulations from the 1985 San Juan/San Miguel RMP for new leases with the following modifications and new

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stipulations: *Provide NSO stipulations for:* ▪ cultural resources; ▪ areas with slopes greater than 30 percent and/or soil with high erosion potential; ▪ occupied and potential habitat for threatened, endangered, candidate, or other special status plant species; ▪ riparian/wetland habitat (5,312 acres); ▪ Cannonball and Sand Canyon Potential Conservation Areas (PCAs); and ▪ areas with wilderness characteristics. *Provide TL stipulations for:* ▪ MSO nest sites (documented occupied or historic) from March 15 through September 1; ▪ active bald eagle or golden eagle nests from March 1 through July 15; and ▪ known bald eagle winter roost or winter concentration areas from November 16 through April 15. *Provide Lease Notices that:* ▪ alert lessees that APDs will not be granted where known and expected high cultural resource site densities exist; and ▪ alert lessees to potential habitat for a threatened, endangered, candidate, and/or other special status plant or animal species.
Consider all new lease offerings as undertakings, under Section 106 of the NHPA. Subject all new lease offerings (lands open to development) within the Monument to existing and new stipulations in order to protect cultural, natural, scenic resources, and objects of the Monument that are protected under the Proclamation in a manner that manages and protects the nationally significant cultural landscape encompassed by the Monument, The cultural resources management objectives for surface-disturbing activities/development proposals on the Monument are: • Avoid direct, indirect, and cumulative impacts to historic properties (objects of the Monument) to the maximum extent possible. • Ground disturbance must be kept to the smallest footprint possible. • Prevent landscape fragmentation to the maximum extent possible. • Maintain visual quality.
Require adequate physical buffers in order to protect surface and subsurface cultural resources and the associated setting, as well as nearby cultural resources and their settings in areas of high site density. Require early and careful planning, and the use of all available technologies and design criteria in order to avoid cultural resources and to minimize disturbance and visual fragmentation of the landscape. Manage in accordance with the fact that the development of existing fluid mineral leases will be carried out using the BMP strategy entitled “Geographic Area Development Plan (GADP)” as described in BLM IM No. 2003-152.
Accomplish cultural resource site protection by mitigating impacts, monitoring, fencing construction areas, and stipulating site-specific cultural resources protection BMPs as COAs for fluid mineral leases, in compliance with Section 106 of NHPA.

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FLUID MINERALS AND ENERGY RESOURCES
Apply COAs to operational approvals (Applications for Permits to Drill and Sundry Notices), as determined necessary by the Monument Manager, in order to protect other resources and values within the terms, conditions, and stipulations of the lease contract. [NOTE: A number of BMPs may be applied as COAs (see Appendix D).]
Require the implementation of fluid minerals and energy resources BMPs.
Complete an EA or EIS prior to approving a seismic operation due to the high concentration of surface and subsurface cultural resources.
Allow off-lease seismic activities only for the purpose of defining the limits of common reservoirs now being produced.
Require a Cultural Resource Inventory of all helicopter landing zones, staging areas, parking areas for vibroseis buggies, and/or other associated surface disturbance.
Limit geophysical operations to BLM-authorized routes. Prohibit vehicle traffic along receiver lines.
Require that a minimum of 1 permitted or agency Archaeologist monitor all phases of geophysical operations.
Design and implement geophysical activities in a manner that minimizes impacts to biological soil crusts through means such as: recommending geophysical activities take place when the ground is frozen; prohibiting off-road vehicle (including OHV) travel during extended wet periods; and following soil BMPs, and/or other appropriate design criteria, developed through project-specific environmental analysis.
Require that all vehicles associated with geophysical operations travel only on BLM-authorized routes if water is visible in the channel at washes, alluvial valleys, or perennial water features, and/or where riparian vegetation is present.
Conduct a Cultural Resource Inventory for geophysical explorations covering a minimum of a 322-foot (100-meter) radius around each shot point; a minimum of a 565-foot (175-meter) radius around each shot point located near a rim or rock/cliff face; and a minimum of a 645-foot (200-meter) wide transect (322 feet or 100 meters on either side of centerline) on all source lines/points, receiver lines, and access routes. Ensure that geophysical operations using explosives have a minimum of a 645-foot (200-meter) buffer from all cultural resource sites (including rock art) and a maximum of 20-40 pound charges, in order to avoid or minimize impacts. Ensure that geophysical operations using vibroseis have a minimum of a 645-foot (200-meter) buffer from any cultural resource site with standing architecture or with rock art.
Prohibit seismic operation-related work by bulldozers and/or by other earthmoving equipment.
Require that any ground disturbance along source or receiver lines be reclaimed in a manner that protects cultural and natural resources. Conduct reclamation of these routes using methods appropriate to the area (including, but not limited to, the use of natural barriers, such as boulders or dead-and-down wood, and/or ripping, reseeding, and signing).
Manage maximum permissible noise levels in order to comply with State of Colorado standards [State of Colorado Revised Statue (CRS): Title 25 Health/Environmental Control: Article 12 Colorado Noise Statute – CRS§ 25-10-103]. [a]Total acres of unleased Federal minerals within the Monument. [b]Total acres of unleased Federal minerals within the portion of the McElmo Dome Unit inside the Monument. (NOTE: This calculation subtracts the 2,557 acres of unleased Federal minerals within existing WSAs that are located in the portion of the McElmo Dome Unit inside the Monument.) [c]Total acres of unleased Federal minerals within existing WSAs that are located in the portion of the McElmo Dome Unit inside the Monument.
MONITORING
Monitoring efforts will focus on ensuring compliance with stipulations, COAs, BMPs, and mitigation measures.

MINERALS
FLUID MINERALS AND ENERGY RESOURCES
SOLID MINERALS
GOALS AND OBJECTIVES
Goal: Ensure the proper care and management of objects protected under the Proclamation while, at the same time, honoring valid existing rights for solid minerals.
Objective: Enforce mineral resource withdrawal as specifically stated in the Proclamation.
MANAGEMENT ACTIONS: ALLOWABLE USES AND ACTIONS
Locate no new mining claims and undertake no new prospecting or exploration activities designed to identify new locatable hardrock minerals or to establish the discovery of valuable mineral deposits. Approve no operating plans for mining operations, unless the USDOI has made a final determination regarding the validity of the mining claims and mill sites covered by the plan.
MONITORING
Monitoring efforts will focus on ensuring compliance with stipulations, COAs, BMPs, and mitigation measures.

LIVESTOCK GRAZING
GOALS AND OBJECTIVES
Goal A: Manage livestock grazing in a manner that is consistent with Public Land Health Standards and Guidelines for Livestock Grazing Management in Colorado; and that maintains a thriving natural ecological balance, effective multiple-use relationships, and productive forage resources.
Objectives: 1. Manage livestock grazing in a manner that achieves Public Land Health Standards and Guidelines for upland and riparian/wetland plant communities by adjusting use levels, timing, and intensity, and by implementing rangeland improvement projects. 2. Manage livestock grazing in a manner that ensures the long-term sustainability of rangeland ecosystems and promotes the resistance and resilience of rangeland plants and soils to the effects of recurring drought. 3. Manage livestock grazing in a manner that meets vegetation, recreation, fish and wildlife, water quality, and cultural resource objectives and protects sensitive or high-quality resources.
Goal B: Develop and encourage public and stakeholder understanding of livestock grazing management within the Monument.
Objective: Improve communication and understanding of range standards and expectations between the BLM, grazing permittees, and the general public.

LIVESTOCK GRAZING
MANAGEMENT ACTIONS: ALLOWABLE USES AND ACTIONS
Continue to authorize enforcement actions against trespassers and/or other violators.
Comply with IM CO-2002-29: Interim Historic Preservation Guidelines and Procedures for Evaluating the Effect of Rangeland Management Activities on Historic Properties (BLM 2002). Analyze existing conditions and identify additional fieldwork during preparation of NEPA documentation for issuance of permits.
Permit 6,437 active AUMs. (NOTE: calculated capacity is based upon inventory information including the Rangeland Health Assessment, PFC from riparian area assessments, rangeland trend, vegetation production studies, and water quality data. Permitted numbers may be adjusted based upon changes in resource conditions.)
Administer 23 allotments. Remove 5 grazing allotments from Availability: the East and West Sand Canyon, Rock Creek, Goodman Gulch, and Trail Canyon allotments. Remove the Rock Creek allotment at the time the current grazing Permittee is no longer able to run a livestock operation.
Allow no grazing on the small number of capable acres that outside current allotment boundaries but still within the Monument.
Cancel all suspended AUMs from grazing permits (IM 2007-137, BLM Grazing Regulations 43 CFR Part 4100), (NOTE: Cancel means they will be removed from the permit).
Limit, as a guideline, allowable use levels to no more than 30 percent of upland shrub and riparian woody species (current year's growth). Monitor woody species in order to ensure that multiple age classes are represented and to ensure the recruitment of young shrubs. Limit grazing use during any portion of the critical period to no more than 30 percent of the active preference.
Establish minimum stubble height guidelines for herbaceous vegetation of 4 inches in spring-use pastures and 6 inches in fall-use and winter-use pastures (to be measured when livestock are removed) in riparian systems where perennial herbaceous vegetation (grasses and forbs) is important for achieving PFC and meeting Public Land Health Standards and Guidelines.
Limit, as a guideline, allowable use levels to no more than 50 percent of the current year's production of desired cool-season and warm-season perennial grass species where Public Land Health Standards and Guidelines are being met. Implement, as a guideline, an allowable utilization level of 35 percent on a by-pasture basis where the Public Land Health Standards and Guidelines for upland soil and healthy and productive plant and animal communities are not being met, and where progress is not being made toward meeting these standards. (NOTE: Typical range improvement BMPs are described in Appendix D. Additional considerations for planning decisions are listed in Appendix E. These address improvements appropriate for implementation in WSAs; improvements specific to the physical protection of cultural resources; and improvements to be applied in order to reduce conflicts between livestock grazing and recreation use. The extent, location, and timing of such actions will be based upon the allotment-specific management objectives adopted through the grazing permit process, interdisciplinary development and review of proposed actions, contributions from operators and others, and BLM funding capability.]
Pursue establishing common reserve allotments, as allotments become available, in order to allow for periodic rest and deferment in other allotments. Make one of the following determinations in the event a grazing permit is relinquished or cancelled: 1. Reissue a term grazing permit. 2. Close, either temporarily or permanently, the allotment to grazing where any of the following exists and is attributable to livestock grazing: ▪ damage to cultural resources; ▪ fragile soil/biological crusts essential for soil and water resource protection; ▪ low forage production (less than 200 pounds/acre);

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▪ inadequate facilities to manage livestock grazing (such as fencing, water, or forage availability); and/or ▪ degraded riparian and/or upland conditions. 3. Create, temporarily or permanently, a reserve forage allotment. (NOTE: Permits for reserve forage allotments will not be held by specific grazing operators.) Require grazing to meet the goals described for the area in the RMP and, if applicable, in an AMP. Grant temporary, non-renewable use to Federal permit holders when there is a demonstrated need to rest a permittee's allotment. [NOTE: "Need" for rest will include, but not be limited to, the following reasons: to improve resource condition of other allotments prior to prescribed burns or necessary fence construction; and during/after rehabilitation projects (such as wildland fire, drought, flood, insect damage, and/or disease).]
Conduct a Cultural Resource Inventory for livestock concentration areas. Assess livestock impacts for all unevaluated, eligible, or listed sites in livestock concentration areas. Determine mitigation measures that address identified impacts. Mitigate those impacts during the term of the grazing permit.
Fence streams and riparian areas where reduced livestock numbers, or season of use adjustments, do not result in achieving PFC and/or in meeting Public Land Health Standards and Guidelines.
Work cooperatively with the CDOW in order to meet range conditions and forage needs for both wildlife and livestock (making livestock and/or wildlife adjustments, as needed).
Develop a Rangeland Monitoring Strategy and Plan within 2 years of the signing of the ROD in order to assess rangeland health conditions on a regular basis. Establish a process, based upon monitoring results, designed to implement necessary management revisions. Involve permittees and interested members of the public in the on-going monitoring program.
Consider allowing temporary range improvement structures, on a case-by-case basis, where risk of damage to other resource values is low.
Implement protective measures where biological crust communities are identified, such as winter grazing only (December and January) when soil is frozen.
Allow for the placement of supplemental feed, on a case-by-case basis, as approved by the Authorized Officer. (NOTE: In the event emergency feeding is necessary, it will be authorized in accordance with BLM policies, rules, regulations, Manuals, and Handbooks.)
Make adjustments annually, as needed, if utilization or stubble height guidelines are not met (based upon livestock grazing) in the form of rest for an entire growing season, reduced livestock numbers, or in change in season of use.
Authorize grazing during the critical spring growth period (from March 1 through May 31) within a grazing unit for no more than 2 years in any 3-year period. Accomplish this by implementing a rotational grazing system or by taking total non-use every third spring.
Implement more stringent spring deferment, or allow no spring use, where Public Land Health Standards and Guidelines are not being met, or where significant progress is not being made toward meeting them, and where current livestock management is determined to be a substantial contributing factor.
Review existing grazing permits on a regular schedule and revise them, as necessary, in order to address current conditions and Operator needs in the context of meeting Public Land Health Standards and Guidelines (see Appendix C) and other resource management objectives. Make adjustments to grazing permits based upon monitoring information. Use revisions to grazing permits as the management vehicle to accomplish specific utilization goals, stocking rates, season of use, and proposed range improvements. Develop new grazing permits, as required, that address the same management issues and objectives.
Limit livestock grazing in the McElmo RNA to the period from November 15 through March 30, as soon as fence construction is completed.
Build upon the current monitoring program by developing a proactive permittee and public monitoring approach in order to enhance understanding

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of grazing management regulations and guidance, monitoring methods, and current monitoring results.
MONITORING
Monitoring efforts will focus on annual forage utilization, permit compliance, and long-term vegetation trend. Monitoring will be conducted in order to determine resource status in relation to Colorado Public Land Health Standards and Guidelines.

RECREATION
GOALS AND OBJECTIVES
Goal: Manage and enable access to the Monument for recreational activities while, at the same time, protecting cultural and natural resources, ensuring compatibility with other existing and permitted uses, and considering effects on adjacent landowners and the local community.
Objectives: 1. Produce Recreation Management Objectives for specific recreation opportunities, consisting of activities, experiences, and benefits. 2. Sustain Recreation Setting Prescriptions setting character essential/required in order to produce targeted recreation opportunities and to facilitate the attainment of experiences and benefits. 3. Use Providers' Implementing Actions to conduct, yet constrain, all management, marketing, monitoring, and administrative support actions, as necessary, in order to produce targeted recreation opportunities, facilitate outcome attainment, and sustain prescribed recreation setting character. Achieve recreation objectives through the management of the following Special Recreation Management Areas (SRMAs) consisting of the following Recreation Management Zones (RMZs): 1. Pueblo Sites SRMA, including Painted Hand Pueblo RMZ, Lowry Pueblo RMZ, and Sand Canyon Pueblo RMZ; 2. Sand Canyon/Rock Creek SRMA, including Sand Canyon RMZ, and Rock Creek RMZ; 3. Mockingbird Mesa-Rincon SRMA, including Mockingbird Mesa RMZ, and Rincon RMZ; 4. Squaw-Cross Canyons SRMA, including Squaw-Cross Canyons RMZ; 5. Goodman Point SRMA, including Goodman Point RMZ; and 6. AHC SRMA, including AHC RMZ.
MANAGEMENT ACTIONS: ALLOWABLE USES AND ACTIONS
Recreation Management Area Configuration, Management Objectives, and Setting Prescriptions
PUEBLO SITES SRMA: **Configuration:** 240 acres in 3 tracts with Painted Hand, Lowry, and Sand Canyon Pueblos. **Management Objectives:** <u>Activities might include:</u> day hiking and viewing of archaeological pueblos. <u>Experiences might include:</u> learning about the Monument and contemplating people's relationship with the land. <u>Benefits might include:</u> a greater respect for cultural heritage and a greater desire for the protection of archaeological structures and sites.

RECREATION
Setting Prescription: Physical: Back-Rural Country Social: Mid-Front Country Administrative: Mid-Front Country
SAND CANYON-ROCK CREEK SRMA: **Configuration:** 7,541 acres, including most of Sand, Rock, and East Rock Creek Canyons. **Management Objectives:** Activities might include: hiking, mountain biking, horseback riding, and viewing of archaeological sites. Experiences might include: engaging in outdoor exercise, relishing group affiliation and connections, escaping human-made machinery and noise, and enjoying access to close-to-home amenities. Benefits might include: improved fitness and health, improved mental well-being, an enhanced relationship with the natural world, an enhanced respect for cultural heritage, and an increased sense of stewardship and a greater desire for the protection of cultural resources. **Setting Prescription:** Physical: Back-Rural Country Social: Back-Front Country Administrative: Back-Front Country
MOCKINGBIRD MESA-RINCON SRMA: **Configuration:** 115,267 acres, including the heart and southwestern corner of the Monument. **Management Objectives:** Activities might include: driving, horseback riding, mountain biking, hiking, and viewing of archaeological sites. Experiences might include: enjoying solitude, isolation, and independence; enjoying contemplation; engaging in outdoor exercise; and engaging in solitary exploration with additional experiences that might include a more outdoor-oriented lifestyle. Benefits might include: improved mental well-being, an enlarged sense of wonder, an enhanced respect for cultural heritage, improved physical fitness, and enhanced opportunities for health maintenance. **Setting Prescription:** Physical: Back-Rural Country Social: Back-Rural Country Administrative: Back-Rural Country
CROSS-SQUAW CANYONS SRMA: **Configuration:** 37,604 acres, including Cross, Cahone, Cow, and Squaw–Papoose Canyons. **Management Objectives:** Activities might include: backpacking, camping, and exploring. Experiences might include: engaging in outdoor exercise; enjoying contemplation; enjoying solitude, isolation, and independence; learning about

RECREATION
the Monument; and enjoying solitary explorations. Benefits might include: improved physical fitness, improved mental well-being, an enhanced relationship with the natural world, an enlarged sense of wonder, and a greater desire for the protection of archaeological structures and sites. **Setting Prescription:** Physical: Back-Front Country Social: Back-Front Country Administrative: Back-Front Country
GOODMAN POINT SRMA: **Configuration:** 10,219 acres, including public lands in Goodman, Trail and Alkali Canyons, and associated uplands. **Management Objectives:** Activities might include: viewing/studying archaeological sites, hiking, and exploring. Experiences might include: enhanced education about prehistoric lifestyles, improved scholarship/more highly motivated students, reduced exposure to at-risk youth, enhanced opportunities to teach others about the Monument's natural and cultural history, reduced incidents of vandalism of prehistoric sites, enhanced community involvement in recreation and other land use decisions, and enhanced opportunities to have greater access to close-to-home recreation. Benefits might include: an enlarged sense of wonder, an improved capacity for outdoor physical activity, an enhanced and more holistic sense of wellness, an increased respect for cultural heritage, an increased capacity for artistic expression, an increased sense of stewardship and protection of cultural resources, as well as reduced incidents of looting and vandalism of prehistoric sites, and increased local tourism revenue. **Setting Prescription:** Physical: Back-Front Country Social: Back-Front Country Administrative: Back-Front Country
ANASAZI HERITAGE CENTER SRMA: **Configuration:** 94 acres, including the AHC and associated property. **Management Objectives:** Activities might include: viewing interpretive exhibits, learning about ancient cultures, hiking, viewing of archaeological sites (with additional activities that might include learning about ancient cultures and lifestyles), and learning about recreation opportunities within the Monument. Experiences might include: contemplating people's relationship with the land, learning how to respect other users and land uses, and learning new places to go with a group. Benefits might include: increased respect for cultural heritage, increased access to hands-on learning, improved environmental ethics, an increased sense of stewardship of cultural resources (with additional benefits that might include an improved ability to relate to local cultures), improved scholarship/more highly motivated students, an enhanced ability for visitors to find what they want, and improved local economic stability. **Setting Prescription:** Physical: Front-Rural Country

RECREATION
Social: Front-Rural Country Administrative: Front-Rural Country
Management and Implementation Actions
Promote a strategy for undeveloped recreation management for Mockingbird Mesa, Goodman Point, and Squaw/Cross Canyon SRMAs. (NOTE: This strategy will manage mostly for custodial purposes, including user conflicts, visitor safety, and resource protection.) Focus on incidental visitors and/or local residents. Minimize infrastructure and visitor facilities. Promote a strategy for destination recreation management for Sand Canyon/Rock Creek, Painted Hand Pueblo, and Sand Canyon Pueblo RMZs. (NOTE: This strategy will focus on establishing destinations for regional visitors, actively marketing to communities in the Four Corners area.) Provide specific public access points and appropriate support facilities. Employ a greater reliance on collaboration with counties and their tourism efforts. Promote a strategy for destination recreation management for the AHC and Lowry Pueblo RMZs. (NOTE: This strategy will focus on establishing destinations for national and international, as well as local and regional, visitors.) Provide specific public access points and appropriate support with more infrastructure and visitor facilities. Employ a greater reliance on collaboration with counties and their tourism efforts, local tourism industries, and the NPS.
Manage 163,090 acres as Backcountry and 7,875 acres as Front Country settings.
Prohibit recreational shooting (target shooting using bullets, bow/arrow, paintballs, or air guns) and geocaching anywhere within the Monument. Allow climbing (rock climbing, repelling, and/or bouldering) in designated areas only within the Mockingbird Mesa RMZ. Prohibit camping and campfires in the Pueblo Sites, Sand Canyon-Rock Creek, and AHC SRMAs. Allow camping and campfires within the Mockingbird Mesa-Rincon, Squaw-Cross Canyon, and Goodman Point SRMAs. (NOTE: Where camping is allowed, it will be managed as dispersed camping. If dispersed camping threatens or damages resources protected by the Proclamation, adaptive management practices will be implemented, including, but not limited to: temporary or permanent area closures, designated camping locations, and/or seasonal limitations and/or closures.) Prohibit camping and campfires in archaeological sites, rock shelters, or alcoves Monument-wide. Prohibit camping less than 300 feet from, springs, seeps, or streams. Prohibit camping and campfires less than 300 feet from developed facilities (such as trails, kiosks, entrance signs, parking areas) and from riparian and water sources. Prohibit firewood collecting for campfires. Allow campfires in fire pans only. (NOTE: Should the need arise to designate camping areas, campfires will be limited to existing fire rings and/or stoves.) Maintain developed recreation sites and interpretation information opportunities within the Pueblo Sites SRMA. Consider mechanized travel (bicycles) a conditional use, with continued monitoring, within the Sand Canyon/Rock Creek SRMA. (NOTE: If damage begins to occur to the objects of the Monument as a result of mechanized travel, this use will no longer be allowed.)
Establish parking areas that accommodate up to 20 vehicles at the Pueblo Sites, Sand Canyon/Rock Creek SRMAs, and for trails leading to NPS units within the Monument.
Continue the entrance fee for the AHC SRMA.
Continue existing SRPs, and allow extension, renewal/transferal, and/or adjustment, on a case-by-case basis. Allow up to 10 SRPs, at the discretion of the Monument Manager (see education and information section for requirements).
MONITORING
Monitoring efforts will focus on the number and types of recreation activities taking place, use patterns, accomplishment of SRMA objectives, and potential adverse impacts to resources and visitor experiences. Monitoring will be conducted in order to ensure compliance with SRP requirements.

TRANSPORTATION

GOALS AND OBJECTIVES

Goal: Define a Travel Management System (a system of areas and routes), with supporting facilities (such as parking areas), that provides reasonable access to the public, private landowners, and authorized users (such as fluid mineral operators and livestock grazing permittees) that also, at the same time, protects the objects identified in the Proclamation. [NOTE: As per BLM IM No. 2008-014, the definition of a route is "a group or set of roads, trails, and primitive roads that represent less than 100 percent (excludes non-designated routes) of the BLM transportation system." In general, components of the transportation system are described as "routes." All designated routes within the Monument are identified on the attached Transportation Map. Travel off of a designated route is considered "cross-country" or "off-road."]

Objectives:
Designate limited access routes and their associated type of use. [NOTE: A limited access route is a route restricted from general public use. Limited routes include those for administrative access (allowing access for purposes of maintenance or operation), private land access (see Appendix L), and temporary access (used for a defined period of time, such as during the operation of an oil and gas well, then closed once the use is complete).

1. Designate existing and new routes for different types of motorized and non-motorized public access (such as for street-legal motorized vehicle and ATV) following the travel management network methodology in Appendix F. [NOTE: This methodology closes existing routes that do not access a destination (such as scenic overlooks, camping sites, or archaeological sites allocated for public use) and/or that pose a threat to Monument resources. All types of use includes street-legal motorized vehicle, All-Terrain Vehicle (ATV), Off Highway Motorcycle (OHM), foot, horse, and bicycle.]
2. Designate travel management areas in order to protect Monument objects and to prohibit all off-road motorized and mechanized vehicle use, except for emergency or authorized administrative purposes, as required under the Proclamation.
3. Identify the type(s) and location(s) of facilities necessary in order to support the functions of the Travel Management System.
4. Identify maintenance activities required to protect route surfacing in order to protect the objects of the Monument.
5. Identify criteria that will assist in deciding if additional routes should be added or removed from the Travel Management System in the future.
6. Work in partnership with the CDOW to determine limitations (such as season of use and density level), if any, on new route construction in order to protect big game winter range and migration corridors within the Monument.
7. Identify guidelines and/or limitations designed to properly maintain, manage, and/or monitor the Travel Management System.
8. Work in partnership with affected interests to manage over-flights in order to achieve and maintain both visitor experiences and benefits within RMZs.
9. Manage access in existing WSAs for fluid mineral leases issued prior to passage of the FLPMA in order to ensure compliance with the BLM non-impairment standard.
10. Work in partnership with affected interest groups to manage routes in order to protect resources and maintain visitor experiences and benefits.

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MANAGEMENT ACTION: ALLOWABLE USES AND ACTIONS
Provide adequate access to private in- and edge-holdings through the Transportation Plan.
Consult with the CDOW to determine what, if any, limitations are necessary (such as season of use and density level) in order to protect elk and mule deer habitats prior to authorizing new routes within elk and mule deer winter range, and elk migration corridors, as defined by the CDOW.
Work cooperatively with aircraft operators, adjacent land management agencies (such as the NPS at Hovenweep National Monument and the Utah BLM at the Monticello Field Office), and Native American tribes (such as the Ute Mountain Ute Tribe and the Navajo Nation), and the Federal Aviation Administration (FAA), in order to direct over-flights so that noise disturbance is minimized.
Ask the following questions in order to assist the Monument Manager in adding or removing additional routes from the Travel Management System in the future (NOTE: If all answers are “no” then the route will be closed. If any answer is “yes” then consideration for keeping the route open should be made.): ▪ Is the route officially recognized as a County Road by both the BLM and by the county it is located within? ▪ Does the route lead to developments that have a limited use purpose, where the BLM or a permitted user (not including private land access) must have access for regular maintenance or operation? ▪ Is the route a primary or secondary unpaved route? If so, does the route have a destination? If so, does it contribute to the management objectives and framework and setting prescriptions of the RMZ it is located within? If so, does the route avoid impacts to Monument objects and/or other resources? [NOTE: Designated routes are identified in the comprehensive Transportation Plan (see Map 5, Appendix F and Appendix K). Routes designated open to different types of motorized and non-motorized public access are shown on Map 5. Routes that may appear on the ground and not on these maps will be planned for closure. The exact location of routes may be adjusted based upon cultural resource surveys or in order to address other resource concerns.] Routes are summarized as follows: ▪ Limited Use + Public Foot, Horse = 37 miles ▪ Limited Use + Public Foot, Horse, Bicycle = 26 miles ▪ Public Foot = 3 miles ▪ Public Foot, Horse = 3 miles ▪ Public Foot, Bicycle = 1 mile ▪ Public Foot, Horse, Bicycle = 20 miles ▪ Public Foot, Horse, Bicycle, OHM, ATV = 8 miles ▪ Public Open to All Travel Means = 68 miles ▪ Fluid mineral routes on new leased lands = 1 mile Total routes (public access + limited access + 1 mile of estimated new mineral route) = 172 miles (NOTE: Nine facilities required to support the Travel Management System are identified on Map 5.)
Manage the Travel Management System in a manner that maintains open routes within the existing disturbed travel surface area as of the date the ROD is signed, unless a reduction in ground-disturbance area could occur. Allow no widening, passing lanes, or other travel-surface upgrades designed to accommodate additional or different uses except to ensure public safety and/or to protect Monument resources. Authorize maintenance activities that protect Monument resources outside of the disturbed travel surface following site-specific environmental analysis (such

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as maintenance activities that prevent erosion and sediment loading in drainages). Maintain limited access routes to the minimum level necessary in order to protect the objects of the Monument and to keep them open for limited use by high-clearance vehicles. Do not maintain limited access routes that only go to BLM range monitoring and study areas unless necessary in order to protect cultural and natural resources; however, allow periodic vehicular access to these sites for required range monitoring uses, following proper clearances.
Restrict foot travel, horseback riding, and mechanized travel to designated routes only in SRMA 2 (Sand Canyon/Rock Creek). Authorize no motorized travel. Authorize cross-country travel by horseback and foot outside SRMA 2. Prohibit new routes in RMZ 4 (Squaw-Cross Canyon) and within the McElmo RNA.
Designate 39,543 acres as “closed” to OHV travel. Designate 131,312 acres as “limited” to OHV travel. Designate 0 acres as “open” to OHV travel.
Prohibit cross-country motorized and mechanized (such as mountain bike) travel. Limit motorized and mechanized vehicle use to designated routes. (NOTE: Motorized or mechanized vehicles may pull off designated routes and park parallel to the route’s disturbed surface. Tire tracks should be more than 20 feet from the edge of the route surface.) Encourage visitors to use existing disturbed areas for pulling off routes in order to access camping areas and require them to leave existing vegetation intact. Prohibit parking in riparian areas. Prohibit cross-country travel for game retrieval.
Determine public use designations as part of the development process when there are new proposed limited access routes. Outline closure method(s) in the Plan of Development (POD) if limited access routes are closed to public use.
Consider any route not shown on Map 5 closed upon the signing of the ROD, subject to valid existing rights. Reclaim closed routes within 10 years of the signing of the ROD. Develop a strategy for restoring closed routes within 1 year of the signing of the ROD. Prioritize routes for restoration based upon actual and/or probable impacts to resources, and upon levels of use. Prioritize closed routes located in historical, high-use areas [such as in SRMA 1 (Pueblo Sites) and SRMA 2 (Sand Canyon/Rock Creek)] for restoration first. Require that each closed route be considered individually, and select the best, least intrusive, method for restoration, based upon the geography, topography, soil, hydrology, and vegetation in the area. Other guidelines that will be incorporated in this strategy include, but are not limited to: ▪ not repairing washed-out routes; ▪ using natural barriers (such as boulders); ▪ using dead-and-down wood in order to obscure route entryways; ▪ using fencing, when necessary, in order to prohibit access; ▪ ripping up the route bed and reseeding with vegetation natural to the area; ▪ providing visitor education and information (such as maps and signing) on route closures; and ▪ granting limited access routes only for legitimate and specific purposes. (NOTE: Authorized users could include oil and gas permittees, grazing permittees, researchers, private landowners, State or Federal agencies, Native Americans accessing recognized traditional cultural properties, and others carrying out authorized activities under a permit or other authorization.) Authorize off-road travel on a case-by-case basis following proper resource clearances for administrative purposes. Evaluate routes for closure, following public notification and opportunity to comment, if the limited access purpose of a route ceases. Work with any individual operating within the Monument under existing permits or authorizations in order to document where access must continue to allow operations of a current permit of authorization if other than that shown on Map 5. Provide limited access, other than that shown on Map 5, to livestock grazing permittees in order to meet the terms and conditions of the permits. (NOTE: Some limited access does not follow a visible route, but requires

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cross-country travel. As a result, this limited access is not identified on Map 5, but will be authorized, as needed, and with proper clearances.)
Develop a strategy for complying with the Travel Management System within 1 year of the signing of the ROD. Guidelines for this strategy could include, but are not limited to: • keeping all types of use (such as street-legal motorized vehicle, bicycle, and ATV) on designated routes by hiring additional staff (such as law enforcement personnel and backcountry rangers) to patrol; • developing and distributing maps and installing signs in order to assist in educating the public about routes that are open and closed; • specifying in existing law enforcement MOUs with agencies (such as with Hovenweep National Monument, the USFS, and those currently under development with the Sheriff's offices in Montezuma and Dolores Counties) the need to jointly enforce the Monument's Travel Management System; • working in partnership with affected interest groups in order to gain compliance and to protect resources; • incorporating the Four E's Strategy: education, engineering, enforcement, and evaluation; and • obtaining the necessary ROWs, working with private landowners, for public access to BLM administered lands.
MONITORING
Monitoring efforts will focus on compliance with the Transportation Plan. Monitoring will identify problems with user-created route development and/or non-authorized use of travel routes. Route use will be observed and recorded in order to determine use and facility maintenance and development needs. Monitoring will also focus on identifying impacts to Monument objects.

AREAS OF CRITICAL ENVIRONMENTAL CONCERN (ACEC)
GOALS AND OBJECTIVES
Goal: Provide consistent protection and management of important cultural and natural resources.
Objective: Manage in a manner that maintains and/or enhances the special resource values within the Monument ACECs.
MANAGEMENT ACTIONS: ALLOWABLE USES AND ACTIONS
Drop the ACEC designation, except where applicable to RNAs (see RNA).
Manage 8,863 acres as an ACEC (RNA).
Provide high quality habitat for livestock and wildlife, and provide opportunities for recreational pursuits while, at the same time, emphasizing the cultural values.
With the primary emphasis on cultural resource values, undertake closer monitoring of surface-disturbing activities.
MONITORING
Monitoring efforts will focus on protecting ACECs for their intended purpose(s) (such as sensitive wildlife and/or plant species and habitat)

SCENIC AND HISTORIC BYWAY
GOALS AND OBJECTIVES
Goal: Cooperate with management partners in order to implement the Corridor Management Plan for the Trail of the Ancients Scenic and Historic Byway.
Objective: Preserve resource values while, at the same time, implementing site-specific actions described in the Corridor Management Plan.
MANAGEMENT ACTION: ALLOWABLE USES AND ACTIONS
Implement all site-specific actions described in the Corridor Management Plan for interpretation at the AHC and at the Lowry Pueblo.
MONITORING
Monitoring efforts will focus on maintaining visual integrity, public safety, and the protection of Monument objects.

RESEARCH NATURAL AREA (RNA)
GOALS AND OBJECTIVES
Goal: Provide a natural and undisturbed setting for scientific research and public education within the McElmo RNA.
Objectives: 1. Maintain and manage the McElmo RNA (427 acres) as a Herpetological Research Area, a resource for educational institutions, and as an outdoor classroom. 2. Enhance McElmo RNA surface-disturbance protections. 3. Enhance research and outdoor educational opportunities within RNAs. 4. Reduce livestock grazing pressure within RNAs. 5. Protect Potential Conservation Areas (PCAs) proposed by the Colorado Natural Heritage Program (CNHP) from negative impacts of ground-disturbing activities. 6. Protect PCAs from impacts that could negatively impact sensitive plant species. 7. Evaluate the potential expansion of the RNA boundary.
MANAGEMENT ACTIONS: ALLOWABLE USES AND ACTIONS
Maintain Bridge Canyon NSO stipulation.
Continue to manage the existing RNA and Rare Snake and Lizard Instant Study Area (ISA)/Wilderness Study Area (WSA) under the Interim Management Policy and Guidelines for Lands Under Wilderness Review, BLM Handbook 8550-1 (IMP).
Maintain the ACEC designation for RNAs.
Expand the RNA boundary (see Map 9) in order to incorporate acquired private land adjacent to the existing RNA.
Close the two-track access route.
Prohibit all seismic operations.
Limit surface-disturbing authorizations and activities within the McElmo RNA to only those uses that support research and education (such as

RESEARCH NATURAL AREA (RNA)
trails, parking areas, signs, toilets, and shelters).
Limit livestock grazing use from November 15 through March 30.
Designate as RNAs the Cannonball and Sand Canyon PCAs proposed by the CNHP. Establish NGD/NSO stipulations for the Cannonball and Sand Canyon PCAs.
Manage 8,963 acres as an RNA.
MONITORING
Monitoring efforts will focus on protecting RNAs for their intended purpose(s) (such as for sensitive wildlife and/or plant species and habitat)

WILD AND SCENIC RIVERS (WSR)
GOALS AND OBJECTIVES
Goal: Preserve free-flowing rivers with special values in their natural condition.
Objective: Manage rivers found suitable for WSR designation in a manner that protects their ORVs and classification, as identified in the suitability determination described in the PRMP (no river segments were determined to be suitable).
MANAGEMENT ACTIONS: ALLOWABLE USES AND ACTIONSs
Consider 0 river segments suitable for WSR designation; therefore, consider 0 eligible segments as WSRs.
Manage 0 miles as WSR.
MONITORING
Monitoring efforts will focus on protecting the integrity of stream systems, maintaining visual integrity, and protecting Monument objects.

WILDERNESS STUDY AREAS (WSA) AND CITIZENS' WILDERNESS PROPOSAL AREA (CWPA)
GOALS AND OBJECTIVES
Goal: Determine management guidance for WSAs, should Congress release them from WSA status.
Objective: Maintain the non-impairment standard for WSAs, in accordance with the FLPMA, in order to prevent non-impairment of the wilderness characteristics of these areas (see Map 9).
Goal: Protect and preserve wilderness characteristics outside of WSAs, where appropriate.
Objective: Protect wilderness characteristics in identified areas outside of WSAs as shown on Map 9).

WILDERNESS STUDY AREAS (WSA) AND CITIZENS' WILDERNESS PROPOSAL AREA (CWPA)
MANAGEMENT ACTION: ALLOWABLE USES AND ACTIONS
Patrol WSAs in accordance with the IMP in order to detect and prevent actions that could impair the suitability of such areas for preservation as wilderness.
Continue to manage the existing RNA as a WSA.
Manage the citizen's proposed expansion of WSAs (5,223 acres) along with existing WSAs, for wilderness characteristics. (NOTE: If Congress releases WSAs from their designation, manage these areas to protect their wilderness characteristics through the RMP and according to the unnecessary undue degradation provision of FLPMA.)
Manage 25,549 acres as a WSA; manage an additional 5,223 acres for wilderness characteristics.
Allow range improvements, consistent with the IMP. Within WSAs and consistent with maintenance of wilderness values within the non-WSA lands with wilderness character. Fencing and water-related development (non-domestic) would be permitted only when necessary to enhance wilderness values, such as for improvement of ecological conditions.
Remove water-related developments (non-domestic) and fencing when they are no longer required for management purposes.
Designate 0 travel routes in non-WSA areas with wilderness characteristics.
Establish NGD/NSO stipulations in order to protect areas with wilderness characteristics from ground-disturbing activities.
MONITORING
Monitoring efforts will conform to the IMP.

PUBLIC SAFETY AND LAW ENFORCEMENT
GOALS AND OBJECTIVES
Goal: Provide for public safety and enforcement of all Federal laws and regulations related to the use, management, and development of Monument lands and resources.
Objectives: 1. Address law enforcement strategies recommended in the Monument's existing Law Enforcement Plan. 2. Ensure that all illegal activities will be detected, reported, investigated, and/or referred to the appropriate officials. 3. Protect all Monument lands, resources, and objects from unlawful removal, damage, or destruction. 4. Hold authorized and unauthorized users of public lands accountable for required repairs to, and/or reclamation of, natural resources. 5. Provide safe and enjoyable experiences for public land users that are not marred by the illegal or inappropriate action of others. 6. Build and maintain effective partnerships with local, State, and Federal law enforcement agencies. 7. Foster a positive relationship with public land users. 8. Provide appropriate law enforcement training related to specific Monument resources and objects. 9. Maintain coordination with other agencies and jurisdictions for fire control, emergency response, and Search and Rescue functions.
MANAGEMENT ACTION: ALLOWABLE USES AND ACTIONS
Continue cooperative efforts between BLM law enforcement rangers and all local, State, and Federal law enforcement agencies.

PUBLIC SAFETY AND LAW ENFORCEMENT
Require 2 full-time permanent BLM law enforcement rangers, in addition to seasonal support, in order to provide effective surveillance and monitoring of cultural resource sites within the Monument.
Develop and implement a protocol designed to identify, respond to, and remove hazardous materials within 1 year following the signing of the ROD.
Develop a Monitoring Plan for cultural resource sites, through coordination with cultural resource staff that takes into consideration factors such as use-allocation status, NRHP status, public use patterns, vandalism occurrences, vulnerability, and cultural sensitivity.
Increase frequency of patrols of cultural sites identified in the Monitoring Plan. Cooperate with local law enforcement with regard to: ▪ high-profile patrols during periods with high to extreme fire conditions; ▪ prevention and investigation of human-caused fires; and ▪ investigation of all wildfires of a suspicious nature.
Integrate considerations listed in Appendix E when updating the Monument's Law Enforcement Plan, as appropriate.
Continue partnership with the Cultural Site Stewardship Program. Assist in annual on-site steward training and with on-going enrichment training for program stewards. Establish liaison with local law enforcement agencies pertaining to paleontological and cultural resource law enforcement. Assist local law enforcement agencies in obtaining paleontological and cultural resource law enforcement training.
Provide training and updates for all non-BLM law enforcement personnel who respond to the Monument in relation to management polices and enforcement needs (such as in recreation, wildlife, trespass, wildland fire, range, Travel Management System, WSAs, natural resource use permits, Special Use Permits, fluid minerals development, and so forth.)
Cooperate with county Search and Rescue teams and emergency medical services. Participate in Search and Rescue training meetings.
Develop protocol(s) for conducting investigations of vandalism within cultural resource sites within the Monument. Investigate cultural resource vandalism jointly with BLM law enforcement staff, cultural resource staff, and other personnel, as needed.
Coordinate law enforcement personnel and AHC desk staff in order to create a protocol for visitor and private landowner reporting of looting, vandalism, trespass, and/or other resource management violations.
Issue activity permits in compliance with stated Lands and Realty goals and objectives. Include permit areas in regularly scheduled patrols.
MONITORING
Monitoring efforts will focus on compliance with laws and regulations. Monitoring of natural hazards, traffic, visitor use patterns, and other uses on the Monument will be conducted for public safety.

CHAPTER 3 IMPLEMENTATION

3.1 PUBLIC INVOLVEMENT IN IMPLEMENTATION

Plan implementation is a continuous process that will occur throughout the life of the Approved Plan. The public can be involved in Plan implementation through a variety of venues. Some of the management decisions contained in this document will require preparation of detailed, site-specific NEPA analyses prior to implementation. This type of analysis often requires public input during the initial scoping period, and provides further protest or appeal opportunities.

3.2 RESOURCE MANAGEMENT PLAN IMPLEMENTATION

Many of the management decisions described in this document are effective upon approval of the RMP. [For example, the decision to include standard cultural resources protection Conditions of Approval (COAs) on all projects will begin immediately upon the signing of the ROD.] Other decisions may take a number of years to fully implement on the ground. (For example, the Travel Management Plan involves archaeological clearances, route maintenance and closures, signage, travel map development, enforcement, and other implementation tasks.) Some decisions will be implemented on an ongoing basis and, therefore, have no specific completion point. [For example, implementing Visual Resource Management (VRM) Class objectives.] In many cases, implementation depends largely upon funding and workforce availability.

Activity-level planning will address any proposed new activities and long-term permitted activities that need to be brought into compliance with RMP decisions, subject to valid existing rights. Monitoring of these activities will then determine overall effectiveness. Where land use plan actions or BMPs are not considered effective by the BLM, modifications could occur without amendment or revision of the Approved Plan, as long as assumptions and impacts disclosed in the analysis remain valid and broad-scale goals and objectives are not changed. This approach uses on-the-ground monitoring, review of scientific information, and consideration of practical experience and common sense to adjust management and modify implementation of the Approved Plan in order to reach the desired outcome.

Implementation Decisions

Generally, implementation decisions constitute the BLM's final approval for allowing on-the-ground actions to proceed. Future activity-level plans will address the implementation of the Approved Plan. Implementation decisions made once the planning process is complete require site-specific planning and additional NEPA analysis. They may be incorporated into implementation plans (activity or project plans) or may exist as stand-alone decisions. Implementation decisions, unlike land use planning decisions, are not subject to protests under the BLM planning regulations. They are, however, subject to an administrative review process through appeals to the Office of Hearings and Appeals (OHA), Interior Board of Land Appeals (IBLA) pursuant to 43 CFR, Part 4, Subpart E.

Administrative Actions

Additional guidance is also presented in the form of administrative actions. Administrative actions are not RMP-level decisions. They are day-to-day activities conducted by the BLM. Examples of administrative actions include mapping, surveying, inventorying, monitoring,

collecting needed information (such as research and studies), and completing site-specific or implementation-level plans.

Table 3-1 outlines individual tasks identified in the Approved Plan for each Resource Topic (many will likely require funding for completion). For example, the development of an Interpretation Plan is a known implementation task; therefore, it is identified in Table 3-1. However, allocating additional cultural sites for public use, should public demand dictate the need, remains an unknown; therefore, it is not identified in Table 3-1. The table also identifies whether implementation of tasks involves a one-time project, or whether it is considered to be ongoing. Many of the tasks include a specific time frame and, if so, those time frames are identified.

Table 3-1 Tasks

Resource Topic	Task Statement	Timeframe	One Time	Ongoing
Cultural Resources	Evaluate up to 12 additional specific sites for visitation.		X	
	Prepare Cultural Resource Management Plans (Preservation Plans) for sites allocated to Public Use D (Developed and Undeveloped), as well as sites and districts listed on the National Register of Historic Place (NRHP).		X	
	Implement a phased program of preservation assessments for Public Use D sites (Developed and Undeveloped).			X
	Train Special Recreation Permit (SRP) holders in site-monitoring techniques.			X
	Conduct a Class III Cultural Resource Inventory for areas receiving high public use and/or that lack information.		X	
	Initiate consultation with Native American tribes for Section 106 Compliance with an annual letter of notification regarding upcoming projects and activities.			X
	Complete and implement a MOU with interested Native American tribes in order to streamline, focus, and facilitate consultations.		X	
	Record all sites to Office of Archaeology and Historic Preservation (OAHP) standards.			X
	Work with interested groups and			X

Table 3-1 Tasks				
Resource Topic	**Task Statement**	**Timeframe**	**One Time**	**Ongoing**
	individuals in order to accomplish site preservation activities.			
	Develop a Monitoring Plan for cultural resource sites.		X	
	Assist in the annual training and ongoing enrichment training for Site Stewards.			X
	Identify sites that are to receive regular patrols by BLM law enforcement officers.			X
	Compile monitoring data into an annual summary, and update Monitoring Plans on an annual basis.			X
	Organize and conduct public education programs about cultural resource visitor ethics.			X
	Establish cultural resource vandalism, trespass, and human remains discovery reporting and investigation procedures and protocols.		X	
	Compile information on sites having extensive vandalism or damage from other sources.		X	
	Establish a protocol for consultations with affiliated Native American tribes regarding inadvertent discoveries of human remains.		X	
	Establish protocols for the gathering of materials for Native American cultural and religious purposes.		X	
Fuels and Fire	Conduct research in order to determine the historic ranges of variability in historic fire regimes, woodland structure, and adjacent vegetation types.		X	
	Conduct a Wildfire Hazard Assessment for specific listed areas in order to determine hazardous fuel reduction treatment needs.		X	
	Provide cultural resource education to	Before		X

Table 3-1 Tasks

Resource Topic	Task Statement	Timeframe	One Time	Ongoing
	local area firefighters.	each fire season		
	Prioritize and approve a list of areas requiring fuels management and vegetation management treatments. Update the list annually.	1-3 years following the signing of the ROD	X	
	Determine the allowed proximity of prescribed fire to Fire Management Zone (FMZ) B.		X	
	Determine the allowed proximity of mechanical fuels management or vegetation management treatment methods to cultural resources and public and private property within FMZ B.		X	
	Review existing agreements between the BLM, local fire agencies, and the Montezuma County and Dolores County Community Wildfire Protection Plans.	Annually		X
	Develop a MOU outlining agency and private landowner responsibilities, opportunities to share resources, and an organizational structure for suppression activities. Update this Operating Plan annually.	Annually	X	X
Geology	Identify high-hazard areas and notify the public of such hazards.		X	X
Paleontology	Implement a program designed to evaluate the scientific importance of previously recorded localities. Prioritize localities for evaluation.		X	
	Complete the compilation and analysis of all available paleontological resource data and literature.			X
	Establish scientifically based standards for paleontological research within the Monument.		X	
	Schedule regular monitoring of known surface localities of vertebrate or other			X

Table 3-1 Tasks				
Resource Topic	**Task Statement**	**Timeframe**	**One Time**	**Ongoing**
	important fossils.			
Soil Resources	Establish a list of areas requiring stabilization and rehabilitation from human-caused soil erosion, and begin restoration.		X	X
Wildlife	Establish baseline data for suitable Southwestern Willow Flycatcher (SWWF) habitat areas. Map the areas and establish a Habitat Management Plan (HMP). Fence suitable habitat from livestock.		X	
	Monitor and maintain/improve crucial winter range for elk and deer.			X
	Incorporate forage and cover requirements into HMPs specific to primary use areas for deer.		X	
	Evaluate and make recommendations on wildlife reintroductions and fish stocking proposals to the Colorado Division of Wildlife (CDOW).		X	
	Maintain all wildlife habitat improvement facilities.			X
	Complete wildlife habitat improvements in order to enhance wildlife viewing.		X	
	Implement recovery actions as described in the August 2002 SWWF Final Recovery Plan.			X
	Fence suitable habitat from livestock.		X	
	Write a HMP for sensitive lizard species known or potentially occurring within the Monument. Include mapping of sensitive or occupied habitat areas.		X	
	Write a MOU with the CDOW in order to reintroduce bighorn sheep into Cross Canyon and Yellow Jacket Canyon.		X	
	Write a MOU with the CDOW in order to facilitate future reintroduction of Gunnison		X	

Table 3-1 Tasks				
Resource Topic	**Task Statement**	**Timeframe**	**One Time**	**Ongoing**
	sage-grouse.			
	Treat over-mature or overly dense sagebrush-steppe habitat in order to provide for a diversity of age classes.		X	X
	Work with CDOW in order to identify specific areas where enhancement measures are needed to maintain desired populations of deer.		X	
	Modify existing agreements with Animal and Plant Health Inspection Service (APHIS) in order to meet the requirements of the Approved Plan.		X	
Vegetation Resources	Prioritize past pinyon-juniper chaining areas for improvement, and then actively manage in a manner that improves their ecological condition.		X	X
	Conduct Proper Functioning Condition (PFC) assessments for all riparian and wetland areas and springs.		X	
	Review route crossings of intermittent or perennial streams.		X	
	Implement livestock exclusions on riparian/wetland areas or springs that will result in progress toward PFC, and/or that will protect cultural resources.			X
	Fence springs in livestock use areas.		X	
	Develop an inventory and an Integrated Pest Management Plan.		X	
	Implement a systematic weed inventory and mapping program.	Within 3 years of the signing of the ROD	X	X
	Inventory and prioritize areas for noxious weed treatment.	Within 3 years of the signing of the ROD	X	
	Monitor at least 20 percent of treatment	Annually		X

Table 3-1 Tasks

Resource Topic	Task Statement	Timeframe	One Time	Ongoing
	areas.			
	Develop a prioritized detection and eradication plan.		X	
	Control State List B Noxious Weed Species; Manage State List C Noxious Weed Species.			X
	Maintain a Noxious Weed Management Database.			X
Special Status Plants	Conduct surveys for all G-2 sensitive plant species.		X	
	Monitor BLM sensitive plant species populations.			X
	Develop a Monitoring Plan for significant plant and biological crust communities.		X	
	Develop an Inventory Plan for sensitive plant species and significant biological crust communities.	Within 2 years of the signing of the ROD		
	Close social routes where significant biological crust communities occur in high-use recreation areas.			X
Water Resources	Develop and implement a long-term Hydrologic Data Collection Program.		X	X
	Secure water rights in order to support all BLM water uses within the Monument.		X	
	Incorporate a list of seeps, springs, and streams into a list of high-priority areas for noxious weed control, and begin treatment.	Within 3 years of the signing of the ROD	X	X
	Develop and implement a long-term monitoring of stream and riparian functions, using such tools as: 1) monitoring the vegetation resources in riparian areas; 2) PFC, and GTR RM-245 Stream Channel Reference Sites; 3) collecting benthic macroinvertebrate and other obligate aquatic species, where	Long-term		X

Table 3-1 Tasks

Resource Topic	Task Statement	Timeframe	One Time	Ongoing
	appropriate, for perennial systems.			
Education and Information	Develop a comprehensive Interpretation and Education Plan.	Within 3 years of the signing of the ROD	X	
	Organize and conduct education programs.			X
	Manage the AHC as a focal point for the cultural program for public lands.			X
Facilities and Infrastructure	Work with Hovenweep National Monument in order to determine the feasibility of developing a Visitor Contact Station on the western boundary of the Monument.		X	
	Work with landowners in order to determine the need for fencing and/or signage along private/public land boundaries.		X	X
	Develop a cost-sharing program with private landowners within, and adjacent to, the Monument in order to install and maintain fencing and/or signage.		X	X
Special Forest Products	Designate areas for commercial special forest product removal in order to meet vegetation management objectives.		X	X
Lands and Realty	Develop a Boundary Management Plan in order to prioritize areas for survey and boundary marking.		X	
	Pursue cost-share agreements with willing private landowners within, and adjacent to, the Monument in order to survey and mark the Monument boundary.			X
	Work with private landowners in order to resolve encroachment issues.			X
	Develop a prioritized list of easements needed in order to facilitate access to public lands.	Within 1 year of the signing of	X	

Table 3-1 Tasks

Resource Topic	Task Statement	Timeframe	One Time	Ongoing
		the ROD		
	Acquire easements in partnership with landowners.		X	X
Livestock Grazing	Conduct cultural resource inventories of livestock concentration areas, and mitigate impacts.		X	X
	Fence streams and riparian areas where achieving PFC through other management means does not occur.		X	X
	Develop a Rangeland Monitoring Strategy and Plan.	Within 2 years of the signing of the ROD	X	
	Implement protective measures where biological crust communities are identified.		X	X
Recreation	Establish parking areas that accommodate up to 20 vehicles at the Pueblo Sites, Sand Canyon/Rock Creek Special Recreation Management Areas (SRMAs), and for trails leading to NPS units.		X	
Transportation	Consult with CDOW in order to determine what, if any, limitations are necessary to protect elk and mule deer habitats.		X	
	Develop a strategy for complying with the Travel Management System.	Within 1 year of the signing of the ROD	X	
	Implement the Transportation Plan.			X
Scenic and Historic Byway	Implement all site-specific actions in the Corridor Management Plan for interpretation at the AHC and Lowry Pueblo.		X	
Research Natural Area	Close the two-track access route.		X	
Wilderness	Patrol the WSAs in order to detect and			X

Table 3-1 Tasks

Resource Topic	Task Statement	Timeframe	One Time	Ongoing
Study Areas	prevent unauthorized actions.			
	Remove water developments and fencing when no longer required for management purposes.		X	X
Law Enforcement and Safety	Develop and implement a protocol designed to identify, respond to, and remove hazardous materials.	Within 1 year of the signing of the ROD	X	X
	Develop a Monitoring Plan for cultural resource sites.		X	
	Establish a liaison with local law enforcement.		X	
	Provide training and updates for all non-BLM law enforcement personnel who respond to Monument enforcement needs.			X
	Participate in Search and Rescue (SAR) training meetings.			X
	Develop a protocol for conducting investigations of vandalism at cultural resources sites.		X	

3.3 PLAN MAINTENANCE

During the life of the Approved Plan, the BLM expects that new information gathered from field inventories and assessments, research, other agency studies, and other sources will update baseline data or support new management techniques, BMPs, and scientific principles. To the extent that such new information or actions address issues covered in the Approved Plan, the BLM will integrate the data through Plan maintenance. (The BLM regulation described in CFR 1610.5-4 requires that RMP decisions and supporting components can be maintained in order to reflect minor changes in data. Maintenance is limited to further refining, documenting, or clarifying a previously approved decision incorporated in the Approved Plan. Maintenance must not expand the scope of resource uses or restrictions, or change the terms, conditions, and decisions of the Approved Plan.)

Some examples of Plan maintenance actions include:

- correcting minor data, typographical, mapping, or tabular data errors;
- refining baseline information as a result of new inventory data (such as changing the boundary of an archaeological district, refining the known habitat of special status

species, or adjusting the boundary of a fire management unit based upon updated fire regime condition class inventory, fire occurrence, monitoring data, and/or demographic changes).

Plan maintenance will be documented in supporting records and reported in annual planning updates. Plan maintenance does not require formal public involvement, interagency coordination, or the NEPA analysis required for making new RMP decisions.

3.4 CHANGING/AMENDING THE PLAN

Any future proposals or management actions will be reviewed against the Approved Plan in order to determine if the proposal would be in conformance with the Approved Plan. Proposed Actions fall into one of 5 categories: 1) actions that are exempt from NEPA; 2) actions that are categorically excluded; 3) actions that are covered by an existing NEPA environmental document; 4) actions that require preparation of an Environmental Assessment (EA) in order to determine if an Environmental Impact Statement (EIS) is needed; or 5) actions that require preparation of an EIS. The NEPA procedural, documentation, and public involvement requirements are different for each category.

Approved Plan decisions are amended either through a Plan Amendment or a Plan Revision. The process for conducting Plan Amendments is, basically, the same as the land use planning process used in developing RMPs. The primary difference is that circumstances may allow for completing a Plan Amendment through the EA process rather than through the EIS process. Plan Amendments (43 CFR 1610.5-5) change one or more of the terms, conditions, or decisions of an Approved Plan. Typically, Plan Amendments are prompted by the need to: consider a proposal or action that does not conform to the Approved Plan; implement new or revised policy that changes Approved Plan decisions; respond to new, intensified, or changed uses on BLM-administered lands; and/or consider significant new information from resource assessments, monitoring, or scientific studies that change Approved Plan decisions.

3.5 TIERING

Tiering is the incorporation, by reference, of the content of previous plans into future implementation-level project planning. The Approved Plan identifies the need to develop several implementation-level management plans, in compliance with NEPA, that will be tiered to this Approved Plan and ROD.

CHAPTER 4 MONITORING, EVALUATION AND ADAPTIVE MANAGEMENT

Consistent with the *Land Use Planning Handbook* H-1601-1, the BLM will establish intervals and standards for monitoring and evaluating the Approved Plan (43 CFR, 1610.4-9). The Approved Plan will be periodically evaluated (at least every 5 years), as documented in an Evaluation Schedule. Special or unscheduled evaluations may also be required in order to review unexpected management actions or to address significant changes that have the potential to trigger an amendment or revision.

4.1 MONITORING

Monitoring is the repeated measurement of activities and conditions over time. The implied purpose is to use this information to adjust management, if needed, in order to achieve or maintain resource objectives. The BLM planning regulations (43 CFR Part 1610.4-9) call for monitoring RMPs on a continual basis and establishing intervals and standards based upon the sensitivity of the resource to the decisions involved. CEQ regulations implementing NEPA state that agencies may provide for monitoring in order to assure that their decisions are carried out, and that they should do so in important cases (40 CFR Part 1505.2(c)).

As outlined in the Approved Plan, and consistent with BLM planning regulations (43 CFR 1610.4-9), the BLM will monitor plan implementation and effectiveness, and will report on:

- the management actions undertaken;
- the management actions remaining to be undertaken; and
- the effectiveness of actions toward meeting goals and objectives.

Monitoring will determine whether mitigation measures are satisfactory; whether there have been significant changes in related plans of local, State, other Federal agencies; and Native American tribal agencies; or whether there is new data of significance to the Approved Plan. The Deciding Officer will determine whether there is sufficient cause to warrant amendment or revision of the Approved Plan. Where appropriate, an Adaptive Management Strategy will be applied to implementation decisions for the Monument.

Monitoring strategies will be developed that identify indicators of change, acceptable thresholds, methodologies, protocols, and timeframes that will be used in order to evaluate and determine whether desired outcomes are being achieved. Specific monitoring efforts for each resource are described in Table 2-1.

There are 2 basic types of monitoring:

- **Implementation Monitoring**: Implementation monitoring of land use planning decisions is used in order to determine whether management actions have been implemented and what management actions are pending implementation. (For example, the Monument's RMP states that there will be Action Plans developed within a certain time period following the signing of the ROD. Implementation monitoring would determine if this actually occurs.) Implementation monitoring is completed at least annually, and is tracked in a log or report that is then made available to the public. Results of this evaluation may be used to develop annual budgets.

- **Effectiveness Monitoring**: Effectiveness monitoring requires the collection of necessary data/information, and determines whether on-the-ground actions being taken are indeed achieving the desired goals and objectives of land use planning decisions. [For example, data would be collected in order to ensure that range conditions move toward meeting the Colorado Public Land Health Standards and Guidelines for Livestock Grazing Management (BLM 1997).]

4.2 EVALUATION

Evaluation is a process in which the Approved Plan, and the implementation and effectiveness monitoring data, are reviewed in order to see if management goals and objectives are being met, and if management direction is sound. RMP evaluations determine if decisions are being implemented, whether mitigation measures are satisfactory, whether there are significant changes in the related plans of other entities, whether there is new data of significance to the Approved Plan, and whether there is sufficient cause to warrant amendment or revision of the Plan (as determined by the Deciding Officer).

The BLM evaluates implementation and effectiveness monitoring data in order to determine whether:

- decisions are being implemented;
- mitigation measures are satisfactory;
- there are significant changes in the related plans of local, State, or other Federal agencies, or Native American tribes; and
- whether there are new data of significance to the Approved Plan.

The evaluations also determine whether land use plan decisions, and the associated NEPA analyses:

- are still valid and relevant, and address current issues;
- are effective in achieving (or are moving toward achieving) desired outcomes;
- include any decision(s) that need to be revised;
- include any decision(s) that need to be dropped from further consideration, and/or;
- include any areas that require new decisions.

4.3 ADAPTIVE MANAGEMENT

The USDOI's Office of Environmental Policy and Compliance defines adaptive management as a system of management practices based upon clearly identified outcomes; monitoring to determine whether management actions are meeting outcomes, and, if not, facilitating management changes that will best ensure that outcomes are met or re-evaluated. Adaptive management is a "feedback loop" that allows information obtained through the monitoring and evaluation of management actions to provide information on necessary changes that could further improve management. The Adaptive Management loop is as follows:

Action → Monitoring → Evaluation → Adjustment → Action

Ultimately, the goal of this adaptive management process is to move toward Desired Future Conditions. Through adaptive management, decisions, actions, and results are carefully

documented and communicated to others so that the knowledge gained through experience is carried forward.

The BLM uses adaptive management through a 4-phase process (which generally involves planning, implementation, monitoring, and evaluations). When planning is finished, the Approved Plan is implemented. Implementation of land use allocations, designations, and allowable-uses occurs as soon as a ROD is signed, unless other appropriate NEPA analysis is required. Management actions occur throughout the life of the Approved Plan. Periodically, the Approved Plan is evaluated in order to determine whether the decisions are accurate, being implemented, or need to be changed, based upon current information.

The Goals and Objectives (Desired Future Conditions) listed under each resource program are decisions that provide the parameters by which the BLM manages the lands and resources. The BLM continually monitors resource conditions in order to determine whether the Management Actions (Allowable Uses) being implemented are achieving the Goals and Objectives. Adaptive management is applied in cases where the existing management is clearly not meeting the Desired Future Conditions, or where other alternatives could better meet the Goals and Objectives. In such cases, adaptive management may include revising BMPs, or possibly revising an entire RMP. Periodic RMP amendments are expected to occur as resource conditions, resource values, and/or as Goals and Objectives change. Wherever feasible, the adaptive management strategy will be applied to both land use planning and implementation decisions for the Monument.

REFERENCES

Agency for Toxic Substances and Disease Registry (ATSDR). 1997. Toxicological Profile for Formaldehyde (Draft). Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.

Andrews, R. and R. Righter. 1992. Colorado birds: A reference to their distribution and habitat. Denver Museum of Natural History, Denver.

Armstrong, D.M. 1972. Distribution of mammals in Colorado. Monograph of the Museum of Natural History, University of Kansas, Number 3. Lawrence, Kansas.

Aubrey, W.M. 1992. New interpretations of the stratigraphy and sedimentology of the uppermost Jurassic to lowermost Upper Cretaceous strata in the San Juan Basin of northwest New Mexico. U.S. Geological Survey Bulletin 1808:1-17.

Bailey, R.G. 1995. Description of the ecoregions of the United States, 2nd edition. Miscellaneous publication number 1391 (rev), USDA Forest Service, Washington D.C.

Belnap, J. 1995. Surface disturbances: their role in accelerating desertification. Environmental Monitoring and Assessment 37:39-57.

Belnap, J. 2003. Magnificent microbes: Biological soil crusts in pinyon-juniper communities. In: Floyd, M.L. (ed.). Ancient pinyon-juniper woodlands – a natural history. University Press of Colorado, Boulder, Colorado. pp. 213-222.

Belnap, J. and D.A. Gillette. 1998. Vulnerability of desert biological crusts to wind erosion: the influences of crust development, soil texture, and disturbance. Journal of Arid Environments 39:133-142.

Boyle, S.A. and F.B. Samson. 1985. Effects of non-consumptive recreation on wildlife: a review. Wildlife Society Bulletin 13:110-116.

Brinkman, Paul D. 2005. Henry Fairfield Osborn and Jurassic dinosaur reconnaissance in the San Juan Basin, along the Colorado-Utah border, 1893-1900. Earth Sciences History, Vol. 24, No. 2, pp. 159-174.

Bureau of Economic Analysis (BEA). 2007. U.S. Bureau of Economic Analysis. Regional Economic Accounts. http://www.bea.gov/bea/regional/reis/default.cfm?catable=CA1-3&section=2. Accessed on May 11, 2007.

Bureau of Land Management (BLM). 1985. San Juan/San Miguel Resource Management Plan. San Juan Field Office. September. U.S. Department of the Interior.

BLM. 1986a. The Anasazi Culture Multiple-Use Area, An Area of Critical Environmental Concern (ACEC): ACEC Plan, Management Guidelines and Environmental Assessment. Denver, CO. July. U.S. Department of the Interior.

BLM. 1986b. Visual Resource Inventory. BLM Manual-8410-1. U.S. Department of the Interior.

BLM. 1986c. Mockingbird Mesa Cultural Resource Management Plan. Montrose District, San Juan Resource Area. September.

BLM. 1988a. Areas of Critical Environmental Concern. BLM Manual 1613. Rel. 1-1541. U.S. Department of the Interior. September. U.S. Department of the Interior.

BLM. 1988b. National Environmental Policy Act Handbook. BLM Handbook H-1790-1. Rel. 1-1547. U.S. Department of the Interior. October. U.S. Department of the Interior.

BLM. 1991a. Record of Decision: Oil and Gas Plan Amendment to the San Juan/San Miguel Resource Management Plan. BLM Montrose District, CO. U.S. Department of the Interior.

BLM, 1991b. Wilderness Study Report, Montrose District Study Areas, Volume 2, BLM, Colorado State Office. U.S. Department of the Interior.

BLM, 1991c. Wilderness Study Report, Appendix I, Instant Study Areas, BLM, Colorado State Office. U.S. Department of the Interior.

BLM. 1993. Sand Canyon Trail Development, Environmental Assessment NO. CO-030-SJ-93-47. San Juan Resource Area, Montrose District. September 29, 1993.

BLM. 1996a. Rangeland standards and guidelines for livestock grazing. www.co.blm.gov/standguide.htm. U.S. Department of the Interior.

BLM. 1996b. Partners Against Weeds, An Action Plan for the Bureau of Land Management, January 1996.

BLM. 1997. Colorado Public Land Health Standards and guidelines for livestock grazing management. February. U.S. Department of the Interior.

BLM. 1998a. State Protocol Agreement between the Colorado State Director of BLM and the Colorado State Historic Preservation Officer (SHPO) regarding the manner in which BLM will meet its responsibilities under the NHPA and the National Programmatic Agreement (NPA) among the BLM, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers (NCSHPO). U.S. Department of the Interior.

BLM. 1998b. Programmatic Agreement among the BLM, State of Colorado, the National Forests in the State of Colorado, USDA Forest Service, SHPO, and the Advisory Council on Historic Preservation regarding the management of wildland fire for resource benefits. Agreement No. 1102-002-98-038. U.S. Department of the Interior.

BLM. 1998d. Manual and handbook for the management of paleontological resources. BLM Handbook 8270. U.S. Department of the Interior.

BLM. 1998e. Pulling Together: National Strategy for Invasive Plant management.

BLM. 1999. Programmatic Agreement among the Bureau of Land Management, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers regarding the manner in which BLM will meet its responsibilities under the National Historic Preservation Act (NHPA). U.S. Department of the Interior.

BLM. 2000. Instruction Memorandum No. CO-2001-001. Recreation guidelines to meet public land health standards. December. U.S. Department of the Interior.

BLM. 2001a. Instruction Memorandum No. 2002-008, Interim Management Policy for BLM National Monuments and National Conservation Areas. October. U.S. Department of the Interior.

BLM. 2001b. Colorado Interim Management for Canyons of the Ancients National Monument. http://www.co.blm.gov/canm/canminterim.htm. Accessed October 23, 2003.

BLM. 2001c. Interim Management Guidance for Oil and Gas Leasing and Development. U.S. Department of the Interior.

BLM. 2001d. Special status species management. BLM Manual 6840. Rel. 6-121. U.S. Department of the Interior.

BLM. 2001e. Rangeland Health Standards. BLM Manual 4180. U.S. Department of the Interior.

BLM. 2001f. BLM Instruction Memorandum No. 2001-022. Planning Guidance for National Monuments and National Conservation Areas. October. U.S. Department of the Interior.

BLM. 2001g. Land Use Planning Handbook. BLM Handbook H-1601-1. Rel. 1-1693. U.S. Department of the Interior.

BLM. 2001h. National Management Strategy for Motorized Off-Highway Vehicle Use on Public Lands. January. U.S. Department of the Interior.

BLM, 2001i. Ecological Site Inventory and Rangeland Health Assessment Results. Canyons of the Ancients National Monument. U.S. Department of the Interior.

BLM. 2002a. National Mountain Bicycling Strategic Action Plan. U.S. Department of the Interior. November. U.S. Department of the Interior.

BLM. 2002b. Instruction Memorandum No. CO-2002-029, Interim Historic Preservation Guidelines and Procedures for Evaluating the Effect of Rangeland Management Activities on Historic Properties. March. U.S. Department of the Interior.

BLM. 2002d. Informational Bulletin No. 2002-101 Cultural Resource Considerations in Resource Management Plans. May. U.S. Department of the Interior.

BLM. 2002f. Water Resources Inventory on file, San Juan Resource Area, Dolores, CO.

BLM. 2003a. Instruction Memorandum No. 2003-152. Application for Permit to Drill (APD) – Process Improvement #1 – Comprehensive Strategies. Department of the Interior. April. U.S. Department of the Interior.

BLM. 2003c. San Juan Fire Management Plan. U.S. Department of the Interior.

BLM. 2003d. Water Resources Inventory on file, San Juan Resource Area, Dolores, CO. U.S. Department of the Interior.

BLM. 2003e Notes from CANM Intertribal Meeting held at Cortez, CO November 3-5, 2003. U.S. Department of the Interior.

BLM. 2004a. Scoping Report: Canyons of the Ancients National Monument. March. U.S. Department of the Interior.

BLM. 2004b. The Foundations for Management of Cultural Resources. U.S. Department of the Interior.

BLM. 2004d. Notes from CANM Intertribal Meeting held at Pojoaque, NM. March 4, 2004. U.S. Department of the Interior.

BLM. 2005a. H-1601-1 Land Use Planning Handbook. Department of the Interior. March. U.S. Department of the Interior.

BLM. 2005b. Analysis of the Management Situation, Canyon of the Ancients National Monument. August. U.S. Department of the Interior.

BLM. 2005c. Reasonable, Foreseeable Development: Oil, Natural Gas, and Carbon Dioxide in Canyons of the Ancients National Monument. April. U.S. Department of the Interior.

BLM. 2005d. Final Programmatic EIS on Wind Energy Development on BLM-Administered Lands in the Western United States June. (FES 05-11).

BLM. 2005e. Record of Decision- Implementation of a Wind Energy Development Program and Associated Land Use Plan Amendments. December.

BLM. 2007a. Oil and Gas Surface Operating Standards and Guidelines. The Gold Book Fourth Edition. U.S. Department of the Interior.

BLM. 2007b. Final EIS: Vegetation treatment using herbicides on BLM lands in seventeen western states. www.blm.gov/weeds/VegEIS/. U.S. Department of the Interior (FES 07-021, 2007 Record of Decision September 2007).

BLM, 2007c. Instruction Memorandum No. CO-2007-023. Clarification of Addendum 1 to the Colorado Protocol: Section 106 Requirements for Comprehensive Travel and Transportation Management Planning. February 27, 2007

BLM. 2007d. National Landscape Conservation System - A Strategic Plan for Colorado. June 13, 2007

BLM, 2008a. Archaeological Standards and Requirements for Conducting Archaeological Inventory, Canyons of the Ancients National Monument, Dolores, Colorado.

BLM, 2008b. Instruction Memorandum No. 2008-014. Clarification of Guidance and Integration of Comprehensive Travel and Transportation Management Planning into Land Use Planning. October. U.S. Department of the Interior.

BLM 2008c. Bureau of Land Management, National Landscape Conservation System, Colorado State Office, San Juan Public Lands Center, Canyons of the Ancients National Monument, A Strategic Plan for Fluid Minerals Management. August 2008.

BLM. 2009a. Instruction Memorandum No. 2009-215. Planning for Special Designations within the National System of Public Lands. September. U.S. Department of the Interior.

BLM. 2009b. Environmental Assessment for The Conservation Fund-Wallace Acquisition (DOI-BLM-CO-S010-2009-0089) and associated Decision Record, November 12, 2009.

BLM. 2010. Preliminary Environmental Assessment for the Kinder Morgan Goodman Point Development Project (DOI-BLM-CO-800-2009-043). March 2010.

Chaney, E.W., W. Elmore, and W.S. Platts. 1990. Livestock grazing on western riparian areas. U. S. Environmental Protection Agency, Denver, Colorado.

Clary, W.P. and W.C. Leininger. 2000. Stubble Height as a Tool for Management of Riparian Areas. Journal of Range Management 53:562-573.

Clary, W.P. and D.E. Medin. 1990. Differences in vegetation biomass and structure due to cattle grazing in a northern Nevada riparian ecosystem. U.S. Forest Service Research Paper INT-427.

Cohn, T. 2005. Getting to Know Canyons of the Ancients National Monument

Colorado Department of Public Health and Environment (CDPHE). 2003a. TMDL for Mercury in McPhee and Narraguinnep Reservoirs, Colorado Phase 1.

CDPHE. 2003b. Water Quality Control Commission. http://www.cdphe.state.co.us/op/wqcc/wqcchom.asp. Accessed February 10, 2004.

Colorado Division of Water Resources (CDWR). 2003. Hydro Database Set, Analysis and Query Tools. State of Colorado, Water Division 7.

Colorado Division of Wildlife (CDOW) 2005. Threatened & Endangered List. http://wildlife.state.co.us/WildlifeSpecies/SpeciesOfConcern/ThreatenedEndangeredList/ListOfThreatenedAndEndangeredSpecies.htm

Comprehensive Economic Development Strategy (CEDS). 2002. Region 9 Tourism Report. Graves, D. Region 9 Economic Development District. Gaining Ground or Shaky Ground? A Detailed Look at Tourism Employment in the Southwest Colorado Travel Region. Final Report, December 2. http://www.scan.org. Accessed on November 5, 2005.

CEDS. 2006. Region 9. CEDS Update 2006. Region 9 Economic Development District. Comprehensive Economic Development Strategy. 2006 Update for Montezuma and Dolores counties. http://www.scan.org. Accessed on February 22, 2007.

CEDS. 2007. 2007 Region 9 Economic Development District. http://www.scan.org. Accessed on February 22, 2007.

Colorado Natural Heritage Program (CNHP) 2004. Canyons of the Ancients National Monument amphibian and reptile inventory. http://www.cnhp.colostate.edu/. Accessed on October 27, 2005.

CNHP. 2005. Statewide list of tracked species and communities. http://www.cnhp.colostate.edu/.

Colorado State Demography Office (CSDO). 2005. Census estimates. http://www.dola.state.co.us/dlg/demog/pop_cnty.html. Accessed on February 20, 2007.

CSDO. 2006 Economic Data by County. http://www.dola.state.co.us/demog/. Accessed on February 20, 2007.

Colorado State Parks. 2004. Profile of Tourism and the Outdoors. A Report on the Proceedings of the Southwest Colorado Outdoor Recreation and Tourism Partnership Forum. July 2004. http://parks.state.co.us/Trails/LandandWaterConservationFund/SCORPPlan/. Accessed on February 22, 2007.

Cortez Journal. 2006. Crane, John, R. “Kinder Morgan proposes wells in Canyons.” November 2. http://cortezjournal.com. Accessed on February 22, 2007.

Cortez Journal. 2007. Crane, John, R. “Kinder Morgan plans $200M gas expansion”. February 3. http://cortezjournal.com. Accessed on February 22, 2007.

Council on Environmental Quality (CEQ). 1997. Environmental Justice Guidance under the National Environmental Policy Act. http://www.epa.gov/compliance/resources/policies/ej/ej_guidance_nepa_ceq1297.pdf. Accessed on February 20, 2007.

Durango Herald. 2006. Hanel, J. “Methane production past its peak”. July 2. www.durangoherald.com/. Accessed July 2, 2007.

Eldridge, D.J. and S.B. Greene. 1994. Microbiotic soil crusts: a review of their roles in soil and ecological processes in rangelands of Australia. Australian Journal of Soil Research 32:289-415.

Eldridge, D.J. 1998. Trampling of microphytic crusts on calcareous soils, and its impact on erosion under rain-impacted flow. Catena 33:221-239.

Environment Colorado. 2007. http://www.environmentcolorado.org/reports/madeintheusa.

Evans, R.D. and J.R. Johansen. 1999. Microbiotic Crusts and Ecosystem Processes. Critical Reviews in Plant Sciences. 18:2.

Executive Order. 2000. Establishment of Canyons of the Ancients National Monument by the President of the United States of America. Presidential Proclamation No. 7317. June 9.

Federal Land Managers (FLAG). 2000. Air Quality Related Values Workgroup Guidelines. http://www2.nature.nps.gov/air/permits/flag/flaginfo/.

Fetterman, J. 2004. Report on the Cultural Resource Survey for the Indian Camp Northeast Hazardous Fuel Reduction Project, Canyons of the Ancients National Monument, Montezuma County, Colorado. Woods Canyon Archaeological Consultants, Inc. Prepared for the Bureau of Land Management, Colorado State Office, Lakewood. Contract No. CAP030483.

Fitzgerald, J.P., C.A. Meaney, and D.M. Armstrong, 1994. Mammals of Colorado. Denver Museum of Natural History and University Press of Colorado. Niwot, Colorado.

Fleischner, T.L. 1993. Ecological costs of livestock grazing in western North America. Conservation Biology 8:629-644.

Flora of North America Editorial Committee (eds). 1993. Flora of North America North of Mexico. New York and Oxford.

Floyd, M. Lisa (ed). 2003. Ancient Pinion-Juniper Woodlands: A Natural History of Mesa Verde Country. University Press of Colorado.

Forman, R.T.T. 2000. Estimate of the area affected ecologically by the road system in the United States. Conservation Biology 14(1):31-35.

Forman, R.T.T. and L.E. Alexander. 1998. Roads and their major ecological effects. Annual Review of Ecology and Systematics 29:207-231.

Four Corners Air Quality Task Force. 2005. http://www.nmenv.state.nm.us/aqb/4C/Docs/4CornersOzoneDataGraphs_files/frame.htm

Fox, D.G. et al. 1989. A Screening Procedure to Evaluate Air Pollution Effects on Class I Wilderness Areas. USDA General Technical Report RM-168. USDA Forest Service, Rocky Mountain Forest and Range Experiment Station, Ft. Collins, CO. 36 pp.

Freddy, D.J., W.M. Bronaugh, and M.C. Fowler. 1986. Responses of mule deer to disturbance by persons afoot and on snowmobiles. Wildlife Society Bulletin 14: 63-68.

Friends of the Trails of the Ancients. 2001. The Trail of the Ancients Scenic and Historic Byway Amended Corridor Management Plan.

Gilpin, Dennis, Susan E, Perlman, Louise M. Senior, Lynn A. Neal. 2002. Cultural Affiliation Study for Canyons of the Ancients National Monument, Southwest Colorado. Two Rivers Consultants, Nashville, Tennessee and SWCA Environmental Consultants, Flagstaff, Arizona. Prepared for the Bureau of Land Management, Contract No. R-0105598.

Hammerson, G.A. 1999. Amphibians and reptiles in Colorado: A Colorado field guide. University Press of Colorado and Colorado Division of Wildlife. Niwot, Colorado.

Hanser, S.R., and N.J. Huntly. 2006. The biogeography of small mammals of fragmented sagebrush-steppe landscapes. Journal of Mammalogy 87(6):1165-1174.

Harper, K.T. and J.R. Marble. 1988. A role for nonvascular plants in management of arid and semiarid rangelands. In: P.T. Tueller (ed.). Vegetation Science Applications for Rangeland Analysis and Management. Kluwer Academic Publishers, London.

Harper, K.T. and R.L. Pendleton. 1993. Cyanobacteria and cyanolichens: Can they enhance availability of essential minerals for higher plants? Great Basin Naturalist 53:59-72.

Harris, L.D. and G. Silva-Lopez. 1992. Forest fragmentation and the conservation of biological diversity. In Conservation biology: The theory and practice of nature, conservation, and management. Fiedler, P. and F. Jans (eds.). Chapman Hall. New York.

Haynes, D. D., J. D Vogel, and D. G. Wyant. 1972. Geology, structure, and uranium deposits of the Cortez Quadrangle, Colorado and Utah. U.S. Geological Survey Miscellaneous Geologic Investigations Map I-629. http://ngmdb.usgs.gov/ngm-bin/ILView.pl?sid=q250_9408a_us_c.sid&vtype=b.

Horn, J.C. 2004. Landscape-level history of the Canyons of the Ancients National Monument Montezuma and Dolores Counties, Colorado. Alpine Archaeological consultants, Inc., Montrose, Colorado. Prepared for the Bureau of Land Management. Contract No. CAP030371.

Hovezak, T. D., L. M. Sesler, J. E. Fetterman, and L. Honeycutt. 2003. The 2002 Canyons of the Ancients National Monument Survey, Montezuma County, Colorado. Woods Canyon Archaeological Consultants, Inc., Yellow Jacket, Colorado. Prepared for the Bureau of Land Management, National Business Center, Denver. Contract No. NAC020006.

Ingelfinger, F.M. 2001. The effects of natural gas development on sagebrush steppe passerines in Sublette Country, Wyoming. Master of Science thesis. University of Wyoming. Laramie, Wyoming.

Interagency Workshop on Air Quality Modeling (IWAQM). 1993. Phase 1 Report. EPA-454/R-93-015. U.S. EPA, Research Triangle Park, NC.

Intergovernmental Panel on Climate Change (IPCC). 2007. Climate Change 2007: The Physical Science Basis, Summary for Policy Makers, Working Group 1 Fourth Assessment Report. February

Issa, O.M., Y.L. Bissonnais, C. Defarge, and J. Trichet. 2001. Role of cyanobacterial cover on structural stability of sandy soils in the Sahelian part of Western Niger. Geoderma 101:15-30.

Jenson, S. 2003. Canyons of the Ancients Monument Proper Functioning Condition (PFC) Assessments. Unpublished Report. April.

Johansen, J.R. 1993. Cryptogamic crusts of semiarid and arid lands of North America. Journal of Phycology 29:140-147.

Kinder Morgan CO_2, Inc. (K-M). 2007. Website: About Us. http://www.kindermorgan.com/about_us/about_us_kmp_co2.cfm. Accessed on February 22, 2007.

Kingery, H.E. (Editor). 1998. Colorado breeding bird atlas. Colorado Bird Atlas Partnership and Colorado Division of Wildlife. Denver, Colorado.

Knight, R.L., and K.J. Gutzwiller. 1995. Wildlife and recreationists: coexistence through management and research. Island Press, Washington, D.C.

Knight, R.L., F.W. Smith, S.W. Buskirk, W.H. Romme, and W. L. Baker. 2000. Forest fragmentation in the southern Rocky Mountains. University Press of Colorado. Boulder, Colorado.

Lipe, W.D. 1980. Camera, Spade and Pen. 1980. Marnie Gaede, Editor. Pg. 59.

Lipe, W. D., M. Varien, and R. Wilshusen (eds). 1999. Colorado Prehistory: A Context for the Southern Colorado River Basin. Denver: Colorado Council of Professional Archaeologists.

McIntyre, N.E. 1995. Effects of forest patch size on avian diversity. Landscape Ecol. 10(2):85-99.

Meaney, C.A., M. Reed-Eckert, and G.P. Beauvais. 2006. Kit Fox (*Vulpes macrotis*): a technical conservation assessment. USDA Forest Service, Rocky Mountain Region. http://www.fs.fed.us/r2/projects/scp/assessments/kitfox.pdf. Accessed August 21, 2006.

Metting, B. 1991. Biological surface features of semiarid lands and deserts. In: J. Skujins (ed.). Semiarid lands and deserts: soil resource and reclamation. Marcel Dekker, New York.

NatureServe Explorer. 2005. An online encyclopedia of life [web application]. Version 4.6. http://www.natureserve.org/explorer. Accessed on November 1, 2005.

National Energy Policy Development Group (NEPDG). 2001. National Energy Policy. May.

National Interagency Fire Center. 2004. Interagency Standards for Fire and Aviation Operations. National Research Council (NRC). 1994. Rangeland health: new methods to classify, inventory, and monitor rangelands. National Academy Press, Washington, D.C.

Natural Resource Conservation Service (NRCS). 2003. Soil Survey of Cortez Area, Colorado, Parts of Dolores and Montezuma Counties. Washington, D.C.

Noble, D.G. 2006. Mesa Verde World: Explorations in Ancestral Pueblo Archeology. School of American Research Press

Operation Healthy Communities (OHC). 2005. Pathways to Healthier Communities. 2003-2004, A Report that Measures the Health of Southwest Colorado.

Patton, P. C., N. Biggar, C.D. Condit, M. L. Gillam, D. W. Love, M. N. Machette, L. Mayer, R. B. Morrison, and J. N. Rosholt. 1991. Quaternary Geology of the Colorado Plateau. In: Morrison, R.B., (ed.) Quaternary Nonglacial Geology: Coterminous United States.

Pellant, M., P. Shaver, D.A. Pyke, and J.E. Herrick. 2000. Interpreting Indicators of Rangeland Health, Version 3. Technical Reference 1734-6. BLM National Science and Technology Center.

Preston, M. 2005. Office of Community Services, Fort Lewis College. “Productive Harmony Analysis; Interpretive Framework for Social and Economic Assessment of Southwest Colorado Communities and San Juan Public Lands”. July.

Prichard, D. 1998. A User Guide to Assessing Proper Functioning Condition and the Supporting Science for Lotic Areas. USDOI BLM Technical Reference 1737-15. Denver, Colorado.

Prichard, D. 1999. A User Guide to Assessing Proper Functioning Condition and the Supporting Science for Lentic Areas. USDOI BLM Technical Reference 1737-16. Denver, Colorado.

Rainforth, E.C. 1997. Vertebrate ichnological diversity and census studies, Lower Jurassic Navajo Sandstone. Unpublished Master's Thesis, University of Colorado at Boulder 49 pp.

Reed, R.A., J. Johnson-Barnard, and W.L. Baker. 1996. Contribution of roads to forest fragmentation in the Rocky Mountains. Conservation Biology 10:1098-1106.

Reeve, A.F. and T.C. Vosburgh. 2006. Recreational Shooting of Prairie Dogs. In Conservation of the Black-Tailed Prairie Dog. J.H. Hoogland (ed.) Island Press, Washington D.C.

Roath, L.R. and W.C. Krueger. 1982. Cattle grazing influence on a mountain riparian zone. Journal of Range Management 35:100-104.

Robson, S.G. and E.R. Banta. 1995. Groundwater Atlas of the United States – Segment 2 – Arizona, Colorado, New Mexico, Utah. U.S. Geological Survey, Hydrologic Investigations Atlas 730-C.

San Juan Citizen Alliance (SJCA) v. Gale Norton. 2002. Stipulated Settlement Agreement, Civil Action No. 02-B-1597 (MJW). United States District Court for the District of Colorado.

Schmidt, K.M., J.P. Menakis, C.C. Hardy, W.J. Hann, and D.L. Bunnell. 2002. Development of coarse-scale spatial data for wildland fire and fuel management. General Technical Report RMRS-87. USDA Forest Service, Rocky Mountain Research Station.

Spackman, S., B. Jennings, J. Coles, C. Dawson, M. Minton, A. Kratz, and C. Spurrier. 1997. Colorado Rare Plant Field Guide. Colorado Natural Heritage Program. Colorado State University, Fort Collins.

Spackman, S. and D.G. Anderson. 2002. Colorado Rare Plant Field Guide 2002 Update. Colorado Natural Heritage Program. Colorado State University, Fort Collins.

Stoddart, L.A., A.D. Smith, and T.W Box. 1955. Range management (Third Edition). McGraw-Hill Series in Forest Resources. McGraw-Hill Book Company. New York.

Thornbury, W. 1965. Regional Geomorphology of the United States. John Wiley and Sons, New York.

United Nations Educational, Scientific and Cultural Organization (UNESCO). 1970. Convention on the Means of Prohibiting and Preventing the Illicit Import and Transfer of Ownership of Cultural Property.

U.S. Bureau of Reclamation (BOR). 1977. Dolores Project Final Environmental Impact Statement. Durango, CO. May.

U.S. Census Bureau. 2002. 2000 Census of Population and Housing. Last Revised: June 4, 2003. http://www.census.gov/prod/cen2000/index.html. Accessed June 5, 2003.

U.S. Forest Service (USFS). 2006. Final Environmental Impact Statement Northern San Juan Basin Coal Bed Methane Project. July. (http://www.fs.fed.us/r@/sanjuan/projects/projects.shtml)

U.S. Department of the Interior (USDOI). 2000. Memorandum from Secretary of the Interior to the Director, Bureau of Land Management. June 28.

USDOI. 2006a. Interagency Standards for Fire and Aviation Operations (published annually).

USDOI and U.S. Department of Agriculture (USDA). 2000. National Fire Plan. August. http://www.fireplan.gov.

U.S. Environmental Protection Agency (USEPA) Air Data website [EPA 2004] at http://www.epa.gov/air/data/info.html).

U.S. Fish and Wildlife Service (USFWS). 1995. Recovery plan for the Mexican Spotted Owl: Vol. I. Albuquerque, New Mexico.

USFWS. 2002. Final Recovery Plan Southwestern Willow Flycatcher (Empidonax traillii extimus). Southwestern Willow Flycatcher Recovery Team Technical Subgroup, Albuquerque, New Mexico.

USFWS. 2005. Threatened and Endangered Species System. http://ecos.fws.gov/tess_public/servlet/gov.doi.tess_public.servlets.UsaLists?state=CO. Accessed on October 25, 2005.

U.S. Geological Service (USGS). 2004. Historic Trail Map of the Leadville 1° × 2° Quadrangle, Central Colorado. U.S. Geological Survey. http://pubs.usgs.gov/sim/2004/2820/sim2820.html. Accessed on February 20, 2007.

USGS. 2006. Colorado Water Science Center. http://co.water.usgs.gov/drought/index.html. Accessed on February 20, 2007.

Van Dyke, R.M., L. Ciborowski, and K. Throgmorton. 2004. Colorado College Survey of the Painted Hand Environs, Fall 2002: Canyons of the Ancients National Monument, Montezuma County, Colorado. Prepared for the Bureau of Land Management, Denver, and Canyons of the Ancients National Monument, Dolores, Colorado.

Warren, S.D. 1995. Ecological role of microphytic soil crusts in arid ecosystems. *In*: D. Allsopp, R.R. Cowell, and D.L. Hawksworth (eds.). Microbial diversity and ecosystem function. CAB International, New York.

Warren, S.D. 2001. Synopsis: Influence of biological soil crusts on arid land hydrology and soil stability. *In:* Belnap, J. and O.L. Lange (eds.). Biological soil crusts: Structure, function, and management. Springer-Verlag, Berlin.

Western Regional Climate Center (WRCC). 2005. Western U.S. Climate Historical Summaries. Available at http://www.wrcc.dri.edu/climsum.html Accessed: January 5, 2005.

Williams, J.D., J.P. Dobrowolski, and N.E. West. 1995a. Microphytic crust influence on interrill erosion and infiltration capacity. Transactions of the American Society of Agricultural Engineers 38:139-146.

Williams, J.D., J.P. Dobrowolski, D.A. Gillette, and N.E. West. 1995b. Microphytic crust influence on wind erosion. Transactions of the American Society of Agricultural Engineers 38:131-137.

Witkind, I. J. 1964. Geology of the Abajo Mountains area, San Juan County, Utah. U.S. Geological Survey Professional Paper No. 453.

Woodling, J. 1985. Colorado's little fish: A guide to the minnows and other lesser known fishes in the State of Colorado. Colorado Division of Wildlife, Denver.

Zink, T.A., M.F. Allen, B.Heindl-Tenhunen, and E.B. Allen. 1995. The effect of a disturbance corridor on an ecological reserve. Restoration Ecology 3(4):304-310.

ACRONYMS

^{o}F	degrees Fahrenheit
µg/m3	micrograms per cubic meter
AAQS	ambient air quality standards
ACEC	Area of Critical Environmental Concern
ACHP	Advisory Council on Historic Preservation
AHC	Anasazi Heritage Center
AHPA	Archaeological and Historic Preservation Act
AMP	Allotment Management Plan
AMS	Analysis of the Management Situation
APD	Application for Permit to Drill
APE	Area of Potential Effect
APHIS	Animal and Plant Health Inspection Service
AQATSD	Air Quality Assessment Technical Support Document
AQRV	Air Quality Related Value
AR	Administrative Record
ARPA	Archaeological Resources Protection Act of 1979
ATV	all-terrain vehicle
AUM	animal unit month
B/W	black/white
BA	Biological Assessment
Bbls	barrels
BEA	Bureau of Economic Analysis
BLM	Bureau of Land Management
BMP	Best Management Practice
BO	Biological Opinion
BOR	Bureau of Reclamation
CAA	Clean Air Act
CASTnet	Clean Air Status and Trends Network
CCR	Code of Colorado Regulations
CDOW	Colorado Division of Wildlife
CDPHE	Colorado Department of Public Health and Environment
CDWR	Colorado Division of Water Resources

CEDS	Comprehensive Economic Development Strategy
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
cfs	cubic feet per second
CNHP	Colorado Natural Heritage Program
CO	carbon monoxide
CO_2	carbon dioxide
COA	Condition Of Approval
CRM	Cultural Resource Monitor
CRMP	Cultural Resource Management Plan
CRS	Colorado Revised Statute
CSDO	Colorado State Demography Office
CSU	Controlled Surface Use
CWA	Clean Water Act of 1977
CWPA	Citizen wilderness proposal area
DEM	Digital Elevation Model
DEIS	Draft Environmental Impact Statement
DRMP	Draft Resource Management Plan
DWCD	Dolores Water Conservancy District
EA	Environmental Assessment
EFRP	Emergency Fire Rehabilitation Plan
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ERC	energy release component
ESA	Endangered Species Act of 1973
ESI	Ecological Site Inventory
FAR	Functional At-Risk
FLAG	Federal Land Managers' Air Quality Related Values Workgroup
FLM	Federal Land Manager
FLPMA	Federal Land Policy and Management Act of 1976
FLTFA	Federal Land Transaction Facilitation Act
FMP	Fire Management Plan
FMZ	Fire Management Zone
FOGRMA	Federal Oil and Gas Royalty Management Act

FOGRS+FA	Federal Oil and Gas Royalty Simplification and Fairness Act of 1996
FONSI	Finding of No Significant Impact
FOOGLRA	Federal Onshore Oil and Gas Leasing Reform Act of 1987
FRCC	Fire Regime Condition Class
GADP	Geographic Area Development Plan
GIS	Geographic Information System
gpm	gallons per minute
H_2S	hydrogen sulfide
HABS	Historic American Building Survey
HAP	hazardous air pollutant
HMP	Habitat Management Plan
HNM	Hovenweep National Monument
hp	horsepower
HRU	Human Resource Unit
HRV	historic range of variability
IBLA	Interior Board of Land Appeals
IC	internal combustion
ID	interdisciplinary
IDT	interdisciplinary team
IMP	Integrated Monitoring Plan
IMPROVE	Interagency Monitoring of Protected Visual Environments
ISA	Instant Study Area
kg/ha-yr	kilograms per hectare per year
km	kilometer
km^2	square kilometer
KOP	key observation point
kV	kilovolt
lb/hr	pounds per hour
LFM	live fuel moistures
LIZ	Landowner Initiated Zoning
LN	Lease Notice
LUP	Land Use Plan
MBTA	Migratory Bird Treaty Act of 1918
mcf	million cubic feet

MIST	minimum impact suppression tactics
MLC	Montezuma Land Conservancy
MLE	maximum likelihood estimation
MMBtu	million British thermal units
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
mph	miles per hour
MW	megawatt
MVIC	Montezuma Valley Irrigation Company
MW	megawatts
NA	not applicable
NAAQS	National Ambient Air Quality Standard
NADP	National Atmospheric Deposition Program
NAGPRA	Native American Graves Protection and Repatriation Act of 1990
NDIS	Natural Diversity Information Source
NEPA	National Environmental Policy Act
NEPDG	National Energy Policy Development Group
NF	non-functional
NGD	No Ground Disturbance
NHPA	National Historic Preservation Act of 1966
NLCS	National Landscape Conservation System
NOA	Notice Of Availability
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NO_2	nitrogen dioxide
NO_3	nitrate
NOx	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRC	National Research Council
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
NSO	No Surface Occupancy
O_3	Ozone

OAHP	Office of Archaeology and Historic Preservation
OHC	Operation Healthy Communities
OHM	off-highway motorcycle
OHV	off-highway vehicle
ORV	off-road vehicle
PAC	Protected Activity Center
Pb	Lead
PCA	Potential Conservation Area
PDI	Palmer Drought Index
PFC	Proper Functioning Condition
PGA	peak ground acceleration
PL	Public Law
PM	particulate matter
POD	Plan Of Development
ppb	parts per billion
ppm	parts per million
PSD	prevention of significant deterioration
RAWS	Remote Automatic Weather System
RFD	Reasonable, Foreseeable Development
RMP	Resource Management Plan
RMZ	Recreation Management Zone
RNA	Resource Natural Area
ROD	Record of Decision
ROS	Recreational Opportunity Spectrum
ROW	right-of-way
R&PP	Recreation and Public Purposes
SAR	search and rescue
SHPO	State Historic Preservation Office
SIL	Significant Impact Level
SJMA	San Juan Mountain Association
SJPL	San Juan Public Lands
SJRA	San Juan Recreation Area
SO_2	sulfur dioxide
SO_4	sulfate

SOP	Standard Operating Practice
SQRU	Scenic Quality Rating Unit
SRDT	Solar Radiation, Delta Temperature
SRMA	Special Recreation Management Area
SRP	Special Recreation Permit
SSR	Site Specific Relocation
SWWF	Southwest willow flycatcher
Tcf	trillion cubic feet
TDR	transfer of development rights
TES	threatened, endangered, or sensitive, or other special status
TL	timing limitation
TMDL	total maximum daily load
Tpy	tons per year
UNESCO	United Nations Educational, Scientific and Cultural Organization
USAF	United States Air Force
USC	United States Code
USDA	United States Department of Agriculture
USDOI	United States Department of the Interior
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
USMS	United States Marshall Service
UTM	Universal Transverse Mercator
VOC	volatile organic compound
VQM	visual quality management
VRM	visual resource management
WAPA	Western Area Power Administration
WSA	Wilderness Study Area
WQCC	Water Quality Control Commission
WQCD	Water Quality Control Division of CDPHE

GLOSSARY

Administrative Access: A route that allows access for purposes of maintenance or operation.

Allotment Management Plan (AMP): A concisely written program of livestock grazing management (including supportive measures, if required) designed to attain specific management goals in a grazing allotment.

Allotment: An area of land in which one or more livestock operators graze their livestock. Allotments may consist of a variety of federally managed, State owned, and private lands. An allotment may include one or more separate pastures.

Analysis of the Management Situation (AMS): Assessment of the current management direction. It includes a consolidation of existing data needed in order to analyze and resolve identified issues, a description of current BLM management guidance, and a discussion of existing problems and opportunities for solving them.

Archaeological Permittee: A professional archaeologist, consultant, or contractor who holds a BLM Cultural Resource Use Permit.

Area of Critical Environmental Concern (ACEC): An area within public lands where special management attention is required in order to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes; or to protect life and safety from natural hazards.

Animal Unit Month (AUM): The amount of forage needed by an Animal Unit grazing for 1 month (AUM). The animal unit in turn is defined as 1 mature 1,000-pound cow and her suckling calf.

Backcountry Byways: Vehicle routes that traverse scenic corridors utilizing secondary or backcountry road systems. National Backcountry Byways are designated by the type of road and vehicle needed to travel the byway.

Big Game: Indigenous ungulate wildlife species that are often hunted (such as elk, deer, bison, bighorn sheep, and pronghorn antelope).

Candidate Species: Taxa for which the USFWS has sufficient information on their status and threats to support proposing the species for listing as endangered or threatened under the ESA, but for which issuance of a proposed rule is currently precluded by higher priority listing actions. Separate lists for plants, vertebrate animals, and invertebrate animals are published periodically in the *Federal Register* (from M6840, Special Status Species Manual) (from M6840, Special Status Species Manual).

Carrying Capacity: The maximum population or level of activity that can be supported without degradation of the habitat or the population.

Class I Inventory: A professionally prepared study that includes a compilation and analysis of all reasonably available cultural resource data and literature.

Class II Inventory: A professionally conducted, statistically-based sample survey designed to aid in characterizing the probable density, diversity, and distribution of cultural properties within a large area.

Class III Inventory: A professionally conducted, continuous, intensive pedestrian survey of an entire project area aimed at locating and recording all cultural resources.

Clean Air Act of 1963 (CAA) and Amendments: Federal legislation governing air pollution control.

Closed: Generally, denotes that an area is not available for a particular use or uses. [Refer to specific definitions found in law, regulations, or policy guidance for application to individual programs. For example, 43 CFR 8340.0-5 sets forth the specific meaning of "Closed" as it relates to off-highway vehicle use, and 43 CFR 8364 defines "Closed" as it relates to closure and restriction orders (from H-1601-1, BLM Land Use Planning Handbook).]

Common Reservoir: All or part of any oil or gas or oil and gas field that comprises and includes any area that is underlaid or that, from geological or other scientific data or experiments or from drilling operations or other evidence, appears to be underlaid by a *common pool or accumulation* (emphasis added) of oil or gas or oil and gas (Texas Natural Resources Code 1978).

Condition of Approval (COA): A condition or provision (requirement) under which an Application for a Permit to Drill (APD) or a Sundry Notice is approved.

Council on Environmental Quality (CEQ): An advisory council to the President of the United States established by the National Environmental Policy Act (NEPA) of 1969. It reviews Federal programs in order to analyze and interpret environmental trends and information.

Cross-Country Travel: Travel between designated routes.

Critical Habitat: An area occupied by a threatened or endangered species "on which are found those physical and biological features (1) essential to the conservation of the species, and (2) which may require special management considerations or protection."

Crucial Winter Range: That part of the overall range where 90 percent of the individuals are located during the average 5 winters out of 10 from the first heavy snowfall to spring green-up, or during a site-specific period of winter as defined for each Colorado Division of Wildlife (CDOW) Data Analysis Unit.

Cultural Landscape: All physical remains of past human occupation in their original setting within a defined geographical area.

Cultural Resource or Cultural Property: A definite location of human activity, occupation, or use, normally greater than 50 years of age, identifiable through field inventory, historical documentation, or oral evidence. The term includes archaeological, historic, or architectural sites, structures, places, or sites or places with important public and scientific uses, and may include definite locations (sites or places) of traditional cultural or religious importance to specified social and/or cultural groups. Cultural resources are concrete, material places and things that are located, classified, ranked, and managed through the system of identifying, protecting, and utilizing for public benefit described in laws, regulations, and BLM Manuals.

Definite Location: Having discernable, map-able limits or boundaries, on a scale that can be established through observations on surface expression.

Designated Routes: Specific routes identified by the BLM (or other agencies) where some type of motorized vehicle use is appropriate and allowed either seasonally or yearlong (H- 601-1, BLM Land Use Planning Handbook).

Disposal: Transfer of public land out of Federal ownership to another party through sale, exchange, or land law statutes.

Drainage: Where lands in any leases are being drained of their oil and gas content by wells either on a Federal lease issued at a lower rate of royalty or on non-Federal lands, the lessee shall both drill and produce all wells necessary in order to protect the leased lands from drainage. *Compensation for drainage:* Upon lands owned by the United States being drained of oil or gas by wells drilled on adjacent lands, agreements may be executed with the owners of adjacent land whereby the United States and its lessees shall be compensated for such drainage. Such lands may also be offered for lease (43CRF, part 3100.2).

Easement: A right afforded a person or agency in order for them to make limited use of another's real property for access or other purposes.

Eligibility: Qualification of a river for inclusion into the National Wild and Scenic Rivers System through the determination (professional judgment) that it is free-flowing and, with its adjacent land area, possesses at least one river-related value considered to be outstandingly remarkable (from M-8351, BLM WSR Policy and Program).

Endangered Species: Any species that is in danger of extinction throughout all, or a significant portion of its range (from M6840, Special Status Species Manual).

Environmental Impact Statement (EIS): A detailed statement prepared by the Responsible Official in which a major Federal action that significantly affects the quality of the human environment is described; where alternatives to the Proposed Action are provided; and where effects (impacts) are analyzed (from BLM National Management Strategy for OHV Use on Public Lands).

Extensive Recreation Management Area (ERMA): A public lands unit identified in land use plans containing all acreage not identified as a Special Recreation Management Area (SRMA). Recreation management actions within an ERMA are limited to only those of a custodial nature. (H-1601-1, BLM Land Use Planning Handbook).

Extirpation: To cause a species to go extinct. To exterminate.

Federal Land Policy and Management Act (FLPMA) of 1976: Public Law 94-579, October 21, 1976, often referred to as the BLM's Organic Act, which provides the majority of the BLM's legislated authority, direction policy, and basic management guidance (from BLM National Management Strategy for OHV Use on Public Lands).

Fire Regime Condition Class (FRCC): Fire Regime Condition Classes are a measure describing the degree of departure from historical fire regimes, possibly resulting in alterations of key ecosystem components (such as species composition, structural stage, stand age, canopy closure, and fuel loadings). One or more of the following activities may have caused this departure: fire suppression, timber harvesting, livestock grazing, introduction and establishment of exotic plant species, introduced insects or disease, or other management activities.

Fire Suppression: All work activities connected with fire extinguishing operations, beginning with discovery of a fire and continuing until the fire is completely out.

Fluid Minerals: Oil, gas, coal bed natural gas, carbon dioxide, and geothermal resources.

Functioning-at-Risk (FAR): Condition in which vegetation and soil are susceptible to losing their ability to sustain naturally functioning biotic communities. Human activities, past or present, may increase the risks. Uplands or riparian-wetland areas that are properly functioning, but a soil, water, or vegetation attribute makes them susceptible to degradation and lessens their ability to sustain natural biotic communities. Uplands are particularly at risk if their soils are

susceptible to degradation. Human activities, past or present, may increase the risks (from H-4180-1, BLM Rangeland Health Standards Manual).

Habitat: An environment that meets a specific set of physical, biological, temporal, or spatial characteristics that satisfy the requirements of a plant or animal species, or group of species, for part or all of their life cycle.

Historic Property: Any prehistoric or historic site, district, building, structure, or object included in, eligible, or potentially eligible for inclusion in the National Register of Historic Places (NRHP).

Intermittent Stream: An intermittent stream is a flowing system under normal weather conditions. During the dry season, and throughout minor drought periods, these streams will not exhibit flow. Geomorphological characteristics are not well defined and are often inconspicuous. In the absence of external limiting factors (such as pollution, thermal modifications, etc.), biology is scarce and adapted to the wet and dry conditions of the fluctuating water level.

Isolated Find: A physical location of past human activity consisting of one, or very few, artifacts in a location that is interpreted as not representing patterned human behavior. The Colorado Office of Archaeology and Historic Preservation (COAHP) guidelines state that: “Typically, isolated finds are transportable artifacts representing a single activity; by definition they are not eligible to the National Register of Historic Places.” Recording the location and nature of isolated finds is considered to realize the information potential of this class of cultural resource. An Isolated Find in the Monument is defined as 10 or fewer artifacts in a 30-meter diameter area.

Landscape Character: The combination of physical, biological, and cultural attributes that gives an area its visual and cultural identity. Each attribute contributes to the uniqueness of the landscape, gives a particular place meaning and value, and helps to define a sense of place. Landscape character provides a frame of reference from which to determine scenic attractiveness, and to measure scenic integrity and scenic sustainability.

Land Tenure Adjustments: Ownership or jurisdictional changes are referred to as Land Tenure Adjustments. In order to improve the manageability of BLM-administered lands and to improve their usefulness to the public, the BLM has numerous authorities for repositioning lands into a more consolidated pattern, disposing of lands, and entering into cooperative management agreements. These land pattern improvements are completed primarily through the use of land exchanges, but they may also be completed through land sales, jurisdictional transfers to other agencies, and through the use of cooperative management agreements and leases.

Land Use Plan (LUP): A set of decisions that establish management direction for land within an administrative area, as prescribed under the planning provisions of the FLPMA; an assimilation of LUP-level decisions developed through the planning process outlined in 43 CFR 1600, regardless of the scale at which the decisions were developed. The term includes both Resource Management Plans (RMPs) and Management Framework Plans (MFPs). (from H-1601-1, BLM Land Use Planning Handbook).

Lease: Section 302 of the FLPMA provides the BLM's authority to issue leases for the use, occupancy, and development of the public lands. Leases are issued for purposes such as a commercial filming, advertising displays, commercial or non-commercial croplands, apiaries, livestock holding or feeding areas not related to grazing permits and leases, harvesting of native or introduced species, temporary or permanent facilities for commercial purposes (does not include mining claims), residential occupancy, ski resorts, construction equipment storage sites, assembly yards, oil rig stacking sites, mining claim occupancy (if the residential structures are not incidental to the mining operation), and water pipelines and well pumps related to irrigation

and non-irrigation facilities. The regulations establishing procedures for the processing of these leases and permits are found in 43 CFR 2920.

Limited: Designated areas and trails where the use of off-road vehicles is subject to restrictions, such as limiting the number or types or 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 (from BLM National Management Strategy for OHV Use on Public Lands).

Limited Access Route: A route restricted from general public use. Limited Routes include administrative access (allowing access for purposes of maintenance or operation); private land access; and temporary access used for a defined period of time (such as during the operation of an oil and gas well) then closed once the use is complete.

Locatable Minerals: Minerals subject to exploration, development, and disposal by staking mining claims as authorized by the Mining Law of 1872, as amended. This includes deposits of gold, silver, and other uncommon minerals not subject to lease or sale.

Mechanized Travel: Travel using self-propelled bicycles. This is sometimes included in the definition of non-motorized; however, making the distinction is often important.

Mineral: Any naturally formed inorganic material, solid or fluid inorganic substance that can be extracted from the Earth; any of various naturally occurring homogeneous substances (as stone, coal, salt, sulfur, sand, petroleum, water, or natural gas) obtained for human use (usually, from the ground). Under Federal laws, considered as locatable (subject to the general mining laws), leasable (subject to the Mineral Leasing Act of 1920), and salable (subject to the Materials Act of 1947).

Mineral Estate: The ownership of minerals, including rights necessary for access, exploration, development, mining, ore dressing, and transportation operations.

Mineral Materials: Materials such as sand and gravel, as well as common varieties of stone, pumice, pumicite, and clay that are not obtainable under the mining or leasing laws, but that can be acquired under the Materials Act of 1947, as amended.

Mining Claim: A parcel of land that a miner takes and holds for mining purposes, having acquired the right of possession by complying with the Mining Law and local laws and rules. A mining claim may contain as many adjoining locations as the locator may make or buy. There are 4 categories of mining claims: lode, placer, millsite, and tunnel site.

Motorized Travel: Travel that uses some form of motorized vehicles, including off-highway motorcycles (OHMs), off-highway vehicles (OHVs), all-terrain vehicles (ATVs), and/or four-wheel and two-wheel drive full-size vehicles.

Multiple Use: The management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to changing needs and conditions; the use of some land for less than all of the resources; a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and non-renewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values; and harmonious and coordinated management of the

various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output (FLPMA) (from M6840, Special Status Species Manual).

National Wild and Scenic Rivers System: A system of nationally designated rivers and their immediate environments that have outstanding scenic, recreational, geologic, fish and wildlife, historic, cultural, and other similar values and are preserved in a free-flowing condition. The system consists of 3 types of streams: 1) recreation—rivers or sections of rivers that are readily accessible by road or railroad and that may have some development along their shorelines and may have undergone some impoundments or diversion in the past; 2) scenic—rivers or sections of rivers free of impoundments with shorelines or watersheds still largely undeveloped but accessible in places by roads; and 3) wild—rivers or sections of rivers free of impoundments and generally inaccessible except by trails, with watersheds or shorelines essentially primitive and waters unpolluted.

Non-functioning Condition: Condition in which vegetation and ground cover are not maintaining soil conditions that can sustain natural biotic communities. Riparian and wetland areas are considered to be in non-functioning condition when they do not provide adequate vegetation, landform, or large woody debris necessary in order to dissipate stream energy associated with high flows and, thus, are not reducing erosion, improving water quality, or other normal characteristics of riparian areas. The absence of a floodplain may be an indicator of Non-functioning Condition. [See also Properly Functioning Condition and Functioning at Risk (from H-4180-1, BLM Rangeland Health Standards Manual).]

Non-motorized Travel: Travel that does not use a form of machinery, such as foot (hiking) or horseback riding.

No Surface Occupancy (NSO): Under this stipulation, the BLM would not allow any ground-disturbing activities from oil and gas leases.

No Ground Disturbance (NGD): Under this stipulation, the BLM would not allow any ground-disturbing activities.

Off-Highway Motorcycle (OHM): Any off-highway motorcycle, otherwise called dirt bikes.

Off-Highway Vehicle (OHV): Any motorized vehicle capable of, or designed for, travel on or immediately over land, water, or other natural terrain, excluding: 1) any non-amphibious registered motorboat: 2) any military, fire, emergency, or law enforcement vehicle being used for emergency purposes; 3) any vehicle whose use is expressly authorized by the Authorized Officer, or otherwise officially approved; 4) vehicles in official use; and 5) any combat or combat support vehicle when used for national defense (H-1601-1, BLM Land Use Planning Handbook).

Off-road: Cross-country travel between designated routes.

Open: Areas where both cross-country and designated route travel is allowed by all types of vehicles, at all times, anywhere in the area (subject to the operating regulations and vehicle standards set forth in subparts 43 CFR 8341 and 8342). There are no Open areas within the Monument.

Outdoor Museum Concept: A concept where Monument visitors can experience cultural and natural resources through self-discovery.

Outstandingly Remarkable Value (ORV): A value used in the determination of Wild and Scenic Rivers (WSRs), including "scenic, recreational, geological, fish and wildlife, historical,

cultural, or other similar values…" Other similar values that may be considered include ecological, biological or botanical, paleontological, hydrological, scientific, or research values (from M-8351, BLM WSR Policy and Program).

Ozone: A faint blue gas produced in the atmosphere from chemical reactions of such sources as burning coal, gasoline and other fuels; and chemicals found in products including solvents, paints, hairsprays, etc.

Perennial Stream: Perennial streams carry flowing water continuously throughout the year, regardless of weather conditions. They exhibit well-defined geomorphological characteristics and, in the absence of pollution, thermal modifications, or other human-caused disturbances, have the ability to support aquatic life. During hydrological drought conditions, the flow may be impaired.

Permitted Use: The forage allocated by, or under the guidance of, an applicable LUP for livestock grazing in an allotment under a permit or lease, and is expressed in Animal Unit Months (AUMs) (43 CFR § 4100.0-5) (from H-4180-1, BLM Rangeland Health Standards Manual).

Prehistoric Community: The collective physical remains or expressions of a cultural group's occupation and use of a geographical area during an established chronological period of time where residents had face-to-face contact with each other on a regular basis.

Prevention of Significant Deterioration (PSD): An air pollution permitting program intended to ensure that air quality does not diminish in attainment areas.

Primitive and Unconfined Recreation: Non-motorized, non-mechanized (except as provided by law), and undeveloped types of recreational activities. Bicycles are considered mechanical transport (from H-6310-1, Wilderness Inventory and Study Procedures).

Private Land Access: A route that crosses BLM-administered lands for the purpose of accessing private land. Generally, these routes would be administered under a Right-of-Way (ROW) grant.

Proponent: An operator, commercial developer, or any other party or organization proposing an activity or use on BLM-administered public lands.

Proper Functioning Condition (PFC): An element of the Fundamental of Rangeland Health for watersheds, and, therefore, a required element of State or regional standards and guidelines under 43 CFR § 4180.2(b). Also, condition in which vegetation and ground cover maintain soil conditions that can sustain natural biotic communities. For riparian areas, the process of determining function is described in the BLM Technical Reference TR 1737-9. Riparian and wetland areas are functioning properly when adequate vegetation, landform, or large woody debris is present at the level necessary in order to dissipate stream energy associated with high water flows, thereby reducing erosion and improving water quality; filtering sediment, capturing bedload, and aiding floodplain development; improving floodwater retention and groundwater recharge; developing root masses that stabilize stream banks against cutting action; developing diverse ponding and channel characteristics necessary in order to provide the habitat and the water depth, duration, and temperature necessary for fish production, waterfowl breeding, and other uses; and supporting greater biodiversity. The functioning condition of riparian-wetland areas is influenced by geomorphic features, soil, water, and vegetation. Uplands function properly when the existing vegetation and ground cover maintain soil conditions capable of sustaining natural biotic communities. The functioning condition of uplands is influenced by geomorphic features, soil, water, and vegetation.

Proposed Action: Alternative that is a culmination of actions planned for implementation upon signing of the Record of Decision (ROD).

Public Lands: Land, or interest in land, owned by the United States and administered by the Secretary of the Interior through the BLM without regard to how the United States acquired ownership, except lands located on the Outer Continental Shelf, and land held for the benefit of Indians, Aleuts, and Eskimos (H-1601-1, BLM Land Use Planning Handbook).

Public Routes: Routes open to the public, but that may be restricted in terms of the type of travel allowed. For example, there are motorized and non-motorized public routes.

Reasonable Foreseeable Development (RFD) Scenario: The prediction of the type and amount of oil and gas activity that would occur in a given area. The prediction is based upon geologic factors, past history of drilling, projected demand for oil and gas, and industry interest.

Recreation Opportunity Spectrum (ROS): One of the existing tools for classifying recreation environments (existing and desired) along a continuum ranging from primitive, low-use, and inconspicuous administration to urban, high-use, and a highly visible administrative presence. This continuum recognizes variation among various components of any landscape's physical, social, and administrative attributes; and the resulting descriptions (of existing conditions) and prescriptions (of desired future conditions) define recreation setting character (from M-8351, BLM WSR Policy and Program). (See BLM Manual Section 8320 for more detailed discussion.)

Recreational Rivers: Rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

Recreational Shooting: Recreational shooting consists of target shooting (also called plinking) that involves paintballs, air guns, bullets, bows and arrows, and/or any other ammunition shot at bottles, cans, clay pigeons, natural features, or other targets. Recreational shooting does <u>not</u> include hunting, which is an authorized use in the Monument managed by the Colorado Division of Wildlife (CDOW).

Resource Management Plan (RMP): A land use plan as prescribed by the FLPMA that establishes, for a given area of land, land-use allocations, coordination guidelines for multiple-use, goals and objectives to be achieved, and management actions to be taken.

Right-of-Way (ROW): A situation in which, although a parcel of land has a specific private or public owner, another party (or the public at large) has a legal right to traverse that land in some specified manner. Public lands are often authorized to be used or occupied for specific purposes pursuant to a ROW grant, when such use is in the public interest and when a ROW is required to cross over, upon, under, or through such lands.

Riparian Area: An area of transition between permanently saturated wetlands and upland areas. Riparian areas exhibit vegetation or physical characteristics that reflect the influence of permanent surface or subsurface water. Typical riparian areas include lands along, adjacent to, or contiguous with perennially and intermittently flowing rivers and streams, glacial potholes, and/or the shores of lakes and reservoirs with stable water levels.

Road: A linear route declared a road by the owner, managed for use by low-clearance vehicles having four or more wheels, and maintained for regular and continuous use. [A named county, state, or Federal route of travel.]

Rock Art: Petroglyphs (carvings) or pictographs (paintings) used to depict history and culture.

Rotation: The movement of livestock between pastures in an allotment for a permitted amount of time.

Route: A group or set of roads, trails, and primitive roads that represent less than 100 percent (excludes non-designated routes) of the BLM transportation system. In general, components of the transportation system are described as routes.

Scenic Byways: Highway routes that have roadsides or corridors of special aesthetic, cultural, or historic value. An essential part of the highway is its scenic corridor. The corridor may contain outstanding scenic vistas, unusual geologic features, or other natural elements.

Scenic River: A river or section of a river that is free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.

Season of Use: The time during which livestock grazing is permitted on a given range allotment, as specified in the grazing permit.

Section 106 Consultation: Refers to consultation between the BLM (or other Federal agency), the Colorado State Historic Preservation Officer, Native American tribes, and the Advisory Council on Historic Preservation, in accordance with Section 106 of the National Historic Preservation Act (NHPA) following procedures specified in 36 CFR 800 or the State Protocol Agreement.

Settlement Cluster: Numerous sites located in proximity to each other.

Site: A physical location of past human activity with evidence of purposeful or patterned human behavior beyond the level of one or very few accidentally deposited artifacts.

Special Recreation Management Area (SRMA): A public lands unit identified in LUPs in order to direct recreation funding and personnel to fulfill commitments made to provide specific, structured recreation opportunities (such as activity, experience, and benefit opportunities). LUP decisions, as well as subsequent implementing actions, for recreation within each SRMA are geared to a strategically identified primary market: destination, community, or undeveloped. (H-1601-1, BLM Land Use Planning Handbook).

Special Recreation Permit (SRP): A permit required for any activity that is recreational in nature and involves groups of people. Generally, these permits are for guided recreation activities provided by Outfitter/Guides to the public. These include guided river trips, hunting trips, and Jeep tours. However, other commercial recreational activities such as advertising or selling food or merchandise would also require an SRP. Certain organized group events also require an SRP. (An organized group event is a recreation event that is not commercial and is not competitive. Examples of organized group events include Boy Scout campouts, club rides or hikes, church or company picnics, or large family reunions. Definitions can be found in 43 CFR 2931.2.)

Split-estate Lands: Lands where surface ownership differs from subsurface, such as when private land surface ownership overlays subsurface Federal mineral rights.

Stand: For management purposes, a group of trees of sufficiently uniform species composition, age, and condition to be considered a homogeneous unit.

Sustained Yield: The achievement, and maintenance in perpetuity, of a high-level annual or regular periodic output of the various renewable resources of the public lands consistent with multiple use that does not result in impairment of the productivity of the land.

Temporary Access: A route that is used for a specific period of time (such as during the operation of an oil and gas well) and then closed once the use is complete.

Threatened Species: Any species that is likely to become an endangered species within the foreseeable future throughout all, or a significant portion, of its range (from M6840, Special Status Species Manual).

Total Maximum Daily Load (TMDL): An estimate of the total quantity of pollutants (from all sources: point, non-point, and natural) that may be allowed into waters without exceeding applicable water quality criteria.

Traditional Cultural Property: A property that derives significance from traditional values associated with it by a social or cultural group (such as a Native American tribe, or local community). A traditional cultural property may be eligible for the National Register of Historic Places if it meets the criteria and criteria exception described in 36 CFR60.4.

Undertaking: A term defined in the National Historic Preservation Act of 1966 as "A project, activity, or program funded in whole or part, under the direct or indirect jurisdiction of a Federal agency, including those carried out by or on behalf of a Federal agency; those carried out with Federal financial assistance; those requiring a Federal permit, license, or approval; and those subject to State or local regulation administered pursuant to a delegation or approval by a Federal agency."

Valid Existing Rights: Any lease established (and valid) prior to a new authorization, change in land designation, or in regulation.

Visibility: A measurement of the ability to see and identify objects at different distances.

Visitor Day: Twelve visitor hours (which may be aggregated by one or more persons in single or multiple visits).

Visitor Use: A term used in recreation management in order to describe visitor use of a resource for inspiration, stimulation, solitude, relaxation, education, pleasure, or satisfaction.

Visual Resources: The visible physical features of a landscape (topography, water, vegetation, animals, structures, and/or other features) that constitute the scenery of an area.

Visual Resource Inventory Classes: Visual Resource Inventory Classes are assigned through the inventory process. Generally, these are assigned based upon a combination of scenic quality, sensitivity level, and distance zones. Inventory classes are informational in nature and provide the basis for considering visual values in the RMP process. They do not establish management direction and should not be used as a basis for constraining or limiting surface-disturbing activities.

Visual Resource Management (VRM): The system by which the BLM classifies and manages scenic values and visual quality of public lands. The system is based upon research that has produced ways of assessing aesthetic qualities of the landscape in objective terms. After inventory and evaluation, lands are given relative visual ratings that determine the amount of modification allowed for the basic elements of the landscape.

Visual Resource Management (VRM) Classes: Categories assigned to public lands based upon scenic quality, sensitivity level, and distance zones. VRM Classes are assigned through RMPs. The assignment of VRM Classes is ultimately based upon the management decisions made in RMPs. There are 4four classes. Each class has an objective that prescribes the amount of change allowed in the characteristic landscape (H-1601-1, BLM Land Use Planning Handbook).

Visual Resource Management Class I Objective: The objective of this VRM Class is to preserve the existing character of the landscape. This Class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention.

Visual Resource Management Class II Objective: The objective of this VRM Class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

Visual Resource Management Class III Objective: The objective of this VRM Class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention, but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

Visual Resource Management Class IV Objective: The objective of this VRM Class is to provide for management activities that require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of the viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.

Volatile Organic Compounds (VOCs): Volatile organic chemicals that produce vapors readily at room temperature and normal atmospheric pressure. VOCs include gasoline, industrial chemicals (such as benzene), and solvents (such as toluene and xylene, and tetrachloroethylene/perchloroethylene, the principal dry cleaning solvent).

Wild Rivers: Those rivers, or sections of rivers, that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.

Wild and Scenic Rivers: The National Wild and Scenic Rivers System was created by Congress in 1968 (Public Law 90-542; 16 USC 1271 et seq.) to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. Rivers are classified as wild, scenic, or recreational. Regardless of classification, each river in the National System is administered with the goal of protecting and enhancing the values that caused it to be designated.

Wilderness: A congressionally designated area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, that is protected and managed in order to preserve its natural conditions, and that: 1) generally appears to have been affected mainly by the forces of nature, with human imprints substantially unnoticeable; 2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; 3) has at least 5,000 acres, or is large enough to make practical its preservation and use in an unimpaired condition; and 4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historic value, as described in Section 2(c) of the Wilderness Act of 1964 (from H-6310-1, Wilderness Inventory and Study Procedures).

Wilderness Characteristics: Wilderness characteristics include:

- Size - roadless areas of at least 5,000 acres of public lands or of a manageable size;

- Naturalness - generally appears to have been affected primarily by the forces of nature;
- Opportunities - provides outstanding opportunities for solitude or primitive and unconfined types of recreation.

Wilderness Areas often have supplemental values such as ecological, geological, educational, historical, scientific and scenic values.

Wilderness Study Area (WSA): Roadless areas found by the agency to contain the following wilderness characteristics and formally identified as WSAs through an agency process. Wilderness characteristics include:

- Size - roadless areas of at least 5,000 acres of public lands or of a manageable size;
- Naturalness - generally appears to have been affected primarily by the forces of nature;
- Opportunities - provides outstanding opportunities for solitude or primitive and unconfined types of recreation.

Wilderness Study Areas often have supplemental values such as ecological, geological, educational, historical, scientific and scenic values. Until Congress makes a final determination on a WSA, the BLM manages these areas to preserve their suitability for designation as wilderness.

Wildfire: Unplanned human or naturally caused fires in wildlands.

Wildland Fire: Any fire, regardless of ignition source, that is burning outside of a prescribed fire, and any fire burning on public lands or threatening public land resources, where no fire prescription standards have been prepared (from H-1742-1, BLM Emergency Fire Rehabilitation Handbook).

Wildland Fire Use: The application of the appropriate management response to naturally ignited wildland fires in order to accomplish specific resource management objectives in pre-defined designated areas outlined in Fire Management Plans. Operational management is described in the Wildland Fire Implementation Plan (WFIP).

APPENDIX A

The Monument Proclamation

APPENDIX A
The Monument Proclamation

Establishment of the Canyons of the Ancients National Monument

June 9, 2000

BY THE PRESIDENT OF THE UNITED STATES OF AMERICA A PROCLAMATION

Containing the highest known density of archaeological sites in the Nation, the Canyons of the Ancients National Monument holds evidence of cultures and traditions spanning thousands of years. This area, with its intertwined natural and cultural resources, is a rugged landscape, a quality that greatly contributes to the protection of its scientific and historic objects. The monument offers an unparalleled opportunity to observe, study, and experience how cultures lived and adapted over time in the American Southwest.

The complex landscape and remarkable cultural resources of the Canyons of the Ancients National Monument have been a focal point for archaeological interest for over 125 years. Archaeological and historic objects such as cliff dwellings, villages, great kivas, shrines, sacred springs, agricultural fields, check dams, reservoirs, rock art sites, and sweat lodges are spread across the landscape. More than five thousand of these archaeologically important sites have been recorded, and thousands more await documentation and study. The Mockingbird Mesa area has over forty sites per square mile, and several canyons in that area hold more than three hundred sites per square mile.

People have lived and labored to survive among these canyons and mesas for thousands of years, from the earliest known hunters crossing the area 10,000 years ago or more, through Ancestral Puebloan farmers, to the Ute, Navajo, and European settlers whose descendants still call this area home. There is scattered evidence that Paleo-Indians used the region on a sporadic basis for hunting and gathering until around 7500 B.C. During the Archaic period, generally covering the next six thousand years, occupation of the Four Corners area was dominated by hunters and gatherers.

By about 1500 B.C., the more sedentary Basketmakers spread over the landscape. As Ancestral Northern Puebloan people occupied the area around 750 A.D., farming began to blossom, and continued through about 1300 A.D., as the area became part of a much larger prehistoric cultural region that included Mesa Verde to the southeast. Year-round villages were established, originally consisting of pit house dwellings, and later evolving to well-recognized cliff-dwellings. Many archaeologists now believe that throughout this time span, the Ancestral Northern Puebloan people periodically aggregated into larger communities and dispersed into smaller community units. Specifically, during Pueblo I (about 700-900 A.D.) the occupation and site density in the monument area increased. Dwellings tended to be small, with three or four rooms. Then, during Pueblo II (about 900-1150 A.D.), settlements were diminished and highly dispersed. Late in Pueblo II and in early Pueblo III, around 1150 A.D., the size and number of settlements again increased and residential clustering began. Later pueblos were larger multi-storied masonry dwellings with forty to fifty rooms. For the remainder of Pueblo III (1150-1300 A.D.), major aggregation occurred in the monument, typically at large sites at the heads of

canyons. One of these sites includes remains of about 420 rooms, 90 kivas, a great kiva, and a plaza, covering more than ten acres in all. These villages were wrapped around the upper reaches of canyons and spread down onto talus slopes, enclosed year-round springs and reservoirs, and included low, defensive walls. The changes in architecture and site planning reflected a shift from independent households to a more communal lifestyle.

Farming during the Puebloan period was affected by population growth and changing climate and precipitation patterns. As the population grew, the Ancestral Puebloans expanded into increasingly marginal areas. Natural resources were compromised and poor soil and growing conditions made survival increasingly difficult. When dry conditions persisted, Pueblo communities moved to the south, southwest, and southeast, where descendants of these Ancestral Puebloan peoples live today.

Soon after the Ancestral Puebloans left the monument area, the nomadic Ute and Navajo took advantage of the natural diversity found in the variable topography by moving to lower areas, including the monument's mesas and canyons, during the cooler seasons. A small number of forked stick hogans, brush shelters, and wickiups are the most obvious remnants of this period of occupation.

The natural resources and spectacular land forms of the monument help explain why past and present cultures have chosen to live in the area. The geology of the monument evokes the very essence of the American Southwest. Structurally part of the Paradox Basin, from a distance the landscape looks deceptively benign. From the McElmo Dome in the southern part of the monument, the land slopes gently to the north, giving no indication of its true character. Once inside the area, however, the geology becomes more rugged and dissected. Rising sharply to the north of McElmo Creek, the McElmo Dome itself is buttressed by sheer sandstone cliffs; with mesa tops rimmed by caprock and deeply incised canyons.

The monument is home to a wide variety of wildlife species, including unique herpetological resources. Crucial habitat for the Mesa Verde nightsnake, long-nosed leopard lizard, and twin-spotted spiny lizard can be found within the monument in the area north of Yellow Jacket Canyon. Peregrine falcons have been observed in the area, as have golden eagles, American kestrels, red-tailed hawks, and northern harriers. Game birds such as Gambel's quail and mourning dove are found throughout the monument both in dry, upland habitats, and in lush riparian habitat along the canyon bottoms.

Section 2 of the Act of June 8, 1906 (34 Stat. 225, 16 U.S.C. 431), authorizes the President, in his discretion, to declare by public proclamation historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated upon the lands owned or controlled by the Government of the United States to be national monuments, and to reserve as a part thereof parcels of land, the limits of which in all cases shall be confined to the smallest area compatible with the proper care and management of the objects to be protected.

WHEREAS it appears that it would be in the public interest to reserve such lands as a national monument to be known as the Canyons of the Ancients National Monument:

NOW, THEREFORE, I, WILLIAM J. CLINTON, President of the United States of America, by the authority vested in me by section 2 of the Act of June 8, 1906 (34 Stat. 225, 16 U.S.C.

431), do proclaim that there are hereby set apart and reserved as the Canyons of the Ancients National Monument, for the purpose of protecting the objects identified above, all lands and interests in lands owned or controlled by the United States within the boundaries of the area described on the map entitled "Canyons of the Ancients National Monument" attached to and forming a part of this proclamation. The Federal land and interests in land reserved consist of approximately 164,000 acres, which is the smallest area compatible with the proper care and management of the objects to be protected.

All Federal lands and interests in lands within the boundaries of this monument are hereby appropriated and withdrawn from all forms of entry, location, selection, sale, or other disposition under the public land laws, including but not limited to withdrawal from location, entry, and patent under the mining laws, and from disposition under all laws relating to mineral leasing, other than by exchange that furthers the protective purposes of the monument, and except for oil and gas leasing as prescribed herein.

For the purpose of protecting the objects identified above, the Secretary of the Interior shall prohibit all motorized and mechanized vehicle use off road, except for emergency or authorized administrative purposes.

Lands and interests in lands within the proposed monument not owned by the United States shall be reserved as a part of the monument upon acquisition of title thereto by the United States.

Because most of the Federal lands have already been leased for oil and gas, which includes carbon dioxide, and development is already occurring, the monument shall remain open to oil and gas leasing and development; provided, the Secretary of the Interior shall manage the development, subject to valid existing rights, so as not to create any new impacts that interfere with the proper care and management of the objects protected by this proclamation; and provided further, the Secretary may issue new leases only for the purpose of promoting conservation of oil and gas resources in any common reservoir now being produced under existing leases, or to protect against drainage.

The Secretary of the Interior shall prepare a transportation plan that addresses the actions, including road closures or travel restrictions, necessary to protect the objects identified in this proclamation.

The Secretary of the Interior shall manage the monument through the Bureau of Land Management, pursuant to applicable legal authorities, to implement the purposes of this proclamation.

The establishment of this monument is subject to valid existing rights.

Nothing in this proclamation shall be deemed to enlarge or diminish the jurisdiction of the State of Colorado with respect to fish and wildlife management.

This proclamation does not reserve water as a matter of Federal law. Nothing in this reservation shall be construed as a relinquishment or reduction of any water use or rights reserved or appropriated by the United States on or before the date of this proclamation. The

Bureau of Land Management shall work with appropriate State authorities to ensure that any water resources needed for monument purposes are available.

Nothing in this proclamation shall be deemed to enlarge or diminish the rights of any Indian tribe.

Laws, regulations, and policies followed by the Bureau of Land Management in issuing and administering grazing permits or leases on all lands under its jurisdiction shall continue to apply with regard to the lands in the monument.

Nothing in this proclamation shall be deemed to affect the management of Hovenweep National Monument by the National Park Service (Proclamation 1654 of March 2, 1923, Proclamation 2924 of May 1, 1951, and Proclamation 2998 of November 26, 1952).

Nothing in this proclamation shall be deemed to revoke any existing withdrawal, reservation, or appropriation; however, the national monument shall be the dominant reservation.

Warning is hereby given to all unauthorized persons not to appropriate, injure, destroy, or remove any feature of this monument and not to locate or settle upon any of the lands thereof.

IN WITNESS WHEREOF, I have hereunto set my hand this ninth day of June, in the year of our Lord two thousand, and of the Independence of the United States of America the two hundred and twenty-fourth.

WILLIAM J. CLINTON

APPENDIX B

Recreation Analysis Process

APPENDIX B

Recreation Analysis Process

Basic Recreation Land Use and Implementation Planning Decisions

Nearly everyone can attest to the life-enriching qualities of recreation. However, most people also realize that its positive effects cannot simply be assumed; that, in fact, those experiences can often be enhanced when they are planned and managed for. It often takes more than accommodating user desires for a recreation activity to ensure that it actually occurs. Therefore, it makes sense that part of a land manager's ongoing mission may be to implement a variety of programs designed, from the outset, to achieve the desired outcomes of the visiting public. Otherwise, specific experiences may not be realized.

Recreation outcomes matter. Recreation can provide satisfying experiences, strengthen family and community life, stabilize economies, and safeguard community and natural environments. It can also, however, if done poorly, be less than satisfying and lead to undesirable experiences. Additional negative impacts can also occur, such as family life may be degraded, communities may lose their distinctive character, economies may be adversely impacted, and the integrity of natural and cultural features may be diminished.

In order to ensure positive recreation-tourism development and use, land management agencies, such as the Bureau of Land Management (BLM), may plan and manage not only for recreation activities but, more importantly, for positive outcomes resulting from those recreation activities. Such outcomes include setting the stage for satisfying experiences for visitors, as well as maintaining the essential character of the recreation settings (see attached table) in which the activities occur—and upon which sustainable attainment of the desired outcomes depends.

This job is not as simple as it might, at first, appear. The potential impacts from managing a recreation program extend beyond on-site participants. Impacts may include adverse effects (impacts) to households within adjoining communities, economies, and the environment. Not all those seeking recreation desire the same kinds of outcomes; different people often desire different recreation settings for the same recreation management units. Thus, customer desires for activity, experience, and other benefits should be assessed for all relevant recreation-tourism markets (customers) and compared with available supplies. Land managers can decide which recreation opportunities to provide in which recreation management zone, for which market niches or customers.

The initial recreation management decision now facing public lands managers is that of deciding whether or not there is a significant, identifiable structured recreation-tourism market demand[1] for each unit of public lands and, if so, whether or not they want to commit the intensive management investments required in order to support them. Such areas are currently managed by the BLM as Special Recreation Management Areas (SRMAs). In contrast, all public lands where these conditions are not satisfied (either specific markets having structured recreation-

[1] "Structured recreation-tourism market demand" describes desires for specific experiences and other benefits and accompanying maintenance of recreation setting characteristics upon which attainment of those desired outcomes depends. For recreation participants, this includes recreation activities; however, in the case of resident customers, it may only include preferences for setting characteristics upon which those outcomes depend.

tourism demands that cannot be identified, or where there is a lack of commitment to responsively accommodate for it) are managed only for custodial care and do not accommodate new recreation demands. Such areas are identified as Extensive Recreation Management Areas (ERMAs). There are no ERMAs within the Canyons of the Ancients National Monument (the Monument); therefore, such areas will not be discussed in this document.

Detailed management, marketing, monitoring, and supporting administrative actions are not land use allocation decisions; rather, they are implementation decisions. As such, they can be adaptively adjusted at any phase of Plan implementation in order to achieve management objectives and setting prescriptions. A graphic representation of SRMAs is as follows:

SRMAs

Land Use Plan Decisions

- **Intent:** To respond to identified market demand for structured recreation (the experience and other benefit outcomes and the maintenance of recreation setting character).
- **Context:** Here, the BLM has been able to identify specific recreation-tourism markets and their explicit differing recreation experience and other benefit outcomes, as well as the maintenance of setting character upon which sustained attainment of those outcomes depends.
- **Content** includes the following:
  - identify markets/niches;
  - write benefits-based management objectives;
  - prescribe essential recreation setting conditions; and
  - outline implementation framework.

Approved Plan Implementation Decisions

Implementation decisions include:

- management actions;
- marketing actions;
- monitoring action; and
- administrative support actions.

The significance of the decision to identify SRMAs is that the BLM now authorizes more than custodial recreation management. This enables managers to identify structured recreation markets and their demands, and to proactively accommodate for selected market niches. Unless reasons for accommodating recreation are carefully articulated in terms of desired/targeted experience and other benefit outcomes (and corresponding essential setting characteristics upon which those outcomes depend), activities alone do not provide sufficient direction and rationale (specifically, they do not explain “why?”). Thus, recreation management objectives for SRMAs are written in terms of explicitly stated benefit-based management outcomes and are targeted to selected recreation-tourism markets and niches. Increased recreation activity participation is accommodated only where managers can associate that demand with identifiable markets and specific desired outcomes.

Outcomes Checklist

From which to Select or Craft Items for Visitor/Resident Customer Preference Studies and for Benefits-Based Recreation Management Objectives

I. <u>Experiential Benefits to Recreation Participants</u>:

A: Achievement/Stimulation
- ! Developing your skills and abilities
- ! Having others think highly of you for doing this
- ! Testing your endurance
- ! Gaining a greater sense of self-confidence
- ! Being able to tell others about the trip

B: Autonomy/Leadership
- ! Experiencing a greater sense of independence
- ! Enjoying going exploring on my/our own
- ! Being in control of things that happen

C: Risk-Taking
- ! Enjoying risk-taking adventure

D: Equipment
- ! Talking to others about your equipment

E/F/G: Family Togetherness/Similar People/New People
- ! Enjoying the closeness of friends and family
- ! Relishing group affiliation and togetherness
- ! Enjoying meeting new people with similar interests
- ! Enjoying participating in group outdoor events

H: Learning
- ! Learning more about things here
- ! Enjoying having access to hands-on environmental learning
- ! Enjoying learning outdoor social skills

I: Enjoy nature
- ! Savoring the total sensory--sight, sound, and smell--experience of a natural landscape
- ! Enjoying having easy access to natural landscapes

J: Introspection
- ! Enjoying being more contemplative
- ! Reflecting on my character and personal values
- ! Thinking about and shaping my own spiritual values
- ! Contemplating man's relationship with the land

K: Creativity
- ! Doing something creative
- ! Enjoying artistic expression of nature

L: Nostalgia
- ! Bringing back pleasant memories

M: Exercise-Physical Fitness
- ! Enjoying getting some needed physical exercise
- ! Enjoying strenuous physical exercise
- ! Enjoying having a wide variety of environments within a single park or recreation area
- ! Enjoying having access to close-to-home outdoor amenities
- ! Enjoying being able to frequently participate in desired activities in the settings I like

N: Physical Rest
- ! Enjoying getting some needed physical rest

O: Escape Personal-Social Pressures
- ! Releasing or reducing some built-up mental tensions
- ! Escaping everyday responsibilities for awhile

P: Escape Physical Pressure
- ! Feeling good about solitude, isolation, and being independent
- ! Enjoying an escape from crowds of people

Q: Social Security
- ! Being near more considerate people

R: Escape Family
- ! Getting away from family for awhile

S: Teaching-Leading Others
- ! Enjoying teaching others about the outdoors

T: Risk Reduction
- ! Having others nearby who could help you if needed
- ! Having a greater understanding about what will happen while I am here

Adapted from Driver, B.L.; Tinsley, H.E.A., and Manfredo, M.J. "The Paragraphs about Leisure and Recreation Experience Preference Scales: Results from Two Inventories Designed to Assess the Breadth of the Perceived Psychological Benefits of Leisure." 1991. In Driver, B.L.; Brown, P.J., and Peterson, G.L. (Eds). *Benefits of Leisure* (p. 276). State College, PA: Venture Publishing, Inc.

II. Experiential Benefits to Community Residents:
(i.e., related to other's recreation-tourism engagements)

A: Lifestyle

- Enjoying the hustle and bustle of having new people in town
- Enjoying the peace and quiet of this small-town community
- Enjoying maintaining out-of-town country solitude
- Living a slower pace of life
- Avoiding compromising the quality of life here

B: Sense of Place

- Feeling like I belong to this community and liking it
- Avoiding having outsiders make me feel alienated from my own community
- Observing visitors treat our community with respect
- Feeling that this community is a special place to live
- Just knowing this attraction is here, in or near my community

C: Personal/Character

- Nurturing my own spiritual values and growth
- Developing a greater understanding of outsiders

D: Interacting with People

- Appreciating personal interaction with visitors
- Enjoying telling visitors what makes this community a special place to live and work
- Encouraging visitors to help safeguard our lifestyle and quality of life
- Sharing our cultural heritage with new people
- Seeing visitors get excited about this area
- Communicating our cultural heritage with those already living here

E: Change

- Liking change and new growth here
- Knowing that things are not going to change too much

F: Stewardship and Hospitality

- Feeling good about the way our cultural heritage is being protected
- Feeling good about how visitors are being managed
- Feeling good about how natural resources and facilities are being managed
- Feeling good about how this attraction is being used and enjoyed

Adapted from work done for the BLM by Marty Lee, Northern Arizona University by D. Bruns and BLM colleagues

III. Other Personal Benefits:

A. Psychological

1. Better mental health and health maintenance
   - A more holistic sense of wellness
   - Restored mind from unwanted stress
   - Diminished mental anxiety
   - Improved mental well-being
   - More committed to close-to-home recreation for consistent health improvement
   - Greater commitment to pay more to re-create now to avoid paying more for health care later
2. Personal development and growth
   - Greater self-reliance
   - Confirmation/development of my own values
   - Improved academic and cognitive performance
   - Improved sense of control over one's life
   - Improved skills for outdoor enjoyment
   - Improved skills for enjoying the outdoors alone
   - Improved skills for outdoor enjoyment with others
   - Improved leadership abilities
   - Improved teamwork and cooperation
   - Improved outdoor knowledge and self-confidence
   - Improved outdoor recreation skills
   - Deeper sense of personal humility
   - More balanced competitive spirit
   - Improved competence from being challenged
   - Greater sensitivity to/awareness of outdoor aesthetics, nature's art and its elegance
   - Enlarged sense of wonder
   - Greater spiritual growth
   - Greater cognitive efficiency
   - Increased capacity for artistic expression
   - Improved ability to think things through and solve problems

- Increased adaptability
- Stronger ties with my family and friends
- Greater sensitivity to/respect for other visitors
- Increased understanding and tolerance of others
- Greater respect for my cultural heritage
- Enhanced awareness and understanding of nature
- Improved sensitivity and know-how to use and enjoy without adverse impact
- Greater understanding of the importance of recreation and tourism to our community
- Better sense of my place within my community
- Improved ability to relate to local cultures
- More well-informed and responsible visitor
- Greater sense of responsibility for my own quality of life
- Improved balance of work and play in my life
- Greater personal accountability and know-how in avoiding or causing conflict with others
- Enlarged understanding of my responsibility to help care for this community and keep it clean
- Improved sense of personal accountability for control of domestic pets and livestock

3. Personal appreciation and satisfaction

- Closer relationship with the natural world
- A more outdoor-oriented lifestyle
- Improved reconnection to my rural roots
- Enhanced sense of personal freedom
- Greater sense of personal security
- Greater sense of adventure
- Improved appreciation of nature's splendor
- Improved opportunity to view wildlife close-up
- Greater appreciation of the arts
- Better understanding of wildlife's contribution to my own quality of life
- Greater freedom from urban living
- Greater appreciation for my wildland and Parkland heritage and how managers care for it
- Greater personal enrichment through involvement with other people
- Improved personal awareness, learning and appreciation of others' cultural values
- Increased acceptance of others who are different
- Greater cultivation of natural resource stewardship ethic
- Increased appreciation of area's cultural history
- Greater awareness that this community is a special place
- Better understanding of my community's cultural identity
- Greater respect for private property and local lifestyles
- An improved stewardship ethic towards adjoining/host communities
- Improved understanding of how this community's rural-urban interface impacts its quality of life
- Improved understanding of this/our community's dependence and impact on public lands

B. Psychophysiological

- Improved physical fitness and health maintenance
- Restored body from fatigue
- Improved cardiovascular health
- Reduced hypertension
- Improved capacity for outdoor physical activity
- Improved physical capacity to do my favorite recreation activities
- Greater opportunity for people with different skills to exercise in the same place
- Decreased body fat and obesity
- Improved muscle strength and connective tissue
- Increased lung capacity
- Reduced incidence of disease

IV. Household and Community Benefits:

- Heightened sense of community satisfaction
- Increased community sense of place
- Greater household awareness of and appreciation for our cultural heritage
- More informed citizenry about where to go for different kinds of recreation experiences and benefits
- Reduced social isolation
- Improved community integration
- Improved functioning of individuals in family and community
- Greater family bonding
- Improved parenting skills
- More well-rounded childhood development
- Improved group cooperation
- Greater community involvement in recreation and other land use decisions

- Increased community involvement reducing erosion of our community's small-town, rural character
- Reduced numbers of at-risk youth
- Less juvenile delinquency
- Higher school class attendance
- Lower school drop-out rates
- More highly motivated students/improved scholarship
- Reduced social alienation
- Increased compassion for others
- Lifestyle improvement or maintenance
- Enhanced lifestyle
- Enlarged sense of community dependency on public lands
- Increased nurturance/tolerance of others
- Increased independence/autonomy among seniors
- Increased community interdependence and friendliness
- Greater interaction with visitors from different cultures
- Greater community valuation of its ethnic diversity

V. <u>Economic Benefits</u>:

- Reduced health maintenance costs
- Increased work productivity
- Reduced absenteeism from work
- Decreased job turnover
- Improved local economic stability
- More positive contributions to local-regional economy
- Increased local tax revenue from visitors
- Increased local job opportunities
- Greater value-added local services/industry
- Increased desirability as a place to live or retire
- Enhanced ability for visitors to find areas providing wanted recreation experiences and benefits
- Maintenance of community's distinctive recreation-tourism market niche or character
- Increased local tourism revenue
- Greater diversification of local job offerings
- Increased property values
- Greater fiscal capacity to maintain essential infrastructure and services

VI. <u>Environmental Benefits</u>:

- Greater retention of community's distinctive architecture and structures
- Maintenance of distinctive small-town atmosphere
- Maintenance of distinctive recreation setting character
- Improved maintenance of physical facilities
- Reduced looting and vandalism of historic/ prehistoric sites
- Greater community ownership and stewardship of park, recreation, and natural resources
- Greater retention of distinctive natural landscape features
- Reduced wildlife harassment by recreation users
- Reduced wildlife disturbance from recreation facility development
- Reduced wildlife predation by domestic pets
- Greater protection of area historic structures and archaeological sites
- Sustainability of community's cultural heritage
- Improved respect for privately-owned lands
- Improved care for community aesthetics
- Improved soil, water, and air quality
- Greater protection of fish, wildlife, and plant habitat from growth, development, and public use impacts
- Increased awareness and protection of natural landscapes
- Reduced negative human impacts such as litter, vegetative trampling, and unplanned trails
- Increased ecologically friendly tourism operations
- Reduced spread of invasive species such as plants, insects, and aquatic organisms
- Greater recycling
- Conservation of entire sustainable ecosystems
- Improved maintenance of distinctive community character and identity

Adapted from Moore, Roger L. and Driver, B.L. "Benefits of Leisure and Its Roles in Society." 2005. In *Introduction to Outdoor Recreation*. (p. 29). State College, PA: Venture Publishing,

Negative Outcomes Checklist

From which to Select or Craft Additional Items for Resident Customer Preference Studies

I. Personal Negative Outcomes:
(i.e., worsened conditions)

A. Psychological

- ! Increased personal stress
- ! Loss of an important sense of place
- ! Loss of control over one's desired future
- ! Loss of control over my way of life

B. Personal development and growth

- ! Reduced ability to cultivate outdoor-oriented lifestyle
- ! Greater sense of residents being alienated from one's own community

II. Social and Cultural Negative Outcomes:

- ! Increased personal disregard for other visitors
- ! Increased conflict with a new residents whose culture conflicts with our lifestyles

III. Economic Negative Outcomes:

- ! Higher cost of living
- ! Increased property taxes
- ! Loss of economic productivity
- ! Loss of family legacy (e.g., family ranch or other business)
- ! Loss of recreation-tourism product Character and our community's market share
- ! Decreased tourism revenue
- ! Inability to cover costs of basic household necessities
- ! Decreased family solidarity
- ! Reduced ability to cultivate outdoor-oriented lifestyle
- ! Increased exposure of at-risk youth to delinquency
- ! Increased erosion of community's small-town atmosphere
- ! Increased erosion of our sense of community
- ! Diminished sense of community cohesion/friendliness
- ! Increased crime
- ! Greater conflict with outsider attitudes towards community
- ! Greater sense of resignation among local residents towards continued growth and development
- ! Increased personal disregard for local residents

IV. Environmental Negative Outcomes:

- ! More rapid loss of distinctive community architecture
- ! Loss of environmental quality within the recreation area
- ! Increased disregard for natural resources
- ! Increased visitor disregard for stewardship of community infrastructure
- ! Increased urbanization of the natural landscape
- ! Loss of community's defining, distinctive character
- ! Increased pollution, litter, and traffic noise
- ! Transformation of community by growth, development, and modernization

Adapted from real-life observations by D. Bruns and BLM colleague

NATURAL RESOURCE RECREATION SETTINGS MATRIX

Criteria for Classification and Prescriptions

03/20/2006

PHYSICAL - LAND & FACILITIES: character of the natural landscape

	Primitive		*Backcountry*	*Middle country*	*Front country*	*Rural*	*Urban*
	Pristine	*Transition*					
a. Remoteness:	More than 10 miles from any road	More than 3 miles from any road	More than ½ mile from any kind of road, but not as distant as 3 miles, and no road is in sight	On or near four-wheel drive roads, but at least ½ mile from all improved roads, though they may be in sight	On or near improved gravel roads, but at least ½ mile from highways	On or near paved primary highways, but still within a rural area	Municipal street and roads within towns or cities
b. Naturalness:	Undisturbed natural landscape		Naturally-appearing landscape having modifications not readily noticeable	Naturally-appearing landscape except for obvious primitive roads	Landscape partially modified by roads, utility lines, etc., but none overpower natural landscape features	Natural landscape substantially modified by agriculture or industrial development	Urbanized developments dominate landscape
c. Facilities:	None		Some primitive trails made of native materials such as log bridges and carved wooden signs	Maintained and marked trails, simple trailhead developments, improved signs, and very basic toilets	Improved yet modest, rustic facilities such as campsites, restrooms, trails, and interpretive signs	Modern facilities such as campgrounds, group shelters, boat launches, and occasional exhibits	Elaborate full-service facilities such as laundry, restaurants, and groceries.

SOCIAL - VISITOR USE & USERS: character of recreation-tourism use

	Primitive	*Backcountry*	*Middle country*	*Front country*	*Rural*	*Urban*
d. Contacts (with other groups):	Fewer than 3 encounters/day at camp sites and fewer than 6 encounters/day on travel routes	3-6 encounters/day off travel routes (e.g., campsites) and 7-15 encounters/day on travel routes	7-14 encounters/day off travel routes(e.g., staging areas) and 15-29 encounters/ day en route	15-29 encounters/day off travel routes(e.g., campgrounds) and 30 or more encounters/day in route	People seem to be generally everywhere.	Busy place with other people constantly in view.
e. Group Size (other than your own):	Fewer than or equal to 3 people per group	4-6 people per group	7-12 people per group	13-25 people per group	26-50 people per group	Greater than 50 people per group
f. Evidence of Use:	Only footprints observed. No noise or litter.	Footprints and bicycle tracks observed. Noise and litter infrequent. Slight vegetation trampling at campsites and popular areas. Fire rings seen.	Vehicle tracks observed. Occasional noise and litter. Vegetation and soils becoming worn at campsites and at high-use areas.	Vehicle tracks common. Some noise and litter. Vegetation and soils commonly worn at campsites, along travel routes and at popular areas.	Frequent noise and litter. Large but localized areas with vegetation damage and soil compaction.	Unavoidable noise, music and litter. Widespread vegetation damage and soil compaction.

ADMINISTRATIVE - ADMINISTRATION & SERVICES: How Public Land Managers, Cooperative Agencies and Local Businesses Care for the Area and Serve Visitors

	Primitive	*Backcountry*	*Middle country*	*Front country*	*Rural*	*Urban*
g. Mechanized Use:	None whatsoever.	Mountain bikes and perhaps other mechanized use, but all is non-motorized	Four-wheel drives, all-terrain vehicles, dirt bikes, or snowmobiles in addition to non-motorized, mechanized use.	Two-wheel drive vehicles predominant, but also four wheel drives and non-motorized, mechanized use.	Ordinary highway auto and truck traffic is characteristic.	Wide variety of street vehicles and highway traffic is ever-present.
h. Visitor Services:	None is available on-site.	Basic maps, but area personnel seldom available to provide on-site assistance	Area brochures and maps, plus area personnel occasional present to provide on-site assistance.	Information materials describe recreation areas and activities. Area personnel are periodically available.	Information described to the left, plus experience and benefit descriptions. Area personnel do on-site education.	Information described to the left, plus regularly scheduled on-site outdoor skills demonstrations and clinics.
i. Management Controls:	No visitor controls apparent. No use limits. Enforcement presence very rare.	Signs at key access points on basic user ethics. May have back country use restrictions. Enforcement presence rare	Occasional regulatory signing. Motorized and mechanized use restrictions. Random enforcement presence.	Rules clearly posted with some seasonal or day-of-week use restrictions. Periodic enforcement presence.	Regulations prominent. Total use limited by permit, reservation, etc. Routine enforcement presence.	Continuous enforcement to redistribute use and reduce user conflicts, hazards, and resource damage.

APPENDIX C

BLM Colorado Standards for Public Land Health and Guidelines for Livestock Management

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BLM Colorado Standards for Public Land Health and Guidelines for Livestock Management

The BLM, in response to public concern about the management of livestock grazing on western public lands, developed new regulations for livestock grazing administration. This process, which was characterized by the preparation of an Environmental Impact Statement (EIS) and extensive public involvement, resulted in new livestock grazing regulations that became effective August 21, 1995.

One of the requirements of the regulations was that each BLM State Director would, in consultation with the Resource Advisory Councils (RACs) in that State, develop standards for public land health and guidelines for livestock grazing management. The Secretary of the Interior approved the BLM's Colorado Standards and Guidelines on February 3, 1997. The 1985 San Juan/San Miguel Resource Management Plan (RMP) was amended to include these guidelines.

Standards for Public Land Health

Standards describe conditions needed to sustain public land health, and relate to all uses of the public lands. Standards are applied on a landscape scale and relate to the potential of the landscape.

- **Standard 1 -** Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate, landform, and geologic processes. Adequate soil infiltration and permeability allows for the accumulation of soil moisture necessary for optimal plant growth and vigor, and minimizes surface runoff.

  Indicators:

  - Expression of rills, soil pedestals are minimal.
  - Evidence of actively eroding gullies (incised channels) is minimal.
  - Canopy and ground cover are appropriate.
  - There is litter accumulating in place, and it is not sorted by normal overland water flow.
  - There is appropriate organic matter in soil.
  - There is diversity of plant species with a variety of root depths.
  - Upland swales have vegetation cover or density greater than that of adjacent uplands.
  - There are vigorous, desirable plants.

- **Standard 2 -** Riparian systems associated with both running and standing water function properly, and have the ability to recover from major disturbance such as fire, severe grazing, or 100-year floods. Riparian vegetation captures sediment, and provides forage, habitat and bio-diversity. Water quality is improved or maintained. Stable soils store and release water slowly.

Indicators:

- Vegetation is dominated by an appropriate mix of native or desirable introduced species.
- Vigorous, desirable plants are present.
- There is vegetation with diverse age-class structure, appropriate vertical structure, and adequate composition, cover, and density.
- Streambank vegetation is present, and is comprised of species and communities that have root systems capable of withstanding high streamflow events.
- Plant species present indicate maintenance of riparian moisture characteristics.
- Stream is in balance with the water and sediment being supplied by the watershed (e.g., no headcutting, no excessive erosion or deposition).
- Vegetation and free water indicate high water tables.
- Vegetation colonizes point bars with a range of age classes and successional stages.
- An active floodplain is present.
- Residual floodplain vegetation is available to capture and retain sediment and dissipate flood energies.
- Stream channels indicate size and meander pattern appropriate for the stream's position in the landscape, and parent materials.
- Woody debris contributes to the character of the stream channel morphology.

- **Standard 3 -** Healthy, productive plant and animal communities of native and other desirable species are maintained at viable population levels commensurate with the species and habitat potential. Plants and animals, at both the community and population level, are productive, resilient, diverse, vigorous, and able to reproduce and sustain natural fluctuations, and ecological processes.

  Indicators:

  - Noxious weeds and undesirable species are minimal in the overall plant community.
  - Native plant and animal communities are spatially distributed across the landscape with a density, composition, and frequency of species suitable to ensure reproductive capability and sustainability.
  - Plants and animals are present in mixed-age classes sufficient to sustain recruitment and mortality fluctuations.
  - Landscapes exhibit connectivity of habitat or presence of corridors to prevent habitat fragmentation.
  - Photosynthetic activity is evident throughout the growing season.
  - Diversity and density of plant and animal species are in balance with habitat/landscape potential, and exhibit resilience to human activities.
  - Appropriate plant litter accumulates, and is evenly distributed across the landscape.
  - Landscapes are composed of several plant communities that may be in a variety of successional stages and patterns.

- **Standard 4 -** Special status, threatened and endangered species (Federal and State), and other plants and animals officially designated by the BLM, and their habitats are maintained or enhanced by sustaining healthy, native plant and animal communities.

Indicators:

- All the indicators associated with the plant and animal communities standard apply.
- There are stable, and increasing, populations of endemic and protected species in suitable habitat.
- Suitable habitat is available for recovery of endemic and protected species.

- **Standard 5 -** The water quality of all water bodies (including ground water, where applicable) located on, or influenced by, BLM lands will achieve or exceed the Water Quality Standards established by the State of Colorado. Water Quality Standards for surface and ground waters include the designated beneficial uses, numeric criteria, narrative criteria, and anti-degradation requirements set forth under State law as found in 5 CCR 1002-8, as required by Section 303(c) of the Clean Water Act (CWA).

  Indicators:

  - Appropriate populations of macro invertebrates, vertebrates, and algae are present.
  - Surface and ground waters only contain substances (e.g., sediment, scum, floating debris, odor, heavy metal precipitates on channel substrate) attributable to humans within the amounts, concentrations, or combinations as directed by the Water Quality Standards established by the State of Colorado (5 CCR 1002-8).

Guidelines for Livestock Grazing Management

Guidelines are the management tools, methods, strategies, and techniques [including Best Management Practices (BMPs)] designed to maintain or achieve healthy public lands as defined by the Standards for Public Land Health. The livestock grazing management guidelines include the following:

1. Grazing management practices promote plant health by providing for one or more of the following:

- periodic rest or deferment from grazing during critical growth periods;
- adequate recovery and regrowth periods;
- opportunity for seed dissemination and seedling establishment.

2. Grazing management practices address the kind, numbers, and class of livestock, season, duration, distribution, frequency, and intensity of grazing use and livestock health.

3. Grazing management practices maintain sufficient residual vegetation on both upland and riparian sites to protect the soil from wind and water erosion, to assist in maintaining appropriate soil infiltration and permeability, and to buffer temperature extremes. In riparian areas, vegetation dissipates energy, captures sediment, recharges ground water, and contributes to stream stability.

4. Native plant species and natural revegetation are emphasized in the support of sustaining ecological functions and site integrity. Where reseeding is required on land treatment efforts, emphasis will be placed on using native plant species. Seeding of non-native plant species will be considered based on local goals, native seed availability and cost, persistence of non-native

plants and annuals and noxious weeds on the site, and composition of non-natives in the seed mix.

5. Range improvement projects are designed consistent with overall ecological functions and processes, with minimum adverse impacts to other resources or uses of riparian/wetland and upland sites.

6. Grazing management will occur in a manner that does not encourage the establishment or spread of noxious weeds. In addition to mechanical, chemical, and biological methods of weed control, livestock may be used where feasible as a tool to inhibit or stop the spread of noxious weeds.

7. Natural occurrences such as fire, drought, flooding, and prescribed land treatments should be combined with livestock management practices to move toward the sustainability of biological diversity across the landscape, including the maintenance, restoration, or enhancement of habitat to promote and assist the recovery and conservation of threatened, endangered, or other special status species, by helping to provide natural vegetation patterns, a mosaic of successional stages, and vegetation corridors and thus minimizing habitat fragmentation.

8. Colorado BMPs and other scientifically developed practices that enhance land and water quality should be used in the development of activity plans prepared for land use.

APPENDIX D

Best Management Practices (BMPs) and Applicable BLM Standards and Guidelines

APPENDIX D

Best Management Practices (BMPs) and Applicable BLM Standards and Guidelines

It is the responsibility of the BLM to work with Operators in a manner that reduces impacts to resources within the Monument in accordance with all applicable laws, regulations, policies, and guidance, as well as with the Proclamation. A variety of stipulations, Best Management Practices (BMPs), Conditions of Approval (COAs), and mitigation measures are necessary in order to meet this responsibility. The specifics of how these tools are used may vary according to site conditions and potential impacts. [For specific BMPs tied to oil and gas exploration and development, The Gold Book (*Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development*) should be referenced (BLM 2007a, Fourth Edition available online at www.blm.gov).]

BMPs are innovative, dynamic, and feasible mitigation measures applied on a site-specific basis in order to reduce, prevent, or avoid adverse environmental or social impacts. BMPs are applied to management actions in order to aid in achieving desired outcomes for safe, environmentally sound resource development by preventing, minimizing, or mitigating adverse impacts and reducing conflicts. For each Proposed Action, a number of BMPs may be applied, as necessary, in order to mitigate expected impacts. The following lists BMPs that may be applied in order to mitigate impacts of various activities authorized on BLM-administered lands. This list is not all-inclusive, and may be modified over time as conditions change and new practices are identified.

Environmental Best Management Practices

1. Avoid permanent visible scars (such as canyon rim-rock cutting).

2. Identify and map important viewsheds within the Canyons of the Ancients National Monument (the Monument) with greater detail in order to assess project-specific visual effects, and to guide the future development of energy resources.

3. Paint all above-ground facilities (including power boxes, building doors, roofs, and/or any visible equipment) a color that best allows the facility to blend into the background [color(s) will be selected from the latest national color chart].
4. Design and construct all new routes using professional engineering standards to a safe and appropriate standard that is “no higher than necessary” in order to accommodate intended vehicular use. Routes will follow the contour of the land, where practical.
5. Minimize the use of traffic, regulatory, and site-identification signs. All sign backs and posts should be painted a flat, non-reflective dark brown color, as approved by a BLM representative.
6. Decommission all disturbed areas (including access roads) to the original contour, or to a contour that blends with the surrounding topography, and revegetate all disturbed areas as part of final reclamation.
7. The design of vegetation management associated with linear features [such as pipelines, routes, and power line rights-of-ways (ROWs)] should result in natural-

appearing plant assemblages (including natural appearing edges, textures, and colors) in order to reduce contrast with the overall natural landscape character. In order to minimize ground disturbance, plant removal may, in some cases, be limited to above-ground material. Vertical mulch, rocks, and large woody debris may be used in order to recreate texture. All permanent structures (on site for more than 6 months) will be colored a flat, non-reflective, Earth-tone color that matches surrounding summer vegetation or rock, as approved by a BLM representative.

8. Install raptor perch avoidance devices on all new power lines, and on all existing power lines that present a potential hazard to raptors.
9. Large scale permanent industrial facilities (such as compressor stations) should employ landscaping and grade landform in order to better blend site developments into the surrounding landscape, and to reduce the industrial appearance of these facilities.
10. Fencing should be limited to typical wire range fencing using wood or painted “T” posts. If other fencing is needed (such as chain link), this should be vinyl clad or painted a flat non-reflective color, as approved by a BLM representative.

General Construction Activities

1. Limit construction in riparian areas and in wetlands. Avoid locating new concentrated-use sites in these areas.
2. Avoid locating construction in riparian and wetland habitat.
3. When construction is necessary, routes and infrastructure within riparian areas should not directly parallel the stream channel.
4. Maintain or restore at least 80 percent of potential groundcover within 100 feet from the edges of all perennial streams, lakes, and/or other bodies of water. Maintain or restore at least 80 percent of potential groundcover to the outer margin of the riparian ecosystem, where it is wider than 100 feet.
5. Locate drilling mud pits outside of 100-year floodplains, unless alternate locations are more environmentally damaging. BLM onshore order #7 will be followed for dealing with produced water and pits.
6. All crossings of wetlands, and/or of other waters of the U.S., should comply with the appropriate United States Army Corps of Engineers (USACE) regulations. [For example, Nationwide Permits (NWPs) 12 and 14).] If potential effects (impacts) exceed the limits of the NWPs, then Individual Permits (IPs) must be obtained unless a USACE 404 permit has been obtained and appropriate NEPA conducted.
7. Develop site-specific mitigation plans during the Application for Permit to Drill (APD), Plan of Development (POD), or Sundry Notice approval process for all proposed disturbance to wetlands and/or to riparian areas.
8. Avoid using, when possible, heavy equipment in areas that are easily compacted and/or susceptible to soil rutting and/or to surface-water accumulations.
9. Keep heavy equipment out of streams, swales, and/or lakes, except when crossing at designated points, building crossings, or when completing restoration work; or when such bodies of water are protected by at least 1 foot of packed snow or 2 inches of frozen soil. Keep heavy equipment out of streams during fish spawning, incubation,

and/or emergence periods. Do not disrupt water supply or drainage patterns flowing into wetlands.

10. Do not excavate material from, or store excavated material in, any stream, swale, lake, or wetland.
11. Implement construction practices that do not encroach on fills, and limit sedimentation into streams, swales, lakes, and/or wetlands.
12. Prohibit the depositing of soil material from drilling, processing, and/or site preparation into natural drainages.
13. Locate the lower edge of disturbed and/or deposited soil banks outside of active floodplains.
14. Locate mineral activities outside the 100-yr floodplain per Executive Order 11988 – Floodplain Management.
15. Begin reclamation of disturbed wetlands and/or riparian areas (or replacement, if necessary) immediately after project activities are complete.
16. Limit construction of well pads, routes, and/or pipelines on slopes greater than 30 percent.
17. Retain stabilizing vegetation on unstable soils. Avoid new route construction and/or heavy equipment use on unstable or highly erodible soils.
18. Avoid disturbance of unstable stream banks and/or of headwall areas.
19. Minimize erosion at sites located in steep terrain during the construction phase by measures such as contouring, water bars, temporary ditches, and/or detention basins, and minimize the period of disturbance.
20. Key sediment traps into the ground and maintain them regularly in order to ensure proper function. Deposit removed sediment in an appropriate location (such as a stable, gentle, upland site) and revegetate, if applicable.
21. Implement BMPs in order to slow or reduce the flow of surface-water runoff across disturbed areas (including the diversion of surface runoff around facilities and/or the installation of erosion-control devices) in order to prevent sedimentation of nearby water bodies.
22. Maintain routes, as needed, in order to keep the route surface drained during thaws and/or break-ups during winter operations. Perform snow removal in a manner that protects the route and other adjacent resources. Do not use riparian areas, wetlands, or streams for snow storage or disposal. Remove snow berms where they would result in accumulation or concentration of snow-melt runoff on the route or erodible fill slopes. Install snow berms where such placement would preclude concentration of snow-melt runoff and would serve to rapidly dissipate melt-water.
23. Close routes, pads, and/or drill sites that are found to no longer meet BLM management objectives, and decommission them, as appropriate. (Decommissioning may include: blocking the route's entrance, recontouring the disturbed surface and side slopes, revegetating disturbed surfaces, removing culverts and/or other material drainage structures and crossings, and restoring stream channels and natural flow paths.) Disturbed and/or exposed surfaces should be revegetated to a minimum of 80 percent of potential groundcover following the first year of closure.

24. Prepare a Stormwater Management Plan for all construction sites, as required by law, statute, regulation, permit, and/or policy.
25. Route surface runoff from well pads into reserve pits, where appropriate.
26. Interdisciplinary team shall utilize the BLM technical reference – *hydraulic considerations for pipeline crossing stream channels,* and USFS technical reference – *low water crossings: geomorphic, biological, and engineering design considerations*.
27. Avoid fragile and unstable areas or implement appropriate mitigation measures. In some cases, the appropriate decision is to not to construct roads, well pads, etc. Locate roads on stable topography, such as ridges, natural benches, and flatter transitional slopes near ridges and valley bottoms. Locate stream crossings where channels are well defined, unobstructed, stable and along straight reaches. Locating stream crossings on a meander bend will reduce stream length, exacerbate stream erosion and potentially undermine the crossing. Size culverts that at a minimum will handle flows for the active channel width and sizing crossings to handle the theoretical 100-year flood are preferable. Locate culverts or drainage dips in such a manner to avoid outflows onto unstable terrain such as slumps, side-cast fills and headwalls. Provide adequate drainage features along a road prism to avoid accumulation of water in ditches or surfaces through these areas.

Routes and Crossings

As per BLM Instruction Memorandum (IM) No. 2008-014, the definition of a route is “a group or set of roads, trails and primitive roads that represent less than 100% (excludes non-designated routes) of the BLM transportation system.” In general, components of the Transportation System are described as “routes.” All designated routes within the Monument are identified on the Transportation Map (Map 5). Travel off of a designated route is considered “cross-country” or “off-road.” County, state and Federal improved routes are still referred to as roads.

1. Routes should be constructed to the minimum dimensions needed in order to function properly, and should roll with the terrain, when possible, in order to minimize excavation and reduce surface runoff.
2. Renovate existing routes, rather than construct new routes, where such renovations would sufficiently reduce environmental impacts as compared with new construction.
3. Evaluate placing seasonal restrictions on public vehicular access where there are wildlife conflicts or route damage/maintenance issues.
4. Renovate/reconstruct routes in order to reduce erosion and improve drainage. Such practices may include resurfacing; crowning or outsloping of the route prism; revegetating cut-and-fill slopes and ditch lines; and/or replacing undersized, deteriorating, and/or damaged crossings.
5. Establish vegetation groundcover on disturbed areas (excluding running surface) to at least 60 percent of potential within 2 years. On low-productivity sites, establish to at least 4 percent of potential groundcover.
6. Grade routes at 2 to 10 percent, with a maximum grade of 15 percent, when possible. (Steeper grades may be considered where they would result in lesser environmental impact.) Avoid grades of less than 2 percent.

7. Conduct route-construction activities during dry or frozen soil conditions, as practicable.
8. Consider using drain dips and/or water bars on routes that have gradients of less than 10 percent, and avoid dips on route gradients of over 10 percent.
9. Install cross drains in order to disperse runoff into filter strips and minimize connected disturbance areas. Make cuts, fills, and route surfaces strongly resistant to erosion between each stream crossing and, at least, to the nearest cross drain. Revegetate using certified local native plants, as practicable; avoid persistent or invasive exotic plants.
10. Revegetate all disturbed surfaces using certified local native plants, where practicable.
11. Use dust control measures, as needed, in order to minimize the production of fugitive dust during the construction phase. Dust control measures used during the production phase will be assessed on a site-specific basis, and implemented as needed.
12. Design route ditches and cross-drains in order to limit flow to ditch capacity, and to prevent ditch erosion and failure.
13. Design placement of all cross-drains in a manner that avoids discharge onto erodible and/or unprotected slopes (including slumps, side-cast fills, and headwalls), and that avoids discharge directly into stream channels. Provide a buffer or sediment basin between the cross-drain outlet and stream channels, where needed. Stabilize the route surface between cross-drains in order to limit erosion and sediment from entering surface runoff.
14. Provide energy dissipaters (such as rock weirs) at culvert outlets and/or drain dips where water is discharged onto loose and/or erodible material.
15. Install road-grade culverts in areas of excessive runoff, and follow construction BMPs in order to minimize runoff and erosion.
16. Space cross-drains according to route grade and soil type, as indicated below. Do not divert water from one stream to another.

Maximum Cross-Drain Spacing in Feet, Based on Soil Types				
Route Grade (Percent)	**ML, SM Extra Erodible Silts-Sands with Little or No Binder**	**MH, SC, CL Highly Erodible Silts-Sands with Moderate Binder**	**SW, SP, GM, GC Moderately Erodible Gravels, Plus Fines and Sands with Little or No Fines**	**GW, GP Low Erodible Gravels with Little or No Fines**
1 – 3	600	1000	1000	1000
4 – 6	300	540	680	1000
7 – 9	200	360	450	670
10 – 12	150	270	340	510
13 – 15	120	220	270	410

Note: These maximum spacing guidelines should be reduced, if warranted, by onsite factors such as expected route use, downslope stability, erosion hazards, and/or filter strip capability in order to trap runoff and sediment, and to conserve ground cover integrity given the extra water. Combine these spacing guidelines with additional measures in order to minimize damage to ditches, slopes, and/or streams. For example, shorten or extend the spacing, where needed, in order to move a cross-drain outlet from a stream headwall to a convex slope.

17. Install stream crossings in a manner that meets the U.S. Corps of Engineers and State permit requirements, passes normal flows, and so that they are armored to withstand design flows.
18. Consider the natural width-to-depth ratio of the stream when constructing, renovating, and/or replacing channel crossings.
19. Design culverts and/or bridges so that they do not inhibit the natural passage of debris and/or materials downstream, under typical conditions.
20. Install, where practicable, stream crossings on straight and resilient stream reaches, as perpendicular to flow as practicable, and provide for the passage of fish and other aquatic life, where present.
21. Locate culverts or drainage dips so that they avoid outflows onto unstable terrain (such as slumps, side-cast fills, and headwalls). Provide adequate drainage features along a route prism in order to avoid accumulation of water in ditches or surfaces.
22. Discontinue heavy equipment use when soil compaction, rutting, and/or puddling are present.
23. Minimize the time and area of disturbance for route and pipeline at surface water crossings.
24. Keep routes out of wetlands, unless there is no practicable alternative. If routes must enter wetlands, use bridges or raised prisms with permeable fill in order to sustain flow patterns.
25. Set crossings bottoms at natural levels of channel beds and wet meadow surfaces. Avoid actions that may dewater or reduce water budgets in wetlands.
26. When practicable, keep buried utility and pipelines out of wetlands. If such a line must enter a wetland, use measures that sustain long-term wetland function.

Livestock Grazing Management

1. Design grazing management systems that require a minimum investment in range improvements but that will meet grazing and management objectives.
2. Provide rest from grazing in order to allow for the establishment of vegetation in rehabilitated areas. Install cattle guards and fences, as needed, in order to control livestock movement into these areas.
3. Manage livestock use through the control of timing, intensity, and duration/frequency of use in riparian areas and wetlands in order to maintain or improve long-term stream health. Exclude livestock from riparian areas and wetlands that are not achieving, or that are not moving towards achieving, desired condition objectives, or where monitoring information shows continued livestock grazing would prevent attainment of those objectives.
4. Monitor livestock use and resulting levels of utilization in order to determine the proper carrying capacity of allotments.
5. Locate and store stock tanks, salt supplements, and similar features out of riparian areas and/or wetlands. Keep stock driveways out of riparian areas, except to cross at designated points. Armor water gaps and designated stock crossings, where needed and as feasible.

6. Do not allow livestock to graze an entire growing season in pastures that contain riparian areas and/or wetlands. Apply short-duration grazing, as practicable (generally, less than 20 days). During warm weather, manage livestock herds in a manner that avoids their concentration in riparian areas and/or wetlands.
7. Design grazing systems to limit use of woody species, especially in riparian areas. Where woody species have been historically suppressed, or where the plant community is below its desired condition and livestock are a key contributing factor, manage livestock through the control of time/timing, intensity, and duration/frequency of use in order to allow for riparian hardwood growth extension and reproduction.
8. Consider, when timing livestock moves between units, the degree of livestock trampling and riparian vegetation utilization on, or immediately adjacent to, stream banks. Strive to maintain the extent of stable banks in stream reaches at 74 percent or more of reference conditions.
9. Manage pastures in a manner that minimizes soil compaction and restores soil structure, especially in riparian areas and wetlands. Increase productivity of these sites through mechanical treatment and/or through seeding with native species or well-adapted and desirable introduced species.
10. Emphasize natural stabilization processes consistent with the stream type and capability (Rosgen and Proper Functioning Condition processes) when restoring damaged streambanks. Use native vegetation for streambank stabilization, where practicable.
11. Minimize grazing conflicts with recreation activities by limiting use levels and season of use, providing fences designed to exclude livestock from high-use areas, and sitting water sources and/or other facilities away from recreation-use areas.
12. Fence specific archaeological sites, as necessary. Continue to perform site-specific clearance on range improvements projects.

Fire Management

1. Maintain organic groundcover, where possible, in order to minimize the formation of pedestals, rills, and/or surface runoff.
2. Do not build fire-lines in or around wetlands unless they are needed in order to protect life, property, and/or wetland resources. Use natural features as preferred fire-breaks over constructed fire-lines. When possible, use hand crews to construct fire-lines within, or adjacent to, wetlands and/or riparian areas.
3. Retain organic groundcover in filter strips during prescribed fires. As a fire-break, build fire-lines outside of filter strips, unless tied into a stream, lake, and/or wetlands.
4. Build fire-lines with rolling grades and minimum downhill convergence, where practicable. Out-slope or back-blade, permanently drain, and revegetate fire-lines shortly after the burn. Use certified local native plants, where practicable, to revegetate burned areas.
5. Conduct prescribed fires in a manner that minimizes the residence time on the soil while, at the same time, conducting them in a manner that meets the burn objectives (such as when soils are moist).
6. Locate temporary labor, spike, logging, and/or fire camps in a manner that protects surface and subsurface water resources. Consideration should be given to the disposal of human waste, wastewater, garbage, and/or other solid wastes.

Noxious Weed Management

1. Inspect and clean off-road motorized equipment of all soil, plant, and/or other organic materials before entering into relatively weed-free areas. In areas of heavy noxious weed infestations, clean equipment prior to leaving the area.
2. Include monitoring provisions for reclamation, revegetation, and post-reclamation in all soil-disturbing project proposals.
3. Seed all disturbed soil (except traveled roadways) upon work completion at each site, unless ongoing disturbance at the site would prevent seed establishment, for all construction, reconstruction, and/or maintenance activities. In the case of continued disturbance, seed upon completion of final disturbance. Seed mixes must be approved by the Authorized Officer. Seed must be certified weed-free and/or analyzed (as deemed appropriate by the Authorized Officer) before purchase in order to ensure minimum weed content.
4. Use weed-free sources for gravel and fill to be placed in relatively weed-free areas, as approved by the Authorized Officer.
5. All pack and/or saddle stock feed and straw brought into the Monument must be certified weed-free.
6. Time pasture rotations in order to prevent livestock movement from infested to non-infested pastures.
7. Use broadcast burning, where appropriate, rather than dozer piles, during prescribed fire operations in order to prevent excessive heat transfer to the soil.
8. Resource Coordinators on Incident Overhead Teams and Fire Rehabilitation Teams will consider weed-risk factors and weed-prevention measures when developing resource protection recommendations.
9. Do not allow bare-ground treatments around oil and gas and/or pipeline production facilities during the 12-month period prior to abandonment.

Mineral Operations

All BMPs established within The Gold Book (BLM 2007a) will be incorporated in order to reduce impacts to the natural landscape character. This list also incorporates the Director's Program Evaluation (IM 2008-176) BMPs. Allowances and consideration for human health and property must be included in every instance of BMP application.

Planning

1. Require Geographic Area Development Plans (GADPs), sometimes called Master Development Plans (MDPs). Require pre-permitting meetings with the BLM, proper construction techniques, production facilities maintenance, and full-site reclamation at the final abandonment stage for all mining and energy operations.
2. Conduct route/pipeline transportation network planning.

Set up and Operations

1. Bury all power lines and flow lines in the planned surface disturbance of the access routes.

2. Centralize production facilities in a manner that avoids tanks and associated facilities on each well pad.

3. Evaluate and implement, as mitigation, the use of multiple wells from a single well pad.

4. Utilize, to the maximum extent possible, common utility corridors and/or ROWs.

5. Final reclamation will involve recontouring of all disturbed areas, including access routes, to the original contour or to a contour that blends with the surrounding topography, and revegetating all disturbed areas.
6. Install outfall structures/materials in a manner that reduces erosion at culverts, major water-dips, and wing-ditch outlets.

7. Control noxious weeds by: a) prompt initiation of reclamation; b) use of weed-free materials; c) washing vehicles/equipment when moving to other locations, when appropriate; and d) integrated weed management.

8. Minimize well-pad size.

9. Co-locate/directionally drill multiple wells from a single location.

10. Centralize tank batteries and above-ground facilities.

11. Recontour sites for final reclamation to the original contour, or to a contour that blends seamlessly with the surrounding topography.

12. Use irregular shapes for well pads in order to minimize cut/fill.

13. Use appropriate construction equipment for location/action.

14. Segregate topsoil stockpiles from other spoils; protect from wind/water erosion.

15. Maintain 2-foot freeboard in reserve pits.

16. Use closed-loop drilling system or line reserve pits.

17. Fence reserve pits.

18. Keep reserve pits free from surface accumulations of hydrocarbons.

19. Routinely check secondary containment/drip pans for hydrocarbon accumulations and remove contaminants.

20. Remove/cut pit liners prior to pit reclamation.

Visuals

1. Avoid placement of production facilities on hilltops and ridgelines where they are highly visible.
2. Screen facilities from view whenever possible, especially in scenic areas.

3. Energy facilities within the Monument may be sited within the visual foreground of sensitive visitor travelways; therefore, a program of accelerated restoration of landform and plant cover should be applied in order to projects within foreground views of High Sensitivity Key Observation Points (KOPs) (such as routes, trailheads, etc.). Accelerated reclamation may include irrigation, placement of large woody debris, and the use of lithic mulch. The goal of accelerated restoration is to achieve the Visual Resource Management (VRM) Class within 5 years.

4. Minimize the height of the pumping unit, where possible, to at or below the predominant tree height. Use motionless pumpjacks where possible (Rotaflex Pumping Units). Design well pad and facilities with scalloped edges in wooded areas, and avoid high wall cuts.

5. At energy sites, install the minimum lighting needed and use light-sensitive, motion-activated lighting systems that are illuminated only when needed for security or maintenance. Light fixtures should be hooded in order to prevent horizontal and upward light pollution.

6. Interim reclamation of the well and access route will begin as soon as practicable after the well is placed on production. Facilities will be grouped in order to allow for maximum interim reclamation. Interim reclamation will include route cuts and fills, and will extend to within close proximity of wellhead and production facilities.

7. All above-ground facilities (including power boxes, building doors, roofs, and any visible equipment) will be painted a color selected from the latest national color charts that best allows the facility to blend into the background.

8. During the site-specific National Environmental Policy Act (NEPA) process, evaluate and analyze the use of submersible pumps, especially in VRM Class I, Class II, or Class III Areas, or in any area visible by the visiting public.

9. During the site-specific NEPA process, evaluate and analyze placing wellheads below ground in high visibility areas.

10. Reduce impacts to visual resources from activities by: repeating elements of form, line, color, and texture found in the landscape; considering visual elements in the location of routes and well pads, and the selection of structures; reducing unnecessary disturbances; and by reclaiming and restoring abandoned sites.

Routes

1. Design and construct all new routes to a safe and appropriate standard “no higher than necessary” in order to accommodate intended vehicular use. Routes will follow the contour of the land, where practical.

2. Use existing routes and/or eliminate redundant routes.

3. Apply primitive “lowest safe” route designs, where possible.

4. Use remote well monitoring/automation/telemetry in order to reduce traffic.

5. Use dust suppression on access routes.

Wildlife

1. Install raptor perch avoidance devices on all new power lines, and on existing lines that present a potential hazard to raptors.

2. Utilize noise-reduction techniques and designs in order to reduce noise from compressors or other motorized equipment.

3. During the site-specific NEPA process, evaluate and analyze placing seasonal restrictions on public vehicular access where there are wildlife conflict or route damage/maintenance issues.
4. Minimize wildlife habitat fragmentation by mining operations by: minimizing the number and extent of routes, utilities and well pads; drilling multiple wells from a single pad; mitigating hazards to wildlife; reducing noise in sensitive areas; monitoring production facilities remotely; and conducting intermediate and full reclamations.
5. Use remote well monitoring-automation telemetry in order to reduce traffic and associated impacts to wildlife. (This would also reduce particulate matter from fugitive dust and vehicle emissions.)
6. Eliminate hazards to wildlife (such as open pits, tanks, and drip pans).
7. Conduct interim reclamation as close to the well head as is operationally safe.
8. Use centralize/remote fracturing and drilling water delivery.
9. Cover/fence/net tanks or pits accessible by wildlife.

Spills

1. Conduct routine inspections of facilities, pipelines, and/or well sites in order to evaluate whether or not there are spills and/or leaks; take corrective actions, as appropriate.
2. Install a secondary containment around oil/water storage facilities, load-out valves, etc.
3. Require operations to develop and implement Spill Prevention Control and Countermeasure (SPCC) and Emergency Response Plans in order to prevent, contain, and/or remediate spills. Workers should also be well trained in the implementation of these plans.
4. Use non-toxic, non-hazardous drilling fluids, when practicable.
5. Employ proper handling, labeling, storage, and disposition of hazardous chemicals/materials.
6. Report spills and appropriate clean-up actions taken, in accordance with applicable State and Federal laws, rules, and regulations. Remove contaminated soil and/or other material from the Monument and dispose of it, in accordance with applicable State and Federal laws, rules, and regulations.
7. Promptly plug and retire non-productive wells, and associated flowlines and equipment, in order to avoid leaks, breaks, and/or subsequent spills.
8. Bioremediate all oil field wastes and spills immediately.

Wildlife Management

In addition to the BMPs listed above under specific topics, the following BMPs are based upon the latest information for protecting sensitive wildlife species. Changes have occurred since the DRMP/DEIS and PRMP/FEIS were released, and will continue to occur as new information is obtained on the various species. Therefore, recommendations for protecting wildlife both in Table 2.1 in the Approved Plan, and here as BMPs, will need to be analyzed and updated during the NEPA process for site-specific projects.

Mexican Spotted Owls (MSO)

1. Implement recovery actions as described in the Mexican Spotted Owl (MSO) Final Recovery Plan (USFWS 1995).
2. If an owl is located, work with the U.S. Fish and Wildlife Service (USFWS) in order to identify a Protected Activity Center (PAC).
3. Constructed improvements (such as routes, trails, fences, livestock tanks, corrals, etc.) should not occur in PACs, unless the improvement protects or improves MSO habitat.
4. Management activities (other than livestock grazing) in PACs, occupied habitat, and/or unsurveyed suitable habitat should avoid the MSO breeding season (March 1 through August 31).
5. Within MSO canyon habitats (as defined in the Recovery Plan), trees greater than 9-inches dbh should not be removed unless the project is designed to protect or improve MSO habitat conditions.
6. Within “restricted” habitats (as defined in the Recovery Plan), management priority should be placed on reducing risks to MSO habitat and/or to improving conditions for MSO prey. Wildland fire use should be encouraged.
7. Livestock grazing should maintain suitable habitat conditions for MSO (see MSO Recovery Plan).
8. The presence and intensity of recreational activities within PACs, occupied habitat, and/or unsurveyed suitable habitat should be evaluated on a case-by-case basis. Restrictions may be implemented where impacts from recreational activities are a concern.
9. Permitted or ground-disturbing activities within a PAC, occupied habitat, or potential habitat should be limited to mesa tops and rims in order to reduce impacts to canyon floors.
10. Prior to approving activity within a PAC, occupied habitat, or potential habitat, surveys would be required (using the protocol approved by USFWS).
11. If management actions such as tree removal, fuel reduction, or vegetation treatments are deemed critical to another resource value within the PAC, consult with the USFWS in order to establish design criteria for these activities.

Southwestern Willow Flycatcher (SWWF)

1. Implement pertinent recovery actions as described in the Southwestern Willow Flycatcher (SWWF) Final Recovery Plan, as well as in other actions prescribed with this consultation (USFWS 2002).
2. Establish baseline data for suitable habitat areas.

3. Where practicable, and necessary in order to protect occupied habitat, fence suitable SWWF habitat to exclude livestock grazing.
4. Location, size, shape, and spacing of SWWF habitat must be mapped once every 5 years on BLM lands within the Upper Colorado Recovery Unit using the best Geographic Information System (GIS) information available.
5. Within project areas, all SWWF patches must be field verified and designated as to their occupancy status (as suitable-occupied, suitable-unoccupied, or suitable-unsurveyed) through protocol surveys.
6. SWWF protocol surveys must be conducted in suitable habitat (Table D-1).

Table D-1 Survey requirements for Southwestern Willow Flycatcher

Project Type	Survey Requirements	When is a 5-year survey rotation applicable?	When is a 7-year survey rotation applicable?
Single Year Projects	Must be completed prior to project implementation	N/A	N/A
Multi-Year Projects	Must be completed prior to project implementation	When a project occurs in suitable occupied habitat	When a project occurs in suitable unoccupied habitat
Active Grazing Allotments	Must be conducted during this ongoing activity	In suitable occupied habitat	In suitable unoccupied habitat
Vacant and Closed Allotments	N/A	N/A	N/A

7. SWWF protocol surveys must be conducted from May 15 through July 17.
8. If protocol surveys are not conducted in suitable habitat, then the habitat patch must be assumed to be occupied by SWWF. Livestock must be managed in accordance with the standards for an occupied site.
9. If/when previously unknown suitable SWWF habitat patches are discovered, protocol surveys for SWWF occupancy must be conducted.
10. Protocol surveys must be conducted for 2 consecutive years, or until SWWF are detected. If SWWF are detected, 3 years may lapse before the next 2-year protocol survey is initiated (5-Year survey rotation).
11. If SWWF are not detected during the 2-year protocol survey, 5 years may lapse before the next 2-year protocol survey is initiated (7-Year survey rotation).

12. A report on the status of habitat, survey results, and monitoring of SWWF must be provided to the USFWS annually.
13. Regardless of SWWF occupancy status, public land health standards for upland and riparian areas must be monitored in suitable SWWF habitat every 5 years.
14. Regardless of SWWF occupancy status, rangeland and riparian health guidelines should be met in suitable SWWF habitat. If riparian health guidelines are not being met, then adaptive management strategies must be applied, and an upward trend must be demonstrated by the end of the 5-year habitat monitoring period.
15. Manage riparian areas and vegetation in order to promote regeneration and/or recruitment of willow or other woody vegetation suitable for SWWF.
16. Tree and/or shrub removal within SWWF habitat should only be conducted to benefit the SWWF and/or its habitat.
17. Management activities in occupied or unsurveyed suitable SWWF habitat must occur outside the SWWF breeding season (May 15 through August 15), unless it is a necessary direct benefit to the SWWF and can be implemented without detriment to breeding success of the SWWF.
18. Current livestock management practices may continue while surveys are being conducted, as long as SWWF are not detected. If SWWF are detected, then livestock management practices must follow the guidelines for occupied habitat.
19. Protocol surveys are not required in closed grazing allotments.
20. Protocol surveys are not required in vacant grazing allotments, unless that allotment becomes active again.
21. Current livestock management practices can continue; however, periodic monitoring is still required (Table D-1).
22. Livestock grazing must not be allowed in occupied habitat patches during the SWWF breeding season (May 15 through August 15). Methods for excluding livestock from occupied habitat could include the construction of temporary (such as electric) or permanent fencing, intensive animal supervision, modification of pasture rotation schedules, and/or other adaptive measures.
23. Controlled livestock trailing may be allowed along existing stock driveways within occupied habitat during the nesting season.
24. If livestock cannot be excluded from occupied habitat patches, or if SWWF are discovered in an active allotment, then the USFWS must be contacted immediately. Mitigation/conservation measures would then be developed jointly on a case-by-case basis. Temporary closure of occupied grazing pastures, or other conservation measures, may be required in order to protect SWWF and their habitat.
25. Current livestock grazing practices may continue during the time period(s) that protocol surveys are being conducted.

General Wildlife

1. Projects should maintain habitat effectiveness for raptor species when conducting vegetation treatments. This may include habitat improvements and forest restoration.

2. No new structural improvements will be allowed within the buffers identified in the Table D-2. Structural improvements include, but are not limited to, routes and all structures associated with oil and gas development (radio towers, etc.). Buffer distances for some species may vary based upon site-specific information, current science, and on the Wildlife Biologist's professional judgment.
3. Area closures designed to protect nesting raptors will be considered. Table D-2 identifies standards and guidelines for protecting raptors across the Monument. They are designed to protect birds during their nesting season, and to reduce human impact. Nesting season dates would not change, as these are based upon raptor biology and local knowledge.

Table D-2 Raptor Protection Standards and Guidelines

Species	Impact/Risk	Time Frame	Buffer Distance	Reference
Golden Eagle	Disturbance	December 15 through July 15	Human encroachment should not occur within one-half mile of nest during nesting season.	CDOW 2008
Golden Eagle	Structural Improvements	Year-round	New structures will not occur within a one-quarter mile radius of active nest.	CDOW 2008
Bald Eagle	Disturbance	November 15 through July 15	Human encroachment should not occur within one-half mile of nest during nesting season.	SJPL
Bald Eagle	Structural Improvements	Year-round	New structures will not occur within a one-half mile radius of active nest.	SJPL
Bald Eagle	Disturbance	November 15 through March 15	Human encroachment should not occur within a one-quarter mile radius (indirect line of sight) or a one-half mile radius (direct line of sight) of communal winter roost site. Limit activity between 1,000 and 1,400 hours if encroachment will occur within buffer zones.	CDOW 2008
Bald Eagle	Structural Improvements	Year-round	New structures will not occur within one-half mile of communal roost site.	SJPL

Table D-2 Raptor Protection Standards and Guidelines				
Species	**Impact/Risk**	**Time Frame**	**Buffer Distance**	**Reference**
Bald Eagle	Disturbance and Structural Improvements	Site specific, to be determined by the project Biologist	For preferred diurnal hunting perch.	CDOW 2008
Red-tailed Hawk	Disturbance	March 1 through July 15	Human encroachment should not occur within one-eighth to one-quarter mile of nest during nesting season, as determined by the project Biologist.	SJPL
Red-tailed Hawk	Structural Improvements	Year-round	New structures should not occur within a one-quarter mile radius of active nest.	SJPL
Peregrine Falcon	Disturbance	March 15 through July 31	Human encroachment should not occur within one-half mile of nest during nesting season.	CDOW 2008
Peregrine Falcon	Structural Improvements	Year-round	New structures will not occur within a one-half mile radius of active cliff nest complex.	CDOW 2008
Prairie Falcon	Disturbance	March 15 through July 15	Human encroachment should not occur within one-half mile of nest during nesting season.	CDOW 2008
Prairie Falcon	Structural Improvements	Year-round	New structures will not occur within a one-half mile radius of active nest.	CDOW 2008
Burrowing Owl	Disturbance	April 1 through August 15	Human encroachment should not occur within 225 feet of nest burrows when owls may be present during nesting season.	SJPL

4. Avoid vegetation removal or treatment from mid-April through mid-July in order to protect nesting migratory birds and other wildlife.

5. Prepare a Habitat Management Plan (HMP) for sensitive lizard species.
6. Restrict predator control by prohibiting Animal and Plant Health Inspection Service (APHIS) from culling or shooting individual animals or destroying their dens, except when individual animals pose a safety risk to humans or for specific reasons, as agreed upon ahead of time.
7. Protect or improve habitat through:
   - the establishment of native grasses and forbs;
   - the maintenance or improvement of habitat;
   - the prohibition of ground-disturbance activities within 150 feet of bodies of water that support native amphibian breeding;
   - the consideration of habitat management for deer;
   - prescribed fires;
   - changes in livestock grazing;
   - the implementation of weed control and revegetation; and
   - the management of cheatgrass and other noxious weeds in vegetation communities that support sensitive reptiles and reestablishment of native vegetation.

APPENDIX E

Southwest Resource Advisory Council 1999 Report to Secretary Babbitt and Canyons of the Ancients National Monument Advisory Committee Considerations and Guidance for Management Decisions

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Southwest Resource Advisory Council 1999 Report to Secretary Babbitt and Canyons of the Ancients National Monument Advisory Committee Considerations and Guidance for Management Decisions

August 12, 1999

To: Designated Federal Officer

From: Southwest Resource Advisory council

Subject: Transmittal of Anasazi ACEC Working Group Report

The following is a report from the Anasazi ACEC Working Group summarizing six open meetings of public discussion and comment. At our public hearing in Cortez August 12, the RAC heard overwhelmingly from the local community that there should be no increased federal intervention in the management of this area. The concern raised by the Interior Secretary appears to be a top-down concern rather than a grassroots consensus of the region. The question repeatedly asked was "What was the problem that promoted this process?"

The Southwest RAC forwards this report. This is not an endorsement. The RAC acknowledges that the Working Group conducted a relatively short public input process and wrote this summary of public opinion under a tight deadline. We recognize that this is not a comprehensive report in any form, nor is this report a unanimous expression of the Working Group. There are additional divergent points of view, both within the Working Group itself and as expressed by members of the public.

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Draft 8/5/99, Revised 8/6/99
Final 8/10/99

Report to Secretary Babbitt on Community Concerns and Issues to be Considered in the Future Management of the ACEC

Introduction:

Secretary Babbitt,

We are reporting to you as a subcommittee of the Southwest Resource Advisory Council (RAC) formed "to identify community concerns and issues to be considered in determining what form the future management of the Anasazi Culture Multiple Use Area of Critical Environmental Concern (ACEC) will take." Six public meetings in 30 days brought together people of widely divergent views, all with an abiding passion for the ACEC area. Participants expressed overwhelming support for the continuation of multiple use management. Participants also expressed a deep sense of community pride in this area and strong commitment to local

stewardship. This report reflects a consensus concerning critical issues that you need to consider before taking any actions that affect the ACEC.

Our report begins with six overarching themes that were consistently expressed throughout the public input process. Following the overarching themes is a series of seven topical headings under which we have presented more detailed concerns and opportunities that you should consider. The seven topical headings include: Cultural Resource and Landscape Stewardship, Agricultural Heritage and Future Viability, Recreation and Tourism Management, Private Land/Public Land Interrelationships, Oil and Gas Development, Impacts on Local Government, and Federal Role in the ACEC. The order in which topical headings and bulleted items appear in this report is, in no way, intended to reflect their relative priority.

Themes that Emerged from Public Involvement:

Protect the Cultural Resources: The cultural resources within the ACEC are significant and need adequate protection. While current laws and regulations are sufficient to afford protection, the level of funding available to the ACEC is grossly inadequate.

Identify and Control Vandalism and Other Causes of Resource Degradation: There is widespread backing for a management approach that will support and utilize a wide range of local resources in controlling and eliminating actions by those who vandalize or otherwise cause cultural resource degradation.

Support the Strong Consensus for Multiple Use in the ACEC: It is of utmost importance to the community that any new management policy should not unduly restrict the responsible multiple use of the ACEC.

Protect the Economic Base of the Community: The mineral, agricultural and recreational uses in the ACEC are all essential to the local tax base and a diversified local economy. Maintaining this diversity of economic benefits will insure a broad base of community support and responsibility for achieving cultural resource protection goals.

Support BLM/Community Collaboration in Protecting the ACEC: Supporting existing and potential volunteer community stewardship efforts should be central to ACEC planning, staffing and budgeting. This collaboration should be supported by creating a RAC or similar local advisory Board for the ACEC.

Avoid Actions that Increase Visitation Without Readiness and Resources: Any actions that draw more visitors to the ACEC without careful planning and sustained budgetary commitments will do more harm than good.

Cultural Resource and Landscape Stewardship

1. Cultural resource sites should be protected within a landscape context which includes scenery, solitude, and rural agrarian lifestyle.
2. The community wants to take an active part in cultural resource preservation while avoiding restrictions on access.
3. Additional funding is needed to provide for increased law enforcement, coupled with strong volunteer and multi-user monitoring, education and stewardship programs.
4. Stabilization of cultural resources that are being excessively degraded by natural and human causes is essential.
5. Road access increases the risk of vandalism.

6. A cultural resource monitoring system needs to be established in order to document the nature of impacts which are occurring and to prioritize sites in need of emergency, short term and long term protection strategies.
7. BLM budgeting, planning and staffing should be strongly oriented towards organizing and supporting the effective use of volunteers and user groups.
8. Farming and ranching is a living part of the heritage of the landscape, and should be given equal consideration as a cultural resource.

Agricultural Heritage and Future Viability

1. The presence of farmers and ranchers on the ACEC landscape is a source of protection, particularly in remote areas that they are most likely to frequent.
2. In addition to direct economic benefits, agriculture provides indirect benefits such as open space, wildlife habitat, development and maintenance of ponds and reduced risk of wildfire damage to cultural resources.
3. The future of the ACEC should not have a detrimental effect on the current agricultural base. Maintenance of livestock and wildlife distribution ponds should be allowed and new ponds should be constructed as needed.
4. Grazing permits on the ACEC are a critical part of 30 ranching operations. Further restrictions on grazing or the transferability of grazing permits, could put these operations in jeopardy resulting in the fragmentation of dependent private ranch lands.
5. Remote parts of the ACEC can remain so due to their inaccessibility. Further restrictions or designations which spotlight these areas may jeopardize both the viability of the livestock Permittee and the cultural resources.

Recreation and Tourism Management

1. The community wants to maintain the diversity of recreational uses (including biking, horseback, ATV, hiking, hunting, etc.), the freedom to explore, opportunities for solitude and the ACEC as a setting for renowned research and education centers (Crow Canyon Archaeological Center, McElmo Canyon Research Institute at Kelly Place etc.).
2. Except in specific instances where resource degradation can be shown, non-motorized recreation should be dispersed over the widest possible range of roads and trails, while motorized uses should continue to be allowed on the existing network of roads, suitable for motorized travel.
3. With adequate training and a formal monitoring program, the recreational community is a major source of volunteers essential to providing an increased level of protection to the extensive ACEC.
4. While parts of the ACEC are accessible by road and heavily promoted for use (e.g. Sand Canyon, Lowry), there are vast areas that are rugged, remote and relatively unknown.
5. Anonymity has helped protect remote cultural and landscape resources. There is intense concern that new designations and resultant publicity will draw unmanageable numbers of visitors. No action should be taken that advertises or draws people to unprotected back-country sites.
6. There is a range of opinion on Wilderness Study Areas (WSA) in the ACEC. Some see formal Wilderness designation as an effective resource protection tool. Others believe the

current WSA designations provide protection without the risk of notoriety. Others see any Wilderness designation as too many restrictions and too much notoriety.

7. Tourism is an important component of our local economy. The major cultural resource attraction is Mesa Verde National Park, which serves its purpose as a high volume, commercialized, single purpose and (by necessity) tightly restricted attraction.
8. In contrast to Mesa Verde, the ACEC offers low intensity visitor opportunities, while supporting economic diversity through multiple-use, and community well-being through a wide range of local recreational uses.
9. Tourism in the ACEC should be directed to places that are adequately planned, prepared and managed for visitation. Visitor services in the form of contact stations, personnel and facilities, need to be available at the higher trafficked sites (Sand Canyon, Lowry etc.)
10. Education, supported by ongoing research programs, is the key to the preservation of cultural resources. Inadvertent damage is reduced and a stewardship ethic is increased through education programs made accessible to visitors, students and the general public.
11. Visitor stewardship education and destination orientation should be coordinated with local tourism entities (i.e. Montezuma County Lodgers, Umbrella Tourism, Chambers of Commerce, Tourism Guides, Crow Canyon, etc.) working with the BLM.

Private Land/Public Land Interrelationships

1. The ACEC is intermingled with private land. A precise and accurate map is needed which clearly distinguishes federal land, private land, and federally reserved mineral rights.
2. Private property rights protected by the United States Constitution, the State of Colorado and the Montezuma County Comprehensive Plan should not be diminished by ACEC decisions or designations. No authority should be ceded to international entities.
3. No buffer zone restrictions should be placed on private lands.
4. Private property owners whose land is surrounded by the ACEC should be given permanent legal easement under any ACEC status.
5. Increased visitation will lead to increased trespassing on private land in proximity to the ACEC. Camp sites, waste disposal facilities, fencing, signage etc. should be provided, as needed, to address infringements of private land.
6. Noxious weeds need to be controlled on public as well as private land.
7. Water rights should remain under Colorado water rights law and no federal rights should be reserved in connection with ACEC designation.

Oil and Gas Development

1. Oil, gas and CO2 leasing have helped to identify and catalogue cultural resource sites while limiting access to the general public.
2. Current BLM regulations managing oil, gas and CO2 exploration and development provide adequate protection for cultural resource sites.
3. Any designation should not place further restrictions on leasing or development, including necessary roads, drill sites and pipeline rights-of-way.

Impacts on Local Government

1. Maintaining multiple use of ACEC lands and the resulting contribution to the local tax base is critical to protecting the financial stability of the Montezuma and Dolores County Governments. The Counties, local governments and special districts (e.g. fire protection districts) also depend on the State Energy Impact Fund, which is supported by mineral severance taxes, and provides one of the only sources of discretionary funding for local infrastructure needs.
2. The fiscal capacity of local entities to deliver critical services including county road maintenance, law enforcement, fire protection, search and rescue, etc. are already stretched to the breaking point. Actions causing increased visitation to the ACEC will require increased federal funding to address the added costs of providing these services.
3. County government authority and constituent responsibilities should be honored, and Counties and local residents should play a significant role in any advisory process regarding the ACEC.

Federal Role in the ACEC

1. The ACEC should remain under the jurisdiction of the BLM, a multiple-use agency.
2. Any change in current management should involve a management plan and environmental impact statement, which carefully analyzes and addresses the cultural resource, environmental, social and economic consequences of any changes.
3. Any withdrawals of ACEC lands from multiple-use should be minimized and justified on scientifically based cultural resource preservation requirements.
4. Protection of the ACEC should consist of an increased and routine presence by BLM personnel, volunteers and multiple users committed to cultural resource stewardship and education.
5. BLM management planning and staffing should be geared toward working closely with local interest groups and volunteers. Volunteers should be organized and managed through a local/federal coordination system under the oversight of an ACEC RAC or similar advisory board.
6. The BLM budget should be increased to provide for ACEC law enforcement, educational personnel, and volunteer support including site stabilization, restoration and maintenance. Funds should also be available to address the increased costs to local entities and impacts on private landowners.
7. To address ongoing budgetary needs for adequately managing the ACEC, Congressional action should be taken to guarantee the annual allocation of a substantial portion of the approximately $8,000,000 in yearly oil and gas royalties generated within the ACEC, with advice from the ACEC RAC. These allocations should not be off-set by cuts in other funds available for resource management or compensation for local costs.

Canyons of the Ancients National Monument Advisory Committee Considerations and Guidance for Management Decisions

Considerations and Guidance Common to All Management Actions

1. Manage all Monument uses and resources consistent with principles of community-based stewardship.
2. Identify areas, land uses, and/or types of actions that are likely to have disproportionate impacts on disadvantaged groups.
3. Develop and distribute educational and interpretative materials in order to reach minority and low-income populations in the planning area, particularly regarding planned or pending actions that could affect them.
4. Consider negative impacts to disadvantaged populations when planning and/or implementing significant changes in land use or management. Discuss the proposed uses and/or actions with representatives of these populations and develop a community outreach process for significant changes.

Considerations and Guidance Common to Visitor Facility and Infrastructure Implementation

1. Consult with stakeholders, including adjacent landowners, where appropriate to identify potential sites for the construction of visitor contact stations.
2. Use existing fluid-mineral infrastructure (e.g., roads, abandoned well pads) when developing new recreation facilities and/or new infrastructure (e.g., pullouts, parking areas, trailheads, picnic sites, toilets, primitive camping areas), where practicable.
3. Consider water-saving technologies when developing water resources for visitor safety and/or for resource protection (e.g. composting toilets, automatic sinks).
4. Consider light pollution minimizing and energy-saving technology (e.g., light hoods) in reconstructed and/or new outdoor lighting. Encourage all private in-holders and edge-holders to use light pollution minimizing technology in their outdoor lighting.
5. Consider the potential impacts of vehicle traffic, noise pollution, light pollution, and degraded scenic value on adjacent and nearby landowners in the location of facilities and infrastructure, where applicable.
6. Construct visitor facilities and/or infrastructure with the minimum footprint needed to meet their intended objectives. Consider blending the look/design of facilities and/or infrastructure into the natural landscape and/or the use of historic styles in their construction/renovation, in order to enhance the visitor experience.
7. Consider, and mitigate for, impacts to wildlife habitat, migration roads, riparian areas, and other sensitive habitats in siting facilities and/or infrastructure.
8. Support commercial recreational facility development outside of the Monument.

Considerations and Guidance Common to Transportation

1. Conduct a series of sessions with the multiple users as well as the private property owners within and around the boundaries to take input on needs, conflicts, and opportunities to protect all resources.
2. Avoid detrimental impacts of the resources by designating 6 to 10 access points in the Monument.
3. Determine an appropriate level of development at access points to assure the character of an area (e.g., solitude, scenic value) is not harmed and users' needs are accommodated (e.g., horse trailers).
4. Use existing fluid mineral infrastructure (i.e. routes, abandoned well pads), that have been through the environmental compliance process, as sites for visitor parking and associated infrastructure (e.g., picnic tables, toilets).
5. Include information, maps, viewpoints, rest areas, rest rooms, and emergency communications, as appropriate, at visitor access points within the Monument.
6. Classify and mark each route to indicate the degree of difficulty and appropriate uses for various modes of travel.
7. Classify routes to meet the needs of a variety of users (e.g. elderly, handicapped, children, experienced users).
8. Work with private landowners, within and adjacent to the Monument, to promote stewardship and protection of Monument resources.
9. Work with the National Park Service to ensure sufficient access is provided to the four units of Hovenweep National Monument located within the Canyons of the Ancients National Monument.
10. Partner with local user groups to educate users about Monument travel restrictions and to restore and/or protect sensitive areas that are experiencing unauthorized cross-country travel by motorized and mechanized vehicles.
11. Provide landowners with a phone number to report cross-country travel occurring in the Monument. Assure timely response to reports.
12. Work with landowners to provide educational materials to users on Monument travel restrictions.

Considerations and Guidance Common to Managing Cultural Resource Sites

1. Establish a schedule with explicit benchmarks for inventory phasing (e.g., start with high-use areas where sites are likely to be impacted by visitor use, economic development, or other effects).
2. Ensure that persons conducting inventories are aware of and sensitive to cultural heritage concerns of Native Americans and others.
3. Identify sites or site complexes at which stabilization, fencing, or erosion control could reduce threats to site integrity.
4. Establish plans and priorities for monitoring cultural resources. Give consideration to the following options, among others:

- More frequent monitoring of sites with high research, educational or cultural heritage values.
- More frequent monitoring of sites located in high-use zones.
- Recognize two types of monitoring program: first, the existing site steward program, and second, a sampling program for collecting systematic data on site condition.

5. Work with collaborating organizations to expand the volunteer site steward program and add additional sites to the list of those to be monitored.
6. Establish explicit, comparable measures of site condition, and a program to systematically apply these at a sample of sites
7. Provide training for personnel (whether they are BLM staff, contractors, or volunteers from collaborating organizations) in use of explicit site monitoring measures.
8. Use data on site condition to produce periodic reports systematically assessing the condition of the Monument's cultural resources and identifying needs.
9. Ensure that personnel (including contractors) employed to carry out these procedures are familiar with relevant literature, local chronological indicators, and Native American concerns, and that they have basic professional qualifications (e.g., such as those of the Register of Professional Archaeologists).
10. Respect rights of Native Americans to visit sacred sites at times of their choosing (as intended in the American Indian Religious Freedom Act).
11. Use information obtained from Management Actions 1-2 and 1-3 to develop priorities and plans for stabilization, fencing, signage, erosion control and other protective measures.
12. Encourage research at sites, site complexes, or areas of the Monument where public access and public education will be focused, while remaining open to proposals for appropriate, well-justified research elsewhere, including backcountry.
13. With respect to access to Native American sacred sites, Monument management should be guided by the intent of the American Indian Religious Freedom Act.
14. Native Americans who experience problems of access to sacred sites or traditional cultural properties should be encouraged to express their concerns to the Monument Manager.
15. Identify historic sites that represent the Anglo cultural heritage and develop plans for protecting, interpreting, and researching selected sites.
16. Develop and carry out educational programs to ensure that Monument visitors understand and respect its cultural heritage values.
17. Consider local and regional economic effects of management decisions and actions, while giving priority to maintaining and providing access to the Monument's research, educational, and cultural heritage values.

Considerations and Guidance Common to Recreation Management

1. Periodically sample the types and amount of recreational activities being enjoyed in the Monument.

2. Document the needs associated with the various activities and the expectations of the people who participate in them.
3. Develop a series of overlaying maps that visually describe the Monument and depict interfaces among uses and the landscape; include Monument resources and uses, topography, grazing allotments, oil and gas leases, routes, boundaries for private in-holdings and lands controlled by other governmental agencies, and Visitor Access Areas.
4. Document the historical recreational activities.
5. Document the impact of recreational activities on cultural and natural resources and on other existing and permitted uses.
6. Document the impact of recreational activities on adjacent landowners and their properties.
7. Document the impact of existing and permitted uses on recreational activities.
8. Document the economic and social impact of recreational uses on the community.
9. Assure that in the case of the two Monuments (CANM and Hovenweep); management practices are consistent and similar for recreational activities.
10. Assure that, where practical, personnel associated with the two Monuments (CANM and Hovenweep) are encouraged to share functional responsibilities such as monitoring, enforcement, and interpretation.
11. Do not allow commercial recreational facility development to take place on public lands within the Monument.
12. Allow permitees in good standing to continue their commercial outfitter and guide operations.

Considerations and Guidance Common to Livestock Management

1. Implement management strategies designed to minimize the detrimental environmental impacts of grazing, such as: developing additional water sources in order to distribute livestock more evenly, constructing fences to alter grazing patterns, specifying the placement of salt and mineral supplements, changing the season of use and/or the class or kind of livestock, requiring the herding of livestock, and/or implementing rotational or deferred grazing systems that would meet plant maintenance requirements.
2. Encourage discussions with range users and other parties who would benefit from adjustments to grazing management.
3. Design grazing management systems that would require a minimum investment in range improvements but that would also meet the stated objectives.
4. Provide range improvements that are compatible with Wilderness Study Area (WSA) guidelines.
5. Encourage cooperative range improvements with the Colorado Division of Wildlife (CDOW).

Considerations and Guidance Common to Fluid Mineral and Energy Resource Development

1. Collaborate with fluid-mineral and energy operators on the Monument in order to resolve issues relating to fluid minerals, as well as issues relating to energy research, exploration, production, reclamation, and/or resource impacts.
2. Consider the social and economic impacts of fluid mineral management decisions on local and regional economies. Work with fluid-mineral and energy operators with regard to informing Montezuma and Dolores Counties, nearby towns, and Native American tribes of the projected short-term and long-term fluid-mineral development in the Monument on an annual basis.
3. Encourage the use of the latest technologies (e.g., advanced muffler systems and/or enclosures) in sound abatement for pumpjack engines and compressors in order to reduce noise levels where there are conflicts with other Monument uses and users.
4. Encourage the use of the latest technologies in lighting fixtures to reduce light pollution from fluid-mineral facilities. Encourage fluid-mineral and energy operators to turn off lights when their use is not absolutely necessary for facility operations, security, and/or employee safety.
5. Hold an annual workshop designed to educate fluid-mineral and energy operators about other Monument uses and users, Monument resources, and/or how they can assist the BLM in managing and protecting such resources.
6. Utilize the field presence of fluid-mineral and energy operators in the Monument to further the protection of Monument resources (e.g., of cultural resources). Encourage fluid-mineral and energy operators to report illegal activities (e.g., vandalism) and resource degradation occurring in the Monument.
7. Encourage fluid-mineral and energy operators to comply with new lease stipulations and/or management objectives.
8. Work with all interested parties to identify strategies (e.g., well-field development plans), and to complete the application permit to drill (APD) and environmental compliance processes in a timely manner.
9. Work with fluid-mineral and energy operators in order to develop a schedule and list of maintenance requirements for managing fluid-mineral facilities. These maintenance requirements would meet, at a minimum, BLM Onshore Orders.
10. Encourage fluid-mineral and energy operators to form a Self Audit Assessment Team. This team would inspect facilities and infrastructure across the Monument, resolve operations issues, and develop strategies to mitigate resource impacts.
11. Work with fluid-mineral and energy operators to incorporate BLM best management practices (BMPs) into all aspects of their work on the Monument. Develop specific approaches designed to minimize the impacts resulting from fluid-mineral and energy exploration and/or production on natural and cultural resources.
12. Encourage the use of the least invasive technologies (e.g., 3-D Seismic) to reduce impacts resulting from fluid-mineral exploration.
13. Encourage the use of directional drilling from existing well pads to avoid conflict with cultural and/or natural resources.

14. Encourage the use of tubing-less completions in new wells for the extraction of CO2 to increase production rates.
15. Encourage CO2 operators to pursue casing-liner technology. Casing-liner technology could transform tubing completions into tubing-less completions, which would increase production rates at old CO2 wells and extend the life of the well.
16. Encourage the practice of re-entering old fluid mineral well bores that are declining in production, to increase production from existing wells (e.g., horizontal drilling).
17. Encourage fluid-mineral and energy operators to use already disturbed areas (e.g., areas that have been chained) in the development of new well pads and to share well pads and associated infrastructure (e.g., roads), where practicable.
18. Work with fluid-mineral and energy operators to incorporate new and/or evolving strategies for reclaiming disturbed and old well pad sites, such as using new methods for stimulating plant growth.
19. Encourage fluid-mineral and energy operators to use underground plug and abandonment (P&A) markers to remove all signs of the well from the ground surface.

Considerations and Guidance Common to Producing the Monument Education and Interpretation Plan

1. Develop public outreach and educational materials in a manner that:
   - develops and encourages the “Leave No Trace” philosophy;
   - incorporates the “outdoor museum” concept, as well as the values of in-situ resources and self-discovery, into all public messages, contact opportunities, and/or interpretive/education materials;
   - promotes the educational use of Monument resources in order to enhance public understanding and enjoyment of the past, as well as of cultural diversity, without compromising qualities, such as the remote character and lack of commercialization in the Monument;
   - encourages archaeological research that achieves multiple management objectives and contributes significant new knowledge, and that requires researchers to share information with the public through lectures, site tours, and/or other means;
   - stresses the “positives” of cultural resource protection (e.g., what can be learned from them, the responsibility to preserve them for future generations, their cultural heritage value to Native Americans and to other groups, etc.) in resource protection messages and contacts;
   - develops exhibits, videos, print materials, etc., that interpret Monument resources and that can be delivered in a variety of venues (e.g., at the Anasazi Heritage Center, in schools, through talks to interested groups, etc.) in cooperation with other education specialists and partners;
   - addresses interpretation/public education regarding Pueblo, Navajo, Ute, Spanish/Hispanic, and Euro-American history in the Monument area;
   - increases awareness and appreciation for wildlife and vegetation within the Monument;

- incorporates cultural resource protection messages in exhibits, handouts, and interpretive programs at the Anasazi Heritage Center, the Cortez Cultural Center, the Lowry Pueblo, and at the Hovenweep National Monument Visitor Center;
- ensures that the BLM personnel who regularly meet with the public are knowledgeable about the importance of protecting cultural resources and about cultural resource laws;
- develops a training program in archaeological interpretation, cultural resource law, site etiquette, and cultural heritage sensitivity for guides, outfitters and educational trip leaders; and
- develops and distributes educational materials (e.g., via newsletters, the Monument website), as needed, to landowners that address the issues, concerns, and Monument policies and programs relevant to them (this newsletter can be distributed to area realtors).

2. Encourage partnerships in a manner that:

- creates innovative cooperation with local and State governments, Native American tribes, qualified organizations, and appropriate Federal agencies in order to manage lands and/or programs for mutual benefit, consistent with the goals and objectives of this DRMP/DEIS;
- collaborates with other entities (e.g., with local chapters of the Colorado Archaeological Society, the Colorado Historical Society, the Crow Canyon Archaeological Center, the Kelly Place, and with other community groups, such as 4-H) to design and deliver educational materials and programs about the Monument to the general public;
- works with members of Native American descendant communities to ensure that visitor education plans are culturally sensitive and appropriate;
- encourages researchers to incorporate a public outreach/education component into projects;
- develops interpretive and education materials for the McElmo Research Natural Area to enhance its function as a resource for educational institutions and as an outdoor classroom;
- works with communities; counties; local, State, and other Federal agencies; Native American tribal agencies; private citizens; and interested organizations with regard to seeking non-traditional sources of funding, including challenge cost-share programs, grants, in-kind contributions, and allowable fee systems that support specific projects needed to achieve DRMP/DEIS objectives;
- considers, where appropriate, contracting with private sector businesses; non-profit organizations; academic institutions; local, State, and other Federal agencies; Native American tribal agencies; private citizens; and interested organizations to accomplish essential studies, monitoring, and/or project development;
- increases the use of citizen and organizational volunteers to provide greater monitoring of resource conditions and to complete on-the-ground developments for resource protection, effective land management, and human use and enjoyment;
- creates cooperative agreements or MOUs with local, State, and other Federal agencies; Native American tribal agencies; private citizens; and interested

organizations in order to manage lands and/or programs consistent with the goals and policies of the DRMP/DEIS (such agreements could provide for the sharing of human and/or material resources, the management of specific purposes, and/or the adjustment of management responsibilities on prescribed lands); and

- allows, encourages, and/or invites non-profit organizations, individual citizens, and user groups that have adequate resources and/or the expertise to enter into cooperative agreements that assist in the management of public lands in the Monument (such assistance could include, but would not be limited to, resource monitoring, site clean-ups, and/or the construction of authorized projects).

3. Manage backcountry visitors and permittees in a manner that:
   - includes information for potential backcountry visitors in public educational programs delivered outside the Monument (e.g., at the Anasazi Heritage Center, in schools, in presentations to groups, on the Monument website);
   - establishes a training program addressing site-visit etiquette and cultural resource law targeted at backcountry educational and recreational permittees, and other organized groups;
   - provides informational/educational materials for individual backcountry visitors at main entry points to backcountry areas (both at roads and at trailheads); and
   - ensures that Monument boundaries are clearly outlined for backcountry visitors and that all visitors are informed that the permission of landowners is required if they wish to visit cultural resources on private lands in, or adjacent to, the Monument.
4. Address multiple uses in the Monument in a manner that:
   - considers local and regional economic effects of management decisions and actions on traditional uses (e.g., grazing, recreation) while, at the same time, giving priority to maintaining and/or providing access to the Monument's research, educational, and cultural heritage values;
   - educates visitors on the history of multiple-use management in the Monument through a cooperative effort with users (e.g., fluid-mineral operators, livestock-grazing permittees, outfitters and guides, recreationists);
   - includes the development of a brochure on multiple-use activities that discusses their culture and heritage, environmental stewardship, and economic impacts on local and regional economies (this brochure would be distributed to visitors before they enter the Monument);
   - includes the development of a museum exhibit, presented at the Anasazi Heritage Center and at Hovenweep National Monument, that describes multiple-use activities that occur on the Monument, as well as the unique resources that they rely on (e.g., geologic formations);
   - educates Monument users about stewardship practices, with respect to other multiple users, such as closing gates, avoiding travel under muddy conditions, and/or avoiding damage to archaeological sites;
   - includes the construction of interpretive signs at accessible fluid-mineral development facilities (these signs would convey to the public a description of the equipment; safety issues; how resources produced at the facility are used within the

United States; and how fluid-mineral operators comply with applicable laws, rules, guidelines, and policies in order to protect natural and cultural resources);

- educates interested parties with regard to rangeland management within the Monument; and
- works with user groups (e.g., grazing, oil and gas, Off-Highway Vehicle users, recreationists, hunters) in order to promote the understanding of cultural resource law and to enlist their support for cultural resource protection.

5. Manages transportation in a manner that:
   - includes the development and distribution of maps and supporting information for the transportation system, including educational materials (e.g., maps, travel restrictions) targeted at eliminating unauthorized cross-country travel by motorized and mechanized vehicles (these materials would be distributed at the Anasazi Heritage Center, Hovenweep National Monument, local bike and motorbike retail stores, and trailheads, and would also be distributed to local user groups);
   - works with landowners to provide educational materials to users on Monument travel restrictions; and
   - installs the least amount of signage, i.e. only that signage necessary for informing users about cross-country travel restrictions.

Considerations and Guidance Common to Producing a Monument Law Enforcement Plan

1. Outline strategies in order to ensure Monument law enforcement personnel diligently, effectively, and consistently enforce rules and regulations that are designed to protect Monument resources, ensure safe operations for permittees, and ensure safe experiences for recreationists.
2. Evaluate the need for additional Federal law enforcement staffing to adequately protect cultural resources.
3. Ensure that Federal law enforcement staff working in the Monument is knowledgeable about cultural resource law and investigative procedures, as well as skillful in dealing with resource users and the general public.
4. Establish a liaison with county law enforcement personnel for cultural resource law enforcement.
5. Assist county law enforcement personnel in receiving cultural resource law enforcement training.
6. Work with local law enforcement officials and landowners within, and adjacent to, the Monument to improve the enforcement of trespass actions on private property.
7. Ensure that law enforcement personnel diligently and consistently monitor the Monument in order to detect vandalism, damage, trash dispersal, and/or the illegal use of Monument resources.

Considerations and Guidance Common to Producing a Monument Community-based Stewardship Strategy

1. Enlist the cooperation of interested groups and individuals in order to develop a sense of community stewardship.
2. Establish and implement plans for formal, periodic, and consistent communication with adjacent landowners and commercial operators to ensure that they are aware of issues and decisions that might impact them, to solicit their comments, and to encourage their active participation in Monument stewardship.
3. Work with Native American and other descendant groups to design ways to protect sites and/or areas having high cultural heritage values.
4. Ask user groups (e.g., ranchers, the fluid minerals industry, recreationists, hunters) to assist in publicizing the stewardship message and to report violators.
5. Protect valid existing rights of landowners within, or adjacent to, the Monument, and promote cooperation and communication between the BLM and landowners to further the protection of Monument resources.
6. Work together with the Monument Advisory Committee and landowners to identify and prioritize issues, concerns, and/or to resolve misinformation issues.
7. Work with landowners to protect and enhance natural resources on public lands in the Monument and on their private land. Provide technical assistance to landowners, as requested, in order to restore disturbed areas on their private property. Work with landowners and local governments in identifying incentives and options for interested landowners to protect cultural resources located on their private property.
8. Develop and implement plans with other government agencies to achieve efficiency, effectiveness, and consistency in managing recreational activities and resources, and to deal with various stakeholders.
9. Collaborate with the National Park Service at Hovenweep National Monument to develop public education and stewardship programs and to resolve conflicts in management between the two monuments. Coordinate management efforts, such as by encouraging personnel associated with both monuments to share functional responsibilities, such as monitoring, enforcement, and/or interpretation.
10. Create opportunities for education and alliances that lead to interagency and community involvement in the stewardship of the Monument and its resources.
11. Work closely with the Site Stewardship Program with regard to methodical monitoring, training, and/or education.
12. Work with regional youth groups and educational institutions and programs to involve them in stewardship and educational programs.

APPENDIX F

Transportation Planning Process

APPENDIX F
Transportation Planning Process

As per BLM Instruction Memorandum (IM) No. 2008-014, the definition of a route is "a group or set of roads, trails and primitive roads that represent less than 100% (excludes non-designated routes) of the BLM transportation system." In general, components of the Transportation System are described as "routes." All designated routes within the Canyons of the Ancients National Monument (the Monument) are identified on the Transportation Map (Map 5). Travel off of a designated route is considered "cross-country" or "off-road." County, state, and Federal improved routes are still referred to as roads.

1. Classify routes, including:
    - designated routes;
    - routes with public destinations (such as viewpoints, ruins, towns, trailheads);
    - unplanned routes (such as user-created routes);
    - reasonable access routes to valid and existing rights;
    - routes needed for "emergency or authorized administrative purposes;"
    - route conditions (such as those that need reconstruction, need maintenance, need frequent maintenance, are high clearance/four-wheel drive, etc.); and
    - route type (such as those that are being reclaimed, are single-track, are primary route unpaved, are secondary route unpaved, are tertiary route unpaved).
2. Assemble resource data, including:
    - biological data:
        - Colorado Natural Heritage Program (CNHP) special element data;
        - CNHP Potential Conservation Areas;
        - Colorado Division of Wildlife (CDOW) game coverages;
        - McElmo Research Natural Area (RNA);
        - unique habitats (such as riparian or wetland areas, and/or areas with unique geology, such as hanging gardens);
        - occurrences/habitats of biologic objects identified in the Monument Proclamation;
        - other relevant data sets (such as endangered or threatened species, special status species); and
        - expert opinion on likely occurrences/habitat for important biological resources that do not have existing data coverages.
    - cultural data:
        - cultural site locations;
        - historic/prehistoric cultural landscapes; and
        - historic trails.

- physical data:
  - soil types;
  - watersheds, stream segments, and/or sites with perennial water; and
  - unique geologic occurrences and/or structures, including:
    - paleontological site locations and/or likely paleo-rich formations; and
    - springs and/or seeps.
  - roadless areas [such as Wilderness Study Areas (WSAs), Citizens Wilderness Proposal Areas (CWPAs]); and
  - landscape health, including:
    - BLM Standards for Public Land Health and Guidelines for Livestock Grazing Management in Colorado; and
    - proper functioning condition (PFC) assessments for streams and springs.

3. Identify geographic sub-units that constitute logical distinct recreation planning areas and define existing conditions, including:
   - summarizing the existing character of each sub-unit, in terms of:
     - current transportation and recreation opportunities/facilities; and
     - the type and character of the experience that the sub-unit offers.
4. Develop a visitor access vision for each sub-unit, derived from the overall recreation and transportation goals, considering the sub-units' existing character, the mandate to protect Monument objects, predicted management capacity, and public desires.
5. Develop a Desired Future Condition for each sub-unit, including:
   - defining experiential conditions;
   - defining resource conditions;
   - identifying transportation facilities that will exist; and
   - identifying transportation facilities that will be removed.
6. Develop transportation/recreation Goals and Objectives, derived from the Desired Future Condition.
7. Ask the following questions in order to help determine whether to add or remove additional routes from the Travel Management System in the future. If all answers are "no," then the route would be closed. If any answer is "yes," then consideration for keeping the route open should be made by the Monument Manager (with mitigation).
   - Is the route officially recognized as a County route by both the BLM and by the County it is located within?
   - Does the route lead to developments that have an administrative purpose, where the BLM or some permitted user (not including private land access) must have access for regular maintenance and/or operation?
   - Is the route a primary or secondary unpaved route?
     - If so, does the route have a destination?

- If so, does it contribute to the management objectives, framework, and setting prescriptions of the Recreation Management Zone (RMZ) in which it is located?
- If so, does the route avoid impacts to Monument objects and/or to other resources?

8. Assess supplemental routes for routes classified as providing "reasonable access to valid and existing rights" or as routes necessary for "emergency or authorized administrative purposes:"
   - Is the route the only reasonable access to valid and existing rights, or is it critical for "emergency or authorized administrative purposes?"
     - If not, and if the route would be subject to limitations, then close the route. If yes, were any of the answers in No. 7 (above) "yes"?
     - If so, keep the route open. If not, then limit access to administrative or authorized purposes only, and consider seasonal closure or rerouting (in order to protect Monument objects and/or resources), or closing the route completely.
9. Landscape level review. Review the final route assessment in order to:
   - ensure that recreation and transportation goals and objectives are being met;
   - ensure that BLM Standards for Public Land Health and Guidelines for Livestock Grazing Management in Colorado are not being exceeded;
   - ensure that the transportation and recreation system can be reasonably managed, based upon current and predicted law enforcement and monitoring efforts; and
   - ensure that Monument objects and resources are adequately protected

APPENDIX G

Fluid Minerals Leasing Stipulations, Exceptions, Waivers, and Modifications

APPENDIX G

Fluid Minerals Leasing Stipulations, Exceptions, Waivers, and Modifications

Overview

This report discusses the fluid minerals leasing decisions, stipulations, exceptions, waivers, and modifications for the Canyons of the Ancients National Monument (the Monument). This report covers fluid minerals leasing on public lands administered by the Bureau of Land Management (BLM) within the Planning Area.

Key definitions for this report include:

- **Acquired lands:** Lands under Federal ownership that the BLM (in this case) obtained through the means of, including, but not limited to; deed, purchase, gift, or exchange.
- **Competitive leasing:** The BLM (in this case) issues leases on Federal onshore lands where there are known mineral deposits, or where inference of probable mineralization may be derived from knowledge of the geology of the land. The lands are offered for competitive lease bidding following publication of the offer of the lands for lease. A lease is issued to the highest bidder at a sale by public auction.
- **Fluid minerals:** Fluid minerals include oil, gas, and geothermal resources.
- **Gas:** Gas means any fluid, either combustible or non-combustible, that has neither independent shape nor volume and tends to expand indefinitely if unconfined. Gas is any substance that exists in a gaseous stage at the surface under normal conditions. Gas includes methane, carbon dioxide, other gaseous hydrocarbons, and nitrogen.
- **Gas well:** A well completed for the production of natural gas from one or more gas zones or reservoirs.
- **Geothermal resource:** Hot water, steam, by-products, and associated energy extracted from geothermal reservoirs in the Earth's crust.
- **Lease:** A legal document executed between the BLM, as lessor (in this case), and a company or individual, as lessee, that conveys the right to exploit the premises for minerals or other products for a specified period of time over a given area.
- **Lease sale:** A process conducted by the BLM (in this case) for Federal onshore lands in which leases of certain mineral tracts are offered for lease by competitive sealed bidding. During a lease sale, bids are received, announced, and recorded.
- **Lease term:** The duration of the contract specified in the lease.
- **Lessee:** The person or company authorized by the lease terms to produce specific minerals from the leased land.
- **Lessor:** The owner or administrator (the BLM, in this case) of the leased land or mineral rights.
- **Locatable minerals:** Valuable mineral deposits that are not excluded by the Mining Law of 1872, by the Mineral Leasing Act of 1920, by the Mineral Leasing Act for Acquired Lands of 1947, or by the Mineral Materials Act of 1947 (see

Authorities and Guidelines below). Locatable minerals include base metals, precious metals, light metals, ferrous metals, precious and semi-precious stones, and a wide array of industrial minerals.

- **Mineral:** Naturally occurring organic or inorganic substances with characteristics and uses that bring them within the purview of mineral laws. Minerals may be obtained under applicable laws from public lands by purchase, lease, or preemptive entry.
- **Natural gas:** A compressible and expansible mixture of hydrocarbons having a low specific gravity and occurring naturally in a gaseous form. Natural gas ordinarily consists principally of methane and heavier entrained hydrocarbons, and may contain appreciable quantities of nitrogen, helium, carbon dioxide, and contaminants (such as hydrogen sulfide and water vapor). Some of the gases may be found either in a gaseous state or as liquids under suitable conditions of temperature and pressure.
- **Non-competitive leasing:** Leases issued to qualified applicants for land not specifically known or presumed to contain mineral or petroleum deposits in quantity.
- **Oil well:** A well completed for the production of crude oil from one or more zones or reservoirs.
- **Operating agreement:** A written document between parties holding operating rights, with one of the parties normally designated as the operator. The agreement contains detailed provisions for the drilling of a well, the sharing of expenses, and acceptable accounting methods.
- **Operator:** The individual, partnership, firm, or corporation having control or management of operations on a leased area, or on a portion thereof. The operator may be a lessee, designated agent of the lessee, a holder of rights under an approved operation agreement, or an agent of an operating rights holder.
- **Petroleum:** A naturally occurring complex liquid hydrocarbon that may contain varying degrees of impurities. Petroleum is obtained from the rocks below the surface of the Earth by drilling down into a reservoir rock and piping the minerals to the surface.
- **Producible lease:** A lease where one well, or where several wells, have discovered hydrocarbons in paying quantities, but for which there is no production during the reporting period.
- **Producing lease:** A lease that is producing oil, gas, or other minerals in quantities sufficient to generate royalties.
- **Public lands:** Any land and/or interest in land owned by the United States and administered by the Secretary of the Interior through the BLM (in this case), without regard to the manner through which the BLM acquired ownership, except: 1) lands located on the Outer Continental Shelf, and 2) lands held for the benefit of Indians, Aleuts, and Eskimos. The BLM considers acquired lands to be a category of public lands.

(Source: the Glossary of Terms for the Minerals Management Service. Available at http://www.mrm.mms.gov/stats/statsrm.htm).

Authorities and Guidelines

In addition to all applicable laws, rules, regulations, policies, and guidelines, the following specifically guide the evaluation process for fluid minerals leasing decisions, stipulations, exceptions, waivers, and modifications:

- **The General Mining Law of 1872, as amended:** This Act (30 USC 29 and 43 CFR 3860) is the principal Federal law governing locatable minerals in the United States. The law provides U.S. citizens with an opportunity to explore, discover, and purchase certain valuable metallic and non-metallic minerals on Federal lands that are not closed to mineral entry. The law establishes standards and guidelines covering the claiming of mineral rights, and includes provisions for local rules to be developed, consistent with Federal laws. This Act provides the successful mining claimant the right to patent (acquire absolute title to the land) mining claims or sites if they meet the statutory requirements.
- **The Mineral Leasing Act of 1920, as amended:** This Act (30 USC 181 et seq.) gives the BLM responsibility for oil and gas leasing on BLM, U.S. Forest Service (USFS), and other Federal lands, as well as on State and private surface lands where mineral rights have been retained by the Federal Government. This Act authorizes, and governs, the leasing of public lands for the development of deposits of coal, oil, gas (and other hydrocarbons), sulphur, phosphate, potassium, and sodium. This Act establishes qualifications for mineral lessees, sets out maximum limits on the number of acres of a particular mineral that can be held by a lessee, and prohibits alien ownership of leases (except though stock ownership in a corporation). Rental and royalty terms are specified for each mineral; general conditions are established for pipeline right-of-way (ROW), lease diligence, royalty disposition, and holding restrictions. The Act requires sharing royalty and other lease revenues with the States. The Secretary of the Interior is authorized to promulgate rules and regulations to implement and enforce the Act.
- **The Mineral Leasing Act for Acquired Lands of 1947, as amended:** Mineral leases on acquired lands cannot be issued without the concurrence of the acquiring agency. This Act (30 USC 351-359) requires disbursement of mineral receipts from acquired lands in the manner prescribed by legislation governing the type of land in question, including acquired national grasslands and acquired national forest lands.
- **The Federal Oil and Gas Royalty Management Act (FOGRMA) of 1982:** This Act (PL 97-451; 30 USC 1701 et seq.) ensures that all oil and gas activities on public lands, as well as on the Outer Continental Shelf, are properly accounted for under the direction of the Secretary of the Interior. The Act requires oil and gas operators on Federal lands to construct and operate wells in such a manner as to protect the environment and to conserve Federal resources. It also requires the Department of the Interior to establish a comprehensive system, including inspections, for accurately determining oil and gas royalties. The FOGRMA requires the Secretary of the Interior to “audit and reconcile, to the extent practicable, all current and past lease accounts for leases of oil or gas and take appropriate actions to make additional collections or refunds as warranted” (Section 1711(c)(1)). The Secretary, in turn, has assigned these duties to the Minerals Management Service (MMS).

- **The Federal Onshore Oil and Gas Leasing Reform Act (FOOGLRA) of 1987:** This Act (PL 100-203, 101 Stat. 1330-256) amends the Mineral Leasing Act of 1920. It requires each BLM State Office to conduct oil and gas lease sales on at least a quarterly basis where there is interest to do so. The Act also requires that all public lands that are available for oil and gas leasing be offered first by competitive leasing. Non-competitive oil and gas leases may be issued only after the lands have been offered competitively at an oral auction and have not received a bid.
- **The Federal Oil and Gas Royalty Simplification and Fairness Act (FOGRS&FA) of 1996:** This Act (PL 104-185, 110 Stat. 1717) amends the FOGRMA. It revises and expands the guidelines under which the authorities of the Secretary of the Interior, with regard to the collection of oil and gas receipts and related activities, may be delegated to a State. The Act prescribes procedural guidelines for Secretarial and delegated States' actions and limitation periods, including royalty adjustments and refunds. The Act renders inapplicable, except to American Indian leases: 1) the current statute of limitations governing the recovery of penalties, and 2) the Secretary's authority to enter into cooperative agreements with any State (or American Indian tribe) with respect to oil or gas royalty activities.
- **The Energy Policy Act of 2005:** This Act (PL 109-58, 119 Stat. 624) sets forth an energy research and development program covering energy efficiency; renewable energy; oil and gas; coal; American Indian energy; nuclear matters and security; vehicles and motor fuels, including ethanol; hydrogen; electricity; energy tax incentives; hydropower and geothermal energy; and climate change technology.
- **The Federal Land Policy and Management Act (FLMPA) of 1976, as amended:** This Act establishes the land management authority of the BLM and provides guidance for how public lands are to be managed by the BLM. The BLM manages public lands on the basis of multiple use and sustained yield (Section 202(c)(1). The FLPMA requires the development, maintenance, and revision of RMPs for public lands. It requires that the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values be protected. Section 302(b) (43 USC 1732(b) and 603(c)) concern authorizing and permitting of mineral exploration, mining, and reclamation actions on public lands administered by the BLM. With regard to oil and gas leasing, the FLPMA requires that RMPs address: 1) the identification of areas available for oil and gas development; and 2) related management directions (including stipulations, exceptions, waivers, and modifications).
- **The National Environmental Policy Act (NEPA) of 1969:** This Act (PL 91-190, 42 USC Section 4321-4347) establishes national environmental policy, including a multidisciplinary approach to considering environmental amenities in decision-making. The law also established the President’s Council on Environmental Quality (CEQ). The CEQ prepares the regulations implementing the law that apply to all agencies, including the BLM. (These regulations are found at 40 CFR Parts 1500 to 1508.) The NEPA requires Federal agencies to prepare an Environmental Impact Statement (EIS) for all "major federal actions significantly affecting the human environment." Thus, before implementing any "major" or "significant" or "Federal" action, the BLM must consider the environmental impacts of that action, identify unavoidable environmental impacts, and make this

information available to the public in the EIS. All of these conditions must be satisfied before implementing a proposed action.

- **The Code of Federal Regulations (CFR):** Title 43 of the Code of Federal Regulations, subchapter 3, provides guidance on Minerals Management (subparts 3100, Onshore Oil and Gas Leasing, General; 3101, Issuance of Leases; 3102, Qualifications of Lessees; 3103, Fees, Rentals, and Royalty; 3104, Bonds; 3105, Cooperative Conservation Provisions; 3106, Transfer by Assignment, Sublease, or Otherwise; 3107, Continuation, Extension, or Renewal; 3108, Relinquishment, Termination, Cancellation; and 3109, Leasing under Special Acts). Part 3150 provides guidance on Onshore Oil and Gas Geophysical Exploration; Part 3180 provides guidance on Onshore Oil and Gas Unit Agreements: Unproven Areas. Part 3200 addresses Geothermal Leasing. Title 43 CFR 3800 addresses mining claims under the General Mining Laws for the BLM.
- **BLM National Onshore Oil and Gas Operating Orders:** Order No. 1 covers the approval of operations, *Federal Register* Notice(s), and correction(s) to *Federal Register* Notice(s); Order No. 2 covers drilling; Order No. 3 covers site security; Order No. 4 covers the measurement of oil; Order No. 5 covers the measurement of gas; Order No. 6 covers H2S Operations; and Order No. 7 covers the disposal of water.
- **BLM National Notice-to-Lessee(s) (NTLs):** NTL 3a covers the reporting of undesirable events; NTL 4A covers royalty or compensation for oil and gas lost.
- **BLM Manual and Handbook 1601-1 - Land Use Planning:** This Manual and Handbook provide guidance with regard to the requirements of the FLPMA (Sections 201 and 202), the BLM's Planning Regulations (43 CFR 1600), and the NEPA. They provide guidance for preparing new RMPS (as well as plan revisions, plan amendments, and subsequent implementation-level plans) so that such plans can help ensure that the public lands are managed in accordance with the principles of multiple use and sustained yield in a manner that recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber; and in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water, and archaeological values.
- **National Historic Preservation Act (NHPA) of 1966, as amended:** The NHPA is the primary Federal law providing for the protection and preservation of cultural resources. The NHPA established the National Register of Historic Places (NRHP), the Advisory Council on Historic Preservation (ACHP), and the State Office of Historic Preservation (SHPO).
- **BLM Manual 3150 - Onshore Oil and Gas and Geophysical Exploration:** This Manual establishes procedures for processing Notice(s) of Intent (NOIs) to Conduct Oil and Gas Geophysical Exploration Operations, as well as for conducting oil and gas geophysical exploration on BLM-administered lands in the lower 48 States. It describes the functions and responsibilities of the BLM as they pertain to authorization of oil and gas geophysical exploration.
- **BLM Manual 3109; BLM Handbook H-3109-1 -- Leasing Under Special Acts:** This Manual and Handbook contain guidance and procedures for processing Federal oil and gas leases and compensatory royalty agreements.

- **BLM Handbook 1624-1 -- Planning for Fluid Mineral Resources:** This Handbook provides guidance related to oil and gas, coal, and other leasable and locatable minerals.
- **BLM Handbook H-3110-1 -- Non-Competitive Leases:** This Handbook provides procedures, in accordance with the Mineral Leasing Act of 1920 and the Federal Onshore Oil and Gas Leasing Reform Act of 1987, regarding non-competitive leasing of BLM-administered lands. Guidance concerning the adjudication and issuance of future interest non-competitive leases is also provided.
- **BLM Handbook 3150-1 -- Onshore Oil and Gas Geophysical Exploration Surface Management Requirements:** This Handbook provides guidance related to identifying any potential surface-use conflicts between the proposed operation and land use plan restrictions (stipulations), for wildlife habitat areas, range improvements, ROW structures, fire danger, population areas, hunting seasons, off-road vehicle restrictions, and/or any other special designations.
- **BLM Handbook H-3203-1; H-3210-1; H-3220-1 -- Leasing Terms:** These handbooks provide guidelines related to adjudication where lease terms have been continued by reason of production, or where leases qualify for extensions. Guidance is also provided regarding the diligent exploration expenditure requirement, consolidation of leases, and the readjustment of lease terms and conditions. The procedures concerning the dating of leases, lease acreage limitations, and descriptions of lands in lease applications or offers are covered in H-3210-1 and H-3220-1.
- **BLM IM No. 2007-021, dated November 8, 2006 -- Integration of Best Management Practices into Application for Permit to Drill Approvals and Associated Rights-of-Way for Oil & Gas Operations; Geothermal Operations; Helium Operations; Lands and Realty:** This IM requires that BLM Field Offices use appropriate environmental Best Management Practices (BMPs) for mitigating anticipated impacts to surface and subsurface resources.
- **BLM IM. No. 2008-032, dated November 19, 2007 -- Exceptions, Waivers, and Modifications of Fluid Minerals Stipulations and Conditions of Approval, and Associated Rights-of-Way Terms and Conditions for Oil and Gas Exploration and Operations; Geothermal Operations; Land Use Planning and Environmental Coordination; Lands and Realty; Wildlife Management:** This IM (and attached instructions) provides guidance related to: 1) incorporating exception, waiver, and modification criteria into a land use plan; 2) making changes to fluid minerals leasing decisions/stipulations in the land use plan; and 3) reviewing and approving lease stipulation exceptions, waivers, and modifications for oil, gas, and geothermal leases that have been issued. Guidance is also provided for adapting the exception, waiver, and modification process to permits (including for oil and gas Applications for Permit to Drill (APD), Geophysical NOIs, and Geothermal Drilling Permit Conditions of Approval), as well as for energy-related ROW Terms and Conditions. This policy consolidates and further refines the exception, waiver, and modification guidance contained in law, regulations, handbooks, and other guidance documents.
- **The *Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development* ("The Gold Book"), Fourth Edition (BLM 2007a):** The Gold Book provides information on the requirements for obtaining permit approval and for conducting environmentally responsible oil and gas

operations on Federal lands, as well as on private surface over Federal minerals (split-estate). In 2007, the Gold Book was updated to incorporate changes resulting from the new Onshore Oil and Gas Order No. 1 regulations.

- **Uniform Format for Oil and Gas Lease Stipulations, dated March 1989, Rocky Mountain Regional Coordinating Committee:** This document provides oil- and gas-related definitions, policies, and examples of: No Surface Occupancy (NSO) stipulations, Timing Limitation (TL) stipulations, Controlled Surface Use (CSU) stipulations, special administrative stipulations, and lease notices. It also provides a copy of the standardized stipulation forms to be used for planning purposes.

Fluid Minerals Leasing on Public Lands

Historical Background

Until the early Twentieth Century, the Federal government allowed private individuals/entities to explore and develop public lands containing oil and gas with relative ease, and without charge. Full ownership of oil and gas lands could be purchased for a nominal amount. In 1920, however, Congress enacted the Mineral Leasing Act, and ended the private acquisition of title to Federal lands. The Act authorized the Secretary of the Interior to issue permits for exploration, and to lease lands containing oil and gas. Under the Act, the Federal government retained title to the lands.

The Minerals Leasing Act of 1920 created a two-track leasing process: competitive and non-competitive leasing. Competitive leases were issued when the lands were within the known geologic structure of a producing oil and gas field. Non-competitive leases were issued to the person/entity “first making application” (30 USC 226). All leasing, competitive and non-competitive, was at the discretion of the Secretary of the Interior, who could lease lands with, or without, conditions (stipulations), and who could withhold lands from leasing entirely.

In the 1950s, interest in leasing public lands grew dramatically. Finding it increasingly difficult to determine exactly who was the “first making application” for a lease, the Secretary of the Interior established a lottery system where one application was chosen at random in order to determine the lessee. At the time, the lottery system was widely used because a majority of the leases were issued non-competitively.

In the 1960s and 1970s, there was an increasing demand for the protection and preservation of public lands “undisturbed” for present and future generations. As a result, several major environmental laws were enacted, including the Wilderness Preservation Act of 1964, the National Environmental Policy Act of 1970, the National Historic Preservation Act of 1966, and the Endangered Species Act of 1973. As a result of this increased interest in environmental protection, the U.S. Congress overhauled the land use planning process governing public lands. The goal was to encourage land management agencies, including the BLM, to meet society’s increasing demand for materials and energy (in order to support economic growth), and to protect and preserve non-economic values (including of wildlife, outdoor recreation, scenery, air and water quality, cultural resources, etc.) (Watson 2005).

Fluid Minerals Leasing -- BLM Process and Procedure

Overview

The FLPMA established the land management authority of the BLM and provided guidance for how public lands are to be managed by the BLM. Based upon the FLPMA, the BLM is required to manage public lands on the basis of multiple use and sustained yield (Section 202(c)(1)). Multiple use is to be considered in the context of the best combination of land uses that meet the present and future needs of the nation with respect to "recreation, range, timber, minerals, watershed, wildlife and fish, and natural, scenic, scientific, and historical values."

The Mineral Leasing Act of 1920, the Mineral Leasing Act for Acquired Lands of 1947, and the Federal Onshore Oil and Gas Leasing Reform Act of 1987, give the BLM responsibility for oil and gas leasing on approximately 570 million acres of BLM, U.S. Forest Service (USFS), and other Federal lands, as well as on private lands where mineral rights have been retained by the Federal Government ("split-estate" lands).

Under the FLMPA, resource values, including fluid minerals, on BLM-administered lands are to be managed in a "harmonious and coordinated" manner that does not lead to "permanent impairment of the productivity of the land and the quality of the environment." The BLM is required to protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values for present and future generations.

Types of Fluid Minerals Leases

The BLM issues two types of leases for oil and gas exploration and development on lands owned or controlled by the Federal Government: competitive and non-competitive. After Congress passed the Federal Onshore Oil and Gas Leasing Reform Act of 1987, all public lands available for oil and gas leasing were offered first through a competitive leasing process. Non-competitive oil and gas leases are only issued after the lands have been offered competitively at an oral auction and have not received a bid.

- **Competitive Leasing Process:** When parcels are available, the BLM conducts oral auctions of all oil and gas leases on a quarterly basis. A Notice of Competitive Lease Sale (Sale Notice), which lists lease parcels to be offered at the auction, is published by each BLM State Office at least 45 days before the auction is held. Lease stipulations applicable to each parcel are specified in the Sale Notice (See Fluid Minerals Leasing--Stipulations below.). Lands included in the auction process come from the following sources:

    - lands identified by informal expressions of interest from the public;
    - lands identified by the BLM for management reasons; and/or
    - lands included in offers filed for non-competitive leases.

- **Non-Competitive Leasing Process:** Non-competitive leases are only issued for parcels that have been offered competitively but have failed to receive a bid. Lands in expired, terminated, relinquished, or cancelled leases are not available for non-competitive leasing until they have been offered competitively, and have failed to receive a bid. A non-competitive pre-sale offer may be filed on such

lands only if the prior lease expired (or was terminated, relinquished or cancelled) at least 1 year before the pre-sale offer was submitted to the BLM State Office.

The BLM cannot place for sale lands already under lease or lands where mineral ownership is not federally owned. Additional lands unavailable for leasing include, but are not limited to, the following:

- lands within city limits;
- lands withdrawn from mineral leasing;
- lands designated as Wilderness or Wilderness Study Areas (WSAs);
- lands within a Native American Indian Reservation;
- lands with mineral entry applications;
- lands in patented mining claims; and/or
- lands posted in a Notice of Competitive Lease Sale.

In the lower 48 States, the maximum competitive lease size is 2,560; it is 5,760 acres in Alaska. A non-competitive offer (NCO) must be made for a minimum of 640 acres, or for one full section, whichever is larger. A NCO may be made for a maximum of 10,240 acres (entirely within six miles square). Since the passage of the Energy Policy Act of 1992, both competitive and non-competitive leases are issued for a 10-year period. Both types of leases continue for as long as oil or gas is produced in paying quantities.

A lease grants the lessee the right to explore and drill for (and extract, remove, and dispose of) oil and gas deposits (except helium) that may be found in the leased lands. Subject to special restrictions or “stipulations,” the leases are granted on the condition that the lessee will have to obtain BLM approval before conducting any surface-disturbing activities. The oil and gas lease conveys the right to develop those resources on the leased land. The lessee(s) or operator(s) may not build a house on the land, cultivate the land, or remove any minerals other than oil and gas from the leased land.

Land Use Planning for Fluid Minerals Leasing -- The Planning Process

In order to help ensure proper land management that meets the goals of multiple use and sustained yield, the FLPMA requires the development, maintenance, and revision of land use plans for public lands. The land use planning process is the key tool used by the BLM to protect resources and designate uses on BLM-administered lands. RMPs help ensure that the public lands are managed in a manner that recognizes the Nation’s need for domestic sources of minerals, food, timber, and fiber in a manner that protects the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water, and archaeological values for present and future generations.

Preparation of RMPs by the BLM is a major Federal action; therefore, under the provisions of the NEPA, it requires the preparation of an associated Environmental Impact Statement (EIS). The NEPA requires Federal agencies to fully disclose the nature and condition of the environment within the area of interest. The development of an RMP, and the associated EIS, is an interactive process whereby a BLM Interdisciplinary (ID) Team works with all interested parties (including other government agencies, private organizations, groups, and individuals) in order to identify all of the values and resources associated with the public lands, including fluid minerals, and how they would be potentially managed.

In accordance with the NEPA, the BLM must formulate various alternatives for proposed management, and must compare those alternatives to a “No Action” Alternative (which is

a “baseline” alternative that proposes the continuation of the current management scheme). Working within the ID team process, these “action alternatives” are developed that present different potential planning scenarios. Each alternative is analyzed in the RMP, specifically in relation to how well it would meet the legal and regulatory mandates of the BLM, including for multiple use and sustained yield. At the same time, the BLM conducts a NEPA analysis of the various alternatives, and discloses the expected environmental, economic, and social impacts of the proposed management alternatives. The NEPA specifically requires the agency preparing the EIS to seek decisions that, among other things, “attain the widest range of beneficial uses of the environment without degradation;” that “preserve important historic, cultural, and natural aspects of our national heritage;” and that “achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life’s amenities” (42 U.S.C. 4331(b)).

With regard to oil and gas leasing (Section 302(b) (43 USC 1732(b) and 603(c)), the FLPMA requires that RMPs address: 1) the identification of areas available for oil and gas development; and 2) specify related management directions (including stipulations, exceptions, waivers, and modifications) by alternative.

Fluid Minerals Leasing -- Stipulations

Public lands are available for oil and gas leasing only after they have been evaluated through the BLM's multiple-use/sustained-yield planning process. In areas where development of oil and gas resources would conflict with the protection or management of other resources or public land uses, mitigating measures are identified and may appear on leases as either stipulations to uses or as restrictions on surface occupancy.

Stipulations are conditions, promises, or demands that are to be made part of a lease when the environmental and planning record demonstrates the necessity for the stipulations. Stipulations, as such, are neither "standard" nor "special.” They are a necessary modification of the terms of the lease. In order to accommodate the variety of resources encountered on BLM-administered lands, these stipulations are categorized as to how the stipulation modifies the lease rights, not by the resource(s) to be protected (Rocky Mountain Regional Coordinating Committee 1989). The specifics as to what, why, and how this mitigation/protection is to be accomplished is determined by the land management agency through the development of the RMP and through the NEPA analysis, in this case by the BLM management and staff at the Monument.

If upon weighing the relative resource values, uses, and/or users, it is determined that conflicts with oil and gas operations exist that cannot be adequately managed under the BLM Standard Lease Terms (SLTs), a lease stipulation is deemed necessary. Documentation of the necessity for a stipulation is disclosed in planning documents, such as in this one, or through site-specific analysis. RMPs, and/or NEPA documents, establish the guidelines by which future waivers, exceptions, and/or modifications may be granted (see definitions below).

Stipulations may be necessary if the authority to control the activity on the lease does not already exist under laws, regulations, and/or orders. The Authorized Officer, the Monument Manager (in this case), has the authority to modify the site location and design of facilities, control the rate of development and timing of activities, and require additional mitigation under Sections 2 and 6 of the SLTs (BLM Form 3100-11) and 43 CFR 3101.1-2.

Key definitions related to fluid minerals leasing stipulations are as follows:

- **Lease Stipulation:** A lease stipulation, developed during the land planning process, is a condition of lease issuance designed to provide a level of protection for other resource values and/or land uses. This is achieved by restricting lease operations (such as during certain times of the year or by locations) in order to avoid unacceptable impacts to a greater extent than provided by standard lease terms or regulations. A stipulation is an enforceable term of the lease contract. It supersedes any inconsistent provisions of the standard lease form. A lease stipulation is attached to, and made a part of, the lease. Lease stipulations further implement the BLM's regulatory authority to protect resources or resource values.

- **Stipulation Standards:** Stipulation standards are the physical and temporal conditions, resources, or resource values that must be present, and met, for application of a specific stipulation to a specific lease.

- **Condition of Approval (COA):** A COA is a site-specific and enforceable requirement included in an approved Application for Permit to Drill (APD) or in a Sundry Notice that may limit or amend the specific actions proposed by the operator. COAs are designed to minimize, mitigate, or prevent impacts to resource values or other uses of public lands.

- **Information Notice (IN):** An IN provides detailed information concerning limitations that already exist in law, lease terms, regulations, and/or operational orders. An IN also addresses special items that the lessee should consider when planning operations. It does not, however, impose new or additional restrictions. INs attached to leases should not be confused with Notices to Lessees (NTLs).

- **Notice to Lessees (NTL):** A NTL is a written notice issued by the BLM (in this case) Authorized Officer. NTLs implement regulations and operating orders. They serve as instructions on specific item(s) of importance within a State, District, or Area.

- **No Surface Occupancy (NSO):** Under a NSO stipulation, use or occupancy of the land surface for fluid minerals exploration or development is prohibited in order to protect identified resource values. The NSO stipulation includes stipulations that may have been worded as "No Surface Use/Occupancy," "No Surface Disturbance," "Conditional NSO," and/or "Surface Disturbance or Surface Occupancy Restriction (by location)." The NSO stipulation is intended for application only when other stipulations are deemed insufficient to achieve the level of resource protection necessary in order to protect the public interest.

- **Controlled Surface Use (CSU):** Under a CSU stipulation, use and occupancy is allowed unless restricted by another stipulation. Identified resource values requiring special operational constraints may modify the lease rights. A CSU stipulation is used for operating guidance, not as a substitute for the NSO or for TL stipulations. The CSU stipulation is intended for application where standard lease terms and permit-level decisions are deemed insufficient to achieve the level of resource protection necessary in order to protect the public interest, but

where an NSO stipulation is deemed overly restrictive. A CSU stipulation allows the BLM to require that a proposed facility or activity be relocated, if necessary, in order to achieve the desired level of protection.

- **Timing Limitation (TL):** A TL stipulation prohibits surface use during specified time periods in order to protect identified resource values. This stipulation does not apply to the operation and maintenance of production facilities unless the findings of analysis demonstrate the continued need for such mitigation and that less stringent, project-specific mitigation measures would be insufficient. A TL stipulation is intended for application where standard lease terms are deemed insufficient to achieve the level of resource protection necessary in order to protect the public interest, but where an NSO is deemed overly restrictive. The scope of the TL stipulation goes beyond ground-disturbing activities to encompass any source of protracted or high-intensity disturbance that may interfere with normal wildlife behavior and/or adversely affect (impact) habitat use. Typically, the limitation is applied annually for a specified period of time.

Fluid Minerals Leasing -- Exceptions, Modifications, and Waivers

Fluid minerals lease stipulations and related exceptions, waivers, and modifications are developed during the land use planning process. Exceptions, waivers, and modifications provide an effective means of applying “Adaptive Management” techniques in order to meet changing circumstances. The criteria for approval of exceptions, waivers, and modifications must be supported by the NEPA analysis, either through the land use planning process or through site-specific environmental review. (Regulations covering exceptions, modifications, and waivers are found in 43 CFR 3101.1-4; BLM IM No. 2008-032, dated November 19, 2007.)

Key definitions related to lease exceptions, modifications, and waivers are as follows:

- **Exceptions:** A one-time exemption from a stipulation for a particular site within the leasehold. Exceptions are determined on a case-by-case basis and, if granted, suspend the restrictions of a stipulation for a specified period, location, and/or activity. The stipulation continues to apply to other sites within the stipulation area. Exceptions that conform to the RMP do not require public notice. Non-conforming exceptions are granted only upon RMP amendment and do require public notice.

- **Modifications:** A modification is a fundamental change to the provisions of a lease stipulation. Modifications may be temporary, or they may be for the term of the lease. Depending upon the specific modification, the stipulation may, or may not, apply to all sites within the leasehold to which the restrictive criteria are applied. Modifications are made if it is determined that the stipulation is no longer required as written (for example, when it is based upon the results of monitoring data). Modifications require an environmental assessment in order to determine the potential impacts, and in order to evaluate whether or not an RMP amendment is needed. If deemed substantial, a modification requires a 30-day public notice period prior to implementation.

- **Waivers:** Waivers are permanent exemptions to a stipulation. Under a waiver, the stipulation no longer applies anywhere within the leasehold. Waivers apply to

an entire stipulation area. They are applied only after preparation of an environmental assessment and after a subsequent decision has been made that a stipulation is no longer required to protect a specific resource. The decision to waive a substantial stipulation requires an RMP amendment and a 30-day public notice period prior to implementation.

A lease stipulation shall be subject to modification, exception, or waiver if:

- the Authorized Officer determines that the factors leading to its inclusion in the lease have changed sufficiently to make the protection provided by the stipulation no longer justified (when the Authorized Officer determines that impact will be acceptable); or

- if the proposed operations would not cause unacceptable impacts (43 CFR 3101.1-4).

Such determinations must be fully supported by an appropriate level of environmental review, and must be made on a case-by-case basis based upon the following questions:

- Would the BLM remain in compliance with all applicable laws, regulations, rules, policies, and guidelines?

- Is the proposal in conformance with the objectives of the Approved Plan?

- What would be the level of harm (impacts) to the protected resource, both locally and regionally?

- What would be the economic or public safety concerns if an active operation near completion was shut down in order to comply with a seasonal closure?

- Are the impacts temporary, rather than long term?

- Is the resource being protected rare, or is it relatively common? Is it a special status species?

- Based upon existing knowledge of a species and of its use of an area, would impacts be confined to single or to a small number of individuals, or would there be impacts on local or regional populations? Would such impacts be allowed under existing law and policy?

- Is off-site mitigation an appropriate option? (For example, where individual or cumulative impacts cannot be effectively mitigated on site.)

- Can the impacts be reduced to an acceptable level through intensive use of environmental Best Management Practices (BMPs)?

Fluid Minerals Leasing - Canyons of the Ancients National Monument

Overview

On June 9, 2000, the Canyons of the Ancients National Monument (the Monument) was established by Presidential Proclamation Number 7317 (the Proclamation), which states:

> *Containing the highest known density of archaeological sites in the Nation…natural resources and spectacular landforms…rugged and dissected geology…and wildlife species…I proclaim for the purpose of protecting the objects identified above…Canyons of the Ancients National Monument.*

The BLM manages the Monument pursuant to its basic organic authorities, the primary one being the FLPMA. The management of the Monument is subject to the overriding purpose of protecting the objects of the Monument, as described in the Proclamation. The area within the boundaries of the Monument includes approximately 170,965 acres of BLM-administered land, approximately 12,164 acres of private land, and approximately 400 acres of Federal land managed by the National Park Service (as Hovenweep National Monument). The Monument designation does not apply to private lands, but the Proclamation provides that if any of these lands within the outer boundaries are acquired into Federal ownership in the future, they would become part of the Monument. In the absence of acquisition, the laws applicable to the use of private lands prior to the establishment of the Monument continue to apply.

The FLPMA requires the development, maintenance, and, as appropriate, revision of RMPs for public lands. The NEPA requires Federal agencies to prepare an EIS for major Federal actions that could significantly affect (impact) the environment. In addition, the BLM Interim Management for all National Monuments (BLM 2001g) requires the completion of land use plan evaluations and stand-alone RMPs for all national monuments. In fulfillment of these requirements, the DRMP/DEIS and PRMP/FEIS document the comprehensive analysis of alternatives and environmental impacts for the planning and management of public lands and resources, including fluid minerals, administered by the BLM at the Monument. The Approved Plan ensures that public lands and mineral estate administered by the BLM at the Monument are managed in accordance with applicable laws, as well as with the principles of multiple use and sustained yield.

The Approved Plan meets the requirement of the Proclamation to protect the objects of geological, archaeological, historical, and biological value within the Monument. All explicit land use planning and management statements included in the Proclamation are addressed. In relation to fluid minerals leasing, these include:

- Direction that the Monument appropriate and withdraw all Federal lands within the Monument from “all forms of entry, location, selection, sale, or other disposition under the public land laws including, but not limited to, withdrawal from location, entry, and patent under the mining laws, and from disposition under all laws relating to mineral leasing, other than by exchange that furthers the protective purposes of the Monument and except for oil and gas leasing.”

- Direction that the Monument “…shall remain open to oil and gas leasing and development; provided, the Secretary of the Interior shall manage the

development, subject to valid existing rights, so as not to create any new impacts that interfere with the proper care and management of the objects protected by this proclamation; and provided further, the Secretary may issue new leases only for the purpose of promoting conservation of oil and gas resources in any common reservoir now being produced under existing leases, or to protect against drainage."

Fluid Minerals Leasing on the Monument

The Monument lies within a geologic region called the Paradox Basin, which covers portions of southwestern Colorado, southeastern Utah, northwestern New Mexico, and northeastern Arizona. The area has high oil, natural gas, and CO_2 potential and is currently producing oil and gas from the Paradox, Leadville, and Pennsylvanian Honaker Trail Formations on the Monument.

The Paradox Basin is typically defined by the existence of evaporite deposits underlain by thick deposits of Devonian and Mississippian Period carbonates, which are unconformably overlain by Pennsylvanian Period strata. The Paradox Basin is a mature oil and gas province, with known oil and gas reservoirs within the Leadville Formation and various carbonate members of the Paradox Formation. The Leadville Formation is the largest CO_2-containing reservoir in the country, and the Desert Creek and Ismay members of the Paradox Formation are the primary source of oil and natural gas on the Monument.

Oil was first discovered in the Paradox Basin in 1908 near Mexican Hat, Utah, where shallow wells were drilled near an existing oil seep along the San Juan River. Natural gas was first discovered along the southeastern edge of the Paradox Basin in 1921, at the Ute Dome in New Mexico. On the Monument boundary, several old, very mature oil and gas fields exist. The larger fields are the Cache, Flodine Park, McClean Basin (Cutthroat), McElmo Dome, Island Butte, and Papoose Canyon Fields. There are several smaller fields, usually consisting of one or two producing wells. Oil and gas development commenced in 1948 with the discovery of natural gas in the Shinarump Formation.

Oil and natural gas production on the Monument is primarily from algal mounds or oolitic shoals that originated in the shallow shelf environments and are surrounded by low-permeability carbonate muds. As a result, oil and gas production on the Monument depends on localized depositional environments and diagenetic trends in carbonates of the Desert Creek and Ismay members. Although these members extend beneath the entire Monument area, only areas with higher porosity and permeability contain exploitable oil and gas reservoirs, which accounts for the somewhat discontinuous and isolated nature of commercial production. Source rocks for oil and gas are the carbonaceous shales of the Paradox Formation and, possibly, the Cambrian Bright Angel Shale and the Hovenweep Shale, all of which underlie the Monument. There may also be some future potential for natural gas discoveries in the Permian Cutler Formation and increased production in the Pennsylvanian Honaker Trail Formation.

In general, management of the Monument's oil and gas resources is guided by the Monument Proclamation and by the 1991 Oil and Gas Leasing Amendment to the San Juan/San Miguel RMP (BLM 1985). The 1991 Oil and Gas Leasing Amendment to the San Juan/San Miguel RMP (BLM 1991a) set forth stipulations that apply to all new leases. These relate to surface occupancy, timing of operations, controlled surface use,

lease notices, and conditions of approval. (See Authorities and Guidelines for additional laws, regulations, and policies that pertain to fluid minerals leasing).

Current Conditions and Trends

Drilling and Production

According to the Colorado Oil and Gas Conservation Commission, 185 oil, natural gas, and CO_2 wells have been drilled on the Monument since the 1940s. Of these wells, 125 are currently active; 60 have been plugged and abandoned. Eighty-one active wells are producing from five units on the Monument: Island Butte II, Cutthroat, McElmo Dome, Cache, and Canyon (Shallow). The remaining 44 wells are producing from Monument land not in a unit. From 1950 through 2003, the average number of wells drilled per year was four. The most wells drilled in a year were 19, and there have been several years of no drilling activity. The overall success rate of all wells is 60 percent, with success rates for CO_2 wells at 65 percent and oil and natural gas wells at 57 percent. Drilling and completion costs are typically in the range of $700,000 to $1,500,000 per well.

Current daily production from wells on the Monument is approximately 550 barrels of oil, 3,850 million cubic feet (mcf) of natural gas, and 750,000 mcf of CO_2. Peak production since 1970 was 3,220 barrels of oil per day in 1994, and 9,200 mcf of natural gas per day in 1997. Oil and natural gas production has been declining steadily since the mid-1990s from wells on the Monument. The production of CO_2 from McElmo Dome Unit wells on the Monument has remained relatively constant over the last 10 years, with production ranging from approximately 700,000 to 800,000 mcf/day.

Most oil and gas fields on the Monument have produced to near their estimated ultimate recovery and are now considered near depletion, even considering current high energy prices. The estimated reserves from existing fields (both inside and outside of the Monument) are 551,125 barrels of oil and 2,953,553 mcf of natural gas (see Table below). Considering fields as a whole, this corresponds to approximately three years of oil production and two years of natural gas production at current daily production rates. With work-overs and recompletions occurring in the Pennsylvanian Honaker Trail Formation, production will continue indefinitely.

The most significant mineral resource on the Monument is CO_2 reserves in the McElmo Dome Unit. To date, approximately 4.4 trillion cubic feet (tcf) of CO_2 has been produced, which represents only 29 percent of the projected ultimate recovery of 15.3 tcf. The field has an expected economic life of at least 50 more years from proven, producing reserves. A significant amount of acreage within the unit, as well as large portions of the unit that are not currently being produced, is available for future development Continued high oil prices could increase demand for CO_2 in West Texas tertiary recovery operations, resulting in additional wells and facilities in the McElmo Dome Unit.

Estimated Oil and Gas Reserves of Units Inside and Outside of the Monument						
Field	**Cumulative Production**		**Estimated Ultimate Recovery**		**Estimated Remaining Reserves**	
	Oil, bbl	**Gas, mcf**	**Oil, bbl**	**Gas, mcf**	**Oil, bbl**	**Gas, mcf**
Cutthroat	5,603,914	19,300,181	5,842,632	20,734,357	238,718	1,434,176
Cache	4,570,047	7,606,130	4,703,626	7,900,021	133,579	293,891
Island Butte	2,213,239	5,948,770	2,222,143	5,956,710	8,904	7,940
Flodine Park	2,772,600	16,876,098	2,839,511	17,348,207	66,911	472,109
Papoose Canyon	6,459,776	35,890,976	6,562,572	36,510,415	102,796	619,439
Canyon (Shallow)	7,922	809,647	8,139	935,645	217	125,998
TOTAL	21,627,498	86,431,802	22,178,623	89,385,355	551,125	2,953,553

Bbl = barrels

At least 54 separate seismic surveys have been approved and completed on the Monument, with three 3-D surveys and 51 2-D surveys. Most individual lines on 2-D surveys were from between three to eight miles long. The highest levels of seismic activity on the Monument are within the Cutthroat and Island Butte II Units.

Leasing

The Monument encompasses 182,876 acres of land, of which approximately 170,965 acres is under Federal surface ownership, managed by the BLM. Of the 170,965 acres, 138,766 acres are leased for oil and gas development under 334 leases; 45,808 acres are not leased. Of the 334 total leases, 31 are private (non-Federal minerals).

Lease Status of Federal Mineral Estates on the Monument			
Land/Mineral Status	**Total Area (acres)**	**Leased (acres)**	**Unleased (acres)**
Federal surface/Federal minerals	164,357	130,775	39,734
Federal surface/private minerals	456	279	177
Private surface/private minerals	4,975	0	4,975
Private surface/Federal minerals	6,936	7,712	922
TOTAL	182,876	138,766	45,808

Approximately 76 percent (138,766 acres) of the Federal mineral estate on the Monument is leased for oil and gas exploration and development, while 25 percent is currently not leased. Leases entitle the lessee to develop all oil and gas, including natural gas, oil, condensate, and CO_2. The six oil, natural gas, and CO_2 units cover the majority of leased acreage on the Monument. Lease operators are required to exercise due care and diligence in order to ensure that leasehold operations do not result in undue damage to surface and subsurface resources, or any surface improvements.

Units are typically from 160 acres to several thousand acres in size, and usually consist of several leases. A unit is a “joining of all or substantially all interests in a reservoir or field, rather than a single tract, to provide for efficient development and operation of a common reservoir without regard to separate property interests.” Leases are generally unitized at the convenience of the government or when geologic conditions do not permit the drilling of wells at conventional locations. Well sites are selected based upon geologic conditions. Unitization provides operators the flexibility to explore, develop, and manage the reservoir properly. As long as there is production within the unit, the individual leases in the unit are held by production and do not expire.

The Monument Proclamation includes guidance as to oil-and-gas management for both existing and potential (new) leases. In terms of existing leases, development will continue, subject to valid and existing rights, provided that the activities do not create new impacts that interfere with the proper care and management of the objects of the Monument protected by the Proclamation. The 1991 Oil and Gas Leasing Amendment to the San Juan/San Miguel RMP (BLM 1991a) set forth stipulations that apply to all new leases. These relate to surface occupancy, timing of operations, controlled surface use, lease notices, and conditions of approval.

The NSO stipulation currently applies to 53,732 acres, or to approximately 37 percent of the total land area on the Monument. However, none of these stipulations apply to leases issued before 1991. They apply to only 15 of the total 334 leases on the Monument. In addition, the 1991 Amendment to the San Juan/San Miguel RMP (BLM 1991a) prohibited additional leasing inside the Wilderness Study Areas (WSAs) (Cahone Canyon, Cross Canyon, and Squaw/Papoose Canyon) on the Monument.

Except for oil-and-gas leasing, the Proclamation reserved and appropriated all Federal lands and interests in lands on the Monument and withdrew them from all forms of entry, location, selection, sale, leasing, or other disposition under the public-land laws, including the mineral-leasing and mining laws. Thus, with the exception of oil-and-gas leases, no new Federal mineral leases will be issued on the Monument. Authorization of activities on existing mineral leases will be governed by valid existing rights and compliance with the Proclamation, the FLPMA and the NEPA.

Oil and gas leases issued pursuant to the approval and implementation of the Approved Plan grant the lessee the right to extract oil and gas resources on BLM-administered lands within the Monument. In accordance with Section 6 of the standard BLM lease document, the BLM would restrict the lease rights granted by requiring that the lessee conduct operations in a manner that minimizes adverse (negative) environmental impacts. The BLM would also require that the lessee take reasonable measures, as deemed necessary by the lessor (the BLM), in order to accomplish this intent. These prudent measures would be applied through a Condition of Approval (COA) during the permit process for oil and gas development on the Monument.

If the BLM deems it necessary to place additional restrictions on the rights of lessees in order to protect the objects of the Monument, stipulations would be appended to the lease. Stipulations clarify the BLM's intent to protect known resources, and/or resource values. Stipulations, modifications, exceptions, and waivers that would be applied to new oil and gas leases are listed and described in Table K-1.

Existing stipulations required under the Record of Decision: Oil and Gas Plan Amendment to the San Juan/San Miguel RMP (BLM 1991a) would apply to existing leases, and would be carried-forward on new leases. The new stipulations, discussed below, would apply only to new oil and gas leases. Equivalent levels of protection would be applied to other land uses and management actions as a condition of their approval. Additional protective measures, such as special mitigation requirements, may also be applied to other land uses and management actions (as described above, they could be required for oil and gas as a COA during the permitting process).

The conditions under which each stipulation, modification, exception, or waiver would apply are explicitly stated in Table G-1. Stipulations may be modified, as necessary, in order to provide the protections to resources for which they were intended. Exceptions to stipulations may be applied, as necessary, should unforeseen circumstances arise or should new information become available. Likewise, following a rigorous testing process, modifications and waivers may be applied.

Table G-1 Fluid Minerals Stipulations, Modifications, Exceptions, and Waivers		
Type of Stipulation	**Protected Resource**	**Stipulation Description**
NSO	**Cultural resources** (CODE: _NSO1__)	**STIPULATION** -- A NSO stipulation will be applied to cultural resources for settlement clusters and sites. **PURPOSE:** • Ensure that the cultural objects of the Monument are protected at the landscape level, and that all multiple-use resource management and authorizations for land and resource uses are conducted in compliance with the Proclamation, and with Section 106 and Section 110 of the NHPA, as amended. • Manage all sources of noise in order to maintain the acoustic aspect of the traditional cultural landscape. **MANAGEMENT ACTIONS:** • Determine the potential for presence of cultural resources. • Require a Class III Inventory (100 percent on-the-ground survey) in areas of proposed ground-disturbing projects. • Prohibit ground-disturbing activities within 100 meters of cultural resources, which are defined as communities and sites (and isolated finds under Alternative II). • Design or modify multiple-use projects or activities, when possible, in order to avoid significant cultural resources for “no historic properties affected” or “no adverse effect” determinations. • Require monitoring during implementation of ground-disturbing projects, even in areas having received Class III inventory where no sites were located (due to the potential for buried subsurface cultural deposits with no surface indications within the Monument). The Monument Manager may grant exceptions. Post-project monitoring may be required at Manager’s discretion.

Table G-1 Fluid Minerals Stipulations, Modifications, Exceptions, and Waivers		
Type of Stipulation	**Protected Resource**	**Stipulation Description**
		• Manage maximum permissible noise levels in order to meet compliance with State of Colorado standards (State of Colorado Revised Statue [CRS]: Title 25 Health/Environmental Control: Article 12 Colorado Noise Statute - CRS§ 25-10-103). **EXCEPTIONS:** None. **MODIFICATIONS:** None. **WAIVERS:** None.
NSO	**Areas with slopes greater than 30 percent and/or soils with high erosion potential** (CODE: __NSO2___)	**STIPULATION** -- A NSO stipulation will be applied in areas with slopes greater than 30 percent and/or in relation to soils with high erosion potential. **PURPOSE:** • Manage soil resources in order to sustain multiple uses and to preserve and/or enhance existing ecological integrity and function. • Manage uses in order to prevent damage to soil resources from surface disturbance. • Maintain vegetation cover on slopes greater than 30 percent (as well as in all other areas with high erosion potential). **MANAGEMENT ACTIONS:** • Prohibit ground-disturbing activities on slopes steeper than 30 percent and/or on soils with high erosion potential. • Prohibit ground-disturbing activities in areas with slopes steeper than 30 percent for access to areas with slopes less than 30 percent. **EXCEPTIONS:** None. **MODIFICATIONS:** None. **WAIVERS:** None.

Table G-1 Fluid Minerals Stipulations, Modifications, Exceptions, and Waivers		
Type of Stipulation	**Protected Resource**	**Stipulation Description**
NSO	**Southwestern willow flycatcher habitat** (CODE: __NSO3__)	**STIPULATION** -- A NSO stipulation will be applied to Southwestern willow flycatcher (SWWF) habitat, including a 0.25-mile buffer. **PURPOSE:** • Contribute to the recovery of the SWWF. • Implement recovery actions (as described in the August 2002 Southwestern Willow Flycatcher Final Recovery Plan, or in the most recent version of the Recovery Plan). **MANAGEMENT ACTIONS:** • Prohibit ground-disturbing activities or other sources of major noise disturbance within SWWF habitat, including a 0.25-mile buffer of habitat patches. **EXCEPTIONS:** • Ground-disturbing activity may be permitted if the Monument Manager determines, following Endangered Species Act (ESA) Section 7 consultation with the USFWS, that the requested activity would not impair values associated with maintenance or recovery of the SWWF habitat. In making this determination, the Monument Manager will consider the following resource factors: • the behavioral and ecological requirements of the species; • the type, amount, and duration of the surface disturbance; • the relative extent of available habitat; • the relationship to topography and vegetation screening; • the current baseline data; • the type, location, duration, and intensity of potential adverse effects (impacts); • the mitigation and conservation

Table G-1 Fluid Minerals Stipulations, Modifications, Exceptions, and Waivers		
Type of Stipulation	**Protected Resource**	**Stipulation Description**
		measures designed to avoid, minimize, or off-set the adverse effects; and • other factors that may affect maintenance or recovery of the species or cause habitat to become unusable. Approval of ground-disturbing activities granted in any given year may not constitute approval for subsequent years. Approval for ground-disturbing activities must be granted (or extended) annually by the BLM. The proponent of any ground-disturbing activity will provide an assessment with their proposal that: 1) documents anticipated compliance or non-impairment of resource values protected by this stipulation, and 2) considers the above-mentioned resource factors. During, and following, the project activities covered by this provision, on-going monitoring data will be collected using widely accepted scientific methods. This data will be reported to the BLM not less often than annually. If unanticipated types or levels of adverse effects (impacts) are noted during monitoring, the BLM will be promptly notified. Corrective measures, as approved by the BLM, will be identified and implemented by the proponent. This information will be used through an adaptive management process in order to refine the project components. Associated mitigation measures will be applied to future proposed activities. If the SWWF is removed from the Federal ESA list, this stipulation would not apply to such habitat. However, other requirements would apply if the species remains classified as sensitive, or is otherwise protected. **MODIFICATIONS:** None. **WAIVERS:** None.

Table G-1 Fluid Minerals Stipulations, Modifications, Exceptions, and Waivers		
Type of Stipulation	**Protected Resource**	**Stipulation Description**
NSO	**Special Status Species – Gunnison Sage Grouse** (CODE: __NSO4___)	**STIPULATION** -- A NSO stipulation will be applied if habitat is determined to be occupied by sage grouse, no surface disturbing activities will be allowed. **PURPOSE:** • To protect and conserve Gunnison Sage Grouse and their habitat. **MANAGEMENT ACTIONS:** • Require special design, construction, operation, mitigation, and/or reclamation measures. **EXCEPTIONS:** • An exception could be granted by the Monument Manager if impacts could be fully mitigated or, the action is designed to enhance the resource values. **MODIFICATIONS:** None. **WAIVERS:** None.
NSO	**Locations known to support native amphibian breeding habitat** (CODE: __NSO5___)	**STIPULATION** -- A NSO stipulation will be applied to locations known to support native amphibian breeding habitat (potholes, seasonal pools, stock ponds, streams, and/or other areas of surface water), including a 150-foot buffer. **PURPOSE:** • Maximize biological diversity by managing habitat for native amphibian species. • Protect breeding habitat for amphibians. **MANAGEMENT ACTIONS:** • Prohibit ground-disturbing activities of locations (including a 150-foot buffer) known to support native amphibian breeding habitat. This includes potholes, seasonal pools, stock ponds, streams, and/or other areas of surface water.

Table G-1 Fluid Minerals Stipulations, Modifications, Exceptions, and Waivers		
Type of Stipulation	**Protected Resource**	**Stipulation Description**

		EXCEPTIONS:
		• Ground-disturbing activity may be permitted if the Monument Manager determines that:
		  • the activity would result in no loss of riparian vegetation or, if riparian vegetation were lost, that the loss would be limited to no more than 0.1 acre, and 100 linear feet, per mile of stream;
		  • any temporarily disturbed areas would be revegetated with existing or similar species (including with the use of containerized nursery stock, rather than seeds, to replace woody plants on a one-to-one basis (trees) or area-for-area basis (shrubs));
		  • revegetation success could be achieved within 2 years;
		  • the activity would not impair water quality, flow regime, aquatic habitat quality, and/or channel and bank stability; and
		  • no practicable alternative was available.
		
		In making this determination, the BLM will consider the following resource factors:
		• the type, amount, and duration of the surface disturbance;
		• the topography and vegetation screening;
		• the current baseline data;
		• the type, location, duration, and intensity of potential adverse effects (impacts);
		• the mitigation and conservation measures designed to avoid, minimize, or off-set the adverse effects; and
		• other factors that may affect maintenance or recovery of the species or cause habitat to become unusable.

Table G-1 Fluid Minerals Stipulations, Modifications, Exceptions, and Waivers		
Type of Stipulation	**Protected Resource**	**Stipulation Description**
		Approval of ground-disturbing activities granted in any given year may not constitute approval for subsequent years. In such instances, approval for ground-disturbing activities must be granted (or extended) annually by the BLM. The proponent of any ground-disturbing activity will provide an assessment with their proposal that: 1) documents anticipated compliance or non-impairment of resource values protected by this stipulation; and 2) considers the above-mentioned resource factors. During, and following, the project activities covered by this provision, on-going monitoring data will be collected using widely accepted scientific methods. This data will be reported to the BLM not less often than annually. If unanticipated types or levels of adverse effects are noted during monitoring, the BLM will be promptly notified. Corrective measures, as approved by the BLM, will be identified and implemented by the proponent. This information will be used through an adaptive management process in order to refine the project components. Associated mitigation measures will be applied to future proposed activities. **MODIFICATIONS:** None. **WAIVERS:** None.
NSO	**Occupied and potential habitat for threatened, endangered, candidate, or other special-status plant species** (CODE: __NSO6___)	**STIPULATION** -- A NSO stipulation will be applied to occupied and potential habitat for threatened, endangered, candidate, and/or other special-status plant species. **PURPOSE:** • Provide for maintenance or recovery of plant species listed under the ESA (including proposed or candidate species) or those listed as sensitive by the BLM State Director. • Protect occupied and potential habitat crucial for the maintenance or recovery of species listed under the

Table G-1 Fluid Minerals Stipulations, Modifications, Exceptions, and Waivers		
Type of Stipulation	**Protected Resource**	**Stipulation Description**
		ESA (including proposed or candidate species), or those listed as sensitive by the BLM State Director. **MANAGEMENT ACTIONS:** • Prohibit ground-disturbing activities within, or immediately adjacent to, occupied or potential habitat necessary for the maintenance or recovery of the species. **EXCEPTIONS:** • Ground-disturbing activity may be permitted if the Monument Manager determines, following ESA Section 7 consultation with the USFWS (for species listed under the ESA) or Field Office technical personnel, that the requested activity would not impair values associated with maintenance or recovery of the species. In making this determination, the BLM will consider the following resource factors: • the behavioral and ecological requirements of the species; • the type, amount, and duration of the surface disturbance; • the relative extent of available habitat; • the relationship to topography and vegetation screening; • the current baseline data; • the type, location, duration, and intensity of potential adverse effects (impacts); • the mitigation and conservation measures designed to avoid, minimize, or off-set the adverse effects; and • other factors that may affect maintenance or recovery of the species or cause habitat to become unusable. Approval of ground-disturbing activities granted in any given year may not constitute approval for subsequent years.

Table G-1 Fluid Minerals Stipulations, Modifications, Exceptions, and Waivers		
Type of Stipulation	**Protected Resource**	**Stipulation Description**
		Approval for ground-disturbing activities must be granted (or extended) annually by the BLM. The proponent of any ground-disturbing activity will provide an assessment with their proposal that: 1) documents anticipated compliance or non-impairment of resource values protected by this stipulation; and 2) considers the above-mentioned resource factors. During, and following, the project activities covered by this provision, on-going monitoring data will be collected using widely accepted scientific methods. This data will be reported to the BLM not less often than annually. If unanticipated types or levels of adverse effects are noted during monitoring, the BLM will be promptly notified. Corrective measures, as approved by the BLM, will be identified and implemented by the proponent. This information will be used through an adaptive management process in order to refine the project components. Associated mitigation measures will be applied to future proposed activities. If a species affected by this stipulation is removed from the ESA list, this stipulation would not apply to that species. However, other requirements will apply if the species remains classified as sensitive or is otherwise protected. This stipulation will apply to all species subsequently added to ESA list (including proposed or candidate species) or those listed as sensitive by the BLM State Director. **MODIFICATIONS:** None. **WAIVERS:** None.
NSO	**Riparian/wetlands area habitat** (CODE: __NSO7___)	**STIPULATION** -- A NSO stipulation will be applied to riparian/wetlands area habitat. **PURPOSE:** • Maintain or improve riparian/wetlands

Table G-1 Fluid Minerals Stipulations, Modifications, Exceptions, and Waivers		
Type of Stipulation	**Protected Resource**	**Stipulation Description**
		area habitat. • Preserve, protect, and, if necessary, restore natural functions of floodplains, wetlands, and/or aquatic/riparian habitats. • Improve tributaries that would contribute to restoring threatened and endangered fish populations within the San Juan River. • Maintain proper hydrologic function and protect adjacent riparian/wetlands areas that provide habitat for special-status fish and wildlife species, as well as amphibian breeding/feeding, or that provide important water quality, scenic, and/or recreation values. **MANAGEMENT ACTIONS:** • Prohibit ground-disturbing activities within the widest boundary of riparian/wetland area habitat. These areas include springs, and a combination of canyon bottoms, riparian areas, and floodplains associated with perennial, intermittent, and ephemeral streams. • Prohibit ground-disturbing activities in springs with well-developed riparian vegetation (i.e., Blue Water, H-O, and Confluence Springs), including a 300-foot buffer, in order to protect adjoining wetlands. • For remaining springs, prohibit ground-disturbing activities in the springs, including a 100-foot buffer, in order to protect adjoining wetlands. **EXCEPTIONS:** None. **MODIFICATIONS:** None. **WAIVERS:** None.
NSO	**Potential Areas of Critical Environmental Concern(ACECs)/Research**	**STIPULATION** -- A NSO stipulation will be applied to potential Areas of Critical Environmental Concern (ACECs)/Research Natural Areas (RNAs). This includes the McElmo ACEC/RNA; the

Table G-1 Fluid Minerals Stipulations, Modifications, Exceptions, and Waivers		
Type of Stipulation	**Protected Resource**	**Stipulation Description**
	Natural Areas (RNAs) (CODE: __NSO9___)	Expanded McElmo ACEC/RNA, the Cannonball Mesa ACEC/RNA, and the Sand Canyon ACEC/RNA. **PURPOSE:** • Provide a natural and undisturbed setting for conservation of habitat within the proposed ACECs/RNAs. • Protect the proposed ACECs/RNAs from activities that would disturb, alter, or impair these areas. **MANAGEMENT ACTIONS:** • Prohibit ground-disturbing activities within the proposed ACECs/RNAs. The BLM may require special design, construction, operation, mitigation, and/or reclamation measures, and/or relocation by more than 200 meters for any ground-disturbing activities, electric transmission lines, and other sources of disturbance within the ACECs/RNAs. **EXCEPTIONS:** • Site-specific locations for ground-disturbing activities would only be allowed within the proposed ACECs/RNAs if the Monument Manager determines that the specific activity or requested change would not impair the natural and undisturbed qualities of the areas. In making this determination, the BLM will consider the following resource factors: • the potential impacts to the natural and undisturbed qualities of the proposed ACECs/RNAs; • the potential impacts related to scientific research and public education; and • the potential impairments to conservation area designation. Approval of ground-disturbing activities granted in any given year may not constitute approval for subsequent years. Approval for ground-disturbing activities

Table G-1 Fluid Minerals Stipulations, Modifications, Exceptions, and Waivers		
Type of Stipulation	**Protected Resource**	**Stipulation Description**
		must be granted (or extended) annually by the BLM. The proponent of any ground-disturbing activity will provide an assessment with their proposal that: 1) documents anticipated compliance or non-impairment of resource values protected by this stipulation; and 2) considers the above-mentioned resource factors. During, and following, the project activities covered by this provision, on-going monitoring data will be collected using widely accepted scientific methods. This data will be reported to the BLM not less often than annually. If unanticipated types or levels of adverse effects are noted during monitoring, the BLM will be promptly notified. Corrective measures, as approved by the BLM, will be identified and implemented by the proponent. This information will be used through an adaptive management process in order to refine the project components. Associated mitigation measures will be applied to future proposed activities. **MODIFICATIONS:** None. **WAIVERS:** None.
NSO	**Areas with wilderness characteristics outside of Wilderness Study Areas (WSAs)** (CODE: __NSO10__)	**STIPULATION** -- A NSO stipulation will be applied to areas with wilderness characteristics outside of WSAs (including Cross Canyon, Mare's Tail Canyon, and Tin Cup Mesa). **PURPOSE:** • Protect and preserve wilderness characteristics (including naturalness, outstanding opportunities for solitude, and primitive and unconfined recreation) where they occur in identified areas with wilderness characteristics outside of WSAs. • Maintain the non-impairment standard for WSAs, in accordance with the FLPMA, in order to prevent undue and unnecessary degradation of wilderness characteristics within

Table G-1 Fluid Minerals Stipulations, Modifications, Exceptions, and Waivers		
Type of Stipulation	**Protected Resource**	**Stipulation Description**
		the areas with wilderness characteristics outside of WSAs. **MANAGEMENT ACTIONS:** • Prohibit ground-disturbing activities in areas with wilderness characteristics. **EXCEPTIONS:** None. **MODIFICATIONS:** None. **WAIVERS:** None.
NSO	**Foreground viewshed of the Trail of the Ancients** (CODE: __NSO11__)	**STIPULATION** -- A NSO stipulation will be applied for the identified foreground viewshed, including up to one-half mile on either side, of the following designated trail: the Trail of the Ancients Scenic and Historic Byway. **PURPOSE:** • To prevent undue and unnecessary degradation of the viewshed within the trial corridor. **MANAGEMENT ACTIONS:** • Require special design, construction, operation, mitigation, and/or reclamation measures, and/or relocation by more than one-half mile on either side, for any ground-disturbing activities and/or other sources of disturbance within the trail corridor that would disturb, alter, or impair these areas. **EXCEPTIONS:** None. **MODIFICATIONS:** None. **WAIVERS:** None.
TL	**Mexican spotted owl nest sites** (CODE: ___TL1___)	**STIPULATION** -- A TL stipulation will be applied to Mexican spotted owl (MSO) nest sites (occupied or historic) from March 15 to September 1 of every year.

Table G-1 Fluid Minerals Stipulations, Modifications, Exceptions, and Waivers		
Type of Stipulation	**Protected Resource**	**Stipulation Description**
		PURPOSE: • Contribute to the recovery of the MSO. • Protect MSO nest sites. **MANAGEMENT ACTIONS:** • Prohibit ground-disturbing activities or other sources of disturbance activities (excluding research, monitoring, and/or routine livestock management) and/or excessive noise disturbance that could result in a nest not being used; or that could lead to nest abandonment, failure, or mortality of fledglings, from March 15 to September 1 of every year. **EXCEPTIONS:** • Limit permitted or ground-disturbing activities within MSO Protected Activity Centers (PACs), including a 0.5 mile buffer, to mesa tops and rims in order to reduce impacts to canyon floors. Prior to approving any permissible activity within a PAC (including tree removal, fuel reduction, vegetation treatments, etc.), a nesting survey will be required for two consecutive breeding seasons, using the protocol approved by the USFWS. If management actions (including tree removal, fuel reduction, vegetation treatments, etc.) are deemed critical to another resource value within the PAC, consultation with the USFWS would be required in order to establish design standards for these activities. In making this determination, the BLM will consider the following resource factors: • the meteorological or ecological conditions during the period requested; • the status of the nest (active or inactive); • the type, intensity, and duration of disturbance;

Table G-1 Fluid Minerals Stipulations, Modifications, Exceptions, and Waivers		
Type of Stipulation	**Protected Resource**	**Stipulation Description**
		• the measures required by the USFWS; • the potential for the activity to result in the roost or nest to not be used; • the potential for nest failure; • the abandonment of the nest; • the mortality of fledglings; • the behavioral and ecological requirements of the species; • the type, amount, intensity, and duration of the surface disturbance; • the relative extent of available nesting and fledgling habitat; • the relationship to topography and vegetation screening; • the current baseline data; • the type, location, intensity, and duration of potential adverse effects (impacts); • the mitigation measures proposed designed to avoid, minimize, or off-set the adverse effects; and • other factors that may affect roosting or nesting success. Approval of ground-disturbing activities granted in any given year may not constitute approval for subsequent years. Approval for ground-disturbing activities must be granted (or extended) annually by the BLM. The proponent of any ground-disturbing activity will provide an assessment with their proposal that: 1) documents anticipated compliance or non-impairment of resource values protected by this stipulation; and 2) considers the above-mentioned resource factors. During, and following, the project activities covered by this provision, on-going monitoring data will be collected using widely accepted scientific methods. This data will be reported to the BLM not less often than annually. If unanticipated types or levels of adverse effects are noted during monitoring, the BLM will be promptly notified. Corrective measures, as approved by the BLM, will be identified

Table G-1 Fluid Minerals Stipulations, Modifications, Exceptions, and Waivers		
Type of Stipulation	**Protected Resource**	**Stipulation Description**
		and implemented by the proponent. This information will be used through an adaptive management process in order to refine the project components. Associated mitigation measures will be applied to future proposed activities. **MODIFICATIONS:** None. **WAIVERS:** None.
TL	**Active bald eagle or golden eagle nests** (CODE: ___TL2___)	**STIPULATION** -- A TL stipulation will be applied to active bald eagle or golden eagle nests, including a 0.5 mile buffer, from March 1 to July 15 of every year. **PURPOSE:** • Protect bald and golden eagle habitat. • Protect bald and golden eagle nesting and fledging habitat. **MANAGEMENT ACTIONS:** • Prohibit ground-disturbing activities or other sources of disturbance activities (excluding research, monitoring, and/or routine livestock management) and/or excessive noise disturbance that could result in an active nest not being used; or that could lead to nest abandonment, failure, or mortality of fledglings within a 0.5 mile buffer of an active nest, from March 1 to July 15 of every year. **EXCEPTIONS:** • From March 1 to July 15, site-specific ground-disturbing activity may be allowed if the Monument Manager determines, following consultation with the USFWS, that the requested activity would not impair values associated with maintenance or recovery of the species or behaviors associated with winter roosting, nesting, fledging, and/or fledging habitat. In making this determination, the BLM will

Table G-1 Fluid Minerals Stipulations, Modifications, Exceptions, and Waivers		
Type of Stipulation	**Protected Resource**	**Stipulation Description**
		consider the following resource factors: • the meteorological or ecological conditions during the period requested; • the status of the nest (active or inactive); • the type, intensity, and duration of disturbance; • the measures required by the USFWS; • the potential for the activity to result in the roost or nest to not be used; • the potential for nest failure; • the abandonment of the nest; • the mortality of fledglings; • the behavioral and ecological requirements of the species; • the type, amount, intensity, and duration of the surface disturbance; • the relative extent of available nesting and fledgling habitat; • the relationship to topography and vegetation screening; • the current baseline data; • the type, location, intensity, and duration of potential adverse effects (impacts); • the mitigation measures proposed designed to avoid, minimize, or off-set the adverse effects; and • other factors that may affect roosting or nesting success. Approval of ground-disturbing activities granted in any given year may not constitute approval for subsequent years. Approval for ground-disturbing activities must be granted (or extended) annually by the BLM. The proponent of any ground-disturbing activity will provide an assessment with their proposal that: 1) documents anticipated compliance or non-impairment of resource values protected by this stipulation; and 2) considers the above-mentioned resource factors. During, and following, the project activities covered by this provision, on-going

Table G-1 Fluid Minerals Stipulations, Modifications, Exceptions, and Waivers		
Type of Stipulation	**Protected Resource**	**Stipulation Description**
		monitoring data will be collected using widely accepted scientific methods. This data will be reported to the BLM not less often than annually. If unanticipated types or levels of adverse effects are noted during monitoring, the BLM will be promptly notified. Corrective measures, as approved by the BLM, will be identified and implemented by the proponent. This information will be used through an adaptive management process in order to refine the project components. Associated mitigation measures would be applied to future proposed activities. **MODIFICATIONS:** None. **WAIVERS:** None.
TL	**Known bald and golden eagle winter roost or winter concentration areas** (CODE: __TL3____)	**STIPULATION** -- A TL stipulation will be applied to known bald and golden eagle winter roost or winter concentration areas, including a 0.5 mile buffer, from November 16 to April 15 of every year. **PURPOSE:** • Protect bald and golden eagle habitat. • Protect bald and golden eagle winter roost or winter concentration area habitat. **MANAGEMENT ACTIONS:** • Prohibit ground-disturbing activities or other sources of disturbance activities (excluding research, monitoring, and/or routine livestock management) and/or excessive noise disturbance that could result in a winter roost or winter concentration not being used, including a 0.5 mile buffer of such habitat, from November 16 to April 15 of every year. **EXCEPTIONS:** • From November 16 to April 15, site-specific ground-disturbing activity may be allowed if the Monument Manager determines, following

Table G-1 Fluid Minerals Stipulations, Modifications, Exceptions, and Waivers		
Type of Stipulation	**Protected Resource**	**Stipulation Description**
		consultation with the USFWS, that the requested activity would not impair values associated with maintenance or recovery of the species or behaviors associated with winter roosting, nesting, fledging, and/or fledging habitat. In making this determination, the BLM will consider the following resource factors: • the meteorological or ecological conditions during the period requested; • the status of the nest (active or inactive); • the type, intensity, and duration of disturbance; • the measures required by the USFWS; • the potential for the activity to result in the nest not being used; • the ecological requirements of each species; • the type, amount, intensity, and duration of the surface disturbance; • the relative extent of available winter roosting or concentration area habitat; • the relationship to topography and vegetation screening; • the current baseline data; • the type, location, intensity, and duration of potential adverse effects (impacts); • the proposed mitigation measures designed to avoid, minimize, or off-set the adverse effects; and • other factors that may affect roosting or winter concentration areas. Approval of ground-disturbing activities granted in any given year may not constitute approval for subsequent years. Approval for ground-disturbing activities must be granted (or extended) annually by the BLM. The proponent of any ground-disturbing activity will provide an assessment with their proposal that: 1)

Table G-1 Fluid Minerals Stipulations, Modifications, Exceptions, and Waivers		
Type of Stipulation	**Protected Resource**	**Stipulation Description**
		documents anticipated compliance or non-impairment of resource values protected by this stipulation; and 2) considers the above-mentioned resource factors. During, and following, the project activities covered by this provision, on-going monitoring data will be collected using widely accepted scientific methods. This data will be reported to the BLM not less often than annually. If unanticipated types or levels of adverse effects are noted during monitoring, the BLM will be promptly notified. Corrective measures, as approved by the BLM, will be identified and implemented by the proponent. This information will be used through an adaptive management process in order to refine the project components. Associated mitigation measures will be applied to future proposed activities. **MODIFICATIONS:** None. **WAIVERS:** None.
Lease Notice	**Regarding physical cultural remains** (CODE: __LN1____)	**STIPULATION --** A Lease Notice will be issued in order to alert lessees that no APDs will be granted where physical cultural remains are dense, continuous, and/or chronologically related and determined to be settlement clusters, throughout the survey area (constant-no breaks). **PURPOSE:** • Ensure that the objects of the Monument are protected at the landscape level, and that all multiple-use resource management and authorizations for land and resource uses are conducted in compliance with the Proclamation, and with Section 106 and Section 110 of the National Historic Preservation Act (NHPA), as amended. • Alert lessees that no APDs will be granted where physical cultural remains are dense, continuous, and

Table G-1 Fluid Minerals Stipulations, Modifications, Exceptions, and Waivers		
Type of Stipulation	**Protected Resource**	**Stipulation Description**
		chronologically related and determined to be communities, throughout the survey area (constant-no breaks). **MANAGEMENT ACTIONS:** • Advise lessees that no APDs will be granted where physical cultural remains are dense, continuous, and chronologically related and determined to be communities, throughout the survey area (constant-no breaks). **EXCEPTIONS:** None. **MODIFICATIONS:** None. **WAIVERS:** None.
Lease Notice	**Regarding NSO stipulations on Southwestern willow flycatcher habitat** (CODE: __LN2___)	**STIPULATION** -- A Lease Notice will be issued in order to alert lessees to NSO stipulations for SWWF habitat, including a 0.25-mile buffer. **PURPOSE:** • Contribute to the recovery of the SWWF. • Implement recovery actions, as described in the August 2002 Southwestern Willow Flycatcher Final Recovery Plan, or in the most recent version of the Recovery Plan. **MANAGEMENT ACTIONS:** • Advise lessees of NSO and TL stipulations for SWWF habitat, including a 0.25-mile buffer, as defined in the most recent Final Recovery Plan. **EXCEPTIONS:** None. **MODIFICATIONS:** None. **WAIVERS:** None.
Lease Notice	**Regarding TL stipulation**	**STIPULATION** -- A Lease Notice will be issued in order to alert lessees to TL

Table G-1 Fluid Minerals Stipulations, Modifications, Exceptions, and Waivers		
Type of Stipulation	**Protected Resource**	**Stipulation Description**
	on active or historic bald or golden eagle nest sites (CODE: __LN3____)	stipulation on active or historic bald or golden eagle nest sites; as well as on active bald or golden eagle winter roost or winter concentration habitat, including the 0.5 mile buffer. **PURPOSE:** • Protect bald and golden eagle nest sites and/or winter roost sites and winter concentration areas. • Protect bald and golden eagle winter roost or winter concentration area habitat. **MANAGEMENT ACTIONS:** • Advise lessees that within a 0.5-mile radius of a nest, ground-disturbing activities or other sources of disturbance that could result in a nest not being used; or that could lead to nest abandonment, failure, or mortality of fledglings, are prohibited. **EXCEPTIONS:** None. **MODIFICATIONS:** None. **WAIVERS:** None.
Lease Notice	**Regarding NSO stipulations on locations known to support native amphibian breeding habitat** (CODE: __LN4____)	**STIPULATION** -- A Lease Notice will be issued in order to alert lessees to NSO stipulations on locations known to support native amphibian breeding habitat (potholes, seasonal pools, stock ponds, streams, and/or other areas of surface water), including a 150-foot buffer. **PURPOSE:** • Maximize biological diversity by managing habitat for native amphibian species. • Protect breeding habitat for amphibians. **MANAGEMENT ACTIONS:** • Advise lessees of NSO and TL stipulations for locations known to support native amphibian breeding habitat during the breeding season

Table G-1 Fluid Minerals Stipulations, Modifications, Exceptions, and Waivers		
Type of Stipulation	**Protected Resource**	**Stipulation Description**
		from April 1 to July 31 of every year. This includes potholes, seasonal pools, stock ponds, streams, or other areas of surface water, as well as a 150-foot buffer. **EXCEPTIONS:** None. **MODIFICATIONS:** None. **WAIVERS:** None.
Lease Notice	**Regarding NSO stipulation on occupied and potential habitat for threatened, endangered, candidate, or other special-status plant species** (CODE: __LN5____)	**STIPULATION** -- A Lease Notice will be issued in order to alert lessees of NSO stipulation on occupied and potential habitat for threatened, endangered, candidate, or other special-status plant species. **PURPOSE:** • Provide for maintenance or recovery of plant species listed under the ESA (including proposed or candidate species) or those listed as sensitive by the BLM State Director. • Protect occupied and potential habitat crucial for the maintenance or recovery of species listed under the ESA (including proposed or candidate species) or those listed as sensitive by the BLM State Director. **MANAGEMENT ACTIONS:** • Advise lessees of NSO stipulation prohibiting ground-disturbing activities within, or immediately adjacent to, occupied or potential habitat necessary for maintenance or recovery of the species. **EXCEPTIONS:** None. **MODIFICATIONS:** None. **WAIVERS:** None.
Lease Notice	**Regarding additional required Conditions of**	**STIPULATION** -- A Lease Notice will be issued for additional required Conditions of Approval (COAs).

Table G-1 Fluid Minerals Stipulations, Modifications, Exceptions, and Waivers		
Type of Stipulation	**Protected Resource**	**Stipulation Description**
	Approval (COAs) (CODE: __LN6____)	**PURPOSE:** • Meet overall resource and multiple-use objectives of the Canyons of the Ancients National Monument RMP. • Alert lessee of additional COAs that are to be applied to permitted activities, in addition to lease-level stipulations. These will take the form of management prescriptions specific to defined areas, Best Management Practices (BMPs) specific to resource values, as well as required reclamation standards and monitoring. **MANAGEMENT ACTIONS:** • Advise lessees of additional COAs and of the location of land use management prescriptions analyzed in the DRMP/DEIS.
Lease Notice	**Regarding NSO stipulations on habitat occupied by sage grouse** (CODE: __LN7___)	**STIPULATION** -- A Lease Notice will be issued in order to alert lessees to NSO stipulations for habitat occupied by sage grouse. **PURPOSE:** • To protect and conserve Gunnison Sage Grouse and their habitat. **MANAGEMENT ACTIONS:** • Advise lessees of NSO stipulations for occupied sage grouse habitat. **EXCEPTIONS:** None **MODIFICATIONS:** None. **WAIVERS:** None.
Lease Notice	**Regarding NSO stipulations on habitat occupied by sage grouse** (CODE: __LN8___)	**STIPULATION** -- A Lease Notice will be issued in order to alert lessees to TL stipulations for Mexican Spotted Owl (MSO) nest sites (occupied or historic). **PURPOSE:** • Contribute to the recovery of the

Table G-1 Fluid Minerals Stipulations, Modifications, Exceptions, and Waivers		
Type of Stipulation	**Protected Resource**	**Stipulation Description**
		MSO. • Protect MOS nest sites. **MANAGEMENT ACTIONS:** • Advise lessees of TL stipulations for occupied and historic MSO nest sites. **EXCEPTIONS:** None **MODIFICATIONS:** None. **WAIVERS:** None.

References

Bureau of Land Management (BLM). 1985. San Juan/San Miguel Resource Management Plan. U.S. Department of the Interior, Bureau of Land Management. San Juan Field Office. Durango, Colorado. September.

BLM. 1990. BLM Handbook 1624-1 -- Planning for Fluid Mineral Resources. U.S. Department of the Interior, Bureau of Land Management. Washington, D.C.

BLM. 1991a. Record of Decision: Oil and Gas Plan Amendment to the San Juan/San Miguel Resource Management Plan. U.S. Department of the Interior, Bureau of Land Management. Montrose Field Office. Montrose, Colorado.

BLM. 1993. BLM Handbook H-3110-1 -- Non-Competitive Leases. U.S. Department of the Interior, Bureau of Land Management. Washington, D.C.

BLM. 1994. BLM Manual 3150 -- Onshore Oil and Gas and Geophysical Exploration. U.S. Department of the Interior, Bureau of Land Management. Washington, D.C

BLM. 1995. BLM Manual 3109 and Handbook H-3109-1 -- Leasing Under Special Acts. U.S. Department of the Interior, Bureau of Land Management. Washington, D.C.

BLM. 2001d. BLM Handbook H-1601-1 -- Land Use Planning Handbook. Rel. 1-1693. U.S. Department of the Interior, Bureau of Land Management. Washington, D.C.

BLM. 2005a. BLM Handbook H-1601-1 -- Land Use Planning Handbook. Department of the Interior, Bureau of Land Management. Washington, D.C. March.

Minerals Management Service (MMS). Glossary of Terms. Minerals Reserve Management. U.S. Department of the Interior, Minerals Management Service. Denver, Colorado. Available on the Internet at: http://www.mrm.mms.gov/stats/statsrm.htm.

Rocky Mountain Regional Coordinating Committee. 1989. Uniform Format for Oil and Gas Lease Stipulations. U.S. Department of the Interior, Bureau of Reclamation. U.S. Department of Agriculture, U.S. Forest Service. Denver, Colorado.

Watson, R. J. 2005. Leasing and Permitting for Oil and Gas Development on Federal Public Domain Lands. CRS Report for Congress. Congressional Research Service. Library of Congress. Washington, D.C

APPENDIX H

Cultural Resource Definitions, Inventory Requirements, Planning and Evaluation Process

APPENDIX H
Cultural Resource Definitions, Inventory Requirements, Planning and Evaluation Process

Cultural Resources Objectives for Surface-Disturbing Activities/Development Proposals

Cultural resources objectives include:

- Avoid direct, indirect, and cumulative impacts to historic properties (objects of the Monument) to the maximum extent possible.
- Ground disturbance must be kept to the smallest footprint possible.
- Prevent fragmentation of the landscape to the maximum extent possible.
- Maintain visual quality.

Definitions

Key definitions include:

- **Site**: A site is a physical location containing the remains of past human activities or events with a collection of objects, features, and/or structures that do not meet the criteria for an Isolated Find (IF). Cultural resource sites are extremely variable in size, and can range from a cluster of **11 or more artifacts in a 30 meter diameter area**; to a feature with or without artifacts; to a large complex of features, structures, and associated artifacts.

  In addition to a range of variability in size and complexity, attributes of sites **may** also include:

  - secondarily deposited cultural resource remains; and/or
  - specific locations or areas that hold cultural and/or religious significance to living descendant cultural groups.

- **Isolated Find (IF)**: an IF is 10 or fewer artifacts in a 30-meter diameter area. The information potential of an IF can be realized through field recording of essential basic data, and the information preserved in an archival format.

Inventory Standards and Avoidance Buffers

The scope of the archaeological inventory would be determined by the BLM when the Fieldwork Authorization is submitted by the BLM Cultural Resource Use Permittee.

- **Fieldwork Authorization:** A complete description of the undertaking (purpose, nature of activities/disturbance, equipment to be used, staging/stockpiling requirements, access, utilities, land status, etc.) with corresponding dimensions and drawings, and including the project area(s) plotted to scale on a 1:24,000 scale topographic map, labeled with the quadrangle name.
- **Single well pads**: 40 acre minimum survey.
- **Linear Survey**: A linear survey will include the width of the proposed undertaking (route or pipeline Right-of-Way (ROW) plus 100 meters (300 feet) on either side

of the proposed undertaking (in order to ensure that a 100-meter buffer between the undertaking and the site boundary is inventoried, per the Colorado BLM buffer guidelines). [See Appendix K for details on distinguishing between survey width and the Area of Potential Effect (APE).]

- **Avoidance Buffer**: 100 meters, per the Colorado BLM buffer guidelines. (The guidelines acknowledge that avoidance buffers can be modified, if necessary, by the BLM due to environmental and/or other factors.)

National Register of Historic Places: Adverse Effects

The regulations implementing the National Historic Preservation Act (NHPA) state that:

> *An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association… (36 CFR part 800.5(a)(1)).*
>
> *Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative.*
>
> *Adverse effects on historic properties include but are not limited to:*
>
> *(i) Physical destruction, damage, or alteration of all or part of the property;*
>
> *(ii) Alternation of a property…that is not consistent with the Secretary's Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines;*
>
> *(iii) Removal of the property from its historic location;*
>
> *(iv) Changes to the character of the property's use or to physical features within the property's setting, which contribute to the property's historic significance;*
>
> *(v) Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features;*
>
> *(vi) Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and*
>
> *(vii) Transfer, lease, or sale of the property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions for ensuring long-term preservation of the property's historic significance (36 CFR part 800.5(a)(2)).*

There would be effects to cultural resources if undertakings:

- result in impacts on properties either listed, or determined to be eligible for listing, in the National Register of Historic Places (NHPA), or on properties that are considered important to Native American groups;
- cannot be satisfactorily mitigated, as determined through consultation with the State Historic Preservation Office (SHPO) and other interested parties; and/or
- result in impacts on the viewshed of properties whose setting contributes to the importance of the site.

Application for Permit to Drill Planning Process

The Application for Permit to Drill (APD) planning process includes:

- Operators would be encouraged to submit multi-year plans of development for potential or defined oil and gas field(s), or portions of fields, on 1:24,000 scale topographic maps indicating all related aspects of the development.
- A geographic area would be identified by the BLM for completion of a Class III archaeological inventory by a BLM cultural resource use Permittee, at the expense of the Proponent. The area of inventory would be specific to each multi-year plan.
- The BLM would analyze the inventory results in terms of site density and spatial distribution, and would then identify areas within the Geographic Area Development Plan (GADP) that may be potentially suitable for development based upon low site densities and scattered settlement patterns. Areas of high site density and settlement clusters in close proximity to each other that are not suitable for potential development would also be identified.
- This analysis, in consideration of Monument cultural resource management objectives and BMPs for development proposals, would form the basis for the GADP. This, in turn, would become a reference document for the initial selection of potential well pad locations and associated developments by the Proponent.
- The Proponent would identify potential locations and initiate pre-APD Interdisciplinary (ID) Team planning with the appropriate BLM personnel in order to consider and resolve natural and cultural resource concerns, and to produce a viable APD proposal.
- Once suitable location(s) are agreed upon by the Proponent and the BLM, field inspections by a BLM-permitted archaeologist would occur. Compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, would be completed for individual APDs and/or multiple APD packages.
- Proponents would submit written documentation of the pre-APD ID Team planning process with the APD. This documentation would form the basis for the alternative development in the Environmental Assessment (EA). APDs would not be accepted by the BLM without this documentation. At the time an APD is submitted to the BLM, the proposal would be expected to meet Monument management objectives.
- The APD would then be processed.

If the geographic area analyzed includes no suitable development space, options would include:

- Expand the area analyzed in the GADP by using reliable existing inventory and/or by expanding the cultural resource inventory area.
- Mitigate adverse effects only as a last resort (basically, when all other strategies have been thoroughly analyzed, determined not to be feasible, and documented).
- Evaluate a range of mitigation options in order to minimize and/or to mitigate impacts (effects) of a site-specific proposed development on historic properties.

Examples of Options to Minimize Ground Disturbance and Fragmentation

The following are examples of options:

- Use and/or modify existing facilities, utility, and transportation corridors.
- Use previously disturbed areas.
- Use directional or horizontal drilling.
- Co-locate wells on single well pads.
- Use buffers in order to minimize indirect and cumulative impacts.
- Use vegetative screening in order to preserve visual integrity of sites.

Mitigation treatments would follow the directives provided in the “Advisory Council on Historic Preservation Section 106 Archaeology Guidance.” All mitigation would be developed in consultation with the SHPO and with Native American tribes.

Horizontal/Directional Drilling Analysis

Incorporating new technologies into fluid mineral development was included in the Approved Plan. These new technologies include horizontal and/or directional drilling methods that allow for greater flexibility in the placement of wells and, consequently, more opportunity to avoid sensitive resources. In general, these drilling methods allow for the placement of wells up to 2,200 feet away from the specific mineral resource to be tapped. Thus, multiple wells can be placed on a single well pad, existing disturbance areas can be used rather than creating new disturbance, and fluid mineral resources under the Monument may be reached from surface facilities off of the Monument.

In order to demonstrate the application this technology may have on the Monument, a map (Map 10) was generated that depicted minerals accessible within 2,200 feet of existing disturbed areas. Existing disturbed areas include fluid mineral facilities, wells, compressor sites, mine locations, power line corridors, and routes of travel. This analysis did not consider restrictions related to topography, concerns with other resources, etc. However, it does provide a basis for how valid existing rights may be exercised without further damage to cultural and natural resources in the Monument. (Map 10 indicates that 77 percent of the Monument can be reached from existing disturbed areas. Of the 127,895 acres currently leased for fluid mineral development, 79 percent (89,681 acres) fall within 2,200 feet of existing disturbance, and may be accessible using directional/horizontal drilling methods.

Future Oil and Gas Leasing and Cultural Resources Management

Oil and gas leasing is considered an undertaking subject to Section 106 compliance. All new lease areas on the Monument would be offered for sale with a No Surface Occupancy (NSO) stipulation that prohibits physical occupancy and surface disturbance within the lease area in order to extract oil or gas. As a result, it is expected that lease sales with the NSO stipulation would be determined an Undertaking *"that does not have the potential to cause effects on historic properties"* per 36 CFR 800.3(a)and (a)(1).

Criteria for Waivers, Exceptions, and Modifications of Lease Terms for New Leases

Only waivers, exceptions, or modifications to lease terms that seek to minimize direct, indirect, and cumulative impacts (effects) to cultural resources would be considered by the Monument Manager. Should a waiver to the NSO stipulation on leases issued under the terms of the Approved Plan be proposed, the following special criteria would be applied to enable the Monument Manager to evaluate the proposal for a waiver, exception, or modification. No exceptions would be granted to the special criteria.

Special Criteria

A Class III cultural resource inventory of the entire lease within which the exception is sought would be conducted by a BLM Cultural Resource Use Permittee retained by the leasee. The inventory would comply with all BLM and Monument standards and requirements. The BLM would evaluate the results of the inventory in order to identify if areas without cultural resources exist that are suitable to grant a waiver, exception, or modification.

APPENDIX I

Public Use Site Criteria

APPENDIX I

Public Use Site Criteria

Determining Archaeological Site Suitability for Developed Public Use

The following are the public use site criteria for determining archeological site suitability for developed public use within the Canyons of the Ancients National Monument (the Monument):

1. Determine suitability of the site for interpretation:
   - Does legal public access currently exist and, if not, can a right-of-way (ROW) be obtained?
   - Can visitor impacts be mitigated, or is the site too fragile?
   - Are the Native American tribes amenable to public use?
   - Does the site offer new and/or unique public education opportunities?
   - Can the site be managed within the current financial budgets and staff, including route maintenance?
   - Are visitors going to go there anyway?

2. Complete the following specific steps before opening a site to the public:
   - Consultation with appropriate Native American tribes regarding the suitability of site selection and public information content.
   - Determine if additional site documentation is needed in order to complete National Environmental Policy Act (NEPA) analysis and Section 106 compliance with the National Historic Preservation Act (NHPA). Techniques/methods may include all or part of the following: updating the Colorado Office of Archaeology and Historic Preservation records; completing Historic American Building Survey (HABS) documentation of standing architecture; mapping surface features and artifacts; analyzing 100 percent of the surface artifacts or appropriate sample(s) in-field; testing/excavation; and preparing a site condition/preservation assessment.
   - Obtain a legal ROW if crossing private land is required in order to access the site.
   - Prepare a site-specific Cultural Resource Management Plan (CRMP) and Interpretation Plan. The Plan(s) would detail how the site would be accessed and/or developed; physical alterations (such as trail development); site areas needing hardening; interpretation methods (such as signing, brochures, etc.); site monitoring and protection; maintenance; and/or staffing.
   - Complete Section 106 compliance. (Note: This could include mitigation recommendations depending upon determination of effect/impact results. Mitigation of impacts could include testing/data recovery on all or portions of the site, more detailed documentation of the site, and/or other measures determined on a case-by-case basis.)
   - Complete NEPA analysis and incorporate actions identified above.

APPENDIX J

Visual Resource Inventory and Classification Process

APPENDIX J

Visual Resource Inventory and Classification Process

The inventory conducted for the Canyons of the Ancients National Monument (the Monument) followed the process outlined in BLM Handbook 8410-1, *Visual Resource Inventory.* All maps are located in the project file.

The Monument's Resource Management Plan (RMP) planning team conducted field observations and developed a Scenic Quality Rating Unit (SQRU) Map.

1. Key Observation Points (KOPs) identified by the team and listed in the Draft RMP/Draft EIS were identified on a map. These included travelways and stationary locations. Viewsheds for each travelway and viewer location were mapped in two distance zones: Foreground/Midground (FG/MG) and Background (BG). A map was created for each travelway and viewer location.

2. Sensitivity levels were assigned to each KOP. In general, viewer sensitivity for the Monument is considered to be high in all locations. This is due to the special designation of the area as a national monument, the scoping comments received during the planning process, and the nature of the landscape itself (where visitors are allowed to explore both mesas and canyons). In addition, it is recognized that much of the viewshed of several National Park Service (NPS) units is located on BLM-administered Monument lands.

3. The viewshed maps were integrated with the SQRU Map and Visual Resource Inventory Classes were mapped with the aid of the matrix shown in the BLM Inventory Manual. This created the Visual Resource Inventory Map. The Monument has Visual Inventory Class I in the Wilderness Study Areas (WSAs), and Class II and Class III in most other areas, except for some areas of Class IV in the far southwest Monument, because of the associated Scenic Quality Rating.

Visual Resource Management Map

Visual Resource Management (VRM) under the Approved Plan is guided by a map, RMP standards and guidelines text [including stipulations and Best Management Practices (BMPs) for energy activities]. The following items describe, in general, how the VRM map was created.

1. The WSAs were assigned a VRM Class I in order to maintain a non-impairment condition, per H8550-1. Resource Natural Areas (RNA) were also assigned a VRM Class I, consistent with the requirement for maintenance of natural conditions.
2. Due to its visual and cultural sensitivity, the Sand Canyon Special Recreation Management Area (SRMA) was assigned a VRM Class I and Class II.
3. Areas with intensive existing energy development and high potential future energy development were assigned a VRM Class IV. This includes the immediate FG of Mockingbird Mesa and the far southwest part of the Monument.
4. Areas with less intensive existing energy development and moderate to high potential for additional development were assigned a VRM Class III. This includes County Roads N and P.
5. Areas with little current resource activity and moderate to low potential were assigned a VRM Class II.

APPENDIX K

Consideration of Cultural Resources in Transportation Plan Development

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Consideration of Cultural Resources in Transportation Plan Development

INTRODUCTION

An assessment of Section 106 compliance needs was conducted, per the requirements of "Clarification of Addendum 1 to the Colorado Protocol: Section 106 Requirements for Comprehensive Travel and Transportation Management Planning" (2007c). This Addendum sets forth a process and the guidelines for consideration of cultural resources throughout the planning process for the transportation component of the Approved Plan. It also establishes a phased identification strategy so that the BLM is in compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended. The "Archaeological Standards and Requirements for Conducting Archaeological Inventory on the Canyons of the Ancients National Monument" (BLM 2008a) were also used to address the complexity of cultural resources management on a landscape scale.

Methods

When the Transportation Management planning process began, a comprehensive field inventory of all transportation routes within the Monument was conducted. Routes were mapped using Global Positioning System (GPS) equipment. ARCGIS was used to generate maps of the routes. Cultural resource site locations [gathered from the Monument's Geographic Information System (GIS) site database], land uses, destinations, law enforcement considerations, fire protection issues, natural resource management considerations and issues, public health and safety issues, public uses and needs issues, duplication of routes considerations, and private land access issues were considered during the development of the transportation management alternatives (see Appendix F).

Current archaeological information was used by the BLM to identify cultural resource inventory needs for designated routes and for route closures. The Area of Potential Effect (APE) for routes is defined in the above Addendum as a corridor 50 feet wide on both sides of the centerline of the route; i.e., the APE is a total of 100-feet wide. All routes in the Approved Plan were reviewed to determine whether a Class III cultural resource inventory had been completed and inventory and site information were compiled for each route. This information will help determine the inventory needed to ensure compliance with Section 106 of the NHPA prior to implementation of the Transportation Management Plan.

APPENDIX L

Right-of-Way (ROW) Grant Process

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Right-of-Way (ROW) Grant Process

A Right-Of-Way (ROW) grant is an authorization to use BLM-administered public lands for a particular use and for a defined period of time. Generally, a BLM ROW is granted for a time period determined appropriate for the life of the project. [A complete explanation of the BLM ROW program is found in Title 43 of the Code of Federal Regulations (CFR), Parts 2800 and 2880.] Routes are one of several uses requiring a ROW grant.

The following steps are required in obtaining a ROW for a transportation route on BLM-administered lands, including within the Canyons of the Ancients National Monument (Monument):

1. Contact the BLM Land and Realty Specialist for the Monument.
2. Obtain an Application Form (Standard Form 299, titled “Application for Transportation and Utility Systems and Facilities on Federal Land”).
3. Arrange a pre-application meeting.
4. Assemble all required information and submit to the BLM Lands and Realty Specialist for the Monument.

The pre-application meeting provides the opportunity to fully discuss and describe the desired transportation route in detail, and to learn more about BLM process requirements. Information relevant to the project should be brought to the meeting, including maps and/or survey data. Discussions during the pre-application meeting will also include fees, safety concerns, work schedules, and other items.

There are 3 different fees associated with ROWs:

- **Processing Fee -** The processing fee reimburses the BLM in advance for the cost of processing an application.
- **Rental Fee -** If a ROW is granted, the use of the ROW is subject to a yearly rental fee, which is calculated based upon type of use and location.
- **Monitoring Fee -** Once a ROW is granted, monitoring fees are collected, which reimburse the BLM for the costs of monitoring the construction, operation, maintenance, and termination of the project.

Project design must be compatible with the proposed use and anticipated environmental impacts. All disturbances must be within the boundary of the proposed ROW. A Plan of Development (POD) is encouraged to be submitted with an application to expedite the review process. The POD covers the who, what, where, when, and how questions of route construction. In addition, design criteria for transportation routes would be required, and would identify the following:

- total length and total width of the ROW (including the width of route surface and the maximum grade of the route);
- minimum/maximum clearing width;
- cut/fill slope ratios;
- type and location of drainage structures, cattleguards, fences, gates, etc.;
- proposed surfacing type (gravel) and quantities;
- dust abatement;
- centerline survey plat;

- design drawings [including plan and profile sheets, typical roadway cross-sections, culvert installation details, grade dip detail (water bars, rolling dips, etc.), cattleguards, fence and gate details, etc.];
- construction specifications; and
- materials specifications.

The POD requires full disclosure of construction components, such as:

- flagging and staking;
- clearing and grading;
- earthwork;
- structure installation;
- stabilization, rehabilitation, and revegetation; and
- seeding specifications.

The application also requires descriptions of:

- what maintenance is required;
- the anticipated level of use; and
- actions required in order to terminate the use.

The completed application is then evaluated in order to ensure conformance with the Approved Plan, and for identification of possible conflicts (such as concurrent use of the land by other valid existing rights). Depending upon the length of time it takes to process the application, the BLM will either process the application within 60 days or notify the applicant in writing (prior to the 30th day) of the time frame expected for a decision on the application. The time it takes to process an application may also depend upon what potential resource impacts are involved, as well as the surveys required for clearance.

A ROW application may be denied based upon the following issues:

- The proposal is not in conformance with applicable RMPs (i.e. the purpose for which the public lands are managed).
- The proposal would not be in the public's interest.
- The applicant is not qualified.
- The proposal is inconsistent with Federal, State, or local laws.
- The applicant is not technically or financially capable of accomplishing the project.
- Serious environmental consequences may occur as a result of the proposed project that cannot be mitigated.

A pre-application meeting can reduce the possibility of the application being denied. Generally, once a signed ROW grant has been issued, work can begin. A ROW holder may use the ROW only for those purposes authorized in the grant. The BLM ROW process may be adjusted during the life of the Approved Plan; therefore it is important to check with the Lands and Realty Specialist for changes in this process, or to obtain greater detail by viewing the BLM website: http://www.blm.gov/wo/st/en/prog/energy/cost_recovery_regulations.html.

Right-of-Way Pre-Application Checklist

Items to be discussed in the Pre-Application conference with an applicant include the following:

A. Scope of the Proposed Project

- What is the project type [including description, plans, Mineral Leasing Act (MLA) Federal Land Policy Management Act (FLPMA) issues, site vs. linear, etc.]?
- What is the use? (Is a ROW the most appropriate authorization?)
- What is the project size? (How much public land will be required?)
- Are any other Federal agency lands involved? Which agency is the Lead State or Lead Agency (FERC)?
- What is the project location or routing? [Are there other potential routes/locations (on or off BLM-administered public lands)? Are other BLM Field Offices involved?]
- What is the duration of use?
- Does the project qualify as casual use?
- Are there any off-site or ancillary facilities?

B. Compliance with the Approved RMP

- Does the proposed project conform to the Approved Plan?
- Does the proposed project conflict with any special designation areas?
- Are there any Activity Plans that may affect the application?
- Are there any other authorized uses or mining claims that may conflict with proposal?
- Are there any corridor considerations?

C. Potential for Controversy/ Public Meetings

- What is the potential for controversy?
- Would public scoping meetings be required?

D. Level of Environmental Analysis

- What is the expected level of environmental analysis (Categorical Exclusion? An Environmental Analysis [EA, with Finding of No Significant Impacts (FONSI)]? An Environmental Impact Statement [EIS, with a Record of Decision (ROD)?]
- Is a Documentation of NEPA Adequacy (DNA) required?
- Are any special studies required (such as for threatened and endangered species, cultural inventories, etc.)?
- What is the availability of existing staff?
- What are the opportunities for applicant-funded studies to expedite processing? If so, what are the BLM requirements and standards for such studies?

E. Time-frames

- The Applicant: What are the requirements of completing the application; when would work need to start (if approved)?
- The BLM: What is the level of existing staff; what other applications are already being processed; what are the opportunities for the applicant to fund the BLM's processing of the application?

F. Financial Considerations

- What are the processing fees?
- What are the monitoring fees?
- What are the rental fees?
- What is the potential for a bonding requirement?
- What is the Applicant's financial situation? (What is the cost of constructing and maintaining the proposed use? Does the applicant have the capability?)

G. Application

- Fulfill the requirements of a completed application (including maps, description of project, business papers, etc.).
- Have a line-by-line discussion with the potential applicant regarding the necessary information for the application.
- Distribute "How to Obtain a ROW" brochure.

H. Requirements of a Grant

- The types of stipulations normally required by the BLM.
- The BLM's discretion in choosing a route or site other than the one applied for.
- The possibility of the application being denied.

I. Points of Contact

- Who is the Applicant contact (or agent)?
- If using an agent, what is the extent of their authority to represent the applicant?
- Who is the BLM contact for application submission or other questions?
- Are there any other agencies that may need to be involved (the BLM is not a clearinghouse for these other agencies)?

APPENDIX M

Clarifications to PRMP/FEIS

APPENDIX M

Clarifications to PRMP/FEIS

- The following edits to the PRMP/FEIS, p. 136, are incorporated: A.D. ~~1300~~ 1500 to present Navajo ~~Seasonal use of the area for livestock grazing and resource gathering; hogan, sweat lodges, and distinctive pottery~~ Seasonal use based on hunting, gathering wild plant foods, and farming. After Spanish contact sheep and cattle grazing were added to subsistence activities. Structures included hogans and sweat lodges. Distinctive pottery. Table 3-4 does not determine cultural affiliation; it provides a summary and very general context of culture history in southwest Colorado.
- Management principles in the Approved Plan will apply to all lands acquired hereafter as part of the Monument.
- Designating travel routes on acquired lands will require an amendment to the transportation plan.
- Response to Issue # 7.4: In accordance with CEQ regulations (40 CFR 1501.3) and the BLM's NEPA Handbook (Chapter 4, page 17), the BLM may elect to prepare an Environmental Assessment (EA) for proposed actions otherwise categorically excluded when the decision-maker believes that an EA would be helpful in planning or decision-making. In these cases, the rationale for completing an EA when a categorical exclusion (CX) could be used is typically included in the NEPA document.

  The protester is correct that categorical exclusions established by Section 390 of the Energy Policy Act of 2005 do not require review of extraordinary circumstances (H-1790-1, Section 4.1, page 18). This is because these categorical exclusions are established by statute, and their application is governed by that statute. Although extraordinary circumstances don't apply to these categorical exclusions, there are other criteria that must be considered in applying them such as size restrictions, date of previous approval or land use plan, etc. (see BLM H-1790-1, Appendix 2 for full list of criteria). It should also be noted that other procedural requirements, such as consultation under the Endangered Species Act and the National Historic Preservation Act, still apply to actions taken under these categorical exclusions.
- PRMP/FEIS p. 96 references Table 3-27, the reference should be 3-28.
- Nonactive AUMS will be cancelled.
- Currently leased lands where leases expire will not increase the maximum of 880 acres available for drainage. Stipulations will apply.
- Any newly acquired lands will be managed according to this Approved Plan.
- Collection of any rocks, mineral specimens, petrified wood, common invertebrate fossils, or semiprecious gemstones is prohibited; 43 CFR 8365.1-5 (6) Section 2.

ADDENDUM

History and Intent of the Proclamation for Canyons of the Ancients National Monument

History and Intent of the Proclamation for Canyons of the Ancients National Monument

By Kristina L. Woodall

Canyons of the Ancients—A Monumental Legacy

Setting and Overview

Interwoven with the soils and the ruggedly textured landscape of what is now southwestern Colorado is the cultural legacy of the Ancestral Pueblo people that lived here for centuries. In testimony to these ancient people, to their modern descendants and to the archaeological significance of this landscape, President William J. Clinton designated 164,000 acres as the Canyons of the Ancients National Monument. On June 9, 2000, under the authority of the Antiquities Act of 1906, President Clinton issued Proclamation 7317 (Appendix A).

In 2000, Canyons of the Ancients National Monument (the Monument) also became part of the Bureau of Land Management's (BLM) National Landscape Conservation System (NLCS), a system consisting of the crown jewels of the West. In recognition of its status as a national monument, and as an invaluable part of the National Landscape Conservation System, the BLM will manage the Monument in strict accordance with, first and foremost, the provisions of the Proclamation "*so as not to create any new impacts that interfere with the proper care and management of the objects protected by this proclamation"* and for the enduring benefit of all Americans.

Proclamation Intent—Protection and Preservation in Context

The cultural, historic, natural, geological, and archaeological scientific objects of the Monument are woven together in the majestic landscape that is the Canyons of the Ancients National Monument. The intent of the Proclamation that established the Monument is to protect and preserve, for the benefit of present and future generations of Americans, these uniquely rich and irreplaceable objects of the Monument. And, just as the full significance and enduring value of these objects are best when considered in their context, so is the Proclamation (and its intent) best when considered within the historical context of the social and political landscape.

In the late nineteenth century and early twentieth century, a progressive movement extolling the responsibilities of a centralized government over the assets of the nation, and a conservation movement deeply concerned about the endangered prehistoric ruins of the American Southwest, combined and called for the Federal government to protect the best of the West. The collective consciousness of the American people, and their representative government, shifted from that of settling and developing every square inch of public lands for the benefit of individuals, local communities, and commodity-based businesses to that of setting aside spectacular untouched lands for the benefit of all Americans before their unique and irreplaceable values were forever lost (McManamon 2000; Nash 1982; Rothman 1989).

The following is a discussion of the public lands system in America; the progressive and conservation movements that generated the passage of national conservation legislation (the Antiquities Act, which enables the President to proclaim unique areas as national monuments); the history of the public lands that would eventually become the Canyons of the Ancients National Monument; the role and authority of the Federal agency (the

BLM) that administers the Monument, and the agency's commitment to managing the Monument in accordance with the intent of its establishing Proclamation.

AMERICAN PUBLIC LANDS

There are approximately 2.4 billion acres of land in the United States. Almost 28 percent, approximately 681 million acres, of this land is under the management of the Federal government. This land, which belongs to all Americans, is considered public domain. Several agencies manage this land and its resources, including the U.S. Forest Service (USFS), the National Park Service (NPS), the U.S. Fish and Wildlife Service (USFWS), and the Bureau of Land Management (BLM). The BLM manages approximately 264 million surface acres and 700 million acres of subsurface minerals, more public land than any other agency (source: http://www.blm.gov/).

Public Lands and the Frontier

In order to avoid further conflict and to cement their new bond and status as a nation, the original 13 colonies ceded their claims to all western lands to the Federal government soon after the War of Independence. In accordance with the Land Ordinance of 1785 and the Northwest Ordinance of 1787, Congress directed that these public domain lands, along with lands acquired from other countries (including the Louisiana Purchase of 1803) be explored, surveyed, and made available for settlement. Little recognition was given to the rights of the Native American people as sovereign nations already occupying these lands.

In the early nineteenth century, U.S. Government policy was to dispose of all public domain lands by moving it into private hands for settlement and development to create national wealth and to secure sovereignty for itself. At the time, there was an unquestioned belief that land and resources were to be improved and used, and that development would proceed most efficiently through private means. To help achieve the goal of settling the frontier, in 1812Congress created the General Land Office (GLO) under the Department of the Treasury in 1812 (which, in 1849, was transferred to the newly established Department of the Interior). During the GLO's existence, over 1 billion acres of land were transferred from Federal to State and private ownership. With the focus pinpointed on westward expansion, Congress passed the Homestead Act of 1862. Under this law, any U.S. citizen or intended citizen, including freed slaves, who had never borne arms against the U.S. Government could receive 160 acres of public land if they lived on it and farmed it for five years (source: http://www.blm.gov/flpma; Goetzmann 1966; Nash 1982; Rothman 1989).

Public Lands—Preservation of the Priceless

As the nineteenth century progressed, the American people and their Congress began to realize that the frontier was not limitless; that western resources were not unlimited; and that carving up the public domain without thoughtful consideration of consequences was not necessarily in the interest of the greater good of the nation (Nash 1982). By the 1870s, there was also a growing sense that much of what remained of public lands, due to its inherently priceless and irreplaceable resource values (cultural, historical, natural, scenic or scientific), should remain in the public domain for the benefit of all Americans. As a result, under the guidance of the GLO, Congress began to withdraw selected lands from individual settlement and to set them aside for general public use. In 1864, Yosemite Valley was granted to the State of California for public use and enjoyment. In 1872, Yellowstone National Park in Wyoming became the first national park (BLM 1995).

In 1890, the official U.S. Census declared that the western frontier had closed. For the first time in its young history the nation began to consider its future as a nation. No longer able to expand westward, the country began to focus on filling in the gaps fostered by seemingly haphazard growth. As a result, a growing number of people, especially those interested in conserving and preserving what they were just beginning to recognize as American treasures, began to focus attention on protecting the nation's priceless natural, scenic, historic, and prehistoric heritage. It was becoming obvious to a greater number of Americans that a more efficient use of resources would require a different national philosophy than the one that had fostered unregulated exploitation, including that related to (and resulting from) mining and grazing on the western public lands (Nash 1982; Rothman 1989).

At the end of the nineteenth century, as a result of this new focus on the public value of public lands, the Federal government began to accept a greater responsibility for the management of, and stewardship over, American public lands (Rothman 1989). The General Revision Act of 1891 was one of the first legislative acts to acknowledge this growing conservation philosophy and the growing sense of governmental duty over national resources. The Act allowed the President the discretionary power to reserve (by Proclamation) forested lands in the public domain from the claims of private citizens. Immediately after its enactment, President Harrison proclaimed 13 million acres of forest reserves (Chepesiuk 2005).

Ancient Architecture Captures Public Interest

Throughout the late nineteenth century, prehistoric architectural sites in the Southwest attracted the attention of American explorers. These expeditions fostered an intense interest in prehistoric people and landscapes. In 1874, William Henry Jackson of the Hayden Survey photographed and named numerous Ancestral Puebloan sites in southwestern Colorado including areas now part of Canyons of the Ancients National Monument. The sophistication of the architecture amazed the public and a small but influential minority became interested in the fate of American prehistory (Goetzmann 1966; Rothman 1989).

The founding of the Bureau of American Ethnology in 1879 also contributed to the growing interest in America's prehistoric heritage. This was, in part, thanks to the public interest in the government sponsored expeditions of John Wesley Powell. With governmental and public encouragement, Powell and scientists like him began to apply their experiences and ideals to create a coherent Federal resource policy covering the management of public lands and related resources (Hays 1959). The Bureau favored the systematic organization of resources in accordance with newly recognized scientific principles (Rothman 1989). The idea of protecting scarce and invaluable resources from overuse, abuse, and depletion, while conserving them for future use, developed. As historian and author Hal Rothman stated, "If the closing of the frontier told Americans they would not be expanding into new territory, modern science gave the nation a way to counter the anxiety created by its loss. Conservation allowed for the planning of the future through goals of increased efficiency and equitable distribution" (Rothman 1989).

As the nineteenth century was coming to a close, the American Southwest was experiencing an increasing number of settlers and an increasing interest in the highly visible ancient architecture. As a result, the effects of visitation and the impacts of both casual and organized artifact collecting became evident. Homesteading itself escalated the destruction and removal of American antiquities from western public lands (Bandelier 1890, 1892; Hewett 1906; Ise 1961). Just as growing numbers of Americans began to

learn about the heritage and archaeology of the Southwest, they also became increasingly aware of the destruction of these very same treasures, including at Casa Grande in Arizona and the Mesa Verde area of Colorado.

Casa Grande

The Casa Grande ruins in Arizona, which contain intricate prehistoric structures surrounded by a compound wall, were built by the Hohokam (Hohokam is an O'odham word meaning Those Who Are Gone) who farmed the Gila Valley in the early 1200s. The plundering of these ruins galvanized the concerns of archaeologists and other budding supporters of archaeological preservation into political action (Hirst 2006).

In 1889, hearing about the rampant vandalism and looting at Casa Grande, fourteen prominent Boston citizens (including Oliver Wendell Homes and the Governor of Massachusetts, Oliver Ames) wrote to U.S. Senator Hoar requesting that the Federal government take immediate steps to protect the site from destruction or injury (McManamon 2006). [In 1882, Senator Hoar had presented a petition to Congress calling for the general preservation of ancient sites and natural and cultural antiquities. The petition failed. (Lee 1970/2001; Rothman 1989; Thompson 2000a, 2000b).] Senator Hoar agreed to present the new petition to Congress. The petition asked that the Casa Grande ruins be designated a national reservation reserved for its cultural value (Lee 1970/2001; Rothman 1989). This time, willing to act on a specific case presented by influential people of the times, Congress responded quickly. They appropriated funds for repair of the deterioration at Casa Grande. They also authorized the President to withdraw the land containing the site from settlement or sale. In 1892, President Benjamin Harrison signed a Proclamation (recommended to him by the GLO and by the Bureau of Ethnology) mandating the permanent protection of the Casa Grande ruin, as well as the 480 acres upon which the ruins stood, thereby creating the first Federal archaeological preserve established by a United States president (Ise 1961; Lee 1970/2001; McManamon 2006).

Southwestern Colorado and Mesa Verde

After the publication of the Hayden Survey report, word spread quickly. Well-read settlers now had detailed maps and information about the area, and essentially the first guide book to the cliff dwellings. As a result between 1878 and 1885 numerous, undocumented collections left the Mesa Verde area and artifacts became a trade and barter item in southwestern communities like Durango, Colorado (Blackburn 2006).

In 1891, Gustav Nordenskjold, a young Swedish scientist, teamed up with the Mancos based Wetherill family to explore and excavate many of the Mesa Verde area sites. Their systematic documentation, photography, mapping and cataloging of numerous artifacts and cliff dwellings was published in 1893. Regardless of his noteworthy scientific methods, local citizens of Durango raised protest when Nordenskiold attempted to ship artifacts home to Sweden. Eventually his collection ended up in Finland's National Museum in Helsinki, (where it is well cared for), but not before the American public realized that no law existed to prevent the removal of artifacts from public or Indian lands (Blackburn 2006; Reynolds and Reynolds 2006).

About this time, a movement was started in Denver, Colorado to save the cliff dwellings of Mesa Verde. A group of women established the Colorado Cliff Dweller Association and launched a vigorous and effective campaign to establish Mesa Verde as a national park. In 1900, unable (and unwilling) to wait for Federal action, the group attempted to

lease major cliff dwellings (what is now Mesa Verde National Park) from the Ute Tribe for $300 a year. They immediately began planning for the repair of roads and for the erection of a rest-house. As a result, the GLO, pending a determination of the advisability of establishing the area as a national park, withdrew an extensive part of the Mesa Verde area from sale, entry, settlement, or other disposal (Rothman 1989; Sproul 2001).

A Call for the Preservation and Protection of America's Heritage

A free for all style of visitation and artifact collection of archaeological sites became rampant across the entire Southwest, just as public fascination with native people and concern over the rapidly closing American western frontier was increasing (Cronin 1994; Hinsley 1991; Lister and Lister 1981; Runte 1987). As attention turned to the existence of these rich cultural resources, Americans came to realize, for perhaps the first time, that they had a national heritage—one rivaling that of Europe, with its ancient civilizations and castles. Before long, appreciation of the rich and varied natural environment of the nation, as well as of the archeological and cultural vestiges being discovered throughout the West, led to a wave of American nationalism (Runte 1987). In growing defiance of calls for increased natural resource extraction, the natural and cultural jewels of America were gaining an appreciation that surpassed the designated monetary value of what could be cut down, dug up, carted off, or drilled from those lands (Cronin 1994; McManamon 2000; Rothman 1989). Places like Casa Grande, Mesa Verde, and Yellowstone began to be cherished by Americans for their inherent value and for the invaluable natural, cultural, scenic, and scientific contributions they offered the nation (Cronin 1994; McManamon 2000).

The victory of preserving Casa Grande did little to establish a precedent of conservation. This site-specific, one-at-a-time, piecemeal method of conservation was not meeting the need for preservation. Other countries had already established their own legal protections for national artifacts (including England's Ancient Monuments Act of 1882 and Mexico's Law of Archaeological Monuments of 1897) and there was a growing demand for similar legislative protection in the United States (Rothman 1989). The push to legislate the preservation of antiquities on a national scale began in earnest at the beginning of the twentieth century. Various organizations, including the Anthropological Society of Washington, the American Anthropological Association, and the Archaeological Institute of America, began to steadily push for political and legislative action to protect American archeological sites (Lee 1970/2001; Rothman 1989; Thompson 2000b).

The GLO was already fully aware of the need to protect prehistoric objects on the public lands. As historian Ronald Lee noted, "interesting discoveries were constantly being made of caves, craters, minerals springs, unusual geological formations, and other scientific features that appeared to merit special attention by the nation" (Lee 1970/2001). However, if these treasures were located in non-forested areas, the only real option available to the GLO was to ask Congress to create a national park, which was turning out to be a long, unwieldy process (Lee 1970/2001; Thompson 2000b).

In 1904, the GLO (with the support of the Department of the Interior and the House Public Lands Committee) turned to an archaeologist experienced in the prehistoric ruins of the Southwest for assistance. Edgar Hewett was asked to write a report on Southwestern archaeological areas and resources. Hewett's subsequent report, entitled "Memorandum Concerning the Historic and Prehistoric Ruins of Arizona, New Mexico, Colorado, and Utah, and their Preservation," provided the GLO and, eventually,

Congress with a comprehensive and fact-based review of all of the known antiquities located on Federal lands in four key states (Hirst 2006; Norris 2006; Rothman 1989; Sellers 2008).

Hewitt soon became an advocate for a bill that would cover the conservation and preservation of antiquities on public lands and would include language to authorize the President to protect such sites via the act of signing a Proclamation expressing that intent (Thompson 2000; Lee 1970/2001). In late 1905, Hewett presented a draft of a newly conceived bill at a widely attended archaeological conference. The meeting unanimously endorsed Hewett's draft. That draft, in turn, was passed on to an influential congressional representative, John F. Lacey, a Republican representative from Iowa.

[Lacey was a Civil War veteran (a Union adjutant-general) and an avid conservationist who had traveled to the Southwest in 1902 to see the cliff houses and prehistoric ruins for himself. He had already been associated with legislation calling for the preservation of American antiquities (Lee 1970/2001). In 1900 Lacey had introduced legislation to create a Federal administrative entity that would be responsible for managing America's national parks and reserves. The bill was defeated. Lacey, however, continued to fight for the protection of valuable cultural, scientific, and natural resources (Lee 1970/2001; Rothman 1989). In 1901, Lacey secured the passage of the first comprehensive Federal legislation designed to protect wildlife. The Lacey Act criminalized the interstate shipment of wild animals or birds killed in violation of State laws.]

On January 9, 1906 Congressman Lacey introduced "An Act for the Preservation of American Antiquities" in the House of Representatives (H.R. 11016). On February 26, Senator Thomas M. Patterson of Colorado introduced a companion measure in the Senate (S. 4698). By the time it was passed by Congress, not a single significant word had been altered from the draft Hewett had presented six months earlier to the American Anthropological Association and the Archaeological Institute of America (Conard 2006; Lee 1970/2001). On June 8, 1906, the Antiquities Act was signed into law by President Theodore Roosevelt. On September 24, barely three months later, President Roosevelt signed the Proclamation establishing Devils Tower National Monument in Wyoming, making it the first national monument in the United States.

The immensity of man's power to destroy imposes a responsibility to preserve.

-- U.S. Congressman John F. Lacey, 1901

Progressive Conservation

The Act for the Preservation of American Antiquities, known as the Antiquities Act, came about in direct response to the growing concern over conserving endangered American archeological resources, as well as in direct response to the progressive call for the Federal government to manage national assets for the good of all Americans. In effect, the Act's passage paralleled a national conservation movement that heralded the philosophy of giving controlled regulation of the nation's resources to a socially responsible, centralized government (Dustin, McAvoy, and Odgen 2005)

During the early twentieth century, President Theodore Roosevelt was the heart and soul of the Progressive Movement. President Roosevelt embraced and embodied Progressivism—which was the belief that those elected by the public should take responsibility for the direction of the nation's policies for the benefit of that public. At the time, health, nature, and fitness were national obsessions. These goals were considered achievable for all Americans through active governmental involvement. Progressivism was a reaction to the excesses of rugged individualism (Dustin, McAvoy, and Ogden 2005; Hirst 2006). On a larger scale, it was also a backlash to the greed of Robber Barons and the consuming misery of the Industrial Revolution of the late nineteenth century (Hirst 2006; Rothman 1989).

When Roosevelt became President in 1901, conservation and Progressivism was elevated to the highest levels of the American social agenda. Roosevelt advocated a government with the power to enforce concepts of fairness and justice. Under Roosevelt, a man passionate about natural resources and their preservation, antiquities conservation acquired a new significance and a powerful advocate (Hirst, 2006; Rothman 1989).

The Progressive Movement, essentially led at the time by Roosevelt, believed that active governmental involvement could be used to create a healthy, prosperous middle class. The Antiquities Act was a part of that movement, as it used Federal action (rather than private interests) to create and preserve natural, healthy places for people to visit, and to preserve cultural and scientific data important to understanding the nation's past (Hirst 2006).

Defenders of the short-sighted men who in their greed and selfishness will, if permitted, rob our country of half its charm by their reckless extermination of all useful and beautiful wild things sometimes seek to champion them by saying the 'the game belongs to the people.' So it does; and not merely to the people now alive, but to the unborn people. The 'greatest good for the greatest number' applies to the number within the womb of time, compared to which those now alive form but an insignificant fraction. Our duty to the whole, including the unborn generations, bids us restrain an unprincipled present-day minority from wasting the heritage of these unborn generations. The movement for the conservation of wild life and the larger movement for the conservation of all our natural resources are essentially democratic in spirit, purpose, and method.

-- President Theodore Roosevelt, 1916

NATIONAL LEGISLATION—AGENDA FOR CONSERVATION

The Antiquities Act

The Antiquities Act (16 USC 431-433) initiated a Federal system designed to protect American antiquities on public lands, to regulate archeological activities, and to punish persons known to have disturbed prehistoric sites without a permit. By declaring antiquities "scientific objects" and the sites upon which they existed as public sources of education, scientific information, and/or commemorative value, the Antiquities Act established fundamental policies for the treatment of cultural resources that have influenced archaeology and historic preservation into the twenty-first century (Lee 1970/2001; McManamon 1996, 2001; Rothman 1989; Thompson 2000a). The Antiquities Act provided a foundation for regulating public archeological investigations and for protecting archeological sites. The Act also established key principles from which future historic preservation policies and statutes would be derived (McManamon 1996; Sproul 2001). In full, the Antiquities Act reads:

> ***Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled****, That any person who shall appropriate, excavate, injure, or destroy any historic or prehistoric ruin or monument, or any object of antiquity, situated on lands owned or controlled by the Government of the United States, without the permission of the Secretary of the Department of the Government having jurisdiction over the lands on which said antiquities are situated, shall, upon conviction, be fined in a sum of not more than five hundred dollars or be imprisoned for a period of not more than ninety days, or shall suffer both fine and imprisonment, at the discretion of the court.*
>
> *Section 2. That the President of the United States is hereby authorized, in his discretion, to declare by public proclamation historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated upon lands owned or controlled by the Government of the United States to be national monuments, and may reserve as a part thereof parcels of land, the limits of which in all cases shall be confined to the smallest area compatible with proper care and management of the objects to be protected: Provided, That when such objects are situated upon a tract covered by a bona fide unperfected claim or held in private ownership, the tract, or so much as thereof may be necessary for the proper care and management of the objects may be relinquished to the Government, and the Secretary of the Interior is hereby authorized to accept the relinquishment of such tracts in behalf of the Government of the United States.*
>
> *Section 3. That permits for the examination of ruins, the excavation of archaeological sites, and the gathering of objects of antiquity upon the lands under their respective jurisdictions may be granted by the Secretaries of the Interior, Agriculture, and War to institutions which they may deem properly qualified to conduct such examination, excavation, or gathering, subject to such rules and regulation as they may prescribe: Provided, That the examinations, excavations, and gatherings are undertaken for the benefit of reputable museums, universities, colleges, or other recognized scientific or educational institutions, with a view to increasing the knowledge of such objects, and that the gatherings should be made for permanent preservation in public museums.*

Section 4. That the Secretaries of the Departments aforesaid shall make and publish from time to time uniform rules and regulations for the purpose of carrying out the provisions of this Act.

Approved
June 8, 1906
Theodore Roosevelt

The passage of the Antiquities Act had three enduring impacts on American archaeology, historic preservation, and natural resource conservation. First, it was now possible for the President to unilaterally set aside public lands, by Proclamation, for preservation as national monuments. Second, archeologists were required to secure a permit from the land managing officials (the Secretaries of Agriculture, Interior, or War), in order to conduct any type of archeological or paleontological research on federally owned or controlled land. Third, individuals who removed, disturbed, or destroyed antiquities on public lands were subject to punishment by fine and/or imprisonment (source: http://www.nps/gov/history/archeology/).

Section 2 of the Antiquities Act specifically gives the President the power to unilaterally designate, by Proclamation, "historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest" as national monuments. Setting aside national monuments from tracts of land already owned by the government allowed the President to ban certain activities on those properties. Such activities included unauthorized excavation, homesteading, mining, grazing, logging, and other activities previously permitted on those properties (Hirst 2006).

Prior to the Antiquities Act, areas of special interest had been set aside as parks or reserves (including Hot Springs, Arkansas in 1832, Yellowstone National Park in 1872, and Casa Grande, Arizona in 1892). However, the establishment of these parks or reserves required an act of Congress, as well as Presidential approval. The Antiquities Act made the establishment of national monuments administrative actions—actions that were quicker and far easier to execute (McManamon 1996). In essence, the Antiquities Act became a handy tool for protecting specific cultural and historic sites that were in imminent danger and in a way that an often slow-acting Congress could not (Dustin, McAvoy, and Ogden 2005; Rothman 1989).

There were no intrinsic features that distinguished the new national monuments from national parks or reserves, only the mode of their establishment. Congress had to pass bills authorizing new national parks, whereas the President could now proclaim national monuments with the stroke of a pen. As a result, areas with identical features may be found in both categories.

The Antiquities Act lent legal sanction to the informal system already firmly entrenched in the GLO (the agency that would, in 1946, combine with the U.S. Grazing Service and become the BLM). Beginning in the early 1890s, the GLO had actively pursued a policy of withdrawing places with archaeological, historical, or natural significance from settlement and other kinds of land claims (areas brought to their attention by agents in the field or by petitions from the public). In order to prevent development and exploitation, the GLO had withdrawn a broad array of locations across the American West (Ise 1961; Rothman 1989).

After the passage of the Antiquities Act, the GLO began to work to convert previously withdrawn places into national monuments. During the summer of 1906, the GLO staff reviewed withdrawn tracts and drew up preliminary Proclamations (Devils Tower was the

first to be presented to, and signed by, President Roosevelt). Under the Department of the Interior, GLO efforts to administer the monuments began. Frank Bond, the chief clerk of the GLO at the time, assumed responsibility for the national monuments under the agency's care. Bond evaluated national monument proposals and drafted proclamations for the establishment of various monuments and, in general, assumed responsibility for determining whether a proposed area would become a national monument (Bond 1911). Rejecting numerous inappropriate requests, Bond eventually wrote all of the 28 proclamations establishing national monuments between 1906 and 1911 (Bond 1911; Rothman 1989).

The Antiquities Act, in fact, is the most important piece of preservation legislation ever enacted by the United States government. Although its title suggests significance only in archaeological matters, in practice the law became the cornerstone of preservation in the Federal system. Without it, there would have been little flexibility in the preservation process, and many areas of significance would have been destroyed long before Congress passed legislation to protect them.

-- Hal Rothman
America's National Monuments: The Politics of Preservation (1989)

The Antiquities Act set important precedents, including the assertion of a broad public interest in archaeology on public lands. It also established Federal support for the care and management of archaeological sites, collections, and information (and created the basis for the Federal government's efforts to protect archaeological sites from looting and vandalism). The Antiquities Act stands as an important achievement in the progress of conservation and preservation efforts in the United States. It permitted the protection and preservation of specific areas important for their cultural, archaeological, historical, and scientific resources. The Antiquities Act provided a foundation of public policy from which more specific public attention to, and preservation of, historic places and structures, cultural landscapes, and other cultural resources developed during the course of the twentieth century.

The Antiquities Act and Cultural Contributions—Commemorative not Commercial

By the end of the nineteenth century, the prehistoric sites of the American Southwest had become tied to the modern market economy, with pot-hunters and wealthy collectors increasingly aware of the prestige and profits that the acquisition of ancient artifacts could bestow. A kind of archaeological frontier blossomed, with the unrestrained collecting of thousands of invaluable objects from ancient sites. At the time, this was paralleled by the rampant extraction of natural resources from public lands across the West (Hirst 2006; Rothman 1989).

By the end of the nineteenth century, however, areas within the public lands system came to be seen as possessing unique and invaluable qualities that went far beyond purely economic factors. These public lands came to be seen as worthy of being retained by the Federal government as part of the public trust—lands not to be disposed

of, or managed, as commodities (Rothman 1989; Sellers 2006). The initial impetus for the Antiquities Act was to stop the destruction of archaeological sites in the American Southwest (Rothman 1989). By defining who would be allowed to conduct archaeological excavations on public lands, the Antiquities Act also defined the study of archaeology as a scientific endeavor, rather than art history. It also sanctified acquiring knowledge and permanent preservation in public museums as its goal, rather than excavating artifacts as a commodity (Hirst 2006).

The Antiquities Act established that the conservation and preservation of historic, archaeological, and other scientific sites on public lands was indeed a Federal responsibility. It was the first law to establish archaeological sites on public lands as invaluable public resources in, and of, themselves. It obligated Federal land management agencies to preserve, for present and future generations, the historic, scientific, commemorative, and cultural values of the archaeological and historic sites and structures on these national monument lands (source: http://www.nps.gov/history/archeology/). The Act also made it clear that, unlike the forest reserves, the primary value of such special places lay not in their commercial value, but rather in their contribution to education and knowledge for the general public good (Hirst 2006; Sellers 2008). This defining of cultural and archaeological resources as non-commercial was the most basic public policy established by the Antiquities Act. According to the Antiquities Act, archaeological sites are most valuable for the information they contain—their inherent commemorative, educational, scientific, and inspirational values—not as commodities for commercial exchange. The preservation of these heritage resources, like clean air and clean water and the teachings they offer, is what contributes to the public good and is of great public concern (Lee 1970/2001: McManamon 1996; Rothman 1989; Sellers 2008; Waldbaum 2006).

The [Antiquities] Act worked a fundamental change in how people thought about the beautiful, compelling, and fragile relics left behind by earlier civilizations. It encouraged Americans to feel that our shared heritage is a public treasure, not merely a commercial asset to be exploited. It fostered -- and enforced -- the notion that cultural resources on public lands should be treated with the utmost respect, and that only the best stewardship practices, the highest level of scholarship, and the most up-to-date technology should be employed in their identification, preservation, and interpretation.

-- Richard Moe
President, National Trust for Historic Preservation, 2006

Additional Conservation and Preservation Legislation

Antiquities are not renewable resources. The conditions—the people, their times, their technologies, the prevalent environmental conditions that sustained them, etc.—in which these objects were created and crafted can never be duplicated. The yield of these priceless objects (educational, inspirational, or scientific) can only be sustained by their careful preservation, especially within the context of the landscape within which they were created. Any damage to, or destruction of, these irreplaceable objects whether by

reckless management, or by individuals or industries seeking short-term economic profit would constitute an irretrievable and irreversible impact; a loss to the American people that could never be regained by any type, or amount, of mitigation measure. The nation's antiquities can endure for centuries more, for the lasting benefit of all present and future generations of Americans only if properly managed by those entrusted with their care. Thus, the Federal land management agencies administering American public lands and resources are legally and ethically bound to ensure the enduring preservation of American antiquities under their care. This is especially true when it comes to American public lands that have been elevated to the highest echelons of prestige -- national monuments—lands that contain and are specifically dedicated to one-of-a-kind, irreplaceable national heritage treasures.

The Antiquities Act of 1906 laid the basis for additional Federal legislation designed to preserve the historic and cultural resources of the public domain, including:

Historic Sites Act of 1935

The Historic Sites Act of 1935, as amended (PL 74-292; 49 Stat. 666; 16 USC 461), established national policy designed to identify and preserve nationally significant "historic sites, buildings, objects and antiquities." The Act authorized the National Historic Landmarks program and provided the foundation for the National Register of Historic Places authorized in the National Historic Preservation Act of 1966 (see below).

The policy stated in this Act followed from the non-commercial and public value policies established by the Antiquities Act. Section 1 of the Act states that "it is hereby declared that it is a national policy to preserve for public use historic sites, buildings, and objects of national significance for the inspiration and benefit of the people of the United States." Under the Act, historic sites and cultural resources could be added to the public domain (McManamon 1996).

Reservoir Salvage Act of 1960

The Reservoir Salvage Act of 1960, as amended (16 USC 469-469c), expanded the Historic Sites Act of 1935. It gave the Department of the Interior, through the NPS, the responsibility for the preservation of archaeological data that might be lost specifically through dam construction.

National Historic Preservation Act of 1966

The National Historic Preservation Act (NHPA) of 1966, as amended (PL 89-665; 80 Stat. 915; 16 USC 470), created the National Register of Historic Places (NRHP). The NHPA provided protection to historic places of State and local, as well as national, significance. It established the Advisory Council on Historic Preservation (ACHP), State Historic Preservation Officers (SHPOs), Native American Tribal Preservation Officers, and a preservation grants-in-aid program. Section 106 of the Act directs Federal agencies to take into account effects (impacts) of their actions (undertakings) on properties listed on, or eligible for, the NRHP. Section 110(a) of the Act sets inventory, nomination, protection, and preservation responsibilities for federally owned cultural properties. Section 110(c) of the Act requires each Federal agency to designate a Preservation Officer to coordinate activities under the Act.

Executive Order 11593, "Protection and Enhancement of the Cultural Environment" (36 CFR 8921, May 13, 1971) directs Federal agencies to inventory cultural properties under their jurisdiction. It also directs such agencies to nominate to the NRHP all federally

owned properties that meet the criteria, to use due caution until the inventory and nomination processes are completed, and to assure that Federal plans and programs contribute to the preservation and enhancement of non-Federal properties.

The NHPA was the second expansion of the basic policy of the Antiquities Act. The Act embraces a wider range of historic and cultural properties than the Antiquities Act and the Historic Sites Act. However, like the two acts before it, the NHPA adheres to the public policy that historic properties have a non-commercial, non-commodity based value to all Americans. Section 1(a)(4) states that “the preservation of this irreplaceable heritage is in the public interest so that its vital legacy of cultural, educational, aesthetic, inspirational, economic, and energy benefits will be maintained and enriched for future generations of Americans.” The non-commercial values of these properties were stressed, as well as the fact that the manner in which the properties are managed is of public concern (McManamon 1996).

National Environmental Policy Act of 1969

The National Environmental Policy Act (NEPA) of 1969, as amended (42 USC 4321 and 4331-4335), states that it is the Federal government's continuing responsibility to use all practicable means to preserve important historic, cultural, and natural aspects of the nation’s heritage. It also instructs Federal agencies to prepare environmental impact statements (EISs) for each major Federal action potentially having an effect (impact) on the environment.

Archaeological and Historic Preservation Act of 1974

The Archaeological and Historic Preservation Act (AHPA) of 1974 amended the Reservoir Salvage Act of 1960 (PL 86-523; 74 Stat. 220, 221; 16 USC 469; PL 93-291; 88 Stat. 174; 16 USC 469). The Act provides for the preservation of historical and archaeological data that might otherwise be lost as the result of Federal construction projects or federally licensed or assisted programs. The Act provides that up to one percent of congressionally authorized funds for a project may be spent from appropriated project funds to recover, preserve, and protect archaeological and historical data.

American Indian Religious Freedom Act of 1978

The American Indian Religious Freedom Act (AIRFA) of 1978, as amended (PL 95-431; 92 Stat. 469; 42 USC 1996), directs that it shall be the policy of the United States to protect and preserve for the American Indian, Eskimo, Aleut, and Native Hawaiian people the inherent right of freedom to believe, express, and exercise their traditional religions. This includes access to religious sites, use and possession of sacred objects, and freedom to worship through ceremonial and traditional rites. Under the Act, Federal agencies are directed to evaluate their policies and procedures in order to determine if changes are needed to protect such rights and freedoms from agency practices. (The Act is a specific expression of First Amendment guarantees of religious freedom. It is not implemented by regulations.)

Archaeological Resources Protection Act of 1979

The Archaeological Resources Protection Act (ARPA) of 1979, as amended (PL 96-95; 93 Stat. 721; 16 USC 47O), set felony-level penalties for excavating, removing, damaging, altering, or defacing any archaeological resource more than 100 old on public or Native American tribal lands, unless authorized by a permit. The Act prohibits the

sale, purchase, exchange, transportation, receipt, or offering of any archaeological resource obtained in violation of any regulation or permit under the Act or under any Federal, State, or local law. The Act's definitions, permit requirements, and criminal and civil penalties augment those established under the Antiquities Act. The basic purpose of the Act is to “secure, for the present and future benefit of the American people, the protection of archaeological resources and sites which are on public lands and Indian lands.”

Native American Graves Protection and Repatriation Act of 1990

The Native American Graves Protection and Repatriation Act (NAGPRA) of 1990, as amended (PL 101-601; 104 Stat. 3048; 25 USC 3001 et esq.), established rights of Native American tribes and Native Hawaiian organizations to claim ownership of certain cultural items (including human remains, funerary objects, sacred objects, and objects of cultural patrimony) held or controlled by Federal agencies and/or museums that receive Federal funds. It requires agencies and museums to identify holdings of such remains and objects, and to work with appropriate Native Americans toward their repatriation. Permits for the excavation and/or removal of cultural items protected by the Act require Native American consultation and notification of discoveries of cultural items made during Federal land use activities.

PRESIDENTIAL PROCLAMATIONS OF PRESERVATION

Since the passage of the Antiquities Act in 1906, all but four presidents have used the authority of the Act to proclaim 125 national monuments covering nearly 100 million acres of Federal public lands. Many of the monuments were established to protect American antiquities; however, over time, presidents have used the Act to proclaim national monuments for their scenic, natural, historic, and scientific objects as well (Dustin, McAvoy, and Ogden 2005). Presidents who established national monuments include:

- **President Theodore Roosevelt, 1901-1909,** used the Antiquities Act to proclaim18 national monuments.
- **President William Howard Taft, 1909-1913,** used the Antiquities Act to proclaim 10 national monuments.
- **President Woodrow Wilson, 1913-1921,** used the Antiquities Act to proclaim 14 national monuments.
- **President Warren G Harding, 1921-1923,** used the Antiquities Act to proclaim 8 national monuments.
- **President Calvin Coolidge, 1923-1929,** used the Antiquities Act to proclaim 13 national monuments.
- **President Herbert Hoover, 1929-1933,** used the Antiquities Act to proclaim 9 national monuments.
- **President Franklin D. Roosevelt, 1933-1945** used the Antiquities Act to proclaim 11 national monuments.
- **President Harry S. Truman, 1945-1953** used the Antiquities Act to proclaim 1 national monument.

- **President Dwight D. Eisenhower, 1953-1961,** used the Antiquities Act to proclaim 2 national monuments.
- **President John F. Kennedy, 1961- 1963,** used the Antiquities Act to proclaim 2 national monuments.
- **President Lyndon B. Johnson, 1963-1969,** used the Antiquities Act to proclaim 1 national monument.
- **President Jimmy Carter, 1977-1981,** used the Antiquities Act to proclaim 15 national monuments.
- **President William J. Clinton, 1993-2001,** used the Antiquities Act to proclaim 18 national monuments, and to expand the boundaries of 3 national monuments.
- **President George W. Bush, 2001-2008,** used the Antiquities Act to proclaim 5 national monuments (source: http://www.nps.gov/history/history/hisnps/NPSHistory/).

National Monument Management

When the Antiquities Act was passed in 1906, American public lands were under the management of either the Department of the Interior (the GLO), the Department of Agriculture (the U.S. Forest Service), or the Department of War. The Antiquities Act did not specify which Federal land management agency should manage national monuments proclaimed by presidents. However, the implications of the permitting process, outlined in Section 3, is that the management of the national monuments would be under the jurisdiction of the governmental agency that owned the property prior to the monument designation (Hirst 2006).

The most appropriate agency for managing archaeological and cultural properties in 1906 may have been the Bureau of American Ethnology (BAE) at the Smithsonian Institution (which had staff archaeologists). The BAE, however, was not set up to manage lands. It soon became evident that the Department of War and the Department of Agriculture (the USFS) were also not equipped to manage the monuments, especially when it came to managing properties they could not use in their normal course of operations (Hirst 2006).

The proclamations establishing national monuments typically came with no additional funding or staffing. GLO field agents posted warning signs at each monument, offering the only form of protection for the monuments and making the areas all the more identifiable for collectors and casual visitors who did not realize that their behavior was now illegal (Rothman 1989). In addition, field agents often only visited national monuments once or twice a year. One GLO Inspector, Leslie Gillett, sent a report to her GLO superiors that the lack of “evidence of care” at one new national monument, El Morro, made it "doubtful whether visiting tourists, especially those who do not visit [El Morro] with the idea of its being a national monument in mind, are acquainted with the fact that the site has been withdrawn" (Gillette 1915). With only a warning sign to indicate the significance of each national monument, people did not sense the special status of the designated areas (Rothman 1989).

Frank Bond, the chief clerk of the GLO, stated that it was “only a question of time when [the national monuments] will be secretly attacked and pillaged piecemeal, until there is nothing left to preserve... [They are] a responsibility which we now feel but cannot make

effective" (Bond 1911). Without appropriate funding and staffing, there was little the GLO could do to protect or preserve the antiquities assigned to their care and management.

By 1910, a movement to establish a branch of the Department of the Interior specifically dedicated to administering national parks and national monuments gained momentum. In 1912, President Taft called on Congress to develop a coordinated system to manage the rapidly expanding national parks and monuments. In 1916, a formally recognized Federal bureau designed to manage America's treasures was created. The National Park Service Organic Act of 1916 was passed by Congress and signed by President Woodrow Wilson. The new agency was dedicated to the specific purpose of managing national treasures on American public lands. Until 1933, the USFS continued to manage the national monuments under its purview. Then, in 1933, President Franklin D. Roosevelt signed Executive Order 6166, transferring the administrative functions of public buildings, reservations, national parks, national monuments and national cemeteries over to the National Park Service (Hirst 2006).

When President Clinton proclaimed the Grand Staircase-Escalante National Monument, he also proclaimed the BLM as the managing agency—the agency that was administering the lands before the establishing proclamation. Although most national monuments are under the management of the NPS, President Clinton's national monument proclamations established a new paradigm in which other Federal agencies have sole or shared jurisdiction. Fourteen of President Clinton's national monuments are run by the BLM (including the Canyons of the Ancients National Monument), 6 by the NPS, and 2 are under joint management by the NPS and the BLM. In addition, the USFS and the USFWS each oversee one national monument. In 2006, Papahānaumokuākea Marine National Monument proclaimed by President Bush in the northwestern Hawaiian Islands was placed under the management of the National Oceanic and Atmospheric Administration (NOAA).

Presidential Preservation—Conservation Controversy

All but four presidents (Nixon, Ford, Reagan, and G.H.W. Bush) have used the Antiquities Act to proclaim numerous national monuments. On occasion, however, the implementation of the presidential power has stirred controversy and contention. Such controversial issues have included the size of the areas designated, the types of resources protected (scenic, geologic, historic, cultural, scientific, etc.), the inclusion of non-Federal lands within the boundaries of national monuments, restrictions on land uses (including logging, hunting, grazing, and mining), the manner and timing in which monuments were created, the selection of the managing agency, and other issues (Vincent 2006). However, in all cases to date, Congress and the Courts have upheld establishing particular monuments, and the president's authority to do so under the Antiquities Act (Hirst 2006; Raffensperger 2007, 2007; Vincent 2006).

The provisions of the Antiquities Act have remained largely unchanged since 1906. They have been broadly interpreted by presidents to include areas of all sizes and to contain a diverse array of cultural, natural, scenic, and/or scientific features. The impetus for the Act may have been to protect prehistoric cultural objects (antiquities) in the Southwest. However, the reference in the act to "objects of ... scientific interest" enabled President Theodore Roosevelt to make a natural geological feature, Devils Tower in Wyoming, the first national monument. The next three monuments he proclaimed in 1906 included one for its natural features (the Petrified Forest in Arizona) and two for cultural features (El Morro in New Mexico, and Montezuma Castle in Arizona).

Although most national monuments have been established by presidential proclamation under the Antiquities Act, Congress does have the authority to establish monuments. Congressional establishment of a national monument, however, can take years—from the first introduction of the special authorizing legislation, through passage by both the House of Representatives and by the Senate, through presidential approval, to the final enactment (as well as through any court review and/or litigation). A President's unilateral power to proclaim national monuments has been challenged as a circumvention of Congress. Presidents, however, have defended their use of the Antiquities Act as a way to cut through bureaucratic deadlock and to protect vital natural areas under imminent threat--when, and where, time is of the essence (Getches 1982; Farrensperger 2007; Rothman 1989).

First Controversy

The first legal challenge to the use of the Antiquities Act came in 1943, when President Franklin D. Roosevelt proclaimed a wildlife reserve in Wyoming as the Jackson Hole National Monument. President Roosevelt proclaimed the area a national monument in order to accept a donation of lands from John D. Rockefeller, Jr. Congress had declined to authorize the inclusion of these lands, as an expansion, into the already established Grand Teton National Park.

Wyoming's congressional representatives favored local control of the area. Thus, in May 1943 the State of Wyoming filed suit challenging the legality of Roosevelt's actions. A key aspect of the State's argument was that the use of the Antiquities Act was invalid because the Jackson Hole area did "not actually contain any historic landmark, or any historic or prehistoric structure, or any other object of historic or scientific interest." In response, NPS attorneys gathered a number of historians, biologists, and geologists to testify that the area did indeed possess values worthy of the language prescribed by the Antiquities Act. A judge in Sheridan, Wyoming heard the case and, in August 1944, sided with the NPS (Getches 1982; Rothman 1989). At the national level, legislation intended to abolish Jackson Hole National Monument passed Congress. It was, however, vetoed by President Roosevelt. The battle over the land continued until the end of the decade. In 1950, Congress sided with the president and added most of the national monument into Grand Teton National Park. It also banned the creation of any future national monuments in Wyoming without congressional approval (Farrensperger 2007; Rothman 1989).

Largest Controversy

In 1978, President Jimmy Carter elevated the largest amount of land ever, more than 58 million acres in Alaska, by any president to national monument status. That action led to one to one of the greatest conservation achievements of the century, the Alaska National Interest Lands Conservation Act (more than doubling the size of the lands administered by the NPS). It also ignited one of the largest controversies over the use of the Antiquities Act. Believing that Carter, like Franklin Roosevelt, had sidestepped Congress, some Alaskans were incensed and one group of citizens in Fairbanks burned Carter in effigy. After years of debate, the Alaska National Interest Lands Conservation Act was passed in 1980, expanding protected land in Alaska and, at the same time, barring the creation of any future national monuments in Alaska without congressional approval (Raffensperger 2007).

Latest Controversy

In 1996, President Clinton designated a series of unique geologic landforms and elaborate canyons in Utah, totaling approximately 1.7 million acres of land, as the Grand Staircase-Escalante National Monument. This decision was a popular one across the nation, except for some people in Utah and a coal mining endeavor preparing to set up operations within this unique landscape (Hirst 2006; Rothman 1989; Squillace 2006).

In 1997, in response to President Clinton's proclamation, the Utah Association of Counties, joined by the Mountain States Legal Foundation, filed suit against his administration. Several U.S. House members also introduced bills designed to reduce the president's authority to establish new monuments. One bill, the National Monument Fairness Act (H.R. 1127), sponsored by Representative James Hansen (R–UT), demanded that no new monuments over 5,000 acres be established without the concurrence of Congress, and by both the Governor and the State legislature of the State in question. This bill passed the House but died in the Senate (*Congressional Record* 143 (1997), 21441–21443; Squillace 2006).

Weathering that storm, President Clinton, between January 2000 and the end of his term a year later, went on to proclaim more national monuments than any other president (establishing 18 new, and expanding 3, national monuments). Some western congressional representatives attempted to undo President Clinton's proclamations, as well as to reduce the president's ability to create new monuments. In June 2001, 30 House members introduced a new National Monument Fairness Act.

On July 17, 2001, on behalf of over 20 organizations opposed to the National Monument Fairness Act, the great grandson of President Theodore Roosevelt, the President who signed the Antiquities Act, testified before Congress in opposition to the bill:

> *I am Ted Roosevelt IV, a businessman, conservationist, and a rancher. I am also a Republican...This is the third time that I have testified before the House and Senate Committees in defense of the Antiquities Act. It is my hope that, eventually, these challenges to the Act will be simply a matter for the history books and that Congress will come to recognize that the Act itself is a monument to our national conscience.*
>
> *Our national identity is not solely defined by the success of our economic enterprise, and the American people repeatedly and resoundingly confirm to their representatives in Congress that the health, integrity, and beauty of our landscape is an absolute value of national importance to them...The Antiquities Act remains an important tool for protection of Federal lands held in trust for all Americans, not just the residents in a particular state...The Antiquities Act is a distinctly American law, designed by your farsighted predecessors to assure that we do not damage those natural, archeological, and cultural treasures unique to our American landscape. Since its passage in 1906, it has served our nation well, ensuring that presidents have the ability to protect fragile and special places from ill-conceived commercial exploitation with the speed not found in the ordinary legislative process. Presidents have used the Act sparingly and appropriately to respond to public concerns about the preservation of places that are keystones to our national memory and that help define us as a people and a nation. We respectfully urge your opposition to H.R. 2114 (source: http://www.wilderness.org/Library/Documents/upload/Monuments-Roosevelt-Statement.pdf).*

The bill, which was largely a repeat of what had had passed the U.S. House of Representatives four years earlier, passed the House Resources Committee. It was never, however, considered by the full House (*House Journal* [2001], 690–691 and 2388) (Harmon et al. 2006).

On January 25, 2001, the Mountain States Legal Foundation filed suit against President Clinton, seeking to set aside six national monuments designated by the President. On November 15, 2001, Judge Paul Friedman, sitting in the U.S. District Court for the District of Columbia, dismissed the lawsuit. Judge Friedman concluded that the Antiquities Act of 1906, upon which President Clinton based his designations, is a proper delegation of authority to the President. On October 18, 2002, a Federal Court of Appeals in Washington, D.C. affirmed Judge Friedman's decision. All in all, the court dismissed several challenges to the designation of monuments by President Clinton. [Challenges claiming that the monuments were based on improper delegation of authority by Congress; size; lack of specificity; non-qualifying objects; increased likelihood of harm to resources; and alleged violations of the National Forest Management Act of 1976 (NFMA), the Administrative Procedure Act (APA), and National Environmental Policy Act (NEPA).]

President Clinton used the Antiquities Act to proclaim 18 national monuments and to expand the boundaries of 3 national monuments. (Only President Franklin D. Roosevelt used his authority more often, and only President Jimmy Carter created more national monument acreage on land, than President Clinton. President Clinton was not the first to use the Antiquities Act's proclamation authority to enlarge existing national monuments. Franklin D. Roosevelt significantly enlarged Dinosaur National Monument in 1938; Lyndon B. Johnson added Ellis Island to Statue of Liberty National Monument in 1965; and Jimmy Carter made major additions to Glacier Bay and Katmai National Monuments in 1978.) In spite of the legislative and court actions determined to negate or alter these designations, all of the national monuments proclaimed by President Clinton under the authority of the Antiquities Act remain in effect.

Like Theodore Roosevelt, I believe there are certain places humankind simply cannot improve upon, places whose beauty and interest no photograph could capture; places you simply have to see for yourself.... We must use this time of unparalleled prosperity to ensure people will always be able to see these places as we see them today.... There is no greater gift we can offer to the new millennium than to protect these treasures for all Americans for all time.

-- President William J. Clinton, 2000

Lame Duck or Lasting Legacy

Presidents alone serve a national constituency. And, as history shows, when preparing to leave office, presidents, both Democratic and Republican presidents, have often used the Antiquities Act to enhance their legacies. President Theodore Roosevelt reportedly proclaimed Mount Olympus National Monument as a "going away present to himself" (Dustin, McAvoy, and Odgen 2005). After his defeat by President Franklin D. Roosevelt,

President Herbert Hoover proclaimed a number of national monuments. In a three-month period, Hoover set aside a second Grand Canyon National Monument, the White Sands National Monument, the Death Valley National Monument, the Saguaro National Monument, and the Black Canyon of the Gunnison National Monument (the last three were subsequently converted into national parks by Congress).

In 1961, shortly before his the end of his second term, President Eisenhower established the Chesapeake and Ohio Canal National Monument. After Richard Nixon's election in 1969, President Lyndon Johnson proclaimed Marble Canyon National Monument. And, shortly after being defeated by Ronald Reagan, Jimmy Carter proclaimed more than 50 million acres of American public lands as national monuments in Alaska.

At the end of the twentieth century, President Clinton used the Antiquities Act to proclaim and enlarge national monuments. With one exception, the Grand Staircase-Escalante National Monument, all of the monuments were designated during President Clinton's last year in office, based on the assertion that Congress had not acted quickly enough to protect Federal lands and resources (Vincent 2006; Rothman 1989).

Nearing the end of his presidency, President Bush proclaimed the smallest (the African Burial Grounds in Manhattan) and the largest (covering an archipelago 1,400 miles long and 100 miles wide in the northwestern Hawaiian Islands) national monuments. Like all of the presidents before him who had used the Antiquities Act, President Bush made the decision to circumvent Congress. President Bush had initially planned to use the National Marine Sanctuary Act to preserve the area. This law allows challenges from Congress and others regarding such a decision. However, according to James Connaughton, chairman of the White House Council on Environmental Quality, "As we drew closer and closer to our target to propose a marine sanctuary, and coupled with his great experience with Jean-Michel Cousteau and Sylvia Earle, [President Bush] realized that we had the consensus, that we had run the process, and the time was right to just get the job done." According to the proclamation, the government began a five-year phase-out of the commercial fishing permits in the area and imposed strict prohibitions on any other extractive uses (source: Associated Press article on FOXNEWS.COM; available on the Internet at: http://www.foxnews.com/story/).

The process to make the area in Hawaii a national monument had been in process for 5 years. However, President Bush called on the Antiquities Act to give the archipelago (140,000 square miles of largely uninhabited islands, atolls, coral reef colonies and underwater peaks known as seamounts) the greatest protection under the law. "To put this area in context," Bush said in a speech, "this national monument is more than 100 times larger than Yosemite National Park. It's larger than 46 of our 50 states, and more than seven times larger than all our national marine sanctuaries combined. This is a big deal." In a letter to the White House, former Speaker of the House Newt Gingrich (R-GA) called the creation of the national monument "a marvelous opportunity to leave a historic mark on U.S. and world conservation history" (source: Associated Press article on FOXNEWS.COM; available on the Internet at: http://www.foxnews.com/story/). Two weeks before he left office, President Bush established 3 additional marine national monuments: the Mariana Trench, Pacific Remote Islands and Rose Atoll Marine National Monuments encompass 195,280 square miles of high seas barred from fishing, mining, and other uses (source: http://www.usatoday.com/tech/science/environment/2009-01-05-mariana-trench_N.htm).

This monument will protect the cultural ties that native Hawaiians have to these lands and waters. We respect these natives' beliefs, and this monument will safeguard both the natural and spiritual treasures of the region.

-- President Bush, 2006

The Antiquities Act—Presidential Preservation Prevails

In spite of, and sometimes as a result of, congressional legislation and court litigation, the Antiquities Act has withstood the tests of time and trial. Today, it still stands as one of the primary components of American conservation legislation (Rothman 1989). American presidents, whether on their first day or on their last day in office, have used their power to proclaim public lands as national monuments when such places were threatened, or when priceless antiquities existing upon those lands faced potential, and impending, devastating consequences. Congress and the U.S. Courts have set, and upheld, the precedent that national monuments are set aside for the enduring benefit of all Americans. They were not set aside, at taxpayers' expense, for individuals or communities closest to them, or for industries or companies seeking to make a short-term economic profit on their resources, especially when such actions would degrade the non-commercial values and irreplaceable objects for which the public lands were set aside as national monuments. Throughout the years, Congress has done more to validate the decisions the presidents have made in proclaiming national monuments, by subsequently expanding or redesignating them as national parks, than to counter them (Dustin, McAvoy, and Ogden 2005; Rothman 1989). The Antiquities Act, more than 100 years after it was enacted, is still a vibrant, viable piece of legislation that future presidents will continue to use when deemed necessary.

If there is one thing that unites our fractious, argumentative country across generations and parties and across time, it is the love we have for our land.... You know, 10,000 or 20,000 years from now, if the good Lord lets us all survive as a human race, no one will remember who set aside this land on this day. But the children will still enjoy it.

-- President William J. Clinton, 2000

National Strategy—Preserving the Nation's Archaeological Heritage

In 1991, the U.S. Department of the Interior established the National Strategy for Federal Archaeology, which states:

> *The stewardship of America's archeological heritage is a well-established policy and function of the Federal government. Beginning in 1892 when Casa Grande Ruins were set aside for preservation, Federal agencies have paid special attention to the archeological resources on their lands, or that their activities*

> *affect... Archeological resources -- sites, collections, and records -- are unique and fragile. They must be used wisely and protected for future generations (source: http://www.cr.nps.gov/archeology/tools/NatStrat.html).*

The four basic elements of the national strategy are to:

- preserve and protect archaeological sites in place;
- conserve archaeological collections and records;
- utilize and share archaeological research results; and
- increase outreach and participation in public archaeology.

THE BLM AND AMERICAN PUBLIC LANDS

In 1946, in accordance with the Reorganization Act of 1945, Congress merged the GLO with the U.S. Grazing Service (established by the Taylor Grazing Act of 1934) and created the BLM. The BLM was mandated to manage public domain lands in order to ensure greater use, and more efficient administration, of Federal lands and natural resources. When it was established, the BLM inherited the responsibility for what remained of all public lands across the nation (primarily in the west). For the most part, these lands had never been developed (Muhn and Stuart 1988). All in all, the BLM has come to manage approximately one-eighth of the nation (source: http://www.blm.gov).

When the BLM was initially created, there were over 2,000 unrelated, and often conflicting, laws for managing the public lands. These disparate authorities often resulted in inefficient and inconsistent land and resource management. These laws applied not only to grazing and land disposal, but also to mineral leasing and mining, timber harvesting, and even to homesteading. The result was rapid economic development on public (BLM 1995).

In the 1960s and 1970s, there was an increasing demand for the protection and preservation of public lands undisturbed for present and future generations of Americans. As a result, several major environmental laws were enacted, including the Wilderness Preservation Act of 1964, the National Environmental Policy Act of 1969, and the Endangered Species Act of 1973.

The National Environmental Policy Act (NEPA) of 1969 (42 USC 4321 et seq.), signed into law in 1970, established a national environmental policy. It included a multidisciplinary approach to considering environmental resources in the decision-making process. The NEPA requires Federal agencies, including the BLM, to consider potential environmental impacts for all Federal actions that may significantly affect (impact) the human environment.

As a result of this increased interest in environmental protection, Congress overhauled the land use planning process governing public lands. The goal was to encourage land management agencies, including the BLM, to meet society's increasing demand for materials and energy, to support economic growth, and to protect and preserve non-economic values (including those related to wildlife, historic and cultural objects, outdoor recreation, visual aesthetics, air and water quality, etc.).

In 1976, Congress enacted the Federal Land Policy and Management Act (FLPMA) of 1976, giving the BLM a unified legislative mandate. Under the FLMPA, numerous land and resource management authorities were established, amended, or repealed (including provisions on Federal land withdrawals, land acquisitions and exchanges, Rights-of-Way, range management, and the general organization and administration of

BLM public lands). The FLPMA established the BLM as a multiple-use agency, meaning that management would be accomplished on the basis of multiple use and sustained yield in a manner that best meets the present and future needs of the American people for renewable and non-renewable resources.

The FLPMA also specified that:

> *... the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use.*

In short, the FLPMA proclaimed multiple use, sustained yield, and environmental protection as the guiding principles for public land management. Thus, the BLM is responsible for the balanced management of the public lands and resources, and their various values, so that they are considered in a combination that will best serve the long-term needs of current and future generations of Americans. These resources include recreation, range, timber, minerals, watershed, fish and wildlife, wilderness, and natural scenic and scientific values. The FLPMA established the BLM's public planning process for lands under its jurisdiction, and the requirement for the BLM to involve other Federal agencies, States, local communities, Native American tribes, and all concerned individuals, groups, and organizations in the planning process.

The BLM and the Canyons of the Ancients

Area Background—Prelude to a Monument

At first glance, southwestern Colorado appears as a strikingly harsh, rugged environment; a natural landscape of expansive vistas, high rocky mesas and plateaus, and deep canyons. Upon closer inspection, however, the area managed by the Federal government as part of the American public lands system (first by the GLO, then, after 1946, by the BLM) is a cultural and historical landscape with a bountiful, yet fragile, testimony to Native Americans who once lived upon the land. It is a landscape that still contains the invaluable remnants of their lives; a vast array of irreplaceable historic, cultural, archaeological, and scientific objects that connect the people who visit this landscape today with the people who lived upon it in the past.

During the time the Ancestral Puebloan people occupied southwestern Colorado, they shifted from a migratory to a sedimentary lifestyle. Archaeologists have given descriptive names to the different developmental phases or periods. The cultural history of southwest Colorado is thoroughly described in Colorado Prehistory: A Context for the Southern Colorado River Basin (Lipe et al. 1999), and summarized in the table below:

Cultural Chronology for Southwest Colorado		
Dates	**Periods**	**Distinctive Characteristics**
A.D 776 to present	Euro-American	Homesteads dating from as early as the 1880s, camps, rock art and inscriptions, water control features, animal pens, mining claim markers, and roads.
Undetermined date to present	Ute	A mobile lifestyle based on seasonal rounds of hunting and gathering. Later, there were farms in McElmo Canyon. Early sites were represented by wickiups, rock art, and brown-ware pottery.
A.D. 1300 to present	Navajo	Seasonal use of the area for livestock grazing and resource gathering; hogans, sweat lodges, and distinctive pottery.
A.D. 1150 to A.D. 1300	Pueblo III	Large pueblos and a shift in settlement from mesa tops to canyon rims in some areas with a dispersed pattern in others; high kiva-to-room ratios, cliff dwellings and towers; corrugated gray and elaborate black and white (B/W) pottery, and red or orange pottery (red ware) in some areas. There was a mass migration from the area by A.D. 1300.
A.D. 900 to A.D. 1150	Pueblo II	A Chacoan influence; Great Houses, great kivas, roads, etc., in many, but not all regions; strong differences between Great Houses and surrounding unit pueblos composed of a kiva and small surface masonry room block; corrugated gray and elaborate B/W pottery, and decorated red ware.
A.D. 750 to A.D. 900	Pueblo I	Large villages; unit pueblos of proto-kiva plus surface room block of jacal or crude masonry; great kivas; plain and neck-banded gray pottery; and low frequencies of B/W and decorated red ware.
A.D. 500 to A.D. 750	Basketmaker III	Habitation in deep pit houses, plus surface storage pits, cists, or rooms; dispersed settlement with occasional small villages and occasional great kivas; plain gray pottery; and low frequencies of B/W pottery. The bow and arrow replaced the atlatl; and beans were added to the diet.
A.D. 50 to A.D. 500	Basketmaker II (late)	Habitation in shallow pit houses, plus storage pits or cists; dispersed settlement with small low-density villages in some areas; campsites were important as well; gray pottery; atlatl and dart; corn and squash, but no beans; and upland dry farming in addition to floodplain farming.
1500 B.C. to A.D. 50	Basketmaker II (early)	Long-term seasonal use of caves, rock shelters, and alcoves for camping, storage, burial, and rock art; San Juan anthropomorphic style pictographs/petroglyphs; and limited activity sites in open. There were baskets, but infrequent gray pottery; atlatl and dart; corn and squash, but no beans; and cultivation was primarily floodplain or runoff based.
7000 B.C. to 1500 B.C.	Archaic	Subsistence based on hunting and gathering of wild foods; high mobility; low population density; shelters and open sites; atlatl and dart; and use of baskets, but not pottery.
8000 B.C. to 7000 B.C.	Paleo-Indian	Big game hunting and wild food procurement; high mobility; low population density; large, unfluted lanceolate projectile points; and use of baskets, but not pottery.

Source: Adapted from Lipe, et al. 1999.

The wealth and abundance of cultural antiquities within this landscape has attracted numerous scientists, scholars, archaeologists, and anthropologists for over a century. As a result, the research and studies conducted in the area helped in the development of archaeology as a professional scientific discipline. The intense interest also led to a greater awareness of antiquities on public lands and to the interest of the American public which was already focused on areas such as Casa Grande and Mesa Verde.

The earliest recorded exploration of the area was conducted in the 1870s by William H. Holmes and William Henry Jackson. In 1878, Lewis Henry Morgan visited the McElmo valley. His maps and information appeared in the 1881 publication, "Houses and House-Life of the American Aborigines." In 1889, the very first public lands in the United States, the Goodman Point ruins in southwestern Colorado, were officially set aside by the GLO for the protection of significant cultural resources. This action reflects the historic beginnings of the call to protect the irreplaceable and invaluable cultural resources in the area (BLM 2000). [In 1951, President Harry S. Truman expanded Hovenweep National Monument (established in 1923) to include the Goodman Point ruins under the management of the NPS.]

At the beginning of the twentieth century, T. Mitchell Prudden conducted archaeological studies documenting the basic residential unit used by Ancestral Puebloan households. Only a few years later, in 1906, the Antiquities Act was passed by Congress. That same year, nearby Mesa Verde was designated as a National Park (Varien and Jacobson 2001). In 1907, after being called upon by the GLO to inventory the Southwest, archaeologist Edgar Hewett recruited Sylvanus Griswold Morley, Alfred Vincent Kidder, and John Gould Fletcher to conduct a survey in the McElmo drainage (Morley returned in 1908 to excavate Cannonball Ruin). Jesse Walter Fewkes also conducted archaeological investigations in the area, publishing his finds in 1919. As a result of these and other investigations, public awareness of the area and of the need to preserve and protect the antiquities intensified.

The Sacred Mountain Planning Unit

By the middle of the twentieth century, all BLM-administered public lands in the southwest corner of Colorado came to be referred to as the Sacred Mountain Planning Unit of the San Juan Resource Area (Montrose District Office). The area within this planning unit, within Montezuma and Dolores Counties, totaled approximately 217,000 acres.

In 1965, the BLM contracted with the University of Colorado, Department of Anthropology, to conduct extensive inventories of the ancient Indian ruins occurring on the Sacred Mountain Planning Unit. In a 1974 report entitled "Management of Sacred Mountain Planning Unit" the BLM stated:

> *We are committed by law to:*
>
> - *Administer the cultural properties under our control in a spirit of stewardship and trusteeship for future generations.*
> - *Initiate measures necessary to direct our policies, plans, and programs in such a way that federally-owned sites, structures, and objects of historical, architectural, or archeological significance are preserved, restored, and maintained for the inspiration and benefit of the people.*

Based on the University of Colorado report, and other studies, the BLM considered the area to contain "unique resources of significant national and worldwide interest" and concluded that

> *There is growing evidence that the Sacred Mountain Planning Unit of national resource lands, with an adjacent area in Utah, represents a longer cultural span than that represented at Mesa Verde. Archaeologists speculate that the Sacred Mountain Planning area was the center of the wide range Anasazi culture, prehistoric agriculturalists known for their highly developed civilization. Mesa Verde may have been a recent suburb of these early people (BLM 1974).*

In terms of protecting these high value archaeological resources, the BLM also stated:

> *Inefficient control of resource uses and destruction of sites are two key problems. Oil and gas seismograph exploration has caused some damage and requires considerable manpower for supervision. Uncontrolled pot hunting, pure vandalism, and natural elements are taking their toll...The two carbon dioxide wells located in Sand Canyon have created some disturbance in an area of high intensity archaeological values. It has provided access into this area causing increased pot hunting and vandalism.*

In order to address these management problems, the BLM proposed four management alternatives for the Sacred Mountain Planning Unit:

- Continue present level of management. Multiple-use policies would continue as presently performed; archeological resources would continue to suffer damage from pot hunting, vandalism, and natural deterioration.
- Encourage NPS acquisition of high value archeological areas; BLM to retain and manage lands not chosen for National Park status.
- As a minimum measures, establish a patrol-protection program to prevent illegal pot hunting and vandalism. New State legislation would be sought to preserve antiquities values through legal sanctions. Local law enforcement agencies could assist BLM in protection of archeological resources.
- Strengthen BLM management of the Sacred Mountain Planning Unit. Existing Bureau policies of multiple use resource management would be pursued with the emphasis on the protection, preservation and management of the archeological resource.

The fourth alternative was selected as the only course of action that would achieve the basic requirements set forth in the proposal that the archeological resources must be protected and preserved. The BLM proposed extensive surveying of the area prior to any further development that could adversely impact the area's antiquities, stating, "It is incumbent upon BLM to be aware of the resource they are managing to better manage it" (BLM 1974).

The Rare Lizard and Snake Instant Study Area

On February 4, 1965, approximately 443 acres of the Sacred Mountain Planning Unit, located near McElmo Canyon in Montezuma County, were withdrawn from mineral entry (by Public Land Order No. 3530, amended by Public Law 3701). This withdrawal established the creation of the Rare Lizard and Snake Instant Study Area (ISA), also known as the McElmo Rare Lizard and Snake Area or Reptile Natural Area. In accordance with provisions of 43 CFR, subpart 2310, the withdrawal provided for "the

protection of unique botanical, geological, or zoological characteristics and of irreplaceable scientific and recreational values" (BLM 1976).

The Rare Lizard and Snake ISA was established in recognition of unique values other than cultural within the area. Specifically, the area was found to contain "an assemblage of amphibians and reptiles that is not duplicated elsewhere in Colorado" (BLM 1976). These rare species include the Desert spiny lizard (*Sceloporus magister*) and the king snake (*Lampropeltis getulus*). In addition, the area contains the rare longnose leopard lizard (*Gambelia wislizenii*) and the Mesa Verde nightsnake (*Hypsiglena torquata*), two reptiles that only occur in the desert areas of extreme western Colorado. [In Colorado, the longnose leopard lizard is restricted to the west-central and southwest edge of the State (Hammerson 1999). It is possible that longnose leopard lizards may act as indicators of healthy, undisturbed shrublands in the arid Southwest (CNHP 2006). Considered to be rare in the Monument (Zortman 1968; Bury 1977), surveys have only uncovered a handful of individuals (Bury 1977; Lambert 2004).] In 1976, the BLM determined that the Rare Lizard and Snake ISA withdrawal protected valuable and unique surface resources and a recommendation was made that the withdrawal be maintained (BLM 1976).

At that time, the Montrose District was developing the San Juan/San Miguel Resource Management Plan, which would analyze and propose specific management objectives for the area. [In 1980/1981, a wilderness study and inventory was conducted to determine whether or not the area met the requirements and criteria to become a Wilderness Study Area (WSA). As a result of this inventory, it was determined that the area did contain ecological, geological, and other features of outstanding scientific, educational, scenic, and historical value. It did not, however, meet the full criteria to become a WSA (BLM 1980; BLM 1981).]

Proposed Anasazi National Conservation Area

In 1979, Congressman Ray Kogovsek of Colorado introduced a bill to establish the Anasazi National Conservation Area (NCA) in order to protect and perpetuate a unique cultural resource (BLM 1983). The proposed NCA would have encompassed 217,000 acres of public lands in the Sacred Mountain Planning Unit.

[NOTE: The term Anasazi was initially used by archaeologist Alfred V. Kidder in the 1930s. The term, which is a Navajo word, was construed by him to mean the old ones or the ancient ones. However, the Hopi Tribe, who have a deep tribal connection to the Ancestral Puebloans, refer to their ancestors as *Hisatsinom*. In this document, the people who populated this region during ancient times will be referred to as ancient or Ancestral Puebloan.]

In 1981, as national concern regarding the protection and preservation of this unique area increased, the Congressional Anasazi Advisory Committee for the proposed NCA was created. In their 1983 report to Congress entitled "Sacred Mountain Planning Unit Resources and Development Opportunities," the Committee emphasized the priority on preserving the antiquities of the area. "Cultural resources or archaeological sites are a non-renewable resource in that once they are disturbed or destroyed, they cannot be replaced" (Anasazi Advisory Committee 1983). According to the report, three uses constituted the primary land use activities in the area: grazing, mineral development, and recreation. "Each of the primary activities incurs natural resource limitations and conflicts with the other use operators in the area. Each pursued within its own special interest may create relatively little disturbance to the archaeological/cultural resources

on the land area. However, the cumulative effect of the three primary activities within the same land area upon each other and upon the archaeological/cultural resources can be significant" (BLM 1983). To summarize the management dilemma, the Committee concluded that: "The real management problem for the BLM appears to be the recognition that not every use can take place on every piece of land."

Unable to reach a consensus on use amenable to all parties, the area was dropped from further consideration as an NCA. However, the attention and debate eventually led to a large portion of the area being set aside as an Area of Critical Environmental Concern (ACEC).

The Anasazi Culture Multiple-Use Area and ACEC

Upon approval in 1985, the San Juan/San Miguel Resource Management Plan (BLM 1985) designated 156,000 acres, including the Rare Lizard and Snake ISA, as the Anasazi Culture Multiple-Use Area and ACEC (BLM 1986a). [BLM regulations define an ACEC as an area within the public lands where special management attention is required (when such areas are developed or used and/or where no development is required) in order to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources; and/or other natural systems or processes; and/or to protect life and safety from natural hazards.]

The Anasazi ACEC was established to provide elevated levels of protection for the cultural landscape. The designation of these public lands as an ACEC was based on the fact that the area contained the highest known density of archaeological sites in the United States, held evidence of cultures and traditions spanning thousands of years, and contained important "cultural, mineral, recreation, range, backcountry values, and wildlife resources" (BLM 1985). Several sites that are similar in character and cultural affiliation to sites within the ACEC were previously designated as Hovenweep National Monument in 1923 (Proclamation 1654 of March 2, 1923, Proclamation 2924 of April 26, 1951, and Proclamation 2998 of November 20, 1952).

In reference to the designation of the Anasazi Culture Multiple-Use Area and ACEC (Anasazi ACEC), the Record of Decision (ROD) for the San Juan/San Miguel RMP stated:

> *Designation of the 156,000-acre Anasazi Culture Multiple-Use Area as an Area of Critical Environmental Concern will have long-term positive impacts to cultural resources. The plan will provide continued protection and management to important cultural sites and areas. Overall, long-term benefits will occur because of the protective withdrawals and stipulations to mineral development (BLM 1985a).*

In 1986, in the ACEC Plan Management Guidelines, the BLM stated:

> *The cultural resource properties are significant in various ways and to different degrees; they are highly valuable scientifically and aesthetically. Most of the sites representing varied aspects of the Anasazi culture lie in the Sacred Mountain area (primarily Montezuma and Dolores Counties). They are considered both individually and collectively unique and nationally important, representing a successful and challenging adaptation to marginal environments that lasted for 800 years. The boundary of the ACEC surrounds the area of densest recorded prehistoric occupation in the Nation (BLM 1986a).*

In the BLM's "Management Guidelines for the Anasazi Culture Multiple-Use Area" (ACMUA), the following were listed as management guidelines for the ACEC:

- Cultural resources within the ACMUA will be more intensively managed. The objectives are to identify, evaluate, preserve, develop, interpret, and utilize these resources, as defined on a case-by-case basis, for individual cultural sites or areas of high site concentrations.
- Cultural resource inventory priorities are established for the entire ACMUA.
- Specific interim management actions for significant cultural resources, such as stabilization, interpretation, inventory and visitor management, are identified.
- General policies are established for management of other multiple-use programs in light of cultural resource values (BLM 1986a).

Proposed Hovenweep Expansion and Anasazi National Monument

Hovenweep Expansion

In the late 1980s, the NPS, working with the BLM, proposed to expand Hovenweep National Monument to include some of the ruins within the Anasazi ACEC managed by the BLM (Hovenweep is a Ute word meaning deserted valley). In their "General Management Plan and Development Concept Plan" (NPS 1987), with the goal of enhanced land and resource protection of the area's antiquities, the NPS stated:

> *It was once thought that it was sufficient to preserve and protect only the most spectacular aspect of a climax vegetation, such as the great redwood trees. As the discipline of ecology matured, it was learned that it is also important to consider the successional system that led up to (and will continue after) the maintenance of these individual trees. In a similar way, the study of archaeology now recognizes the successional patterns of cultures. It is important to understand and safeguard the previous aspects of a particular culture in order to understand the climax phenomenon. In other words, the reason behind the construction of Hovenweep tower complexes may not lie within these ruins, but in the previous settlement areas that were generally abandoned and that currently surround the national monument. Mesa tops away from the canyonheads also contain areas of agricultural activity that may have supported the canyonhead communities... For the reasons discussed above and the need to protect cultural resource sites and settings on surrounding lands, this GMP proposes expansion of the boundary at Goodman Point.*

The NPS also proposed a Resource Protection Zone on approximately 6,000 acres of public lands administered by the BLM (lands within the Anasazi Culture Multiple-Use ACEC) as part of a cooperative management strategy. An Interagency Agreement between the NPS and the BLM (Utah and Colorado State Offices) dated April 1, 1987 was established for lands surrounding the Square Tower, Holly, Hackberry, Cutthroat, and Goodman Point units (NPS 1992). However, due to agency and regulatory differences, the RPZ was discontinued in 1988 (BLM 1988a).

Anasazi National Monument

In 1988, the NPS, in accordance with the House Conference Report accompanying the Interior Appropriations Bill (PL 100-448) was directed by Congress to evaluate proposals for establishing an Anasazi National Monument. Realizing that Mesa Verde National Park and Hovenweep National Monument (adjacent to and within the Anasazi Culture

Multiple-Use Area) were just the tip of the iceberg when it came to understanding and valuing the ancient Puebloans, the NPS stated:

> *Today, ruins in southwestern Colorado provide an exceptional opportunity to undertake a comprehensive study of the Northern San Juan (Mesa Verde) branch of the Anasazi, who lived north of the San Juan River. Sites representing the full continuum of occupation -- from Basketmaker II through Pueblo III -- are present in this area. Mesa Verde is one of the most spectacular and best-known of the Northern San Juan Anasazi areas, but archaeologists now know that most of the northern Anasazi population, estimated at 30,000 to 40,000 people, lived in the Montezuma Valley to the north. Literally thousands of sites exist throughout this area, allowing us to learn not only about the minor details of everyday life, but also the development of the culture over hundreds of years and the social, political, economic, and ceremonial dynamics that energized the entire civilization (NPS 1989).*

The National Park Service concluded that:

> *Along with Mesa Verde National Park and Hovenweep National Monument, these sites present a fairly complete picture of the Anasazi life north of the San Juan River, as well as unique aspects of prehistoric life that are not represented elsewhere in the national park system (NPS 1989).*

After conducting studies and investigations, neither the expansion at Hovenweep National Monument nor the proposed Anasazi National Monument were undertaken by the two agencies.

From ACEC to National Monument—Elevating Antiquities Preservation

After proclaiming the Grand Staircase-Escalante National Monument in 1996, President Clinton selected the BLM to manage the area. Soon thereafter, President Clinton requested that the Secretary of the Interior, Bruce Babbitt, report to him on additional unique and fragile Federal lands in need of protection (source: http://clinton4.nara.gov/textonly/). By 1999, under this direction, Secretary Babbitt had compiled a list of public lands in need of the highest level of protection and preservation. The list included the BLM-administered Anasazi ACEC in southwestern Colorado.

In May of 1999, Secretary Babbitt sent Senator Ben Nighthorse Campbell (R-CO) a letter demonstrating his interest in preserving the antiquities of southwestern Colorado:

> *As I have previously discussed with you, I am interested in working with you to extend appropriate recognition and protection for the many cultural and archeological treasures found on public lands in southwestern Colorado that have not been afforded the protection they deserve. I plan to visit the area next week, and remain open to discussing with you appropriate ways that we might protect these resources through either legislation or administrative actions (Babbitt 1999a).*

On May 24, 1999, Secretary Babbitt did visit southwestern Colorado, viewing lands within the ACEC (including Lowry Pueblo, Sand Canyon and East Rock Canyon, as well as the carbon dioxide gas field development on Mockingbird Mesa). At the conclusion of this field trip, Secretary Babbitt told members of the media, BLM staff, and local area residents that he saw a need to achieve a greater level of protection over the unique values of the area. He stated he was especially concerned about vandalism and looting, and insufficient funding for appropriate-level preservation.

While touring the Anasazi ACEC, Secretary Babbitt stated that President Clinton's push for new national monuments across the West was designed to resolve the conflicts that often arise from the nation's policy of multiple use on public lands. Secretary Babbitt called for a higher level of management care:

> *You can't have a cattle ranch, a mine, a timber mill, and a campground all on the same 40 acres. We [need to] think of public lands in terms of the dominant and preferable public use of that particular area. We've got to get away from this idea that every square inch is available for everything. These natural landscapes are unique, historic American treasures. They need more care and protection than we are giving them (McManus, Sierra, 2001)*.

After his visit, the Secretary asked the BLM and the Southwest Resource Advisory Council (SWRAC) to begin, and lead, a public process designed to discuss key issues, concerns, and ideas so that the BLM could move forward in "securing greater recognition and protection for the tremendous cultural resource values present in the area" (BLM 1999).

The BLM asked the SWRAC to form a subgroup (a working group) to assist in identifying the major considerations in increasing the protection and recognition of the nationally significant landscape (BLM 1999). The SWRAC working group, with representatives from local government; oil and gas; tourism; livestock/grazing; recreation entities; environmental organizations; and archaeologists/historians, held a series of seven public meetings. In August of 1999, they forwarded management recommendations in a report to Secretary Babbitt.

The Secretary of the Interior responded to the working group's report, stating that he thought most of the working group's report could be built into the BLM's management of the area. "But I am also," he added, "committed to finding methods to secure the adequate and long-term funding and staffing to allow the Bureau to do the work" (Babbitt 1999). In his response to the working group's report, he identified two realistic options for ensuring long-term protection of the ACEC:

- Congressional establishment of a National Conservation Area (NCA) focused on preserving the cultural resources within the ACEC, or
- designation of the area as a national monument, either through legislation or under the authority of the Antiquities Act of 1906 (Babbitt 1999).

Secretary Babbitt concluded the letter by stating that he would continue to seek the Colorado delegation's support and sponsorship of a legislative approach to protecting and preserving the area and its antiquities:

> *I absolutely agree that we have to find ways to bring more resources to bear on taking care of this invaluable landscape; we are falling woefully short at the present time... I firmly believe that there is a critical need to deliberately and quickly move forward with actions to protect the values of the ACEC. In the absence of prompt legislative action, I will recommend to the President that he proceed with a Proclamation to establish a national monument under the Antiquities Act (Babbitt 1999).*

Secretary Babbitt told local community residents that he cared more about securing the appropriate protection and funding for the cultural resources than he did about the national monument label. If Congress was willing to act to make the area a NCA through legislation tailored to meet local needs, he would refrain from nominating the area to the president for national monument designation.

In November of 1999, Secretary Babbitt again visited the area and met with local citizens and governmental agencies. Richard Moe, the President of the National Trust for Historic Preservation, toured the area with Secretary Babbitt. Alarmed at the deterioration and degradation he witnessed, primarily due to looting, vandalism, and resource extraction, Moe also called for a higher level of protection for the area and its invaluable artifacts. “The artifacts of this country belong to everyone and the risk of losing them before future generations is too great...This needs a higher level of protection. This is all our heritage” (Cleary, Daily Sentinel, 1999).

Richard Moe said that the nation has a responsibility to protect America’s treasures. “It’s a question of protection. People need to understand this is part of our heritage and history. These are the ruins and remnants of the first Americans. American history didn’t start with Jamestown” (source: http://press.nationaltrust.org/).

This is five-star archaeology. There are a lot of protected areas around the West that have a lot less to offer in terms of volume and integrity than this... There are national monuments without a fraction of the character of this area. I’m certain as sunrise that we need more intense protection and management of the cultural resources... You can’t walk from here over to that tree without stumbling over artifacts.

-- Secretary of the Interior Bruce Babbitt, touring southwestern Colorado, 1999

In a speech delivered at the University of Denver Law School in February of 2000, Secretary Babbitt discussed his interest and intent in preserving the lands and resources in southwestern Colorado:

> *It would be great to get these protection issues resolved in the Congressional, legislative process. But if that's not possible, I'm prepared to go back to the President, and not only ask, not only advise, but* ***implore*** *him to use his powers under the Antiquities Act and to say to him: "Mr. President, if they don't, and you do, you will be vindicated by history for generations to come." Just as President Harrison, President Cleveland, Woodrow Wilson, Taft, notably Teddy Roosevelt, Franklin Roosevelt, Jimmy Carter, virtually every President in the past century has done. Often in the midst of intense controversy. But in every single case, validated by history and the generations of Americans who have this passion for the western landscape (source: //www.blm.gov/ca/ca/news/2000/02/nr/babbitt_denver_speech.html).*

In February of 2000, Senator Campbell (R-CO) introduced legislation to establish the Canyons of the Ancients NCA (S. 2034). Representative Scott McInnis (R-CO) introduced a companion bill in the House of Representatives (H.R. 3687). Senator Campbell, however, failing to reach a consensus, suspended all actions on his bill on March 23, 2000. In turn, McInnis suspended actions on the House bill.

Commenting on the collapse of the proposed NCA, Secretary Babbitt said that he would have preferred congressional action to protect the area, "but it's the protection that's important, not the label" (Kelley 2000). On May 31, 2000, Secretary Babbitt recommended to President Clinton that the area, as well as three other unique landscapes across the nation, be designated as national monuments:

> *These are priceless natural landscapes that have somehow remained almost untouched by exploitation, development and urban sprawl. But we are losing open spaces every day. Protection of several of these areas, in one form or another has been discussed for years, but no action has been taken. We may not have another chance before they are lost, so I am urging the President to protect these unique landscapes now for future generations of Americans (source: http://www.doi.gov/doipress/proposedmonuments.html).*

In response to Secretary Babbitt's recommendation, President Clinton issued a statement:

> *I am pleased to receive Secretary Babbitt's recommendations today for the creation of new national monuments to protect unique federal lands in Arizona, Colorado, Oregon, and Washington.*
>
> *As trustee of much of our nation's natural endowment, the Federal government must do its utmost to ensure lasting protection of our most precious lands. That is why I asked the Secretary to identify Federal lands most in need of additional protection, and why I have exercised my authority under the Antiquities Act to grant such protection to some of our most cherished landscapes -- from California's ancient sequoias to the north rim of the Grand Canyon.*
>
> *Each of the areas recommended today represents an exceptional, irreplaceable piece of America's natural and cultural heritage. I will carefully consider the recommendations and hope to reach a decision on them in the near future (source: http://clinton4.nara.gov/CEQ/statement_2000-5-31.html).*

This is not about locking up lands. This is about freeing lands up from the threat of development so children of the future can enjoy these places.

-- President William J. Clinton, 2000

CANYONS OF THE ANCIENTS—AN AMERICAN MONUMENT

On June 9, 2000, President Clinton signed proclamations creating four new national monuments, including Canyons of the Ancients National Monument. According to a White House Press Release, the intent of these national monument proclamations was to protect Federal lands representing unique, irreplaceable pieces of America's natural and cultural heritage (source: http://clinton4.nara.gov/textonly/WH/New/).

Management of the area was to be afforded the highest level of protection; protection dedicated to the overriding purpose of protecting the objects described in the Proclamation. The Monument was delineated to the south by McElmo Creek and the Ute

Mountain Ute Reservation, the State border to the west, and includes the upper reaches of many canyons at its north and east boundaries. The area within the boundaries of the Monument included approximately 164,000 acres of BLM-administered land, approximately 18,600 acres of private land, and approximately 400 acres of Federal land managed by the NPS as Hovenweep National Monument. The Monument designation does not apply to private lands; however, the Proclamation provides that if any of these lands within the outer boundaries are acquired into Federal ownership, they would become part of the Monument. In the absence of acquisition, the laws applicable to the use of private lands prior to the establishment of the Monument would continue to apply.

After President Clinton proclaimed the area the Canyons of the Ancients National Monument, the White House, through the Office of the Press Secretary, issued an announcement regarding the new designation:

> *President Clinton today signed a proclamation creating the Canyons of the Ancients National Monument in southwest Colorado. The 164,000-acre monument contains the highest known density of archeological sites anywhere in the United States, with rich, well-preserved remnants of native cultures going back thousands of years.*
>
> *A Treasure Trove of Ancient Culture. The new monument is located in the Four Corners region, about 45 miles west of Durango and 9 miles west of Mesa Verde National Park. Occupation of this area by hunters and gatherers likely began over 10,000 years ago. Farming in the area blossomed between 450 and 1300 A.D., when the area was occupied by Ancestral Northern Pueblo People. Year-round villages were established, evolving from pit house dwellings to the cliff-dwelling pueblos.*
>
> *The archeological record etched into this landscape is much more than isolated islands of architecture. The more than 20,000 archeological sites reflect all the physical components of past human life: villages, field houses, check dams, reservoirs, great kivas, cliff dwellings, shrines, sacred springs, agricultural fields, petroglyphs, and sweat lodges. Some of the area has more than 100 sites per square mile. Because of the remoteness of the area and the protection efforts of both the Bureau of Land Management and the local community, the integrity of most of these sites has been maintained. The growth of population and tourism in the Four Corners area will increasingly threaten these resources with vandalism and other types of degradation, making additional protections necessary.*
>
> *Managing the New Monument. The Bureau of Land Management designated the area as the Anasazi Area of Critical Environmental Concern in 1985. Because the vast majority of the Federal lands within the monument have already been leased for oil and gas (including carbon dioxide) and development already is occurring, the lands will remain open to oil and gas leasing and development. Development will be managed, subject to valid existing rights, so as not to create any new impacts that would interfere with the proper care and management of the objects protected by the designation. New leases will be allowed only for the purpose of promoting conservation of oil and gas in reservoirs now being produced under existing leases or to protect against drainage. Finally, the rights of Indian Tribes will not be affected.*
>
> *History and Process. Public discussions regarding protection of this area date back to 1894 when the Salt Lake Times ran a story detailing interest in protecting*

the region. In 1979, a bill was introduced in Congress to designate the area a National Conservation Area. In the spring of 1999, Interior Secretary Bruce Babbitt began a dialogue with the local communities concerning proper management and protection of the area. The local Resource Advisory Council held five public meetings, consulted with local governments, and forwarded management recommendations to the Secretary in August 1999. Senator Ben Nighthorse Campbell introduced new National Conservation Area legislation in February 2000 (S. 2034), but he suspended all action on his bill on March 23, 2000. Secretary Babbitt recommended to the President last month that the area be designated as a National Monument (source: http://clinton4.nara.gov/textonly/WH/New/html/20000609_2.html).

Unique and Irreplaceable Cultural Resources

Cultural resources are the material and physical remains of past human activity, ranging from objects such as artifacts, structures, and features, to natural features and landscapes. Cultural resources are finite and non-renewable resources that embody characteristics and information specific to the cultural group who produced them, and to the time period during which they were created.

Within the Monument, the known cultural resources include 4,965 (96 percent) prehistoric sites, 81 (2 percent) historic sites, and 111 (2 percent) multi-component prehistoric/historic sites. An additional three sites of unknown age, as well as 1,101 isolated finds, have been recorded (1,081 prehistoric and 20 historic), for a total of 6,261 documented cultural resources in the area. Some areas have very high site densities, exceeding 100 sites per square mile. Individual sites range in size from less than 1 acre to more than 10 acres, and reflect all facets of everyday life (including field houses, check dams, reservoirs, kivas, cliff dwellings, shrines, sacred springs, agricultural fields, petroglyphs, and sweat lodges).

Areas of heaviest site density reflect, to a large degree, areas that have had intensive archaeological surveys conducted. Approximately 18 percent of BLM-administered public lands in the area has been intensively inventoried for cultural resources. (Less than 6 percent of the 262 million acres managed by the BLM across the nation has been inventoried for cultural resources.) However, many of the past inventories were not conducted in a manner that meets current standards. Subsequent reexamination of these areas has determined that earlier site data can be unreliable and/or poorly documented. Based on current projections, it is estimated that the total number of sites may range from 20,000 to 30,000. As stated in the Proclamation, the Monument offers an unparalleled opportunity to “observe, study, and experience how cultures lived and adapted over time in the American Southwest.”

Cultural Resource Sites or Areas within the Monument

Ten sites are listed on the National Register of Historic Places. Important cultural resource sites or areas within the Monument include:

- **Lowry Pueblo -** Originally excavated in the 1930s by archaeologist Paul S. Martin, the area is protected by an administrative withdrawal. The pueblo contains 39 rooms and 7 kivas, as well as a Great Kiva; and is part of a much larger community of villages occupied in the eleventh, twelfth, and thirteenth centuries. Lowry Pueblo was designated as the Lowry Ruin National Historic

Landmark in 1967. This designation automatically placed Lowry Pueblo on the National Register of Historic Places.

- **Sand Canyon/East Rock Canyon -** Sand and East Rock Canyons contain a large number of late Ancestral Puebloan cliff dwellings unique to the area. At the head of Sand Canyon lies one of the largest and best preserved Ancestral Puebloan sites in the area. (This site received a protective mineral withdrawal in August 1984). The Sand Canyon National Register District was listed on the National Register of Historic Places in 2005.
- **Painted Hand Pueblo -** Painted Hand Pueblo overlooks Hovenweep Canyon (near Hovenweep National Monument's Cutthroat Castle Group). Similar to several of the Hovenweep sites, it includes a well-preserved masonry tower more than 15 feet in height and three painted hand pictographs that are extremely rare to the area.

Special Designation Areas within the Monument

There are areas within the Monument that have special designations for management purposes. These include Areas of Critical Environmental Concern (ACECs), Research Natural Areas (RNAs), and Wilderness Study Areas (WSAs). An overview of these areas is described below.

ACECs/RNAs

Research Natural Areas (RNAs) are a unique type of ACEC. RNAs are areas that are a part of a national network of special management areas that contain important ecological and scientific values and resources that are managed for minimum human disturbance. The RNA program was created to:

- preserve examples of all significant natural ecosystems for comparison with those influenced by people;
- provide educational and research areas for ecological and environmental studies; and
- preserve gene pools of typical and endangered plants and animals.

As unique ACECs, RNAs are intended to represent the full array of North American ecosystems, including their biological communities, habitats, natural phenomena, and geological and hydrological formations. In RNAs, natural processes are allowed to predominate without human intervention. RNAs are primarily used for non-manipulative research and for gathering baseline data on relatively unaltered community types. Under certain conditions, deliberate manipulation may be used in order to maintain the unique features for which the RNA was established. RNAs can serve as excellent controls for similar communities that are being actively managed. In addition, RNAs may provide an essential network of diverse habitat types that will be preserved in their natural state for future generations.

- ***The McElmo RNA*** - The McElmo Research Natural Area (RNA) was designated in March 1986 through the San Juan/San Miguel Resource Management Plan (RMP) (BLM 1985). [It has the dual designation as an Instant Study Area (ISA). ISAs do not meet the acreage requirements to become Wilderness Study Areas (WSAs); however, they are managed as WSAs.] The RNA consists of approximately 427 acres and is located in Bridge Canyon. The BLM, in cooperation with Fort Lewis College, designated the RNA in order to provide an

area for herpetological research (the study of indigenous reptile species) and for habitat protection. The primary goal for the McElmo RNA is to provide a natural and undisturbed setting for scientific research and public education as an outdoor classroom.

Wilderness Study Areas (WSAs)

There are no designated wilderness areas on the Monument. There are three Wilderness Study Areas (WSAs) on the Monument. These WSAs include the Cross Canyon WSA, the Squaw/Papoose Canyon WSA, and Cahone Canyon WSA. The Cahone Canyon WSA is situated entirely within the boundaries of the Monument. The Cross Canyon and Squaw/Papoose Canyon WSAs extend beyond the western boundaries of the Monument into Utah. These WSAs are described below:

- ***Cross Canyon*** - The Cross Canyon WSA (12,721 acres) is located approximately 14 miles southwest of Cahone on the Dolores/Montezuma County line (a 1,008 acre portion of the WSA extends into Utah). Elevations in the area range from 5,140 feet to 6,500 feet. Cross, Ruin, and Cow Canyons, with their perennial streams, are the major topographic features of the WSA. Pinyon-juniper woodland is the predominant vegetation on the slopes and canyon rims; sagebrush parks and riparian vegetation can be found along the canyon bottoms.
- ***Squaw/Papoose Canyon*** - The Squaw/Papoose Canyon WSA (11,357 acres) is located just north of the Cross Canyon WSA, approximately 12 miles south of Dove Creek (6,676 acres of the WSA are located in Utah). Elevations in the area range from 5,300 feet to 6,600 feet. The major topographic features of the WSA are Squaw and Papoose Canyons. Squaw Canyon has a perennial stream.
- ***Cahone Canyon*** - The Cahone Canyon WSA (9,156 acres) is located approximately 4 miles west of Cahone and just north of the Cross Canyon WSA. Elevations in the area range from 5,900 feet to 6,600 feet. Three canyon systems with intermittent streams are the dominant topographic feature of this WSA. Vegetation is primarily pinyon-juniper woodland with sagebrush parks and riparian zones along the canyon bottoms.

National Register of Historic Places

The National Historic Preservation Act (NHPA) of 1966 provides for the protection of cultural resources on Federal lands and established the National Register of Historic Places (NRHP), which is a national program that coordinates and supports public and private sectors in the identification, evaluation, and protection of historic and archeological resources. In accordance with the NHPA, the eligibility of historic properties to the NRHP is determined through evaluation of the property using the guidelines and criteria in 36 CFR 60. The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that:

- are associated with events that have made a significant contribution to the broad patterns of our history;
- are associated with the lives of persons significant in America's past;
- embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master; possess high artistic values; or

represent a significant and distinguishable entity whose components may lack individual distinction; and/or
- have yielded, or may be likely to yield, information important in prehistory or history (36 CFR 60.4 a.-c.).

The NRHP eligibility of traditional cultural properties is usually assessed based upon information obtained through consultations with elders and other knowledgeable individuals of a cultural group, as well as through a review of historical documentation.

On a landscape scale, the Monument contains a remarkable diversity and density of cultural resources that represent past lifeways and associated cultures and traditions spanning thousands of years. A site database, compiled by the Colorado Historical Society's Office of Archaeology and Historic Preservation (OAHP) for sites within the boundaries of the Monument, summarizes site data and the diversity of site types. By 2008, the Monument had a total of 175 sites listed on the NRHP. This includes Lowry Pueblo, which is also listed as a National Historic Landmark. Of the total 4,965 sites documented to date, 2,038 have been determined eligible for the NRHP.

Presidential Proclamation and Monument Management

The Proclamation that established the Monument has the Secretary of the Interior, through the BLM, managing the area under its existing authorities. This management, however, is subject to the overriding purpose of protecting the objects described in the Proclamation. The establishment of the Monument, therefore, constitutes an overlay on the management regime otherwise applicable to lands managed by the BLM. It limits the management discretion that the BLM would otherwise have by mandating protection of the historic, cultural, natural, geological, and scientific objects within the national monument as the highest priority.

In recognition of its status as a national monument, the BLM will manage the Monument in strict accordance with, first and foremost, the provisions of the Proclamation "*so as not to create any new impacts that interfere with the proper care and management of the objects protected by this proclamation"* and for the enduring benefit of all Americans.

In addition, the Monument will be managed in accordance with the following laws, regulations, executive orders, and agreements:

Cultural Resource Laws and Proclamations
Monument Proclamation (establishment of Canyons of the Ancients National Monument by the President of the United States of America, June 9, 2000)
Antiquities Act of 1906 (PL 59-209; 34 Stat. 225; 16 USC 431 - 433)
Historic Sites Act of 1935 (PL 74-292; 49 Stat. 666; 16 USC 461)
Reservoir Salvage Act of 1960, as amended by Archaeological and Historic Preservation Act of 1974 (PL 86-523; 74 Stat. 220, 221; 16 USC 469; PL 93-291; 88 Stat. 174; 16 USC 469)
National Historic Preservation Act of 1966 as amended (NHPA) (PL 89-665; 80 Stat. 915; 16 USC 470)
National Environmental Policy Act of 1969 (NEPA)(PL 91-190; 83 Stat. 852; 42 USC 4321)

Archaeological and Historic Preservation Act of 1974 (AHPA) (16 USC 46-469C)
Federal Land Policy and Management Act of 1976 (FLPMA) (PL 94-579; 90 Stat. 2743; 43 USC 1701)
American Indian Religious Freedom Act of 1978((PL 5-431; 92 Stat. 469; 42 USC 1996)
Archaeological Resources Protection Act of 1979 (ARPA) (PL 96-95; 93 Stat. 721; 16 USC 47Oaa et seq.) as amended (PL 100-555; PL 100-588)
Native American Graves Protection and Repatriation Act of 1990 (NAGPRA) (PL 101-601; 104 Stat. 3048; 25 USC 3001)
Cultural Resource Regulations
36 CFR Part 800 (Protection of Historic Properties)
36 CFR Part 60 (National Register of Historic Places [NRHP])
36 CFR Part 7 (Waiver of Federal Agency Responsibilities under Section 110, NNHPA)
36 CFR 79 (Curation of Federally Owned and Administered Archaeological Collections)
43 CFR Part 3 (Preservation of American Antiquities; implementing regulations for the Antiquities Act)
43 CFR Part 7 (Protection of Archaeological Resources)
43 CFR Part 10 (NAGPRA Regulations; Final Rule)
Cultural Resource Executive Orders
Executive Order 11593, Protection and Enhancement of the Cultural Environment
Executive Order 13007, Providing for American Indian and Alaska Native Religious Freedom and Sacred Land Protections
Executive Order 13084, Consultation and Coordination with Indian Tribal Governments
Executive Order 13195, Trails for America in the 21st Century
Executive Order 13287, Preserve America
Cultural Resource Agreements
Programmatic Agreement between the BLM, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers regarding the manner in which the BLM will meet its responsibilities under the National Historic Preservation Act (BLM 1999a)
State Protocol Agreement between the BLM Colorado State Director and the Colorado State Historic Preservation Officer (BLM 1998a) regarding the manner in which the BLM will meet its responsibilities under the NHPA, and the National Programmatic Agreement between the BLM, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers

Legal Effects of the Monument Proclamation

In terms of management, there are several significant aspects of the Proclamation. First, it reserves only the Federal lands in the area. This is because the Antiquities Act applies only to objects of historic or scientific interest "that are situated upon the lands owned or controlled by the Government of the United States" (16 USC 431).

Second, the Proclamation is subject to valid existing rights, including any relevant rights the Ute Indians may have under the Brunot Agreement of 1874 (April 29, 1874). Therefore, to the extent a person or entity has valid existing rights within the Monument, the Proclamation respects their rights. The exercise of such rights, however, can be regulated in order to protect the objects of the Monument and to adhere to the intent of the Proclamation.

Third, the Proclamation appropriates, and withdraws, the Federal lands and interests in lands within the boundaries of the Monument from entry, location, sale, or other disposition under the public land laws. This includes, but is not limited to, withdrawal from location, entry, and patent under the mining laws and from disposition under all laws relating to mineral leasing, other than by exchange that furthers the protective purposes of the Monument, and except for oil and gas (including carbon dioxide) leasing (as described below). This withdrawal prevents the location of new mining claims under the 1872 Mining Law. It also prevents the Secretary of the Interior from exercising discretion under the mineral leasing acts, and related laws, to lease or sell Federal minerals, except for oil and gas, within the boundaries of the Monument.

Approximately 80 percent of the Federal lands within the Monument have already been leased for oil and gas (including carbon dioxide). Monument lands remain open to continued oil and gas (including carbon dioxide) development, but only through existing leases, and only under current lease restrictions and BLM regulations. The Proclamation allows new leases to be issued only for the purpose of either protecting against drainage, or promoting conservation of oil and gas resources in a common reservoir now being produced under existing leases. The Proclamation directs the BLM to manage all development, subject to valid existing rights, "*so as not to create any new impacts that interfere with the proper care and management of the objects protected by the Proclamation*."

Fourth, the Proclamation does not reserve water resources within the Monument. The Proclamation, however, directs the BLM to work with appropriate State authorities in order to ensure that any water resources needed for Monument purposes are available.

I recognize the right and duty of this generation to develop and use the natural resources of our land; but I do not recognize the right to waste them, or to rob, by wasteful use, the generations that come after us.... We have become great because of the lavish use of our resources. But the time has come to inquire seriously what will happen when our forests are gone, when the coal, the iron, the oil, and the gas are exhausted....

-- President Theodore Roosevelt, 1906

CANYONS OF THE ANCIENTS—A NATIONAL LANDSCAPE

Landscapes of the American Spirit

When President Clinton proclaimed the Grand Staircase-Escalante National Monument in 1996, the expectation was that the area would be placed under the management of the National Park Service. Instead, Secretary Babbitt convinced President Clinton that it would be more appropriate for the BLM to run the new monument—lands that had been under its administrative jurisdiction prior to its designation. Secretary Babbitt told President Clinton that he thought the BLM should "have a sense of pride rather than...a bunch of inventory out in the garage that is discovered and given to someone else" (Allen 2002).

One of the things I think about sites on public lands, is that it's our story; America's history literally etched out on the public lands.

-- Colorado BLM State Director, Sally Wisely, 2006

Landscape-Level Management

In a speech delivered at the University of Denver Law School in February of 2000, Secretary Babbitt focused on the need for landscape-level management, including at the Anasazi ACEC in southwestern Colorado:

> *The West is once again quickening to the issues of how we live on this landscape and what kind of open space we want, and how it is we're going to strike a more sensitive balance on the landscape in terms of development, the use of natural resources, and our long-term presence on this landscape.*
>
> *Colorado got off to a good start on these issues at the turn of the century. With a lot of action in terms of the creation of national parks, monuments, forests. It was an extraordinary legacy. But in recent decades, it's been quiescent. In fact, it's been kind of quiescent all over the West. And the fact that has changed is that the West is filling up. That the open spaces are now beginning to close and the West is becoming an urban place. And there is now, I think, a sense of urgency, about - not just celebrating the visionary acts of a lot of great leaders in the first half of the century - but turning to the future and saying "What is it that we want to see fifty and a hundred years from now?"*
>
> *...The country down below Durango and out toward Cortez and Dove Creek is the richest, most extraordinary archeological landscape in North America. I won't detail the kinds of discoveries that are coming off of that landscape, but it is truly incredible. Now, in the nineteenth century, people were down there - and, of course, they saw Mesa Verde immediately, and it may, in many ways, be the most evocative of all of our national parks...there is something about being on that landscape. A sense...a palpable sense of the presence of our ancestors and the magical way that they lived on that land in absolute resonance with the*

> *landscape and the life on the land that is...it is just really incredible. I can't describe it.*
>
> *The people who were down there then turned back and said "These sites need protecting." And they protected Mesa Verde in the form of a national park. But then they went West onto this landscape of riches and they would see a ruin and they would make a National Park or a monument out of the forty acres surrounding the ruin. And if you go down to Hovenweep National Monument, it's like little postage stamps on the landscape. Somebody saw a ruin and fenced off 20 acres, ten, five, forty around it. And you begin looking across this landscape and say, "Hey, wait a minute. This isn't about a ruin here or there. Don't you see, it's about a whole, interwoven landscape. It's about communities that were living in and on this land and relating to each other and moving across this landscape and drawing their living and their inspiration and their spirituality from a landscape." Doesn't it make sense, in light of a subsequent 100 years of understanding, to say that we have room in the West to protect the landscape, and -- if you will -- an anthropological ecosystem. The real science on these landscapes doesn't come out of digging out a room and extracting a few pots. That was the nineteenth century.... The real discoveries today come from asking the deeper question of "How did communities manage to live in spiritual and physical equilibrium with the landscape?" And don't we need to assess all of the traces that have been left in so many intense and variegated ways, whether it's with petroglyphs, diversion structures for water, ramadas, all of those things. So, that's the question in Southwestern Colorado. Do we have the wisdom and foresight to say, before it's too late, before these landscapes start to get chopped up: We can do better than to protect five or six Indian ruins out on that land and say that there is room in this culture for a quarter million acres from which we honor the past and, more importantly, learn, and take inspiration from the past.*

After the speech, Secretary Babbitt answered a series of questions, including a question regarding his purpose and intent with regard to the new policy of placing national monument management of these landscapes under the BLM. He responded:

> *The institutional story is this, traditionally in the West when we've talked about monuments and parks what it has meant is designating the landscape and then taking it away from the Bureau of Land Management which administrates the public domain in the West. The Bureau of Land Management has three times as much land as the National Park Service, twice as much as the Forest Service. It is the owner of the matrix of public lands in the West. The traditional approach is, you see something nice, you get up a big movement to protect it, and you take it away from the Bureau of Land Management and give it to somebody else, namely typically the National Park Service in some cases the National Wildlife Refuge System. And out of that has grown a kind of perception that the BLM is sort of the Bureau of leftovers, livestock and mining -- whatever you want to call it. But it doesn't seem to me to be an adequate way of looking at the Western landscape, because the largest land manager ought to be induced to have a sense of pride rather than simply having a bunch of inventory out in the garage that is discovered and given to someone else.*
>
> *And that's the reason, when President Clinton did the Grand Staircase-Escalante in 1996, I said to him, “you should create a first monument by Presidential Proclamation that has ever been created for and within the Bureau of Land Management”. And people said, "Well, why do that?" Well, I've given you one*

> *reason. And that is I think you give an institution some pride and some direction, not by stripping it by its best assets. But you also induce a new sense of the relationships on the landscape* (source: http://www.blm.gov/ca/ca/news/2000/02/nr/babbitt_denver_speech.html).

In the twenty-first century...BLM can become the greatest modern American land management agency, the one that sets the standard for protecting landscapes, applying evolving knowledge and social standards, and bringing people together to live in harmony with the land.

-- Secretary of the Interior, Bruce Babbitt, 2000

Secretary Babbitt promoted this new landscape-level approach to national monument management by administratively creating a new program within the BLM responsible for managing special and unique BLM lands; i.e. the National Landscape Conservation System. With the establishment of the National Landscape Conservation System in 2000, a new focus emerged in how the agency administered the crown jewels under its jurisdiction. Under the National Landscape Conservation System, the conservation of the cultural and natural resources that led to the designation of the areas as national treasures becomes the overriding objective (Harmon, McManamon, and Pitcaithley 2006).

Today, the National Landscape Conservation System consists of over 850 federally recognized areas or units, and includes

- 15 National Monuments;
- 14 National Conservation Areas;
- 36 Wild and Scenic Rivers;
- 148 Wilderness Areas;
- 4,264 miles of National and Scenic Trails; and
- more than 600 Wilderness Study Areas.

According to the BLM, the National Landscape Conservation System:

> *...encompasses red-rock deserts and rugged ocean coastlines, deep river canyons and broad Alaskan tundra. Many areas are remote and wild but others are surprisingly accessible. The NLCS also reveals and protects our cultural legacy. It safeguards American Indian cliff dwellings and cultural sites, and preserves the remaining traces of our Nation's historic trails and pathways.*
>
> *The NLCS works to conserve the essential fabric of the West. NLCS areas are part of an active, vibrant landscape where people live, work and play. They offer exceptional opportunities for recreation, solitude, wildlife viewing, exploring history, scientific research, and a wide range of traditional uses.*
>
> *These are places that spark the imagination. Their spacious beauty has drawn people to the West for generations. The NLCS sustains for the future -- and for*

everyone -- these remarkable **landscapes of the American spirit** (source: http://www.blm.gov/wo/st/en/prog/blm_special_areas/NLCS.1.html).

The mission of the NLCS is to conserve, protect and restore nationally significant landscapes recognized for their outstanding cultural, ecological and scientific values.

-- http://www.blm.gov/wo/st/en/prog/blm_special_areas/NLCS.html

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Canyons of the Ancients National Monument—Crown Jewell of the National Landscape Conservation System

After receiving the final report on the potential designation of Canyons of the Ancients National Monument from the Anasazi Working Group, Secretary Babbitt focused on the landscape-level management requirements of the area:

> *The report you prepared, and the opportunities to be heard that your meetings provided to the public, have already proven to be of great value as we investigate ways to ensure the long-term protection of the cultural resources and landscapes included within the Anasazi Culture Multiple-Use Area of Critical Environmental Concern (Babbitt 1999).*

Secretary Babbitt went on to state that protecting cultural resources, and controlling causes of resource degradation in the area, were his main impetus for finding a way to protect the overall landscape:

> *As you know, these are my primary concerns for this landscape. Few places in our country contain such density of cultural resources, and essentially no other areas contain cultural resources in the context provided by this landscape. While individual cultural sites can provide significant scientific information, or can provide valuable interpretation opportunities, this landscape offers us a change to study an entire culture, one that may have been as rich and diverse as the one we have today. Looking at the entire landscape allows us the chance to begin to understand why Ancestral Puebloans chose to live where they did, interacted with their neighbors, used the natural resources of this valley, communicated with others, worshipped, and why their communities changed over time.*
>
> *Looking at the entire landscape also points out the magnitude of the risks posed to these resources.... Together the thousands of archeological sites in the area comprise a landscape that may have supported a regional population even greater than today's.... As important as it is to protect outstanding individual sites, it is the overall picture of how these thousands of sites were interrelated that presents the greatest opportunity for us to understand and appreciate these earlier inhabitants and their culture. The individual features take on much greater importance when viewed in the overall context (Babbitt 1999).*

In November 1999, Secretary Babbitt visited the area again. He told local residents and the media that the perception and management of the land once occupied by the ancient Puebloans has evolved. "It's the end of the postage stamp view of Indian dwellings.... It's a changing view of how we look at the past and the land" (Cleary, Daily Sentinel, 1999).

Touring Lowry Pueblo, Secretary Babbitt added, “One of the issues driving our decisions is the need for protection of the landscape...the fact is that in a small site there may be more information than in a great big 200-room pueblo.... Once it’s broken up, dug up or roaded over the information that can be gained from the landscape is contaminated or lost (Binkley, Cortez Journal, 1999).

In a letter to the Director of the BLM after the designation of Canyons of the Ancients National Monument, dated June 28, 2000, Secretary Babbitt stated that the “national monument designation continues in the tradition of giving management responsibility to the [BLM], offering BLM a highly visible opportunity to demonstrate its stewardship over the landscape” (Babbitt 2000). He also stated that the Monument’s “unique archeological, historical, and biological resources” are to be protected in their landscape context. Secretary Babbitt concluded the letter with a call for the proper management of the newly designated landscape by the BLM:

> *The management of the Canyons of the Ancients National Monuments is one of the Department’s most visible and important priorities. Your work will have a profound impact on the public’s assessment of the Bureau of Land Management and of Federal land management in general.*

After designation of the area as the Canyons of the Ancients National Monument, the BLM began to focus on Secretary Babbitt’s landscape-level management. The Monument includes significant archaeological, geological, and biological objects. The scientific value of many of the objects requires preservation of areas large enough to maintain the objects and their interactions. In fact, a great deal of the significance of these objects stems from the relationships of such sites when considered within a much larger comparative landscape context. Thus, protection of the aggregate area is necessary for proper care of the objects.

Management focused only on a patchwork of reserved lands here and there within the Monument would be impractical. Such piece-meal management would make it more difficult to adequately care for the objects; reduce options for resource management; and, in all probability, lead to inconsistent resource management standards for overlapping resources, undermining the proper care and management of the Monument (source: http://www.blm/gov).

The BLM’s goal, according to Victoria Atkins, an Interpretive Specialist for the Monument and the Anasazi Heritage Center in Dolores is “to preserve a total landscape that shows human activity on the land.... National monuments are meant to offer visible architecture set among fields, check dams, rock art, ceremonial sites, and water sources. Visitors come away with a more holistic understanding of the past, rather than seeing it a piece at a time” (O’Brien, Trail and Timberline, 2000).

There was quite a large community here, but it’s important to think about how interconnected and interdependent things were across the whole landscape.

-- Canyons of the Ancients National Monument, Monument Manager, LouAnn Jacobson 2002

Future of the National Landscape Conservation System

The National Landscape Conservation System was created by Secretary Bruce Babbitt through an administrative action under the Department of the Interior. However, because the National Landscape Conservation System was established administratively without congressional mandate, it does not have the permanence that it would have if enacted by law. Only Congress can permanently establish the National Landscape Conservation System as an integrated network of protected public lands with an appropriate level of funding and staffing for the BLM to effectively manage the agency's crown jewels. Without congressional designation, the status of the National Landscape Conservation System could be reversed at any time.

In 2002, the National Trust for Historic Preservation, along with other private and public organizations, launched a public lands initiative to increase funding and levels of protection for the National Landscape Conservation System. The Conservation System Alliance now includes over 70 recreational, environmental, religious, and other public and private groups.

In 2005, the National Landscape Conservation System was named as one of America's 11 Most Endangered Historic Places by the National Trust for Historic Preservation. "It comes down to this," Richard Moe, the President of the National Trust, said, "In 2006, just as in 1906, the natural and cultural treasures on our public lands need the safeguards provided by the Antiquities Act.... The agencies responsible for carrying out its mandate must be given the support they need to do their job well. We can't keep asking Federal land management agencies to do the impossible. We can't keep allowing irreplaceable treasures to be lost. We can't stand by while important chapters in America's story are erased before we've had a chance to read them. Failure to meet this challenge would be a refutation of all that the Antiquities Act stands for—and a debit against the American spirit" (source: http://press.nationaltrust.org/).

"The National Landscape Conservation System was created to safeguard landscapes that are as spectacular in their own way as our National Parks," said former Secretary of the Interior, Bruce Babbitt, in 2005. "There is clear evidence, however, that we are at risk of moving backwards and failing to adequately protect these special American lands. The Department of the Interior and our leaders in Congress should take the recommendations of this report to heart and support the conservation mission of the National Landscape Conservation System before it is too late" (source: http://www.commondreams.org/news2005/1025-18.htm).

In 2007, Senators Ken Salazar (D-CO) and Jeff Bingaman (D-NM) introduced legislation to codify the National Landscape Conservation System, giving it congressional support and funding. The National Landscape Conservation System Act (S.1139) would group all of the areas into one permanent system. Senator Salazar stated that:

> *The National Landscape Conservation System has taken a back seat in our country's land conservation efforts, getting shortchanged by the President's budget year in and year out. Places like Canyons of the Ancients National Monument, McInnis Canyons National Conservation Area, and Gunnison Gorge National Conservation Area – some of America's most famous landscapes – deserve real protection from vandalism, neglect and other abuses. This bill simply writes the National Landscape Conservation System into law – without affecting grazing rights, water rights, and public access to the national monuments, wilderness or conservation areas – to make sure National Landscape Conservation System lands are protected always.*

Senator Bingaman stated that the bill would “highlight the importance of preserving some of our country’s most historic and culturally rich areas and will help ensure they remain a high priority within the BLM and the Department of the Interior. It is my hope this bill will be able to move quickly through the Congress and be enacted into law” (source: http://salazar.senate.gov/news/releases/070419env.htm). A House of Representatives version of the bill (H.R. 2016), sponsored by Representative Raul Grijalva (D-AZ) (with 65 co-sponsors), was also presented to Congress.

The Conservation System Alliance supports the legislation. "Without permanent protection, the system suffers from neglect and could even be dissolved," the Alliance warns. "Passage of the act will be a defining moment in American conservation history" (Wagner, Arizona Republic, 2008).

BLM officials, as well as Alliance members, say that official designation of the National Landscape Conservation System is essential. "While I don't have any particular reason to believe other Secretaries [of the Interior] will come in and undo the system, the fact is it can be pulled apart to disparate units," said Elena Daly, now retired Director of the National Landscape Conservation System. "[The Act would] give us legislative authority to exist and would require legislative action to undo. It would put us on par with National Park Service."

The bills in the House and the Senate would not increase funding or mandate any change in management policies. However, Daly stressed the importance of the legislation. "The difference is not so much in the day-to-day management of the system," she said. "But, in the larger sense, it would be tremendously significant. It puts us on a level playing field in the minds of the American public with other valuable Federal lands. And it makes very clear that the system will always be part of BLM" (Karaim, Preservation Magazine, 2008). In a separate statement, Daly said that the enactment of the legislation was “like being a part of a birthing.... I think we are all about to witness the next major conservation system in the United States" (Wagner, Arizona Republic, 2008).

In May of 2007, the Senate Energy and Natural Resources Committee approved the National Landscape Conservation System Act (S.1139). “Our country,” Senator Bingaman said, “is home to some of the world’s most beautiful natural wonders. I am pleased the Energy Committee has given approval to this bill, which will help protect and preserve them for generations to come” (source: salazar.senate.gov/news/releases/). Having been approved by Senate Committee, S. 1139 went on for consideration by the full Senate. The House Natural Resources Committee also approved the House version of the proposed legislation (H.R. 2016).

"Congress,” Richard Moe said, “took a major step toward permanently recognizing the National Landscape Conservation System. These places are living history books of the American West, and by unifying them into a single system under the BLM's careful management, we are ensuring that these irreplaceable treasures are preserved for future generations" (Karaim, Preservation Magazine, 2008).

In April 2008, the U.S. House of Representatives passed the National Landscape Conservation System Act, formally recognizing the 26 million acres of the National Landscape Conservation System. "Many of these lands contain man's first imprints on the American landscape in the form of kivas, pueblos and rock art," said Richard Moe. "Because they represent our shared heritage, they richly deserve the recognition that this legislation gives them" (source: www.conservationsystem.org/). The legislation was later included in the Omnibus Public Land Management Act of 2009. The Public Lands bill was passed by the Senate (77-20 votes) on March 19, 2009 and by the House of

Representatives (285-140 votes) on March 25, 2009. President Obama signed the Act into law on March 30, 2009, formally recognizing the significance of public lands in the BLM's National Landscape Conservation System.

CANYONS OF THE ANCIENTS—FOR ALL AMERICANS

The public lands in southwestern Colorado, now Canyons of the Ancients, have always belonged to Americans. Since the original 13 colonies ceded their claims to all western lands to the Federal Government, the area has been an integral part of the American public lands system. In fact, some of the very first lands ever set aside for protection and preservation, in recognition of their inherent value as part of this nation's historic and cultural heritage, were in the heart of these public lands. Today, Canyons of the Ancients is a national monument; it is a crown jewel in the highest echelon of designated lands within the public domain of this nation. It was so designated for the express purpose and intent of protecting and preserving its cultural, historic, natural, geological, archaeological, and overall scientific objects, as described in Proclamation 7313 issued on June 9, 2000 by President Clinton:

> *Containing the highest known density of archaeological sites in the Nation, the Canyons of the Ancients National Monument holds evidence of cultures and traditions spanning thousands of years. This area, with its intertwined natural and cultural resources, is a rugged landscape, a quality that greatly contributes to the protection of its scientific and historic objects. The monument offers an unparalleled opportunity to observe, study, and experience how cultures lived and adapted over time in the American Southwest.*

The rugged landscape of Canyons of the Ancients was designated a national monument in accordance with (as well as the precedents set by) the Antiquities Act of 1906. It was designated as a national monument for its enduring non-commodity and non-commercial values (including commemorative, educational, scientific, and inspirational).

Today, the Canyons of the Ancients National Monument belongs to all American citizens equally—from those who live steps from her boundaries to those who live a block from the White House. The Canyons of the Ancients National Monument is a testament to our past and a gift to our future. It is the privilege and the responsibility of the Bureau of Land Management to ensure that the irreplaceable objects, resources, and values for which the public lands were set aside are protected and preserved. Thus, in recognition of its status as a national monument, and as an invaluable part of the National Landscape Conservation System, the BLM will manage the Canyons of the Ancients National Monument in strict accordance with, first and foremost, the provisions of the Proclamation "*so as not to create any new impacts that interfere with the proper care and management of the objects protected by this proclamation"* for the enduring benefit of all Americans.

"With an emphasis on conservation, protection and restoration, the National Landscape Conservation System and Canyons of the Ancients National Monument represent a new era of management for the BLM. After 130 years of exploration and research identifying tens of thousands of irreplaceable and fragile archaeological sites, we know that Canyons of the Ancients represents the best of our cultural heritage. Using an army of volunteers who contribute on the ground services and applying the principles of balanced management and science-based decision-making, this crown jewel preserves ancestral homes and landscapes for Native American citizens and for children and communities throughout the United States."

Secretary of Interior, Ken Salazar 2009

References

Allen, L. 2002. Wildlands of the West: The Story of the Bureau of Land Management. National Geographic Society. Washington, D.C.

Albright, H.M. 1985. The Birth of the National Park Service. Howe Brothers. Salt Lake City, Utah.

Albright, H.M., and M. Albright-Schenck. 1999. Creating the National Park Service: The Missing Years. University of Oklahoma Press. Norman, Oklahoma.

Anderson, M.F. 2000. Polishing the Jewel: An Administrative History of Grand Canyon. Grand Canyon Association. Grand Canyon, Arizona.

Babbitt, B. 1999. Letter to Mr. Ed Zink, Co-Chair of the Anasazi Working Group. U.S. Department of the Interior. Washington, D.C. November 9, 1999.

Babbitt, B. 1999a. Letter to Senator Ben Nighthorse Campbell. U.S. Department of the Interior. Washington, D.C. May 21, 1999.

Babbitt, B. 2000. Letter to the Director of the Bureau of Land Management on the Management of the Canyons of the Ancients National Monument. U.S. Department of the Interior. Washington, D.C. June 28, 2000.

Bandelier, A. 1890. Final Report of Investigations Among the Indians of the Southwestern United States: Carried on Mainly in the Years from 1880 to 1885. Papers of the Archaeological Institute of America. America Series III, Part I. Cambridge, Massachusetts.

Bandelier, A. 1892. Final Report of Investigations Among the Indians of the Southwestern United States: Carried on Mainly in the Years from 1880 to 1885. Papers of the Archaeological Institute of America. America Series III, Part II. Cambridge, Massachusetts.

Binkley, G. 1999. Babbitt wants access -- and protection -- for ruins. *In* the Cortez Journal. Cortez, Colorado. November 23, 1999.

Blackburn, F. M. 2006. The Wetherills: Friends of Mesa Verde. Mesa Verde Centennial Series, The Durango Herald Small Press, Durango, Colorado.

Bureau of Land Management (BLM). 1974. Management of Sacred Mountain Planning Unit. U.S. Department of the Interior, Bureau of Land Management. Colorado State Office. Denver, Colorado.

BLM. 1976. Decision Record and Withdrawal Modification Report: C-3672, Rare Lizard and Snake Area. U.S. Department of the Interior, Bureau of Land Management. Montrose District. Montrose, Colorado.

BLM. 1981. Wilderness Report. Rare Lizard and Snake Instant Study Area. U.S. Department of the Interior, Bureau of Land Management. Montrose District. Montrose, Colorado.

BLM. 1983. Sacred Mountain Planning Unit Resources and Development Opportunities. U.S. Department of the Interior, Bureau of Land Management. Montrose, Colorado.

BLM. 1985. San Juan/San Miguel Resource Management Plan. U.S. Department of the Interior, Bureau of Land Management. San Juan Field Office. Durango, Colorado.

BLM. 1985a. Record of Decision. San Juan/San Miguel Planning Area Resource Management Plan. U.S. Department of the Interior, Bureau of Land Management. Montrose District. Montrose, Colorado.

BLM. 1986a. The Anasazi Culture Multiple-Use Area, An Area of Critical Environmental Concern (ACEC): ACEC Plan, Management Guidelines and Environmental Assessment. U.S. Department of the Interior, Bureau of Land Management. Denver, Colorado. July.

BLM. 1986b. BLM Manual 8410-1 -- Visual Resource Inventory. U.S. Department of the Interior, Bureau of Land Management. Washington, D.C.

BLM. 1986c. Sand Canyon Cultural Resource Management Plan. U.S. Department of the Interior, Bureau of Land Management. San Juan Field Office. Durango, Colorado.

BLM. 1988a. BLM Manual 1613 -- Areas of Critical Environmental Concern. Rel. 1-1541. U.S. Department of the Interior, Bureau of Land Management. Washington, D.C. September.

BLM. 1988b. BLM Handbook H-1790-1 -- National Environmental Policy Act Handbook. Rel. 1-1547. U.S. Department of the Interior, Bureau of Land Management. Washington, D.C. October.

BLM. 1988c. Memorandum from the BLM State Director to the Regional Director of the National Park Service: Cooperative Management Strategies (CMSs) -- Hovenweep National Monument. U.S. Department of the Interior, Bureau of Land Management. Colorado State Office. Denver, Colorado.

BLM. 1991a. Record of Decision: Oil and Gas Plan Amendment to the San Juan/San Miguel Resource Management Plan. U.S. Department of the Interior, Bureau of Land Management. Montrose Field Office. Montrose, Colorado.

BLM. 1995. Public Rewards from Public Lands. U.S. Department of the Interior, Bureau of Land Management. Washington, D.C.

BLM. 1998a. State Protocol Agreement between the Colorado State Director of the BLM and the Colorado State Historic Preservation Officer (SHPO), regarding the manner in which the BLM will meet its responsibilities under the National Historic Preservation Act (NHPA) and the National Programmatic Agreement (NPA), among the BLM, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers (NCSHPO). U.S. Department of the Interior, Bureau of Land Management. Colorado State Office. Lakewood, Colorado.

BLM. 1998b. Programmatic Agreement between the BLM, the State of Colorado, the national forests in the State of Colorado, the USDA Forest Service, the SHPO, and the Advisory Council on Historic Preservation, regarding the management of wildland fire for resource benefits. Agreement No. 1102-002-98-038. U.S. Department of the Interior, Bureau of Land Management. Colorado State Office. Lakewood, Colorado.

BLM. 1999a. Programmatic Agreement between the BLM, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers (NCSHPO), regarding the manner in which the BLM will meet its responsibilities under the National Historic Preservation Act (NHPA). U.S. Department of the Interior, Bureau of Land Management. Colorado State Office. Lakewood, Colorado.

BLM. 1999b. Letter from Ann Morgan, BLM State Director, to the members of the Southwest Resource Advisory Committee. U.S. Department of the Interior, Bureau of Land Management. Colorado State Office. Lakewood, Colorado. June 25, 1999.

BLM. 2001f. Colorado Interim Management for Canyons of the Ancients National Monument. U.S. Department of the Interior, Bureau of Land Management. Canyons of the Ancients National Monument. Dolores, Colorado. (Available on the Internet: http://www.co.blm.gov/canm/canminterim.htm.)

BLM. 2001g. Interim Management for all National Monuments. U.S. Department of the Interior, Bureau of Land Management. Washington, D.C.

BLM. 2001h. Interim Management Guidance for Oil and Gas Leasing and Development. U.S. Department of the Interior, Bureau of Land Management. Washington, D.C.

BLM. 2002d. Informational Bulletin No. 2002-101. Cultural Resource Considerations in Resource Management Plans. U.S. Department of the Interior, Bureau of Land Management. Washington, D.C. May.

BLM. 2004, revised. BLM Manual 8110 -- Identifying and Evaluating Cultural Resources. U.S. Department of the Interior, Bureau of Land Management. Washington, D.C.

BLM. 2005a. BLM Handbook H-1601-1 -- Land Use Planning Handbook. Department of the Interior, Bureau of Land Management. Washington, D.C.

BLM. 2005c. Analysis of the Management Situation (AMS), Canyon of the Ancients National Monument. U.S. Department of the Interior, Bureau of Land Management. Canyons of the Ancients National Monument. Dolores, Colorado. August.

BLM. 2005d. Reasonable, Foreseeable Development (RFD): Oil, Natural Gas, and Carbon Dioxide in Canyons of the Ancients National Monument. U.S. Department of the Interior, Bureau of Land Management. Canyons of the Ancients National Monument. Dolores, Colorado. April.

BLM. 2006. 2006 Oil and Gas Surface Operating Standards and Guidelines. U.S. Department of the Interior, Bureau of Land Management. Washington, D.C.

BLM. 2007. National Landscape Conservation System: A Strategic Plan for Colorado. Final. U.S. Department of the Interior, Bureau of Land Management. Colorado State Office. Lakewood, Colorado. June 13, 2007.

Bond, F. 1911. "The Administration of National Monuments." Proceedings of the National Parks Conference held at the Yellowstone National Park September 11 and 12, 1911. Government Printing Office. Washington, DC.

Bryant, H.C. 1932. National Park Service Memo for the files, June 1932. (A copy of this can be found in NA, RG 79, Series 18, Records of Arno B. Cammerer.)

Burgess, R.L. 2006. Archaeology of the Public Lands. Opportunity and Challenge at the Bureau of Land Management. The Society for American Archaeology (SAA) Archaeological Record 6:4. September.

Bury, R.B. 1977. Amphibians and Reptiles of the McElmo Rare Lizard and Snake Area in Southwest Colorado. Report to the BLM. Montrose, Colorado.

Cameron, J. 1922. National Park Service: Its History, Activities, and Organization. Appleton. New York.

Catton, T. 1995. Land Reborn: A History of Administration and Visitor Use in Glacier Bay National Park and Preserve. U.S. Department of the Interior, National Park Service. Anchorage, Alaska.

Chepesiuk, R. 2006. The Centennial Congress: A Time to Reflect on the Legacy and the Future. *In* Forest Service Centennial: A New Century of Service, 1905–2005. Faircount, L.L.C. Tampa, Florida.

Collins, C. 2005. A Century of Service: The Forest Service's First Hundred Years. *In* Forest Service Centennial: A New Century of Service, 1905–2005. Faircount, L.L.C. Tampa, Florida.

Colorado Natural Heritage Program (CNHP). 2006. Longnose Leopard Lizard (*Gambelia wislizenii*) Home Range and Habitat Use on Cannonball Mesa Colorado. Colorado Natural Heritage Program. Colorado State University. Fort Collins, Colorado.

Conard, R. 2006. John F. Lacey: Conservation's Public Servant. *In* The Antiquities Act: A Century of American Archaeology, Historic Preservation, and Nature Conservation. University of Arizona Press. Tucson, Arizona.

Cronin, W. 1994. Landscapes of Abundance and Scarcity. *In* The Oxford History of the American West. Oxford University Press. New York and London.

Dustin, D., L. McAvoy, and L. Odgen. 2005. Land as Legacy: 20th Century American Presidents Left Land as their Contribution for Future Generations to Enjoy. Parks and Recreation. (Available on the Internet at: http://findarticles.com/p/articles/mi_m1145/is_5_40/ai_n13822160/pg_1?tag=artBody;col1).

Fernandez-Armesto, F. 2000. Civilizations. Macmilan. London.

Fetterman, J. 2004. Report on the Cultural Resource Survey for the Indian Camp Northeast Hazardous Fuel Reduction Project. Canyons of the Ancients National Monument. Dolores, Colorado. Woods Canyon Archaeological Consultants, Inc., for the U.S. Department of the Interior, Bureau of Land Management. Colorado State Office, Lakewood. Contract No. CAP030483.

Fowler, D.D. 2000. A Laboratory for Anthropology: Science and Romanticism in the American Southwest, 1846-1930. University of New Mexico Press. Albuquerque, New Mexico.

Gillett, L. 1915. Mining Inspector Leslie Gillett report to the General Land Office, NA, RG 79, Series 6. El Morro, File 12-5. U.S. Department of the Interior, General Land Office. Washington, D.C. September 10, 1915.

Goetzmann, W.H. 1966. Exploration and Empire: The Explorer and the Scientist in the Winning of the American West. Alfred A. Knopf. New York.

Getches, D.H. 1982. Managing the Public Lands: The Authority of the Executive to Withdraw lands. Natural Resources Journal 22:279–335.

Hammerson, G.A. 1999. Amphibians and Reptiles in Colorado: A Colorado Field Guide (Second Edition). University Press of Colorado. Niwot, Colorado.

Harmon, D.F., F.P. McManamon, and D.T. Pitcaithley. 2006. The Antiquities Act: A Cornerstone of Archaeology, Historic Preservation, and Conservation. *In* The Antiquities Act: A Century of American Archaeology, Historic Preservation, and Nature Conservation. University of Arizona Press. Tucson, Arizona.

Hays, S.P. 1959. Conservation and the Gospel of Efficiency: The Progressive Conservation Movement 1890-1920. Harvard University Press. Cambridge, Massachusetts.

Hewett, E.L. 1906. "Preservation of American Antiquities: Progress during the Last Year; Needed Legislation." American Anthropologist 8:113.

Hinsley, C.M. Jr. 1991. The World as Marketplace: Commodification of the Exotic at the World's Columbian Exposition, Chicago, 1893. *In* Exhibiting Cultures: The Poetics and Politics of Museum Display. Smithsonian Institution Press. Washington, D.C.

Hirst, K. 2006. "A Visionary Act." Archaeology. Archaeological Institute of America. (Available on the Internet at: http://www.archaeology.org/online/features/act1906/)

Ise, J. 1961. Our National Park Policy: A Critical History. The Johns Hopkins Press. Baltimore, Maryland.

Karaim, R. 2008. The Great Wide Open: Millions of Acres of Public Lands Have Only Temporary Protection, But a New Bill Could Change That. Preservation Magazine. (Available on the Internet at: http://www.preservationnation.org/magazine/2008/story-of-the-week/the-great-wide-open.html) May 23, 2008.

Kelley, M. 2000. Babbitt says monument tops list. *In* The Durango Herald. Durango, Colorado. April 25, 2000.

Lambert, B. 2004. Canyons of the Ancients National Monument Amphibian and Reptile Inventory. Report to the BLM. Dolores, Colorado.

Lee, R.F. 1970/2001. The Antiquities Act of 1906. Office of History and Historic Architecture. Eastern Service Center. U.S. Department of the Interior, National Park Service. Washington, D.C. (Available on the Internet at: www.cr.nps.gov/aad/pubs/Lee/)

Lipe, W. D., M. Varien, and R. Wilshusen (editors). 1999. Colorado Prehistory: A Context for the Southern Colorado River Basin. Colorado Council of Professional Archaeologists. Denver, Colorado.

Lister, R.H., and F.C. Lister. 1981. Chaco Canyon. University of New Mexico Press. Albuquerque, New Mexico.

McManamon, F.P. 1996. The Antiquities Act: Setting Basic Preservation Policies. Cultural Resources Management 19(7):18-23.

McManamon, F.P. 2000. The Protection of Archaeological Resources in the United States: Reconciling Preservation with Contemporary Society. *In* Cultural

Resources Management in Contemporary Society: Perspectives on Managing and Presenting the Past. Routledge, Inc. New York and London.

McManamon, F.P. 2001a. Cultural Resources and Protection under United States Law. Connecticut Journal of International Law (16(2):247-282.

McManamom, F.P. 2006. Interview printed in Archaeology, June 30, 2006. (Available on the Internet at: http://www.archaeology.org/online/interviews/mcmanamon.html)

McManus, R. 2001. Six Million Sweet Acres -- President Bill Clinton Dedicates New National Parks. In Sierra. September 2001. (Available on the Internet at: http://findarticles.com/p/articles/mi_m1525/is_5_86/ai_77279560?tag=artBody;col1)

Moe, R. 2006. Antiquities Act Symposium. An Address by Richard Moe. National Trust for Historic Preservation. Washington, D.C. (Available on the Internet at: http://press.nationaltrust.org/index2.php?option=com_content&do_pdf=1&id=33)

Muhn, J., and R.S. Hanson. 1988. Opportunity and Challenge: The Story of the BLM. U.S. Department of the Interior, Bureau of Land Management. Washington, D.C.

Nash, R. 1982. Wilderness and the American Mind (Third Editions). Yale University Press. New Haven.

National Park Service (NPS). 1987. Draft General Management Plan and Development Concept Plan. Hovenweep National Monument, Colorado-Utah. U.S. Department of the Interior, National Park Service. Rocky Mountain Region. Denver, Colorado..

NPS. 1989. Anasazi National Monument: Study of Alternatives. U.S. Department of the Interior, National Park Service. Denver Service Center. Denver, Colorado.

NPS. 1992. Statement for Management: Hovenweep National Monument. U.S. Department of the Interior, National Park Service. April.

Norris, F. 1986. Isolated Paradise: An Administrative History of the Katmai and Aniakchak National Park Units. U.S. Department of the Interior, National Park Service. Anchorage, Alaska.

Norris, F. 2006. The Antiquities Act and the Acreage Debate. U.S. Department of the Interior, National Park Service. Washington, D.C.

O'Brien, A. 2000. Colorado's Newest Monument. In Trail and Timberline. Colorado Mountain Club. (Available on the Internet at: http://previous.cmc.org/cmc/tnt/956/canyonsoftheancients.htm)

Sproul, D.K. 2001. Bridge Between Cultures: An Administrative History of Rainbow Bridge National Monument. U.S. Department of the Interior, National Park Service. Cultural Resources Section. Denver, Colorado. (Available on the Internet at: http://www.nps.gov/archive/rabr/adhi/adhi.htm)

Raffensperger, L. 2008. The Highs and Lows of the Antiquities Act. (Available on the Internet at: http://www.npr.org/templates/story/story.php?storyId=90631198&ft=1&f=1025)

Reynolds, J. and D. Reynolds, 2006. Nordenskiold of Mesa Verde: A Biography. Xlibris Corporation.

Rose, M. 2006. Century of Debate. Archaeology. (Available on the Internet at: http://www.archaeology.org/online/reviews/act1906/book.html).

Rothman, H. 1989. Preserving Different Pasts, the American National Monument. University of Illinois Press. Urbana, Illinois.

Rothman, H. 1994. American's National Monuments: The Politics of Preservation. University Press of Kansas, by arrangement with the University of Illinois Press. Lawrence, Kansas. (Available online at: http:www.nps.gov/history/history/onine_books/rothman/index.htm)

Rothman, H. 1999. The Antiquities Act and National Monuments. CRM Bulletin 22:4, 17.

Rothman, H. 2006. Showdown at Jackson Hole: A Monumental Backlash Against the Antiquities Act. *In* The Antiquities Act: A Century of American Archaeology, Historic Preservation, and Nature Conservation. University of Arizona Press. Tucson, Arizona.

Runte, A. 1987. National Parks: The American Experience (Second Edition). University of Nebraska Press. Lincoln, Nebraska.

Sellers, R.W. 2008. A Very Large Array: Early Federal Historic Preservation -- The Antiquities Act, Mesa Verde, and the National Park Service Act. The George Wright Forum. (Available on the Internet at: http://www.georgewright.org/251sellars.pdf)

Squillace, M 2003. The Monumental Legacy of the Antiquities Act of 1906. Georgia Law Review 37, 473–610.

Squillace, M. 2006. The Antiquities Act and the Exercise of President Power: The Clinton Monuments. *In* The Antiquities Act: A Century of American Archaeology, Historic Preservation, and Nature Conservation. University of Arizona Press. Tucson, Arizona.

Cleary, C.P. 1999. Babbitt's promise of protection draws fire. In the Daily Sentinel. Grand Junction, Colorado. November 21, 1999.

The Wilderness Society. 2001. The Antiquities Act: Protecting America's Natural Treasures. The Wilderness Society. (Available on the Internet at: http://www.wilderness.org/Library/Documents/upload/The-Antiquities-Act-Protecting-America-s-Natural-Treasures.pdf)

Thompson, R.H. 2000a. "An Old and Reliable Authority," An Act for the Preservation of American Antiquities. Journal of the Southwest 42:191-270.

Thompson, R.H. 2000b. Edgar Lee Hewett and the Political Process. Journal of the Southwest 42:271-318.

Thompson, R.H. 2006. Edgar Lee Hewett and the Politics of Archaeology. *In* The Antiquities Act: A Century of American Archaeology, Historic Preservation, and Nature Conservation. University of Arizona Press. Tucson, Arizona.

United Nations Educational, Scientific and Cultural Organization (UNESCO). 1970. Convention on the Means of Prohibiting and Preventing the Illicit Import and Transfer of Ownership of Cultural Property.

U. S. Department of the Interior (USDOI). 1912. Annual Report of the Secretary of the Interior 1911. Government Printing Office. Washington, D.C.

Van Dyke, R.M., L. Ciborowski, and K. Throgmorton. 2004. Colorado College Survey of the Painted Hand Environs, Fall 2002: Canyons of the Ancients National Monument. Dolores, Colorado. U.S. Department of the Interior, Bureau of Land Management. Canyons of the Ancients National Monument. Dolores, Colorado.

Varien, M.D. and L. Jacobson. 2001. Canyons of the Ancients. Archaeology Southwest 15:1. Winter 2001.

Wagner, D. 2008. Groups, Feds Join to Push Law Aimed at Saving Lands in West. The Arizona Republic. (Available on the Internet at: tttp://www.azcentral.com/arizonarepublic) March 3, 2008.

Waldbaum, J.C. 2006. From the President: 1906: A Remarkable Year for Archaeology. Archeology 59:1. (Available on the Internet at: http:www.archaeology.org/online.reviews/act1906/web.html)

Watson, R. J. 2005. Leasing and Permitting for Oil and Gas Development on Federal Public Domain Lands. CRS Report for Congress. Congressional Research Service. Library of Congress. Washington, D.C.

Williss, F. 2005. “Do Things Right the First Time”: The National Park Service and the Alaska National Interest Lands Conservation Act of 1980 (Revised Edition). U.S. Department of the Interior, National Park Service. Anchorage, Alaska.

Zortman, R.D. 1968. Natural Areas in Colorado: Their Administration by the Bureau of Land Management. M.S. Thesis. Colorado State University. Fort Collins, Colorado.